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Remembering to Remember: A Practice-based Study in Digital Re-appropriation and Bodily Perception

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PhD in Creative and Critical Practice
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September, 2015

Declaration:

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

Signature..... Date.....

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Remembering to Remember: A Practice-Based Study in Digital Re-Appropriation and Bodily Perception

ABSTRACT

Through the evolution of digital media technology, social networks and more recently Web 3.0 (e.g. Cloud-based) technologies, culture and memory is being transformed, both in relation to how memories are represented, and how they may be engaged with or re-accessed.

As digital technology alters ways in which knowledge is produced, stored, connected and shared, new terrains, tools and artefacts are formed; new cultural practices alter the ways in which we remember and the ways in which memory is processed, destabilising traditional “historically encoded social habits: religion, authority, morality, traditional values, or political ideology” (Diamantaki 2013).

This doctoral project consists of two parts exploring questions of memory in contemporary time.

The practice work submitted develops various imaginaries and investigates how to enable mnemonic practices so that works function as memory palaces where bodies and ‘collective’ and ‘networked memories’ (Hoskins, 2010) can be realised.

The work, briefly summarised, includes communal activities in public spaces (a series of workshops and heritage day events, *Rendezvous*, centrally social activities organised between Fabrica and various charitable organisations in Brighton). It includes a series of installation works, as a transitional process of memory between body, object, an investigation of ubiquitous technology, are investigated – *iremembr* (2009-15); *Rendezvous* (2010-15); *Untitled#21* (2012). And it leads to the development of an installation piece, *200.104.200.2* (2013-15), that seeks to offer or extend the possibilities of the act of remembering, of memory, as a post-Internet experience; a complex temporal, social, spatial and material, overlapping and merging human and silicon memory.

In this, the written component of the combined and larger project, questions concerning memory and digital technology, and how to explore them, are taken up in theoretical terms, and the works I have produced returned to and explored in these contexts. A central project here has been to locate new forms of qualities of ‘digital’ memory in a memory map or topology that builds on adapts, and develops other models. Aspects of zones of memory are explored centrally in each of the later thesis chapters - each of which also takes up a particular aspect of my practice.

The intention – and the contribution to the development of critical thinking around the digital – particularly critical thinking that comes through digital media art practice, is to question how digital technology intervenes in the process of memory; how the concept of digital memory is being thought about; leading me to investigate what does this new digital terrain do as it overlaps and re-writes to some extent the older ones? How does it change ‘how memory happens’

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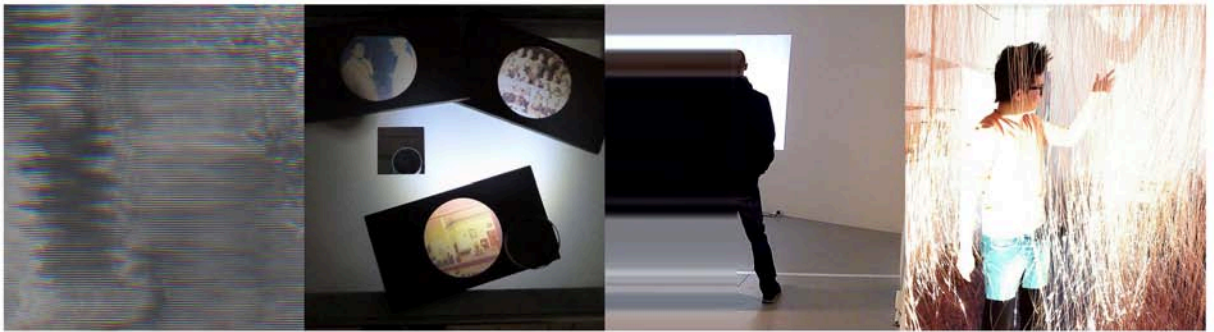
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PREFACE

In order to complete my PhD in Creative and Critical Practice, I am submitting this document and a portfolio of my practice work. The portfolio holds the documentation and dissemination of my media art and installation art works (2009-2015). The portfolio can be found on the USB stick included with this document (appendix 7), and can also be found at the following web address: <http://chevaliercecile.wixsite.com/portfolio>



CHAPTER 1 INTRODUCTION

Through the evolution of digital technologies, including the Internet, social networks, cloud storage, and pervasive and locative media, culture and memory have been transformed, both in relation to how memories are represented and how they may be engaged with or re-accessed.

This portfolio consists of a series of artworks and theoretical discussions, through which I ask how digital art practice can intervene in these questions and explore further the issues of memory that they raise. I understand my own art practice as a working-through of these problems, and I understand this in terms of an exploration of better tools to express what is new, and, in other ways, I seek to go beyond that. Specifically with these works, I set out to test current forms of memory and to look at the forms of materiality they have instantiated between the Internet and embodied social beings. I am interested in exploring what I term Internet 'memory palaces' (drawing on Yates 1966), sites where memory is held virtually, by asking: (1) how these palaces enable or impede the expression of collective embodied memory, (2) how memory moves between personal, public and Internet repositories, (3) how digital art can, as a tool, address these questions.

My own position is as an artist and critical thinker. It is as such that I investigate and provide a triangular perspective on how memory moves and interacts from a 'personal cultural imaginary' to a specifically Internet one, from a 'public cultural imaginary' to an Internet one, and from an 'Internet cultural imaginary' to a public imaginary.

1.1 Working definitions of key terms

In the following chapters certain terms are key to my discussions around memory, Internet memory palaces and memory objects. The terms include: 'holding environment', 'transitional object', 'cultural imaginary', 'networked memory', 'Internet', 'digital', 'Web'. Most of them intersect with one another whilst drawing on existing

definitions and theories, but are adapted or evolved in this portfolio. As a starting point I frame my working definitions as follow:

The 'transitional object' is Donald Winnicott's term to describe the object that facilitates "the journey from the purely subjective to objectivity" (1953, p.91). According to Winnicott (1953, p.93) the object "is not an internal object [...] it is a possession. Yet it is not an external object either" as one appropriates it. Winnicott was a child psychoanalyst and often described the transitional object as a child's blanket or teddy. In this portfolio, I describe the transitional object as the memory object. It holds different temporalities and can enable the transition between one state and another, between one place and another. It is key to the expression and sharing of memory. For example, when I am using a personal photograph, it can be seen as a transitional object between the lost moment and the present experience. If kept, it becomes fetishised, a link to a past state. If destroyed by choice, it enables the transition of the moment towards new future states, the 'letting go', but not necessarily forgotten. If destroyed by another, it creates trauma - of course a different scale of trauma, depending on the initial attachment to the memory object.

'Holding environment' (Winnicott 1954, pp.285-286; 1956, p.310) is another one of Winnicott's terms, described as an environment that facilitates integration and promotes developmental processes (Winnicott 1963, p.85; Abram 1996, p.195). A holding environment is therefore one that facilitates both a sense of belonging and expression. Winnicott gives examples of a holding environment such as the mother or playgrounds. I locate the holding environment in social environments such as a community hall, an art gallery, an artwork or various groups or collectives (e.g. charities, or support groups) from which the 'transitional object' can be held, and from which integration through appropriation (as attachment or detachment) can be tested through Winnicott's play theory:

[O]n the basis of playing is built the whole of man's experiential existence [...]. We experience life in the area of transitional phenomena, in the exciting interweave of subjectivity and objective observation, and in an area that is intermediate between the inner reality of the individual and the shared reality of the world

that is external to individuals. (1971, p.64)

'Play' is central to my creative practice, theoretical thinking and research methods as a whole.

'Cultural imaginary' is a concept that refers primarily to cultural theorist Stuart Hall's (1997) discussions on an imagined sense of belonging that one may have with a 'space' or a 'community' or a 'nation'. I place cultural imaginary, as part of Winnicott's sense of integration, as a form of attachment to a 'holding environment' such as 'home', that is key in memory practices as one projects the imaginary sense of belonging to specific temporal place. When these are no longer accessible this sense is projected to a specific transitional object. For example, as an individual who cannot return 'home', then 'home' might be found in an everyday object, in this case a sense of integration, attachment and belonging occur through this transitional object.

'Network memory' or 'connective memory' is a term used by Andrew Hoskins (2009, p.92), media and memory theorist, to describe memory driven by the connectivities of digital technologies in the context of digital social networks. Network memory extends the concept of cultural memory, or its earlier thinking as Maurice Halbwachs collective memory (1950). My framing of 'network memory' or 'networked memory' also draws on Aleida Assmann's (2006) discussion of memory as memory storage, found for example in the arts and technologies, and the act of remembering, found in the body entwined within cultural fabric. I therefore locate 'network memory' as part of an embodied social and cultural system, as introspective, extrospective and expressive sets of relations and phenomena.

The terms 'Internet', 'Web' and 'digital' are popular and scholarly and inevitably loose. My definition of them is sometimes specific when I am referring, for example, to the Internet as a network system. Sometimes I use 'digital' to mean, more broadly computational technologies and techno-social forms. Ultimately I explore the digital as a medium specifically as it is instantiated in Internet networks. As Bernard Stiegler (2008) notes, digital technologies are also social:

Tout est technique. Il s'agit de plus opposer homme et technique. Il y a anthropogenèse dans la mesure où le devenir de l'homme se confond avec le devenir du monde et des objets.

Everything is technology. It is no longer a question of opposing human and technology. There is anthropogeny to the extent that the future of man merges with the future of the world and objects.

While I draw from Caroline Bassett, media theorist (2015, p.136), and her discussions on computational technology as part of our everyday environment:

The postdigital asserts that computational technology is now (or once again) 'post-screenic (Bosma, 2014), that it has broken out of the confines that divided it, as new media, from other media technologies, and has now come to saturate the everyday environment.

I include a new everyday as a discussion of the individual in collective memory. According to Stiegler (2006, p.45): "[...] it is technics that, itself constituting a process of individuation, comes constantly to reconfigure psychic individuation, which falls on the side of the pleasure principle, and collective individuation, on the side of the reality principle".

1.2 Research and artistic methods

As a method to investigate memory, my research combines a conversation between theorisation and making, the two are entwined and mutually informing.

Art practice and theory bring different methods of knowledge that are based in a set of relations between cognition, creativity, materiality, experience and culture. Both art practice and theory are not isolated (Rose 2016, p.52) but a series of relations between the parts and whole, ultimately forming a creative overall method, from which new experiences can offer critical knowledge:

[...] [T]here are different pathways to articulating a personal methodology in practice-based research into interactive art. What becomes clear is that it is not enough to identify an approach and simply appropriate it wholesale from existing sources in other disciplines: adapting and

tailoring to meet one's own particular requirements is essential. (Candy 2011, p.49)

Therefore to think about research methods and creative practice is to form a tailored research cycle (Hesse-Biber 2010, p.76) between iterative reflections (Candy, Edmonds 2011, p.11) and, in the case of this research, theories and ludic methods. These methods can be deconstructed as (1) 'collecting data', (2) 'materialisation', (3) 'reflective practice in action', (4) 'public intervention', (5) 'textual materialisation'.

1. 'Collecting data' is a way of looking, perceiving and investigating. This can be done through the use of specific tools (e.g. camera, scanner, audio recordings, search engines), through social and communal workshop activities, and/or through the creation or access to and navigation of collections or archives.

These methods are also shaped by my concerns with ethical forms of collecting. For example in this portfolio I collaborate or work with charities and professionals that have a history of established and exemplary methods in establishing trust, acknowledgement, fair representation and respect with the communities I connected with. As a whole I was able to address these concerns through regular discussions with my collaborators, the use of release forms, feedback questionnaires, and open-access reports, whilst following the ethical guidelines provided by the University of Sussex, the AHRC, and Fabrica, an art gallery and charity whom I worked with (appendix 1).

2. 'Materialisation' would consist of testing the relations between material and data boundaries: the memory object in motion. For example as one memory object is gifted to an artwork and is transformed through digital mediation, tensions are created between holding onto the original memory, its representation and the digital materiality. In this process it is possible to perceive, feel and think of the digital memory object. Important in this process are tools for exploration with various forms of media, deconstruction of the memory object, recontextualisation and reappropriation of data through the process of reconfiguration by the artist and reflection on ethical processes and representations. Collaboration may start from this point, from which thinking around material, tool-making, and engagement may be shared and expanded through different areas of expertise.

3. Generating a collaborative working space and collaborations with other individuals or groups are central to my research and methodological approaches. Such space is thought here as a 'beta space', a 'living' space to experiment the practice as research in progress, to apply reflective practice in action. Reflective practice in action enables others (e.g. other professionals and amateurs) to engage with appropriate situations, and test or explore the relations between practice, the audience/user/participant, and the artwork and associated theories. I therefore initiated with the help of a committee (appendix 2), the Creative and Critical Research Practice Group (CCPRG). CCPRG acted as a beta space from which participants (or members of the group) tested and explored their artworks and critical thinking:

The realisation of the studio-based environment extended to the 'living laboratory' has provided opportunities for practitioners to carry out research that enhances creative practice at the same time as developing methodologies for generating and communicating new kinds of knowledge. (Candy, Edmonds 2011, p.10)

CCPRG was a 'living laboratory' and key in creating critical knowledge through experience and direct engagement with the work, as text, and as art. The group was also able to apply for funded opportunities addressing either relevant themes or gaps in knowledge around practice as research (see *Mediamorphosis*¹).

4. 'Public intervention' is a critical and cultural engagement and a term I use to define the sharing of the artifacts I have built with others - via conferences, art exhibits and a web presence, provoking various forms of discussion, feedback and audio recordings, still or video documentation - in order to intervene in the field of art practice.
5. 'Textual materialisation', is a theoretical and textual perspective. Practically, I work with 'art' materials and methods but also with theoretical and textual materials. These may sit together, within each other, or distance may be

¹ <http://reframe.sussex.ac.uk/mediamorphosis/>

needed. The methodology underlying these is the same as I frame them as different media, as different kinds of materiality that differ in their resistance but which may both receive the same creative treatment, as I explore concepts and develop new experiences in this portfolio as a whole and in the following artworks: [*iremembr*](#) (2009–15), [*Rendezvous*](#), *Objets Trouvés* (2010–15), [*Untitled#21*](#) (2012) and [*200.104.200.2*](#) (2012–15).

Topology and artefacts

As part of my methodology I have developed a topology (fig.2, p.64), which I define as a mapping of the relations between different forms of memory. And as a way of illuminating those zones of memory that are undergoing transformations through the process of digitisation, that are material, cultural, industrial and technical.

To build this conceptual map I have drawn from memory and media theories and ontological perspectives. Specifically I have looked at current thinking of networked memory (Hoskins 2009; Erl 2011; Van Dijck 2007) to understand how memory is temporally performed (Bergson 1896), and framed as embodied cultural phenomena (Merleau-Ponty 1964) as a process of internalisation and externalisation, of subjectivity, and of collective and cultural materialisation (Assmann, A 2006).

I stress this topology is not absolutely 'accurate'; rather it is intended to indicate and identify possible areas for transformation. Its focus is in fact mapping out memory dynamisms and movements. For example as forms of memory move from a personal, to a public zone. The topology, moreover, brings together pre-digital forms of memory.

In its center, the topology holds the body from which we perceive and remember. It is framed in the overlapping of personal and public, institutional and Internet cultural imaginary. In topologising possible areas of study and exploration I focus on the Internet terrain and how memory moves from a 'personal cultural imaginary' (e.g. home) to 'public cultural imaginary' (e.g. charities) to an 'Internet cultural imaginary' (e.g. Internet platforms), to an 'institution cultural imaginary' (e.g. university, museums).

This topology is strategic and abstract in its articulation. I have drawn from Winnicott's play theory for mediating the processes between internalisation, externalisation and

materialisation, and also as a way to create my own dynamic terrains from which memory can be expressed.

The topology is a method that enables me to move between (a) the memory theories that have informed my research and practice through which I have developed my investigations, and (b) this portfolio as a whole as it captures my own interdisciplinary articulations, between text, interactive space, creative thinking, making and theory.

Specifically in my practice I set out to create a series of digital interactive art installations, as new holding environments and as a series of curated situations from which networked memory, its materiality and ways in which it moves, can be thought about and engaged with. All the installation artworks that I created are interactive in the sense that they invite collective behaviours and experiences in a curated space. They are themselves located in digital experimental media practice that explores transitional phenomena of networked memory, operating between bodies, objects and space.

The work [interactive and installation art] creates situations that enhance, disrupt, and alter experience and action in ways that call attention to our varied relationships *with* and as both structure and matter. (Stern 2013, p.4)

These terrains as interactive installations set out to disturb the existing topology and suggest ways it could transform. The practice as a whole is an investigation of ubiquitous technology that leads to the development of an installation piece (chapter 7) that seeks to offer or extend the possibilities of acts of remembering, and of memory itself, as a 'post-digital' experience: a complex temporal, social, spatial and material overlapping and merging of human and silicon memory.

Through their creation and exhibits - but also by bringing them into relation with critical theories of media and memory studies - I explore the mechanisms and articulations used in remembering, examine the relationship between the body and these new artefacts, and ways in which they shape and alter memory within an increasingly technologised or automated culture.

1.3 Scope of the research

My research narrative begins (chapter 2 & 3) with cultural, social and theoretical explorations of networked memory while in theories and mappings of memory; it attempts to capture ways in which memory moves, as social and material articulations.

In chapter 2, I discuss the idea of memory as digitally expanded, tangible, and immersive. I explore how memory becomes more entangled with digital materialisation; the mediation and circulation of memory; mediated memories; and how traces and institutional texts are socially shaped (van Dijck 2007 p.21). The intention is to investigate how digital technology intervenes in the process of memory making and how the concept of digital memory is thought about, leading me to ask the following questions: What are these cultural terrains? What does this new digital terrain do as it overlaps and re-writes, to some extent, older forms of memory?

To address these questions, I begin by thinking about digital materiality and its mediacy by drawing on my own digital art genealogies to identify a possible terrain. I also explore how memory might be categorised and understood or mapped. My initial goal was to develop a map of memory intersecting with the technological conditions of today, which I am naming a 'topology of memory'. This is topological in its new spatialisation of memory as new terrain, and within it new orders of memory are identified. In developing this mapping process I draw from previous memory models, mainly Aleida Assmann's and Astrid Erll's, and from insights gained during the work on this portfolio.

In chapter 3, I develop in more detail the concept of collective memory and 'memory palace' (Yates 1966), as well as what is meant by the social relation between memory storage and acts of remembering (Assmann 2011). I am looking at the *articulation* of this topology, whilst drawing from theoretical materials to re-enact possible relational acts in memory. This relation entails processes of internalisation and externalisation of shared memory, and presents a possible method for engaging social elements and material and embodied concerns that helps me think about collective memory and cultural transformation. Here I draw on Henri Bergson's concept of constructed time and internal '*durée*' (1896), and from Maurice Merleau-Ponty's (1964a) concept of 'flesh' as relations between the *corps sauvage* and cultural body, as well as on Donald Winnicott's (1971) discussion on play theory.

Chapters 4-7 detail the creative projects: *iremembr* (2009-15), *Rendezvous* (2010-15), *Untitled#21* (2012) and *200.104.200.2* (2012-15), created alongside my theoretical explorations. All explored interactive aesthetics of networked memory through the exploration of the related architectures (dis-functioning and functioning memory palaces), digital materiality and public participations, whilst drawing from Winnicott's play theory, to think when if at all collective memory is made possible.

In chapter 4, I discuss *iremembr* (2009-15) and Flickr Internet platform as potential memory palaces. This was an experiment with digital memory objects, questioning the body and its extended digital materiality within the Internet terrain, investigating how attachment and a sense of belonging is developed in the process of cultural objectification. In this intervention, a *web memory palace* was created in which a collection of high-resolution 'photo-image's merged the personal with public networked memory. Through this piece I have drawn from media and memory studies (discussed in chapter 2) and screen-based digital artworks such as George Legrady's *An Anecdoted Archive from the Cold War* (1993) and Chris Marker's *Immunity* (1997) to begin to perceive some of the multilayers, inter-corporealities, traces and expressions of memory. In the process of mapping memory, both intervention and investigation lead to questions about collective memory, which are addressed in chapter 5.

In chapter 5, I discuss *Rendezvous*, an art project developed through my engagement with a series of social activities organised with and for older-generation communities and related charities (e.g. WRVS² 2015; BMECP³ Elders 2015), as well as with Fabrica, an art gallery and charity based in Brighton. The work explores the process of shared and collective memory in older-generation communities and their memory palace, the community hall with particular reference to the question of the 'holding environment' (Winnicott 1971; Caldwell & Joyce 2011) and technological resistance. Leading me to ask what happens when memory in its motion is interrupted, broken or overwritten? This is addressed both in this project and in reference to media and memory theory discussed in chapter 2, whilst also drawing from representations of failed memories with digital artworks such as Pierre Huyghe's *The Third Memory* (2000), David Szauder's *Failed Memory* (2013-), Lynn Herschman Leeson's *Lorna* (1983).

² Now known as [Royal Voluntary Service](#) (RVS)

³ [Black Minority Ethnic Community Partnership](#)

Rendezvous was a project comprising a series of reminiscence workshops and forms of collecting, in which members of communities (WRVS, BME Elders) shared their memories and gifted them to be re-engaged with as digital and material memory objects. The project also focused on the transformation and exploration of digital materiality in relation to the digital representation of these objects of memory, and ways in which the subjective trace can survive the process of digitisation.

Rendezvous was therefore both a series of investigations of, and tangible interventions into, cultural memory, in which personal sets of memories from older-generation communities came into public and technological terrains. This was followed by explorations in chapter 6 of memory, aesthetics, tool-making, and forms of play as shared cultural expressions and memories.

In chapter 6, I pause my networked memory explorations to test further interactive aesthetics and the forms of play it may generate. In doing so I collaborated with Andrew Duff, sound artist, to respond to an invitation in creating an artwork that responded to the 'end of the world apocalypse', that was to be part of the *Final Light* group exhibition at the Phoenix art gallery (2012). Through an immersive video tracking system the piece provoked playful behavior that led me to think further about different kinds of digital engagements and architectures. These were drawn from previous art interventions featured in this portfolio and from recent art exhibitions (UK-based): *Decode: Digital Design Sensations* (Victoria & Albert Museum, 2009), *Digital Revolution* (Barbican, 2014), *Big Bang Data* (Somerset House, 2015-16), *Electronic Superhighway (2016 – 1966)* (Whitechapel Gallery, 2016) as they all attempted to capture ways in which technology impacts on society – my focus was to scope current modes of 'play' and what they generate, so that my next and final immersive intervention would generate a creative form of play. A play that would then be able to be part of a working networked memory.

In chapter 7, I introduce and discuss *200.104.200.2*, a digital art installation developed as a collaborative work, again with Andrew Duff. *200.104.200.2* is a displaced reenactment of contemporary digital social practice that has turned the Internet into a new form of 'memory palace' (Yates 1966). Within the architectural framework that is one core part of the work, sonifications of memory traces are provoked, created, stored

and replayed as digital data. The installation work crosses over between technology operating both as a 'holding environment' and as a tool. It is a transitional object with which the public can work, through their beholding, their participation and/or their performance. Their role becomes central to thinking of embodied digital expression and collective memories, as they are negotiated across the Internet today; something we often 'let happen', because the technology has become normal, rather than thought about. Here, I have continued to draw from media and memory theories, whilst drawing from participatory/interactive artworks that I shared aesthetics with, namely Mira Schendel's *Still Waves of Probability* (1969), Jesús Soto's *Penetrable* (1975), Jacob Dahlgren's *Wonderful World of Abstraction* (2006)

As a whole, the portfolio offers perspectives of different kinds of digital memory palaces and ways in which these can express, revoke, and interrupt possible 'networked memory', whilst bringing to the fore possible digital art genealogies and creative methods in expressing and engaging with, and in drawing knowledge from, platforms that are not fixed, but that are in constant flux.

CHAPTER 2

MAPPING MEMORY: ART & DIGITAL TECHNOLOGY

As digital technology alters ways in which knowledge is produced, stored, connected and shared, new terrains, tools and artefacts are formed. New cultural practices alter the ways in which we remember and the ways in which memory is processed, destabilising traditional 'historically encoded social habits: religion, authority, morality, traditional values, or political ideology' (Diamantaki 2013). From within digital culture, it is claimed, new e-democracy takes place – at least in the sense that those institutions and their 'collective consciousness' are challenged (Diamantaki 2013) as new concepts of personal memory and related rituals are formed and demand re-thinking.

In this chapter I discuss the concept of memory as it becomes more entangled with digital materialisation, and how mediated memories as 'traces' and 'institutional texts' are socially shaped (van Dijck 2007, p.21). The intention is to question how digital technology intervenes in the process of memory and how the concept of digital memory is being thought about, leading me to investigate the following questions: What does this new digital terrain do as it overlaps and re-writes, to some extent, the older ones? And, how does it change *how memory happens*?

To address these questions, I begin to develop a map of memory as it intersects with the technological condition of today, which I have named a 'topology of memory'. The map is topological in its new spatialisation of memory as new terrain and new orders are identified. It is dynamic as it networks bodies, social places, objects and terrains of memory as collective memory.

In the process of mapping memory, I therefore bring two interrelated contexts from which I jointly build my work. The first are theories of mapping memory; the second is a sense of how digital artworks in various art fields help me construct my own field, clarify memory, its technological mediacy, and how its materiality can be perceived. In so doing, I am offering extended possibilities for, and providing new ways of articulating the process of memory towards a post-digital experience.

2.1 Memory

Aleida Assmann (2011, pp.17–20), an Egyptologist internationally known for her contributions to the field of cultural and communicative memory, thinks of memory as having two forms: the ‘ars’ and the ‘vis’. Referring to Friedrich Jünger (1957) and his deconstruction of memory within the German language, Assmann (2011, p.19) notes that:

Gedächtnis [objective memory] is derived from the verb *denken*, to think, and is linked to knowledge; whereas, *Erinnerung* [subjective memory] literally means internalisation, and may be associated with personal experience.

In doing so, Assmann (2011, p.19) highlights that the ‘ars’ of memory is to be thought of as a mnemonic practice, as a ‘process of storage’ that includes art and technology, and, I would add, the *trace* of memory, while the ‘vis’ of memory is to be thought of as an energy, a ‘process of remembering’ and a process of internalisation.

Although Assmann and Jünger rightly differentiate between the two terms and the two forms of memory, in this portfolio I am choosing to focus on their relationship, as there cannot be ‘vis’ without ‘ars’ and vice versa. A memory ‘force’ needs to be present for the trace to be created or activated, and the trace needs to be present for the ‘ars’ to be triggered. Assmann (2011, p.19) described both types of memory as a ‘process’ placing memory within experience in the present moment, but also as a process between bodies, trace and place, and consequently I understand memory as a social and collective process that can be found in cultural memory.

2.2 Digital technology & networked memories

Buonfino (2007, p.5) discusses in *Belonging in Contemporary Britain*, how, as ubiquitous technologies are becoming more pervasive, they enable individuals ‘to be immersed in cultures located elsewhere, and to cultivate multiple identities’, making memory processes and, within this, the act of belonging (e.g. to a community or nation), more complex as digital and corporeal boundaries are blurred and as socio-cultural bodies are altered through a state of displacement. This may be found in the migration of bodies, in the forgotten, in the erased trace, or simply in the process of

deterritorialisation from '*milieux de mémoire*' to '*lieux de mémoire*'⁴ (Nora 1989) and vice versa.

Ansell-Pearson (2010, p.75), referring to Ricoeur (2011, p.75), proposes 'that forgetting be conceived not simply in terms of the effacement of traces, but rather in terms of a reserve or a resource'. This can be understood as an 'immemorial resource' and seen in relation to a '*lieu de mémoire*', in which sites of memory are no longer active. Hall (1997, p.3) states how it is 'participants in a culture who give meaning to people, objects and events'. It is through the production and consumption of mnemonic practices that socio-cultural memory traces and/or institutional texts enable memory and the 'cultural imaginary'⁵ to be shared and formed as collective memory.

In the acts of digital remembering, individuals, groups, collectives, institutions and corporations navigate between dimensions (e.g. mental, imagined, artefact, hardware, digital space), between bodies (e.g. human, silicon), and between spaces (e.g. physical, imaginary, digital), one overlapping the other, each of them always connected. However, the dynamics have changed as, for example, Internet platforms developed from information technologies and the World Wide Web (1993) to social technologies and Web 2.0 platforms (2002), to connective technologies and Cloud-based technologies (2012) in which 'bodies' have been changed from consumers and users to 'producers' (Bruns 2008) and citizens. Digital technology is seen as an extension of the *body*, altered to embody connectivity in which connective silicon and human memory merge and create new forms of traces of memory with notions of personal and collective memory⁶.

What are digital memories?

José van Dijck (2007, p.48) refers to digital memories as 'networked objects, constructed in the commonality of the World Wide Web', such as digital traces and digital texts⁷ of memory. Intrinsic to these networked traces and texts are their material

⁴ The concept of '*milieu and lieux de mémoire*' is explained further along in this chapter.

⁵ Stuart Hall's concept of the cultural imaginary is explained in more detail further along in this chapter.

⁶ This can be found, for example, in the Flickr Internet platform (2004) and its current mobile phone application. The way in which we are now able to take photographs allows for the continuous tracing of memory as data circulates from one Internet platform to another, from its prosthesis to one's body, in its embodied silicon format.

⁷ Memory originating from institutional processes. Although I am referencing text of memory, my investigation throughout this portfolio focuses on traces of memory and how they move.

'pliability and edibility' (Manovich 2002; Weinberger 2008; Kallinikos, Aaltonen & Marton 2010), 'the fact that they are reprogrammable' (Manovich 2002; Zittrain 2009; Kallinikos, Aaltonen & Marton 2010) and shaped by the places they circulate, connect to, and are distributed within.

Joanne Garde-Hansen, Andrew Hoskins and Anna Reading (2009, p.4) also discuss digital memories as temporal relationships organised through digital media technology and emerging networks such as the ARPANET (1967), the first personal computers (the Commodore PET and Apple II, 1977), Minitel (1982), Web 1.0 (1993), the Sharp J-SH04 mobile camera phone (2001), Web 2.0 (2002), and currently Web 3.0 (2012). Focusing on the latter, algorithms produce traces of memory as metadata and statistics creating new materials, new possibilities and new resistances in social terrain (e.g. speed, scale), economic terrain (e.g. access to and the cost of technology), and political terrain (e.g. information overload), thus altering its material agency, its social and body-relations as well as expanding the networked objects of van Dijck's early web days.

Where are digital memories processed?

De Certeau (1984, p.108) states that 'memory is a sort of an anti-museum: it is not localizable', while Pierre Nora (1989, p.9) claims that '[m]emory takes root in the concrete, in spaces, gestures, images, and objects', leading me to ask not where memory is found, but how memory is processed. That is, I want to think of memory not only as a temporal place but also as a continuous gesture in space, relating and producing traces in its trajectory that enable memory sharing and social and collective practices. Nora (1989, p.8) states how history '[...] is the reconstruction, always problematic and incomplete, of what is no longer', while memory is 'a perpetually actual phenomenon, a bond tying us to the eternal present'. Thus, in this sense, it is possible to think of Nora's 'history' as storage, as 'a representation of the past'; and of 'memory' as a set of actions towards the act of remembering, the 'life' force that in its play forms *milieux de mémoire* or *lieux de mémoire* (1989, p.19). *Milieux de mémoire* are places of lived tradition of remembrance, while *lieux de mémoire* are places (Erl 2011, p.23) of storage of lost phenomena and 'dead' communities, in which the cultural imaginary are formed, as Nora states (Nora 1989, p.7):

There are *lieux de mémoire*, sites of memory, because there are no longer *milieux de mémoire*, real environments of memory.

While '*milieux de mémoire*' are part of collective memory, '*lieux de mémoire*' come in and out of collective memory as they are reinterpreted, 'still subject to being forgotten and revived in the future'. Thus '*lieux de mémoire*' are places of metamorphosis:

The lieux we speak of, then, are mixed, hybrid, mutant, bound intimately with life and death, with time and eternity; enveloped in a Mobius strip of the collective and the individual, the sacred and the profane, the immutable and the mobile. (Nora 1989, p.19–20)

The specific forms these cultural imaginaries take consist of an 'imaginary' sense of belonging and attachment (Hall 1997, p.2), for instance, to an imagined community, such as a nation, a community in which a sense of ideologies and a sense of 'collectiveness' and 'belonging' are shared:

The great advantage of the concepts and classifications of the culture which we carry around with us in our heads is that they enable us to think about things, whether they are there, present, or not; indeed, whether they ever existed or not. There are concepts for our fantasies, desires and imaginings as well as for so-called 'real' objects in the material world. (Hall 1997, p.45)

This can be thought of in relation to Internet platforms, such as Flickr, where the 'cultural imaginary' is shaped out of political, economical and social desires and expressions, thus providing another mode of representation and therefore possible empowerment to the no longer active *sites of memory* - as *both objects and bodies* - and their collective possibilities.

In this sense, the Internet and its Internet platforms enable the re-actualisation of traces, text, and communities, placing digital sites of memory within a 'networked' context as bodies become cultural and social agents through their relationship to these kinds of technologies, their physical objects (the laptop, for instance) and through their extension to the physical world (e.g. connective technologies). However, as 'memory relies on the materiality of the traces' (Nora 1989, p.13) that it produces, how can this be understood as part of the digital materiality of memory? What becomes of its digital matter as it moves within Internet memory sites?

Addressing these questions, I consider what is seen as the digital materiality of

memory by placing it as part of an interlacing material system of social-cultural place, artefact, and body, thus making digital memory a process (Garde-Hansen, Hoskins & Reading 2009, p.2), and a series of actions that navigate, overlap and entwine constructed temporal spatial dimensions in its attempt to recall the 'original' experience. As new forms of memory traces and texts are produced this also raises questions of value (Garde-Hansen, Hoskins & Reading 2009, p.7); authorship (Garde-Hansen, Hoskins & Reading 2009, p.7; Kidd 2009); collective memories (Haider & Sundin 2009; Hoskins 2009); digital 'mnemotechnologies' (Lessard 2009); forgetting and overloading (Wilson 2009); and silicon memories (Garde-Hansen, Hoskins & Reading 2009, p.11). However, if one considers digital memory materiality as a part of a *connective* and process, one has to consider where the 'body' is found and thus ask how digital media technology and digital mnemotechnologies embed, embody and extend our bodies and meaning as memory.

What becomes of the body in the production of digital memory?

Historically, media have often been designed as an extension of human abilities, offering an 'amplification or acceleration of existing human faculties or behaviors' (Brey 2000; McLuhan 1964, p.21). This is seen with digital memories and some of the early digital utopias proposed, such as Vannevar Bush's *Memex machine* (1945), where technology was to be introduced and designed to address the shortfalls of human memory (Locke 2000, pp.25-36) and its inability to cope with the amount of information arising. This was also found in previous media technologies: electronic media (McLuhan 1964, p.19; van Dijck 2007, pp.15–6; Lazzarato 2007), Plato's wax tablet, printers, video cameras, photography cameras, audio recorders, television, radio, books and newspapers. However, these technologies would more often pose a question of faithful memory storage vs. human forgetfulness (Winkler, Winthrop-Young & Wutz 2002; van Dijck 2007, p.152) rather than enquire about the forms of materiality and the materials that arise when memory is considered in relation to its storage and its act, whether digital or not, which always includes the act of forgetting or the question of forgetfulness.

Today, the *Memex machine* could be said to have materialised beyond its original utopic vision. As digital technologies continue to evolve as digital connective, ubiquitous and pervasive spaces, so too does the embodied relation to these memory terrains extend further into the material world as we know it. However, the concept of

the extension of human faculty and the questions surrounding this topic remain, as new digital materiality, as 'metamedium' (Kay & Goldberg 1977), change forms and limits, whilst extending human abilities and possibilities for remembering (Hoskins 2009, p.27; van Dijck 2007, p.16). This can often be seen through the creation of new embodied digital memory practices where human memory converges with 'silicon memory' (Garde-Hansen, Hoskins & Reading 2009, p.13), where the symbolic body merges with the subjective body - for instance, in cases involving wikis, blogs, digital stories, digitised oral histories and social networking websites (Garde-Hansen, Hoskins & Reading 2009, p.4), and more recently through metadata and loss of data by file compression. These change relations to data storage and the acts of memory, leading to the development of new memory habits, rituals and customs set in the cultural imaginary, often in response to the fear of the technological 'error' and 'loss in mediation' this might produce:

Keeping track, recording, retrieving, stockpiling, archiving, backing-up and saving are deferring one of our greatest fears of this century: information loss. (Garde-Hansen, Hoskins & Reading 2009, p.5)

Such *mnemonic practices* require the weaving and interlacing of different dimensions of cultural terrains in which collective memories circulate and are reenacted, and in which the body – embedded, embodied, extended – stays central. Memory is always remembered within a social and cultural context (Erll 2011, p.9); digital memory does not alter this although it changes how it operates.

2.3 What is cultural memory?

According to Erll (2010, p.2), cultural memory is 'specific ways of conceiving of themes and of approaching objects', thus leading to questions regarding cultural memory as a set of relations between content and form, between storage and the act of remembering. Cultural memory is a field that invites multidisciplinary and interdisciplinary practice – from, for example, psychology and history, to art and media – bringing various perceptions of how it may be defined due to each discipline's individual perceptions and objectives. Astrid Erll and Ansgard Nunning (2008) bring together some of the various definitions and extensions of definitions from history, philosophy, psychology and politics, clarifying that cultural memory is an umbrella term that can only be understood in conjunction with other fields. Here I frame cultural

memory within media studies, critical theory and Installation art practice.

In the 1950s, sociologist Maurice Halbwachs raised the concept of collective remembering as a process of individual memory and how, through social engagement, it can be shared with two or more individuals to become collective memory (Halbwachs 1950, pp.5–31). This has since become influential in relation to writings about media, Internet platforms, software and hardware (Hoskins 2008) ,but also to ways in which collective identities are formed in relation to the Internet (Erll 2011; van Dijck 2013).

However, it was not until the 1980s, the term ‘collective memory’ evolved to become ‘cultural memory’. Jan Assmann, an Egyptologist (2008) describes collective memory as two distinct concepts: ‘communicative memory’ and ‘cultural memory’: communicative memory comprises the narrated-self, shared on the day-to-day, while cultural memory is not part of formal historical discourse but is ‘imbued with cultural meaning’ (Sturken 1997, p.3) within its process of mediation and the artefact or relic, allowing future generations to re-experience their cultural identity.

2.4 Mappings of cultural memory

Aleida Assmann (2006, p.211) took Halbwachs’ (1925) reflection on social memory and Jan Assmann’s concept of the two parts of memory further by developing a new account of memory that reflects in part the role of the individual in collective memory. She discusses a memory model of four parts: individual, social, political and cultural:

(i) ‘Individual memory’ (2006, pp.212–213) reflects the inner process of memory, from somatic, forgotten, traumatic and episodic memories, bringing into the discussion the social components, the temporality and the distortion of these memories. Aleida Assmann locates most memories ‘within our bodies’, ‘fragmented’ and ‘connected to a wider network of other memories’ and the ‘memories of others’. She points out how these networks, through their social re-adaptation, create coherence and consistency as well as social bonds and identity.

(ii) ‘Social memory’ (2006, p.214) recalls some of Jan Assmann’s communicative memory concepts in terms of temporal intergenerational memories and personal

memories of social proximity, whilst positing that social memories are embodied through interaction and shared experience. Aleida Assmann also discusses how generational memories can be extended in time, and how during this process they become 'a generalised form of memory' that takes the form of 'national memory and identity'.

(iii) 'Political memory' (2006, pp.215–7) is temporally distinct; it is no longer in the experience, in immanence – as in the case of social and individual memory – but is crystalised in symbolic and material representations such as monuments, museums and the political arts in which 'collective participation' can be found. In this sense, political memories serve a claim of authorship in terms of identity construction. Aleida Assmann describes political memory as 'homogenous', with 'compelling appeals' and 'emotional intensity' that address individuals as members of a group and as a 'collective community' (2006, p.220).

(iv) 'Cultural memory': Finally developing her discussion of cultural memory, Aleida Assmann (2006, pp.220–221) describes it as a triadic system that incorporates the remembered, the forgotten and the dynamic of both elements. Cultural memories reflect the representation of archival memories that are accessible but not necessarily accessed, that society selects and switches to active memory in order to avoid total oblivion. This can be found in the arts (e.g. literature). Cultural memory addresses 'members of a group as individuals' and aims to place individual participation into 'a wider historical horizon that is not only transgenerational but also transnational'. Aleida Assmann points out how the dynamic between the forgotten and remembered, the archived and 'active memory', and the 'symbolic signs of cultural memory' create constant reconfiguration and transformation.

It is clear that memory and cultural memory are not fixed, and that location and experience are central to engaging with cultural memory. Following Aleida Assmann's four-part memory model, it is possible to see how memory is placed in our body (introspective/individual memory and communities), and how it is crystalised (e.g. through traces of externalisation, cultural memory and political memory). However, it is also clear that these systems of categorisation are dependent on one another as the immanence and the sensible intertwine in the formation of cultural memory, thus

making Aleida Assmann's categorisation of the memory system within cultural memory central to cultural memory studies.

Astrid Erll (2008) takes Aleida Assmann's memory concept further by placing cultural memory as a system of 'shared meaning' (Hall 1997, p.2) amongst groups of individuals:

Just as socio-cultural contexts shape individual memories, a 'memory' which is represented by media and institutions must be actualised by individuals, by members of a community of remembrance, who may be conceived of as *points de vue* (Maurice Halbwachs) on shared notions of the past. (2008, p.5)

Erll (2008, p.5; 2011, p.4) structures cultural memory as a triangular model, naming the three points the 'level of memory', the 'mode of memory', and the 'dimensions of memory':

(i) 'Level of memory' (2008; 2011) is formed of two connected levels: the first, the 'socio-cultural context' with its 'influence on memory' (2008, p.5); the second, the mediated symbolic representations 'by which social groups construct a shared past', with both in the process of 'continuously interact[ing]' (2008, p.5).

(ii) 'Mode of memory' (2008, pp.5–7) comprises the reconstruction, representation, and reenactment of memory, and focuses on the 'how of remembering'. In this process, history becomes a mode of memory amongst 'myth, religious memory, political history, trauma, family remembrance, or generational memory' (Erll 2008, p.7), making cultural memory a field of multi- and inter-perceptions where memory is not found in one mode but in the repetitive and collective behaviors and rituals that occur as each mode and expression is realised.

(iii) 'Dimensions of memory' reflects cultural memory from an anthropological and semiotic perspective. Drawing from Posner's (2004) cultural model, Erll defines 'cultural memory dimensions' as follows: (a) 'mental': defined as a mechanism of transmission, a tradition and ritual, and as mentalities where the value and ideas are projected, embedded or embodied with an artefact; (b) 'material': the artefact

or relics, the media formed of signifier and signified; (c) 'social': as a social relation, this includes the performance of rituals, the act of sharing/communicating mentalities and the artefact. In its origins, this model also provides a hierarchical ordering of the agency operating between these dimensions, where the 'mental' seems to act as a codified behaviour system. It is clear that the dynamics sit in action, such as where rituals are performed, materialised, shared, and re-remembered.

Erll's cultural memory model is particularly interesting as its categorisation allows access to the dynamic strands themselves as they weave between content and form and between places, traces and behaviour. However, because elements of the model originate from Posner's anthropological perspective, seeing culture as an evolving system, one can ask within this system where and how the body from which we perceive, from which we create meaning and from which we remember, is found. Perhaps Merleau-Ponty's (1964a) concept of the 'flesh' as a continuous relational process could contribute to the model offered. This is especially relevant if one thinks of the 'flesh' as both subject and object (Merleau-Ponty 1968, p.185), in immanence and transcendence, integrating between and within connected terrains and absorbing and extending in its social algorithm to produce new traces and texts of memory that, in turn, get caught back in the continuous memory loop. I explore this articulation further in chapter 3.

For now, building on Erll's significant model, I begin to form my own map of memory, one that acts as a terrain from which actions, embodied acts, and storages of memory overlap. This process is very similar to the early stages of making digital interactive art installations, where one thinks of and creates ways in which digital or physical forms or artefacts and the body move within a specific space.

2.5 'Topology of memory' (fig.1, p.50)

Erll's material, social and mental dimensions transpire in my 'topology of memory'. However, these appear in action between the body and the cultural flesh. Halbwachs and Erll's (2011, p.105) model of memory already stresses that the collective cannot be viewed away from the individuals, that the concept of cultural memory could not exist without the concept of communicative memory. Therefore a first-person perspective

becomes relevant in thinking of cultural memory as the collective first-person experience:

Through collective-autobiographical acts of memory, group identities are created, the experience of time is culturally shaped and shared systems of values and norms are established. (Erll 2011, p.106)

Thus, individual and collective memory can also be thought of as subjective and objective memory – the personal becomes public memory, and the fusion of (and the delusion that exists within) subjective and objective memory becomes more relevant in understanding cultural memory.

What is my 'topology of memory'?

My topology is made of four overlapping terrains of memory in which *cultural imaginary communities* (Anderson 2006, p.5–6), *bodies*, and *socio-territories* (Pollini 2005) are moving towards 'sharing meaning' and the creation of new networks of memory terrain. The memory practices and memory-loci that these produce can be grouped as: (i) 'Personal cultural imaginary terrain' (e.g. gender, home, family); (ii) 'Public cultural imaginary terrain' (e.g. town, city, region, organisation, community); (iii) 'Institutional cultural imaginary terrain' (e.g. nation, government); and I have added (iv) 'Internet cultural imaginary terrain' (including, but not limited to, dimensions that are global and are heavily concerned with the media).

This portfolio focuses on digital memory as collective memory, and so a major area for debate around this document concerns the 'Internet cultural imaginary terrain'. However, since this is both an expansion of, and constitutes the grounds for, a reenactment or extension of the *personal, public and institutional cultural imaginary terrains*, it also points to the interconnections and relations between these areas, where they overlap as socio-cultural and relational materiality.

'Cultural imaginary' is seen here as 'terrains' in which we, as individuals, publics, organisations, and institutions, project *our* desires (e.g. social, economical, political) and *our* cultural imaginary (Hall 1997, p.45), and where collective memory is found. The movement of territories overlapping capitalises on the sense of 'belonging'. According to Stuart Hall (1997, p.8), 'belonging' allows for a shared 'conceptual and linguistic universe'. This is widely found in the 'Internet cultural imaginary terrain', as it

invites the use of existing habits, traditions and laws as a way to draw individuals, communities, organisations and institutions into a sense of a known social, economical, political environment. This therefore invites the creation of a multicultural, intercultural and transcultural space (Buonfino 2007, p.5), which is, in this sense, 'global', and individuals share this same digital Cloud. However, as memory is shared through its objective-connectivity and subjective-connectiveness (van Dijck 2013) within the 'Internet cultural imaginary terrain', and whilst existing communities, organisations, and laws are being reconfigured, what is understood as memory is altered.

Below I set out to explore how various accounts of collective memory can build the topology in various ways and begin to show how the kinds of orders of memory are located and operate in relation to one another. Specifically, here, I am interested in how the Internet terrain intersects with the others. The process in this chapter is a theoretical beginning – the work on the 'topology of memory' continues in the second part of this chapter through digital art genealogies and throughout this portfolio.

How does my 'topology of memory' operate?

In beginning to build my topology, I find José van Dijck (2007, p.6) and her discussion of the act of remembering as always 'in relation to the lives of others and their surroundings' useful in its development. I understand my topology to indicate the dynamics between 'ars' and 'vis', of both a process of stabilisation and an assemblage of relational materiality (Law 1993, p.23), and as highlighting the social and embodied aspect of materiality of memory. I also understand that there is movement between one place and another – a relation between selves and others, between one surrounding and another.

As van Dijck's formulation expresses, questions of materialisation are essential to understanding memory and how memory functions in the production of shared values, histories, and individual, collective and cultural identity formation and development. Media theorists Motti Neiger, Oren Meyers and Eyal Zandberg (2011) similarly discuss how memory needs to be 'concretised' through places and artefacts to become cultural, 'collective', and to be shared.

This portfolio is focusing on digital memory, so a major area for debate around this document does concern these social places and artefacts. Thus, elaborating my

topology further, I place Posner's 'social dimension' – thought of here as socio-cultural sites in which mnemonic behaviours are produced or performed – at the intersection of each 'cultural imaginary terrain'. In doing so, I am building towards a 'concretisation' and the production of traces and texts of memory.

Where are the memory sites?

These intersections are sub-divided into social-cultural sites: (i) 'personal/public social-cultural sites' (e.g. home, community hall, gallery) and their related habits and rituals (e.g. reunions and gatherings); (ii) 'personal/institutional social-cultural sites' (e.g. universities, churches, courts of law) and related memory customs and rituals (e.g. marriage, Christmas, Easter, graduation); (iii) 'public/institutional social-cultural sites' (e.g. museums, universities, archives, libraries, churches, memorials, monuments) and related customs (e.g. law, policies, written text); and (iv) 'Web social-cultural sites' (e.g. software and platforms such as blogs, forums, online museums and online archives) in which the personal, public and institutional are found and their related memory habits, rituals and customs as social-algorithms (e.g. 'liking', 'sharing', 'saving', 'blocking', 'deleting', 'following', 'tracking').

Where are the traces of memory?

Memory is maintained through cultural formation of vernacular objects, as a collection of traces (e.g. family albums, mementos, souvenirs, collections) and public objects (e.g. Folk art, collections, crafts), institutional objects, as a collection of texts (e.g. monuments, memorials, high art) and Internet objects (e.g. statistics, metadata, compression data and traces of personal, public and institutional objects).

To invoke 'objects' is not to suggest that these are self-sufficient, or that they are outside of signifying systems because they are not texts. As Hall (1997, p.45) famously argued, 'objects' do not have 'meaning' on their own, rather they are part of a semiotic system in which they function, and therefore embodied action and intentions become central to their relational materiality. It is 'us' who are a dynamic system between society, human culture and things, and who bring 'shared meaning' and collective memory:

These elements – sounds, words, notes, gestures, expressions, clothes – are part of our natural and material world; but their importance for language is not what they are but what they do, their function. They

construct meaning and transmit it. They signify. They don't have any clear meaning in *themselves*. Rather, they are the vehicles or media, which *carry meaning* because they operate as *symbols*, which stand for or represent (i.e. symbolise) the meanings we wish to communicate. To use another metaphor, they function as *signs*. Signs stand for or *represent* our concepts, ideas and feelings in such a way as to enable others to 'read', decode or interpret their meaning in roughly the same way that we do. (Hall 1997, p.5)

Hall's model demands that what is encoded as a semiotic message – or to loosen the model somewhat, that which includes as an aspect the symbolic – becomes fully materialised through a process of decoding. In the same way, those terrains that provide the platform to socialise and produce artefacts are not 'live' unless they are perceived and 'culturally' acted upon:

Without such actualisations [media memory actualised by the individual], monuments, rituals, and books are nothing but dead material, failing to have an impact on societies. (Erl 2008, p.5)

These arguments pertain to terrains of memory that pre-exist inclusion into the topology of the specific terrain of the Internet – the 'Internet cultural imaginary terrain' – and of its pervasive reach across and intersection with the longer-established terrains of memory. The 'Internet cultural imaginary terrain' also works in this way, through its process of reenactment and via the different material resistances it produces. It creates new contexts in which new customs and habits are formed, and through these actions new digital artefacts are formed. One consequence of this is that digital traces of memory, although they refer to expansive networks that may reach beyond the limits set out in earlier categories (for instance the local, which is now crosscut with the global pathway), they are in many ways 'just as embodied and mediated as before' (van Dijck, 2007:29).

Where then is the body or bodies?

I place the *body* at the center of my topology. This is a central node, in which all 'cultural imaginary territories' intersect. In my topology, then, the body and embodied experience are central as I posit memory to be a relational system between *ars* and *vis*, and thus between an overlapping process of objectification and subjectivity, as the 'act' of memory cannot be outside our own experience.

Consequently, my 'topology of memory' is not a totalising rational model but one of transient perspectives, a remapping of memory that recognises that the 'Internet cultural imaginary terrain' changes the ways in which memory operates. However, places remain, and collective experiences remain too, and despite ways in which technology is embedded and embodies or extends the body, the body remains at the center of memory and of any modeling of memory, both subjective and objective.

My topology maps memory and its possible translations and transformations in the Internet terrain. It is a guide, a heuristic, an inspiration, and it did not emerge separately from my art practice but simultaneously. The practice itself is continuously engaged with media and memory studies and it is also a form of self-aware art practice. I relate it in the context of fields of art, whilst drawing from my own digital art genealogies as I turn to the second part of this chapter to explore further mapped out relations in my topology between arts, technologies, memory and possible collective acts of memory.

2.6 Digital arts & acts of memory

There are clear connections between art and memory repositories in which traces and texts that have already been fixed and re-interpreted, in, for example, painting, performance, sound, sculpture and installation, choose to capture histories and the lost moment. However, my practice and related discussions locate artworks about memory within digital art practice, as storage of memory and as 'public interactive', a term used by Anne Balsamo (2016, p.331), cultural theorist, to describe artists working with "the changing nature of space in the media age by evoking novel experiences through the use of new technologies and the reconfiguration of built environments". Although Digital Art is an art movement that evolved from Computer arts (1950s-70s), in to New Media art - by the 1990s - (Hope & Ryan 2014 p.4) as the Internet became widely accessible, its terminology has continued to be used in reference to digital art practices, such as:

[I]nteractive and/or networked installations; software or Internet art without any defined physical manifestation; virtual reality or augmented reality; locative media art distributed via mobile devices, such as smartphones, or using location-based technologies ranging from the global positioning system (GPS) to radio frequency identification (RFID). (Paul 2016, pp.1-2)

Today it is possible to think of digital art not as a single phenomenon (Hope & Ryan 2014, p.3), but instead as an engagement with the development of digital technologies and therefore in a constant “state of flux” (Graham 2007, p.106) that brings together “a fluid set of artistic techniques, technologies and concepts” (Hope & Ryan 2014, p.3) that ultimately question “new cultural forms, new technologies, and new twists on familiar political issues” (Tribe & Reese, 2006 p.7). For example, New Media art has been discussed as “a response to the information technology revolution and the digitalisation of cultural forms” (Tribe & Reese 2006, p.7), while Post-Digital art questions ways in which our everyday lives are embedded in connected digital technology (Berry 2015, p.45), “crossing boundaries between media in their final form” (Paul 2016, p.3). Thus, ‘digital art’ can be thought of as a wider field encompassing various art movements and digital practices such as Net art, Internet art, New Media art, Post-Internet art and Post-Digital art. Thus, digital art practice becomes the ideal platform to explore ways in which networked memory moves, ways in which memory palaces are built up.

2.7 Digital art and genealogies

Locating my practice within digital art also requires thinking of its digital aesthetics and its medium in relation to my digital installation artworks. Digital art in its complex aesthetics and concepts comes from a long history of art movements that have investigated and followed the development of the then new technologies and cultural forms - especially in the times of industrialisation of warfare and mechanical reproduction (Tribe, Reese 2006, pp.7-8). Christiane Paul (2016, p.5), curator and media theorist, traces back its genealogy as different interconnected lineages and artistic practices such as, but not limited to:

[E]arly instruction-based conceptual art to “algorithmic” art and art forms that set up open technological systems, [as well as, a lineage of][...] concepts of light and the moving image from early kinetic and op art to new cinematic forms and interactive notions of television and cinema. Embedded in the latter is the evolution of different types of optical environments from illusion to immersion.

Thus to think of digital art and digital art memory palaces is not to abandon medium

specificity, but to think of its tailored genealogies and to grasp the hybridity and interrelations of the digital medium, its interactive forms. Medium here is thought of as methods and outputs from the tension between creative spaces (i.e. interface, artefact, gallery), technology (i.e. media, tools), temporality (i.e. duration and temporal construction), and bodies (i.e. perceptual and conceptual). It is thus placing 'movement' in the center of this digital art genealogies and, therefore within a map of memory.

Digital art: 'Movement from optical to immersive environments'

In thinking about Paul's digital art genealogy, namely the exploration of the movement 'from optical to immersive environments', it is possible to see a similar evolution in my own art practice. I have explored memory, representations and audience experiences through different media (from paint to clay to celluloid to digital); through different tools (palette knife, medium format camera, super 8 camera, computer software), from different embodied spaces (canvas, screen, projection, constructed) to different forms of public participations as seen and discussed throughout this portfolio.

In addition to the above, conceptually, I have primarily drawn from historic art movements (notably Expressionism, Futurism, Kinetic art, Conceptual art, Installation art, Video art, Cybernetic art) that adopted specific positions with respect to technological modernisation. I was interested in seeing how these movements dealt historically with the embodied technology and memory questions central to my own research. I was also interested in how they repositioned the role of the artist, the audience and the art institution by "focus[ing] on concept, event, and audience participation as opposed to art as a unified object" (Paul 2016, p.5; Hope Ryan 2014 p.43). Finally, I was interested in the ways they respectively challenged the traditional stillness of the 'unified art object', emphasizing its capacity for representing 'life in action', rather than 'life as it has been'.

In many ways my art practice mirrored elements of these aesthetics, as I explored the language of movement through different tools and different temporal and active spaces, to ultimately expand the viewer/users' experience, as I looked towards the development of my digital art memory palaces. It is possible to see how, by tracing my digital art genealogies through specific artworks that relate to the art movements mentioned above, I begin to expand one of Paul's suggested lineages that might also resonate with other digital artists. In this process I also begin to develop aspects of my

digital medium and aesthetics – reiterated here as relations and tensions between space, technologies and audiences), as it becomes central to my mapping of memory.

2.8 A lineage of digital art & memory genealogies

Balsamo (2016, pp.330-33) states how ‘public interactives’ engage “distinct domains of expertise, not only the technical, but also the aesthetic and the social” how the artist must have “a broad understanding of new media aesthetics and communicative vernaculars, the critical language of architecture, built space, and spatial practices, and the changing nature of sociality and the public within networked cultures”. In making my digital art genealogies, I have sought to locate them in interdisciplinary practice between technology (conceptual and perceptual), aesthetics (conceptual and perceptual), social (communication, body and action) and memory practices.

My digital art genealogies began in the representation of movements through painting, its material process and treatment whilst drawing from the work of painters such as Lucio Fontana (1899-1968), Lee Krasner (1908-1984), Francis Bacon (1909-1992), Jackson Pollock (1912-1956) and Frank Auerbach (1931-). I was captivated by how their respective processes (drip-painting, sculpting, slashing and puncturing the canvas, combining other media) destabilised the hierarchical placement of process itself as it became central to the final artefact narrative. In doing so, these artists, amongst others, were breaking down materials and institutional barriers from the immediacy of experience (Bacon 1995, p.5) whilst going beyond the frame. This led my genealogies towards the exploration of interactive aesthetics as I explored technology and spaces, that enabled movements, to then move beyond the frame and beyond the screen (TV, monitor, projection) as my practice moved towards screen-based installation art, to interactive and immersive art.

The artist Victor Vasarely (1906-1997), stated in the *Manifeste Jaune*, a manifesto for *Le Mouvement* exhibition at the gallery Denise René (Paris 1955), how screens become the staged relation between space, movement and time:

La DIAPOSITIVE sera à la peinture ce que le disque est à la musique: maniable, fidèle, complexe, autrement dit un document, un outil de travail, une oeuvre. Elle constituera une nouvelle fonction transitoire entre l'image fixe et la future image mouvante. L'ECRAN EST PLAN MAIS,

PERMETTANT LE MOUVEMENT, IL EST AUSSI ESPACE. (Vasarely 1955)

The SLIDE will be to painting what the record is to music: malleable, faithful, complex, in other words a document, a tool, an artwork. It will have a new transitional function between the still image and the future moving image. THE SCREEN IS A PLANE BUT, IN ITS ABILITY TO ENABLE MOVEMENT, IT IS ALSO SPACE. (Vasarely 1955)

It is therefore possible to think of my digital art and memory genealogies as artworks that have tested specific areas of the digital medium, from mechanical gestural articulation (where the machine reenacts embodied movement and the machine is movement) to temporal architectures (in which the construction of space is considered to accommodate the choreographed social and collective movement and collective expression) and, to publics in participation (where the role of the audience is explored, and types of actions are identified). This ultimately would inform the construction of, and discussion around, the mapping of networked memory and my digital memory palaces, as *milieux de mémoire*.

2.9 Material and mechanical gestural articulations

This part of my genealogies gathers works that, in their mechanical articulation and materiality of the reenacted, embodied movement (i.e. sight, drawing, writing, walking, dancing) and contribute towards digital interactive art, as machines are seen to imitate human movement and liveness. This is found – for example - in Jaquet-Droz's automata (1767-1774), Etienne-Jules Marey's *Course d'un Homme* (1883), Eadweard Muybridge's *Woman Walking Downstairs* (1887), Jean Tinguely's *Métamatics* (1955-1959), and Len Lye's *Bell Wand* (1965). Additionally, the deconstruction of these technological structures, reveals the mechanical flesh as embodied and visceral articulations and compositions, merging synesthetic experience, celluloid (Super8, 16mm film) and/or magnetic (TV, VHS) and/or digital (pixel) materials whilst extending the traditional 'frame' experience:

[...] [G]litch artists reveal the machine's techné and enable critical sensory experience to take place around materials, ideologies and (aesthetic) structures. (Menkman 2011, p33)

This sensory experience is found, for example, in the works of Len Lye's *A Colour Box* (1935), Nam June Paik's *Nixon* (1965), Jan Svankmajer's *A Game with Stone* (1965), Stan Brakhage's *The Dante Quartet* (1987) Bill Morrison's *Decasia* (2002), Jodi's *SOD* (1999) Bruce Sterling's *Digital Decay* (2001), Rosa Menkman's *Collapse of PAL* (2010-2011) and David Szauder's *Failed Memories* (2013+). In the deconstruction of the technology they have used, these works reveal some of the material traces and medium historicity, as well as the parameters of embodied technological memory, either led by the machine's own movement language and/or by the reenactment of the human movement.

2.10 Temporal architectures

As discussed previously, art and technology are places of storage for memory. Thus to think further about the space from which mechanical embodied action takes place is also to think of 'movement' as a temporal space in which memories, histories, dystopias or utopias expand the screens' experience between the object, the space and bodies (audiences and artists). This is found in a number of artists work such as *Body Missing* (Vera Frenkel 1994), *Zapping Zone-Proposal for an Imaginary Television* (Chris Marker 1990 – 94), *Reflection* (Christian Boltanski 2000), *Fire Woman* (Bill Viola 2005) and *24h Psycho* (Douglas Gordon 1993), *The Third Memory* (Pierre Huyghe 2000) and *Home Movies* series (Jim Campbell, 2006-08), to name but a few. In commenting on Gordon's work, but also relevant to the offered examples, Biesenbach states (2006, p.10):

Many of his works draw on the discrepancy between viewers' immediate perception of the works in the exhibition space and the associations, memories, and ideas that the work triggers in their minds; within this framework, Gordon sculpts time into a physical experience.

In creating 'parameters for an interplay of context' (Lovejoy, Paul & Vesna 2011, p.6) I have drawn from modernist architectures and ways in which it reflects public spaces as a social system and as a rhythmic machine (Le Corbusier 1927, p.4, pp.50-51) producing utopias of solidarity against the combat of atomistic and anonymous society (Henket 2002, p.12). Elements that were to become core to my interactive art practice:

Machinery contains in itself the factor of economy, which makes for

selection. The house is a machine for living in. (Le Corbusier 1927, p.4)

Spaces such as the Unité d'Habitation in Marseille, France (Le Corbusier 1952), The Solomon R. Guggenheim Museum (Frank Lloyd Wright, 1956-1959), The Marin County Civic Center, (Frank Lloyd Wright, 1957-1966), Hearst Castle (Julia Morgan, 1872-1957) - were designed as spaces that also could be seen as tools towards collective expressions:

Architecture is one of the most urgent needs of man, for the house has always been the indispensable and first tool that he has forged for himself. Man's stock of tools marks out the stages of civilization, the Stone Age, the Bronze Age, the Iron Age. Tools are the result of successive improvement; the effort of all generations is embodied in them. The tool is the direct and immediate expression of progress; it gives man essential assistance and essential freedom [here seen as expression] also. (Le Corbusier 1927, p.13)

Drawing from architecture to think of 'movement', object, tool and space is by no means new. For example, Vasarely - amongst other artists - is known for his interests and collaborations within this field as a way to explore 'social art' and 'democratic art' in the way that it is accessible to all. This is found in the *Cité Polychrome du Bonheur* (1976), a collaboration with architects Jean Sonnier, Dominique Ronsseray and Claude Pradel-Lebar.

My installation artworks as structures, and possible architectures of memory, also explore this notion of 'social art' as my research focuses on collective memory and technology, as I construct spaces for collective bodies to experience perceptually (body and senses) and conceptually (social and cultural signs). This collectiveness can also be found in numerous, if not all, installation works. However, it is in *Still Waves of Probability* (Mira Schendel 1969), *Witness* (Susan Hiller 2000), and *Personnes for Monumenta* (Boltanski 2010) that I have experienced different layers and levels of these structures, becoming entwined within, but also becoming part of the artist's choreography as a selection of possible movements opened before me and linked my body to other perceptual and conceptual networks. In discussing Schendel's work Brett (1968, p.46) states how she "indicate[s] space as an active thing, a field of possibility." This is specifically found in the installation piece *Aeriology* (Joyce Hinterding 1995):

[...] [E]xchanges between objects and bodies point to the fact that,

regardless of their constitution - celestial, meteorological, or organic - all things intermingle, transmitting minute vibrations that permeate the boundaries of skin and metal, sky and stone. Hinterding's antenna reminds us of the fundamental resonance between objects: invisible, intangible, unpredictable, and not always sympathetic. (Artbyte Magazine 1995, p.82)

These spaces - and of course many others - are live as social spaces - as *milieux de mémoire* - in opposition to dead monuments.

My digital art genealogies were to change radically as I was able to explore further architectures and systems of dynamic networked memory storage when digital technology and the Internet were made accessible to the masses, as it became part of the domestic space, and part of everyday objects, in the form of Web 2.0 and Cloud technologies, expanding yet again ways in which memory was performed. Earlier developments of digital domestic objects and spaces such as the Floppy Disk, CD, DVD, CD-ROM, USB memory stick, hard-drive, web servers and Web 1.0 were providing new trajectories in digital art and memory – works such as Grahame Weinbren and Roberta Friedman's *Erl King* (1985-90) George Legrady's *An Anecdoted Archive from the Cold War* (1993) and *Pockets Full of Memories* (2001), Vera Frenkel's *Body Missing* (website, 1994+), Chris Marker's *Immemory* (1997) and *Ouvroir* (2007), Transnational Temps' *Novus Extinctus* (2000), Rob Lycett's *Portable Memorial* (2001), Hasan Elahi's *Tracking Transience: The Orwell Project* (2005+) and Christian Boltanski's *Storage Memory* (2012) utilised these technologies. For these artists and many others, the digital space, and more specifically the Web, became live cultural terrains, here discussed in relation to Vera Frenkel's work, *Body Missing*:

Body Missing walks the edge between documentary and fictional realities, and as sometimes happens when an artwork tilts in an unexpected direction, what began as a fiction heard on the videotapes became a reality the context of the website which followed the Linz project. (Frenkel 2000)

In shaping new “parameters for an interplay of contexts or creating situations in which contexts become the content of an artwork” (Lovejoy, Paul, Vesna 2011, p.6), related art movements were also addressing ways in which the public's experience extended on the Web as a collective experience that evolved from consumer, to user, to ‘produser’ (Bruns 2009). However, in this public empowerment, movements were still

orchestrated by the artist through choreographing ways in which the architecture could be navigated. In constructing a space as a tool for all, movements were also constrained by its context (e.g. available tools to navigate, alter and create). In wanting to break away from the 'frame' mentioned as the origins of my exploration, and wanting to create environments where cultural bodies - in their flesh - could be expressed, I began constructing my own architecture of memory as a system of embodied communication, control and feedback (Weiner 1948; Paul 2016, p.4). Thus leading my digital art genealogies towards installation spaces and levels of 'public interactives' as an embodied and collective system, as well as a system of memory.

2.11 Public interventions & play

The last part of my genealogies is thus moving towards installation art as architectures that can be seen as "system[s] towards art and cultural production" (Burnham 1968; Paul 2016, p.5), systems that in their articulations reflect Vasarely's manifesto (1955), as participation - or interaction - is considered as expansion, recreation and multiplication:

Si l'idée de l'oeuvre plastique résidait jusqu'ici dans une démarche artisanale et dans le mythe de la «piece unique», elle se retrouve aujourd'hui dans la conception d'une possibilité de RECREATION, de MULTIPLICATION et d'EXPANSION.

If the idea of the artwork previously belonged to a craft-based approach and the myth of 'unique object', it now finds itself in the conception of a possibility of RECREATION, of MULIPLICATION and of EXPANSION.

Here, my digital art lineage becomes one of instrumentality as systemic object/users, and as 'systemic environment/inhabitants' (Pask 1969, p.495), that in its aesthetics includes embodied, embedded and extended levels of interactivity.

The concept of interactivity is loosely understood, however, because given the ways in which digital technology has evolved and continues to do so, the notion of interactivity is also changing. Paul (2006 pp.61-62) discusses interactivity as 'reactive' - as the public body is captured by sensors. While Nathaniel Stern, artist and writer, discusses interactive art as process-based (2013, p.6) enabling audiences to 'experience and practice *conceptual-material* relationships' (2013, p.16) and embodied relations (2013,

p.8). It makes sense to think of interactivity as a social system that merges the artist's creative intention and the audience's responsive participation with the artwork. This system is one that in its social architecture consists of connective technologies between temporal spaces and perceptual and perceiving bodies, and generates "a form of public communication for the purposes of exchange, education, entertainment, and cultural memory" (Paul in reference to Balsamo 2016, p.11).

This can be found in the work of Félix González-Torres, *Untitled (Portrait of Ross in L.A.)* (1991), an installation artwork made of 175 pounds of a candy called Fruit Flashers, matching González-Torres' late partner Ross's body weight. The audience is invited to take a conscious action by taking and eating a piece of candy, thus spreading and diminishing the size of the symbolic body – Ross having lost his life to AIDS – but also recreating the flow of sensory memory (see Proust's 'madeleine' in Proust 1927) as a recollection of embodied desire and visceral experience:

It's a metaphor. [...] I'm giving you this sugary thing; you put it in your mouth and you suck on someone else's body. And in this way, my work becomes part of so many other people's bodies. It's very hot. For just a few seconds, I have put something sweet in someone's mouth and that is very sexy. (Spector 1995, p.150)

Each day, throughout the exhibition, the work is replenished as the body disappears, forming a continuous mechanical loop in time, in the now, a living system, which challenges the critical idea of art. Gonzalez-Torres uses his personal narrative, the absence of body and the installation as a participation space for the audience to rethink the politics of the body, of memory and of beholding:

[T]he body is also directly involved in a political field; power relations have an immediate hold upon it; they invest it, mark it, train it, torture it, force it to carry out tasks, to perform ceremonies, to emit signs. [...] [T]he body becomes a useful force only if it is both a productive body and a subjected body. This subjection is not only obtained by the instruments of violence or ideology; it can also be direct, physical, pitting force against force, bearing on material elements, and yet without involving violence; it may be calculated, organised, technically thought out; it may be subtle, make use neither of weapons nor of terror and yet remain of a physical order. (Foucault 1977, p.191)

This is also found in the work of Christian Boltanski's *Les archives du Coeur* (2008) in which an embodied architecture is deconstructed in three rooms: the *Heart Room*,

which houses an installation; a recording room; and a listening room. Thus forming 'systemic environment/inhabitants' of communication, control and feedback (Pask, 1969), placing the audience as the energy that enables the workings of the machine as their interactions become computed:

In the recording room visitors may record their own heartbeats together with a personal message for archival as part of the work. In the listening room visitors can search through and listen to recordings using a computer database.

Les Archives du Coeur and *Untitled (Portrait of Ross in L.A.)* share their embodied system as the flesh itself (eating, heartbeats) become part of these installations aesthetics. So by constructing an embodied system and structures or architectures that extend within the participants' own body in which the audience can perform, participate, or behold, Gonzalez-Torres (Storr 1995) states how,

[A]ll art and all cultural production is political [...] as we know aesthetics are politics. They're not even about politics, they are politics.

Therefore when thinking about installation artworks, it is not seen as a social end, but as a way in which 'relational' materiality of memory becomes, for example, a space of discreet political actions.

This is also reflected in other embodied systems of architectures of collective perceptual and conceptual interactions that would alter the role of the audience from cultural consumer to user and participants to 'produser' and performer. Both Gonzales-Torres and Boltanski's artwork enable this as individuals select levels of embodied mechanical ritual, levels of distancing from the work to form possible collective memories - as shared temporal experiences and/or shared digital embodied archives.

Although the process of empowering the audience to become produsers has been thought of as a loss of full authorship control (Lovejoy et Al, 2011), I prefer to think of it as part of the work's aesthetics, one that would find similarities in choreography. It is up to the choreographer to enable the dancers to improvise, to become creative, in this system:

All in all, the creative act is not performed by the artist alone; the spectator brings the work in contact with the external world by deciphering

and interpreting its inner qualifications and thus adds his contribution to the creative act. (Duchamp 1957)

In continuing to build my genealogies, Jesús Soto (Venezuela, 1923-), Julio Le Parc (Argentina, 1928-), Camille Utterback (U.S.A., 1970-) and Romy Achituv (Israel, 1958-), Helio Oiticica (Brazil, 1937-1980) and Neville D'Almeida (Brazil, 1941-), Jacob Dahlgren (Stockholm, 1970-) all became central in relation to my own practice - selected here because of my own interaction with their work in a gallery environment, and also because of their shared aesthetics, in extending the audience experience through playfulness and creativity:

Generally speaking, I have tried, through my experiments, to elicit a different type of behavior from the viewer [...] to seek, together with the public, various means of fighting off passivity, dependency or ideological conditioning, by developing reflective, comparative, analytical, creative or active capacities. (Hazelton 2013, pp.34-39)

In doing so they enable a system of collective participation in which the audience could create from and could merge outer and inner cultural and embodied inner experience. Other works found in the performance of action-sculpture (performed by the artist, the audience or the environment), for example, Duchamp's *Roue de Bicyclette* (1913-64), Calder's *Mobile* (1932) and Jeremijenko's *Live Wire* (1995) became central to understanding the series of individual performative interactions. However, my interest was in the collective performative area. In discussing his work *Penetrable* (1990), Soto clarifies that it is movement that brings together 'matter, time and space', that I therefore interpret as bringing together 'temporal architectures', 'materialisation of mechanical gestural articulations' and 'audience participations':

[...] [P]articipation [of the viewer] actually becomes tactile, and on occasion, auditory experience. Man plays with the world around him. Matter, time and space comprises an indivisible trinity, and movement is precisely the value that reveals this trinity. (Soto & Daval, 1970; 2008, p.223)

In experiencing their work, I was interested in how action could then bring liveness to dead architectures, how collective action could create *milieux de memoire*. Claire Bishop (2011), in reference to Guy Debord (1967), states how installation artworks - as participatory art - 're-humanise a society rendered numb and fragmented by the repressive instrumentality of capitalist production', thus making installation artworks an

ideal metaphor to explore ways in which digital memory forms and moves in relation to possible 'humanisation' or 're-humanisation' and questioning what memory politics it reveals in its process of engagement to connected digital places.

While Aleida Assmann (2011, p.357) states how installation artwork 'represents a paradigmatic medium of cultural memory', describing their methods as 'metaphor' and as a 'mirror to cultural memory'. She describes how artists 'bring memory back vividly into the present by giving visible form to its lost functions through aesthetic simulation', thus 'opening up new access to it through artistic reflection'.

Installation artworks have the ability to revive institutional, public or personal muted or forgotten sites where the body becomes part of the work itself as a 'co-producer or participant' (2011) or, I would add, as a performer and/or beholder, as one chooses to sit on the boundaries of the installation space, making 'participation' a central part of Installation art aesthetics (Bishop 2006):

The essence of Installation art is spectator participation, but the definition of participation varies greatly from one artist to another, and even from one work to another by the same artist. Participation can mean offering the viewer specific activities. It can also mean demanding that the viewer walk through the space and simply confront what is there. Objects may fall directly in the viewer's path or become evident only through exploration of a space. In each of these situations, the viewer is required to complete the piece; the meaning evolves from the interaction between the two. (Reiss 1999, p.xiii–xiv)

So in this sense installation artworks extend the audiences' embodied, corporeal experience and possibility, forming a silent dialogue between the storage and the acts of memory. Hall (1997, p.2) states how the representation and mediation of culture – and here, memory – depend on 'its participants interpreting meaningfully what is happening around them, and "making sense" of the world, in broadly similar ways'. In this sense installation artworks, through their possible interactive aesthetics, offer the ability to empower their audience depending on the artist's intention and on the role the audience choose to take on.

2.12 Digital art genealogies and topology of memory

This initial 'topology of memory', drawing on my own digital art genealogies and theorisation of memory, provides the initial foundation for the work I have undertaken in my exploration of digital artworks as cultural, social, political and potential memory palaces in which bodies move and act.

Contextualising this within the topology developed earlier – and with awareness of how the territories of memory overlap and are fluid – I am questioning ways in which movements towards collective memory between the body itself and its environment can be produced, whilst continuing to investigate how networked socio-cultural architectures, digital memory and the 'Internet cultural imaginary terrain' are transforming memory processes. These points of explorations are elaborated further in the following chapter but also through the digital art practice and artworks in this portfolio.

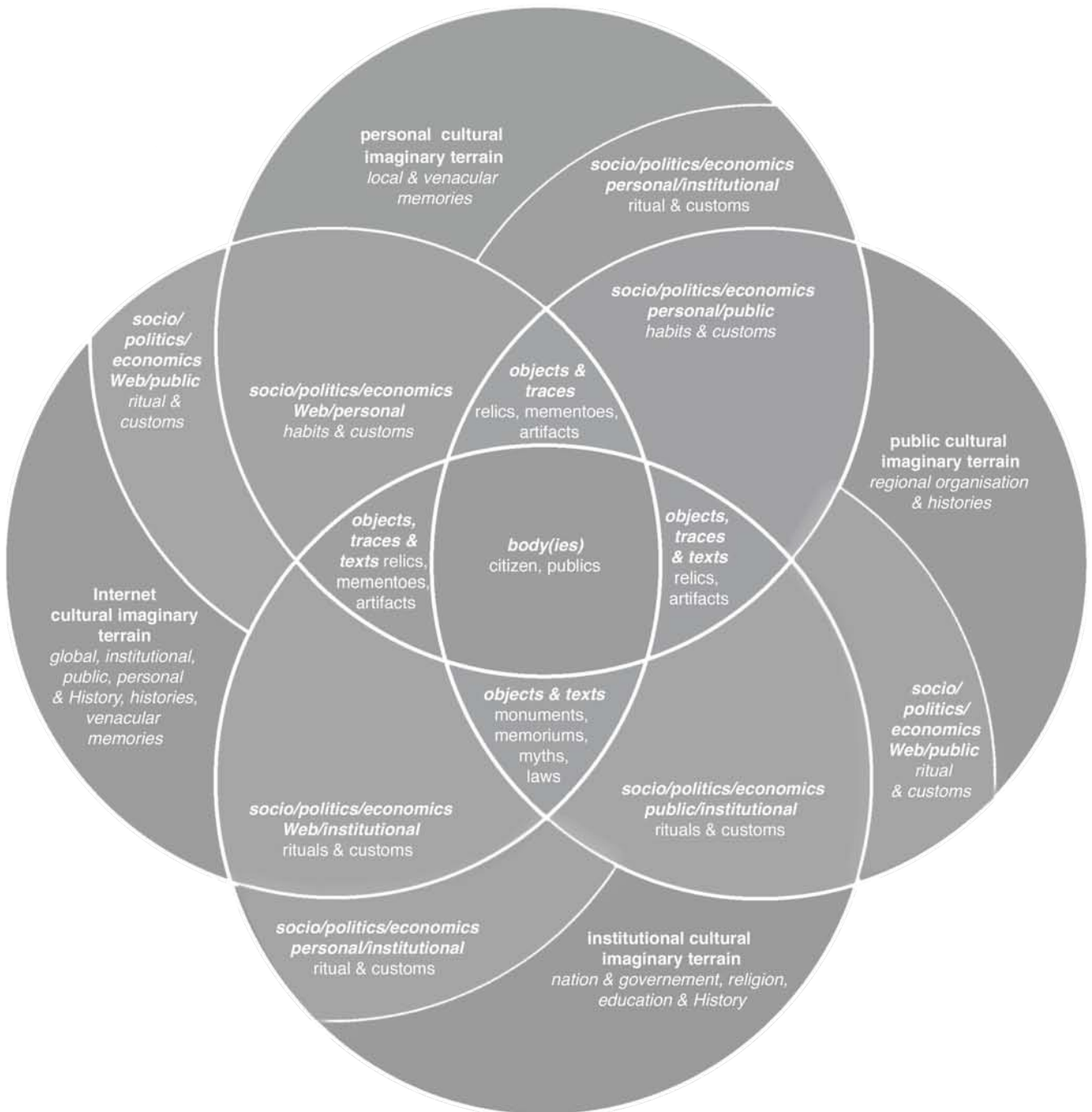


Figure 1. Topology of memory 1

CHAPTER 3

NETWORKED & CULTURAL MEMORY: AN EMBODIED ARTICULATION

Since the Internet, the development of the Web and ubiquitous technology, new dynamic forms of memory and memory objects are being shaped, creating new terrains of memory and indicating how new interdisciplinary systems of thinking about memory might be developed. This has been addressed in part through media and memory theories and by drawing my own digital art genealogies in chapter 2.

The topology and digital art genealogies mapped networked potential memory terrains, architectures and technologies, which I and others can perceive from; it also let me begin to think how as a system it can move. Thus in this chapter I focus on the embodied articulations of my topology, and in doing so I look at critical engagements with memory production that have informed my thinking of storage and acts of memory (Assmann 2011; chapter 2), as well as my own digital art practice. Because memory is and has been explored across a range of disciplines as a phenomenon within culture, bodies, and technologies, I discuss some early and different accounts of memory that can be thought of as a set of relations between storage and acts of memory. I specifically reference Vygotsky and Bartlett as I found their approach to memory highly relevant to today's 'network' and 'networked' memory.

In order to articulate the ways in which I form my thinking on collective and cultural memory, I discuss concepts of time and embodied perception – these are central to any memory practice. I do this by drawing from Bergson's concept of objectification and the subjectivity of time, and from Merleau-Ponty's concept of objectification and subjectivity of the body through his ontological work and concept of '*la chair*', the 'flesh'. I also draw from Winnicott's play theory – from which the transitional phenomena and transitional object are found – to explore ways in which the storage and embodied act of memory move, transiting from one reality to another, and the ways in which time, body and space interlace. In doing so, I am expanding my 'topology of memory', introduced in chapter 2, as a way of mapping the movements of 'networked memory' and discussing the materiality of memory through a series of interventions, which are

found in the following chapters.

3.1 Multidisciplinary forms of memory: mnemonic, artificial and social memory

Early explorations and discussions of memory can be found as far back as Classical Greece, with Plato and Socrates' discussions of the Allegory of the Cave (516a) and the notion of false memory. Between then and in the late 1800s, memory in science was largely thought of as a mental process, a recalling of the original experience that provokes philosophical thinking on truth and reminiscence and led the way to the psychological questioning of perception and mental individual mnemonic processes. These enquiries continue today.

Mnemonic practices 'occur in an infinity of context and through a shifting of multiplicity of media – are always simultaneously individual and social. And no matter how concrete mnemonic products may be, they gain their reality only by being used, interpreted and reproduced or changed' (Olick 2010, p.158). According to Frances Yates (1966, p.20–22), artificial memory is the 'art of memory', and she recalls Simonides and Cicero's story and description of the 'mnemonic of palaces and images' as 'loci' and 'images' (1966, p.2). Yates explains how 'the loci are like the wax tablets which remain when what is written on them has been effaced and are ready to be written on again'. The 'memory loci', here, are known as '*memory palaces*' (1966, p.123) in which images of memory are positioned within large imaginaries. Such mnemonic processes are ancient technologies of some form, but with modernity, and its new mediatisation and mass productions (e.g. the birth of early photography, cinema and radio), came new forms of 'artificial' memories and externalisations of memory as social memory, as a set of relations between the storage and act of memory. After the First World War, it was also possible to see a wave of seminal work on memory from philosophers such as Maurice Halbwachs (1877–1945) and Henri Bergson (1859–1941), culture theorists such as Aby Warburg (1866–1929) and psychologists such as Frederic Bartlett (1886–1969) and Lev Vygotsky (1896–1934), who developed the thinking of memory as an action set in a social and/or cultural context. Although Warburg, Vygotsky and Bartlett cannot represent all areas and thinking on early mnemonics and artificial memory, they are central in this discussion as they think of memory as a dynamic system between objectivity and subjectivity, as Aleida Assmann (2011) posits in her more recent perspective of the 'ars' and 'vis' of

memory. For example, Vygotsky (1934) considers how internal psychological and material tools are formed by social and cultural structures, highlighting how personal, social and cultural development are interlinked and therefore how memory is not a simple internal mnemonic process but one that reflects an 'interpersonal' process. Thus, memory is understood in terms of, and as having social dynamism, as being interactive.

These understandings generated studies of memory across disciplines. For instance, today memory is commonly explored across psychology, neuroscience, archaeology, sociology, history, cultural studies, media studies and the arts. However, in this multidisciplinary context, memory's terminology, methods and position (as intention) varies. It is therefore possible to suggest that memory is generally understood as an individual and/or collective system of encoding, storing, and decoding, and in this sense also reflects Aleida Assmann's (2011) more recent concept of memory as storage (e.g. arts, technologies) and as the act of remembering (e.g. internalisation, externalisation of memory).

In this multidisciplinary approach, the then-contemporary notion of memory was also altered, something that reflected an earlier change as memory was increasingly no longer viewed as a simplified system of accurate recollection but one of creativity. As early as 1932, psychologist Bartlett would clarify that memory is not a system of 'truth' or accuracy, but one of reconstruction within a dynamic environment: 'In a world of constantly changing environment, literal recall is extraordinarily unimportant.' Thus, acts of memory are seen as a creative process of memory.

3.2 Bergson, time and memory

Bergson's concept of memory defines two kinds of memory: 'habit memory' (e.g. muscle memory) and 'memory in time' in which perception is entwined with memory. Similar to the embodied mind, we have here the embodied memory in which perception is the agent between the body and the mind. Bergson argues that the main difference between perception and memory is time. When perception stops seeking the past image, it is no longer a memory image but a perceived image. He writes, '*Imaginer n'est pas se souvenir*' (1896, p.82), 'to picture is not to remember' – thus the image comes after memory.

Bergson is clear when stating that the question is not of where memory is stored (1912, p.196, 1896, p.107), but of how memory is processed. Memory can therefore be seen as a relational process, as 'interpersonal' (Vygotsky 1934), as a collective and social empowerment (Halbwachs 1925; Vygotsky 1934; Alberini et Al, 2013), but also as traces and texts (e.g. from institutional bodies), as witness and as reconstruction where the original experience overlaps (Bartlett 1932).

This kind of dynamic and imaginative interpersonal reconstruction, is also reflected in Aby Warburg's concept of materiality as *Nachleben* (after-life) and memory (2009). Warburg broke memory down into two basic parts: the original experience and the representation of the original experience. The first is not fixable and is a constant reminder of human temporality, a primal state. The second is a reenactment, a *trace*, of a primal instinct, but is also an empowerment as selfhood and cultural identity become enabled through memory (Assmann 2008) and as reproduction (e.g. material objects, values, rituals, etc.) brings to 'life' the object or the subject of social mediation (Diamantaki 2013) or 'networks'. Ultimately, Warburg saw in the materialisation of memory, such as material images, an '*energie-Konserve*' – stored energy (Assmann 1996) – that becomes 'alive' in its social context:

The images that constitute our memory tend incessantly to rigidify into specters in the course of their (collective and individual) historical transmission: the task is hence to bring them back to life. Images are alive, but because they are made of time and memory their life is always already *Nachleben*. (Agamben 2011, p.66)

For example, in Warburg's unfinished art history project *Mnemosyne Atlas* (1926-1929), a collection of over 2000 collected images categorised into 79 panels at the time of his death in 1929, the embodied reading of the collection alternates between memory-energy and spatial materialisation. Again, this is reflected in Bergson's thinking as he frames memory and time as different dimensions of the external trace of memory and spaces, and frames the internal process of memory as '*la durée*' (Bergson 1896), thus making memory an embodied process at its core.

This exploration is central to this discussion as it introduces new ways of bringing time and perception into the social, collective and relational process of memory as

established in chapter 2.

Bergson is a pioneer in memory studies, and his work continues to feed current discussion in the fields of memory studies, neurology, phenomenology and cultural memory. Patrick McNamara (1996, p.221) offers a neurologist's perspective on Bergson's concept of memory, highlighting how for Bergson remembering is an action that is always linked to the present moment. When Bergson (1913, p.107–08) thinks about time, he brings up the notions of external and internal temporalities. 'External' time can be measured: it is objective and homogeneous through the use of artificial definitions of time (e.g. calendars and clocks, social time), and it can be multiple (e.g. the rhythm of a piece of music within/against social time). Bergson consequently considers external time as space and rhythm, for example, as the space and rhythm between matter, the punctuation in a poem, the silences within a musical composition, and the space and rhythm between two moving image frames.

In contrast, time in the internal world refers to an inner sense of time, *la durée*, that is heterogeneous (Bergson 1913, p.110). McNamara (1999, p.85) describes Bergson's concept of '*la durée*' as:

[C]omposed of a multiplicity of non spatial images or movements. [...] Pure duration is the lived experience of time.

This can be experienced when one reads a book that is greatly enjoyed, and before he or she realises, hours have passed. Time here feels short or long, fluid and non-representable: it is a subjective experience. Merleau-Ponty (1959, pt.2:38) clarifies that '*la durée*', for Bergson, cannot be seen away from the matter of body and mind. For Bergson, '*la durée*' is embodied:

La durée n'est pas simplement changement, devenir, mobilité, elle est l'être au sens vif et actif du mot, le temps n'est pas mis-a-la place de l'être, il est compris comme l'être naissant. (Merleau-Ponty 1960, p.183)

Duration is not simply change, becoming, mobility; it is being in the vital, active sense of the term. Time is not put in place of being; it is understood as being coming to be, and now it is the whole of being which must be approached from the side of time. (Merleau-Ponty 1964c, p.184)

So to consider Bergson's thoughts of internal time as *la durée*, and to consider time as a dynamic overlap between states of consciousness (e.g. *la durée*) and quantitative phenomena (e.g. constructed space), is also to consider the embodied *durée* and external constructed time as an entwined dynamic system of objectification and subjectivity where perception, spatiality and temporality become central.

In *Matter and Memory*, Bergson identifies the dynamic process between perception and memory through the investigation of the relation of mind and body as 'matter'. The dilemma and mediation between the external and internal worlds reflects Bergson's thinking on memory:

The mistake of ordinary dualism is that it starts from the spatial point of view: it puts on the one hand matter with its modifications in space, on the other unextended sensations in consciousness. (1912, p.294)

According to Bergson, memory only exists in the present action as perception interprets virtual or mental memory as motor memory (1912, p.80) or 'habits' as memory actors (1912, pp.92–3).

[Le present] agit sur nous et ce qui nous fait agir, il est sensoriel et il est moteur, notre présent est avant tout l'état de notre corps. (Bergson 1896, p.142)

[The present] is that which acts on us and which makes us act, it is sensory and it is motor; our present is, above all, the state of our body. (Bergson 1912, p.320)

Time, here, is placed in a three-fold present. While Bergson sees memory as a 'two-fold operation' where perception imports the past into the present (Bergson 1912, p.80), he also considers his 'present' to have one foot in his past and another in his future (1912, p.177). So in this sense memory is not a two-fold operation but a three-fold one where memory 'must be both a perception of the immediate past and a determination of the immediate future' (1912, p.177) and where memory is seen within a spatialisation system that can be thought of as non-chronological and multi-linear as embodied temporal perception becomes active:

[L]e temps est ce qui empêche que tout soit donné tout d'un coup. Il retarde, ou plutôt il est retardement. Il doit donc être élaboration. Ne

serait-il pas alors véhicule de création et de choix? (Bergson 1930)

[T]ime is what hinders everything from being given at once. It retards, or rather it is a retardation. It must therefore, be elaboration. Would it not then be a vehicle of creation and of choice? (Bergson 1946, p.58)

Bergson's central questions focused on experiencing the world as an individual through perceiving the universe:

Here is a system of images which I term my perception of the universe, and which may be entirely altered by a very slight change in a certain privileged image, – my body. This image occupies the centre; by it all the others are conditioned; at each of its movements everything changes, as though by a turn of a kaleidoscope. (1896/1911, p.13)

It is clear in his writing that, as well as the mind, the body (through its sensory motor) is also perceiving, being networked with the cognitive system, through each action within its relative environment. Memory as *habit memory* and *memory in time* co-exist in temporal anticipation of the future and this same temporal anticipation creates energies that *force to act* and *force to feel* (Bergson 1920, p.179, p.226), leading to the perception and the imagination of images that *accumulate* and are *stored* as traces and texts within an embodied 'live' external/internal network.

Bergson's theorisation of memory, with its focus on embodiment and the process between subjective and objective time, resonates and engages with the work of Merleau-Ponty, which is also useful to me in thinking through memory and the subjective and objective body. Now I turn to work that is less phenomenological and more ontological in perspective.

3.3 Merleau-Ponty, le corps sauvage, the cultural body & memory

In his last published essay, *L'Oeil et l'Esprit* (1964), and in his lectures and *Notes de Travail* that formed his postmortem publications *Le Visible et L'Invisible* (1964a) and *Résumé de Cours* (1952–1960), Merleau-Ponty (1908–61) shifts from his initial phenomenological perspective in which the body in consciousness is a prime source for knowledge, towards an ontological one in which the body, still in a prime position, is based in the intertwining of immanence and transcendence, the 'sentient' and the 'sensible' (1964a, p.136,180), the '*corps sauvage*' and cultural body, as one '*chair*' or

'flesh' (1964a).

In defining what is meant by 'flesh', Merleau-Ponty states, '[w]e must seek space and its content together' (1964b, p.141; 1968, p.157–8), that we 'are inter-woven into a single fabric' (1945, p.413), a 'universal flesh' (1968, p.137), and 'he who sees cannot possess the visible unless he is possessed by it, unless he is of it' (1945, pp.134–35, 1968). The notion of 'flesh', therefore, is both the 'flesh of the world' and the 'flesh of the body', the relation of the *corps sauvage* and cultural world and its representations. Merleau-Ponty's *corps sauvage* refers to the body before language, the body based on instincts and senses. 'Flesh' is not materiality, spirit or substance (Merleau-Ponty 1964a, p.181) but an experience sourced from and based in and beyond perception; it is the paradoxically intertwining 'immanence' and 'transcendence' of the body as it is enveloped by and within 'flesh':

[T]his occurs because a sort of dehiscence opens my body in two, and because between my body looked at and my body looking, my body touched and my body touching, there is overlapping or encroachment, so that we must say that the things pass into us as well as we into the things. (Merleau-Ponty 1968, p.123)

'Encroachment' appears as a process of 'reversibility', as the sentient body becomes part of a process of reciprocal openness within the cultural world.

From this perspective, it becomes possible to think of the body no longer as a main point of perception (Landes 2013) but as pre-body-subject/object, as the '*corps sauvage*', and as part of a reciprocal relational system with the 'flesh in the world' as they reflect, encroach and become inseparable (1968, p.248):

Raising the description of the intentional arc to an ontological level, it seems that the body 'holds things in a circle around itself' such that things of the body's milieu are internally related to what the body is, they are part of its 'full definition' – the body is then, essentially relational. (Landes 2013)

In this relational system, social relations and material traces are found in experience, but this experience is both cultural and *sauvage* as the body calls on its *nature-brute*, on its desire, conditioning things as things condition his or her desire (Duportail 2008, p.119):

[I]f reversibility establishes the spacing by which things appear, then the visibility of things must be subtended by the latent visibility of my body. That is, for color, lighting, textures, and other qualities to appear at all, they must resonate with my body, and initiate a 'carnal formula of their presence'. (Merleau-Ponty 1964b, p.126)

Ultimately the desire leads to language as the expression of the experience is revealed by the experience of the desire (Merleau-Ponty 1964a, p.201). Merleau-Ponty offers as an example the voice and the breath as '*l'élément charnel fugitif de la voix*', 'the fugitive carnal element of the voice', highlighting that expression is already found in the 'flesh' of the '*corps sauvage*', in the 'silence of the body', and in its/his/her muted expressions as it seeks the voice of its silent desires (Leconte 2009).

Things have an internal equivalent in me; they arouse in me a carnal formula of their presence. Why shouldn't these correspondences in turn give rise to some tracing rendered visible again, in which the eyes of others could find an underlying motif to sustain their inspection of the world? (1964b, p.126)

This is also approached in early Merleau-Ponty writings as he discusses the action of the hand towards an object and how 'we project ourselves, near which we are, in anticipation, and which we haunt' (1945, p.159). In the intertwining of both imminent and transcend expressions, consciousness becomes 'spontaneity and sedimentation', 'as the past being taken up toward a future by sedimenting a present' (Landes 2015). This is also found in accounts of memory from Aleida Assmann and Astrid Erll, as discussed in chapter 2, which describe memory as the intertwining of two-parts: 'memory-process' and 'memory-trace' within the world.

In bridging precisely Merleau-Ponty's ontological concept and Bergson's memory concept, Landes (2015, p.174) clarifies how the trace is produced:

The ideal weight (or pull) of the 'to be expressed' and the physical weight of the traces of the past expressions are brought together the moment a lived body [*le corps sauvage*] lends its weight to the gestures marked out by sedimented traces.

The objectification becomes a process of stabilisation or, for Bergson the crystallisation

of time (Lazzarato 2007), but also a prosthetic memory that becomes an object of mediation between one reality and another.

3.4 Winnicott, play theory & memory

I now move onto Donald Winnicott, British psychoanalyst, who adds to my discussion of memory through his account of play theory and its concepts of transitional phenomena and transitional object, as a way to merge both Bergson's temporality and Merleau-Ponty's embodied spatiality, as well as a way in which technology expends, embeds and embodies the body at the moment of transition between different forms of memory (e.g. personal, cultural):

[P]laying is built the whole of man's experiential existence [...] we experience life in the area of transitional phenomena, in the exciting interweave of subjectivity and objective observation, and in an area that is intermediate between the inner reality of the individual and the shared reality of the world that is external to individual. (Winnicott 1971, p.64)

Media theorist Roger Silverstone (1994, p.6–7), in discussing the technology of everyday life and its new networks in order to understand technological innovation, recognises that technology can be seen as a transitional object that creates a technological environment between personal, public and global cultural imaginaries:

The first is that cultural experience is located in the potential space between the individual and the environment (originally the object). This is also true of play, the first expression of cultural experience. The second is that each individual's capacity to make use of this space is determined by life experiences that take place very early on in an individual's existence. (1994, p.10)

More recently, the philosopher Bernard Stiegler (Roberts et Al 2012, p.179) has also made reference to Winnicott in relation to technology and human intersection, stating how 'without the transitional object, there is no relationship' (2012, p.179). This echoes the centrality of the transitional element in the context of my dissertation and artworks, as it enables the relations between embodied storage and acts of memory, between the trace of memory and expression of memory. *How* will be addressed below.

Winnicott (1971; chapter 3) sees the transitional phenomena as located between the

psyche and the world, while the transitional object bridges and transits between one state to another, from subjectivity to objectivity. According to Winnicott (1953, p.91) the transitional phenomena and transitional object are found within the roots of 'cultural experience', which is itself located as a set of relations between the individual and environment. He describes specific qualities of the transitional object, for example: (a) the appropriation of the object (e.g. invested time; content, intent); (b) the nurturing of the object from a range of affection; (c) it can only be transformed by the body/ies that appropriate it; (d) it must appear to give warmth, or show a vitality or reality of its own, which may be transmitted to a community or group:

The transitional object is not forgotten and it is not mourned. It loses meaning, and this is because the transitional phenomena have become diffused, have become spread out over the whole intermediate territory between 'inner psychic reality' and 'the external world as perceived by two persons in common', that is to say, over the whole cultural field. (Winnicott 1971, p.7)

Winnicott's perspective also echoes Merleau-Ponty's notion of flesh: he places the body in a process of subjective and objective experience, while the transitional state is found in the invisible, the 'encroachment', ultimately forming cultural expression as experience. This is also found in Bergson's discussion of memory as the perceptual relations of internal '*durée*' and external constructed time. However, Winnicott adds a stage between the transitional phenomena and the cultural experience, one of 'playing' and 'share playing' (1971, p.51) taking place in a 'holding environment' (1971, p.111), a place where 'holding', 'handling' and 'object-presenting' form a safe space of transition between the subjective and cultural body:

So perception takes the place of apperception, perception takes the place of that which might have been the beginning of a significant exchange with the world, a two-way process in which self-enrichment alternates with the discovery of meaning in the world of seen things. (1971, p.111-12)

Although Winnicott's specialisation is in child development psychology, his thinking is relevant in revealing the workings of memory in adults:

[W]e must expect to find playing just as evident in the analyses of adults as it is in the case of our work with children. (1971, p.40)

The object is the only place from which holding environments overlap and from which both inner and outer realities intertwine. Therefore, basing my method on Winnicott's play theory as an extension of the transitional phenomena between one holding environment to the next becomes both an essential process of analysis and of my own creative practice addressed in the following chapter. Glover (n.d.), psychoanalyst, discusses how Winnicott, and his interest in fusion and diffusion, leads to creativity:

[T]he illusion of no-separateness between either the subject and the object, or between what Winnicott talks about as the 'subjective object' and the 'objective object', could possibly be a necessary phase in all creativity, even in the process of coming to perceive the reality of the external world at all.

It is at this point that Winnicott's thinking widens out into that of play, of artistic, creative and religious feeling, and of dreaming (Winnicott 1971, p.7) in the shared collective-subjective, and objective embodied memories.

Taking in these perspectives, I now return to my 'topology of memory', and discuss what they add to it. In bringing Bergson, Merleau-Ponty, and Winnicott together, it becomes possible to suggest different ways of thinking more closely about memory as 'ars' and 'vis' (Assmann 2011). In particular, Bergson's concept of memory and time adds a temporal memory structure and temporal anticipation as a 'force to act'. Thus, I place my 'topology of memory' within temporality and experience – in the constructed time spatiality – from which the social can be produced through the trace of memory as a production of the body's internal and external movements and perception.

Merleau-Ponty lets us think about memory in relation to embodiment as a set of relations between the subjective body and objective body from which social, political and economical desires are expressed – thus placing the body at the center of my memory topology.

Winnicott also lets me begin to investigate the quality of the technological transitional object and memory object. Winnicott's relation between culture, desire and expression provides possibilities on how the trace of memory is saved, lost, found or deleted as it is 'materialised' and returns to the body as a '*corps sauvage*', from the 'flesh' as a whole, with cultural vitality:

The transitional phenomena are not lost, but they have 'become diffused' [...] spread out over the whole intermediate territory between 'inner physic reality' and 'the external world as perceived by two persons in common', that is to say, over the whole cultural field. (Winnicott 1971, p.7)

Although the relations between transitional phenomena and transitional object are discussed as an object-relation, it is essential in this document to remember that it is a dynamic system, a *systems-oriented materiality* found in experience, that ultimately provides a space from which questions of collective possibilities and of social spectacles and memory can be thought of, and that I am now representing in the topology as some ideas of articulation, as a technologised topology in 'motion' (fig.2, p.64). In leading towards possible ludic and social practices, Winnicott (1971) and Merleau-Ponty (1964) acknowledge that artistic processes offer a platform for capturing such transitional phenomena:

This intermediate area of experience, unchallenged in respect of its belonging to inner or external (shared) reality, constitutes the greater part of the infant's experience, and throughout life is retained in the intense experiencing that belongs to the arts and to religion and to imaginative living, and to creative scientific work.

I thus would like to continue to investigate how digital art practice – in the writing of this document and as a series of art interventions – can explore the concepts of networked, collective and cultural memory, when thought as a set of relations between the storage of memory, acts of memory, and the '*corps sauvage*', when thought as memory palace.

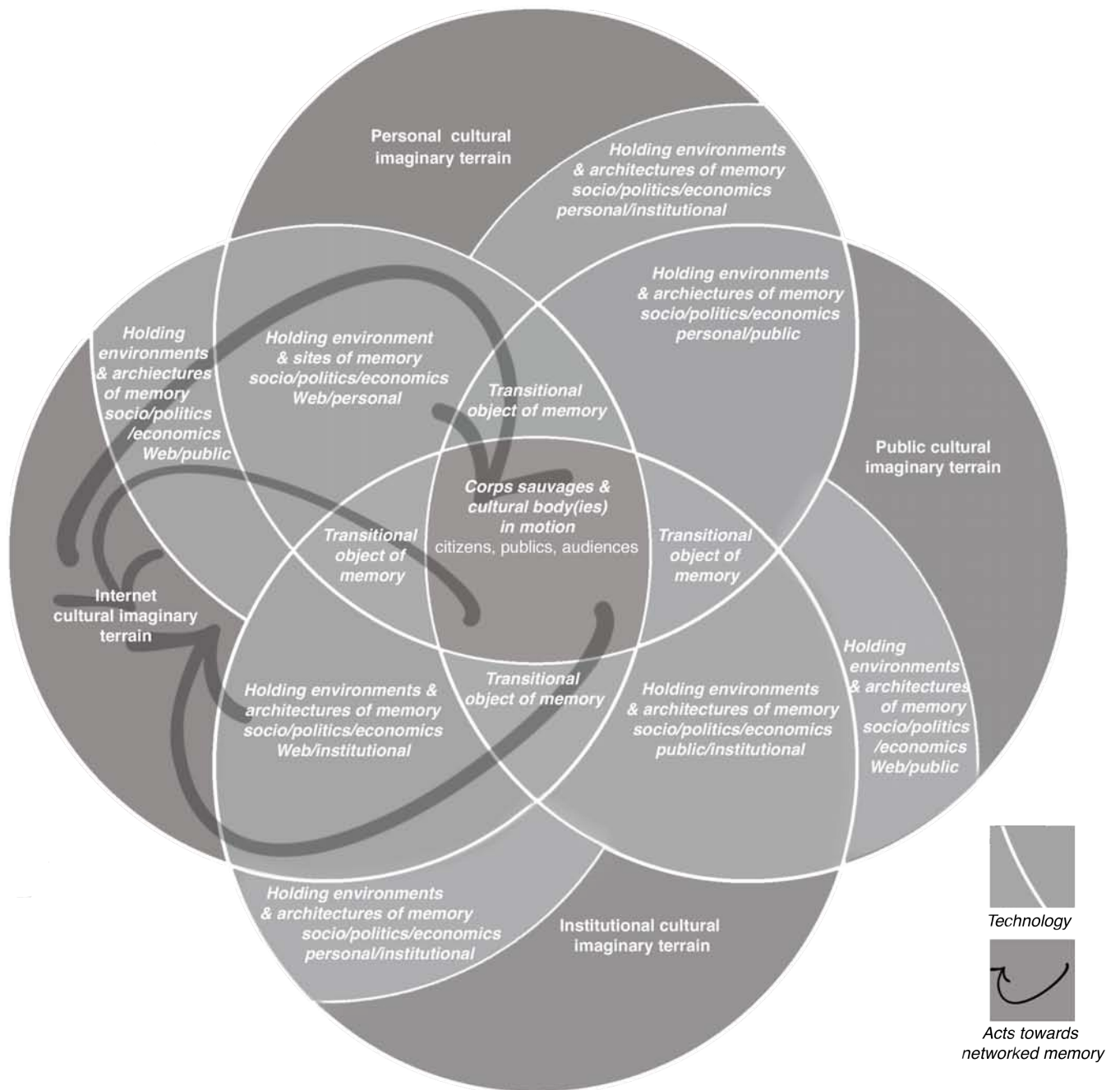


Figure 2. 'Topology of memory with articulations'

CHAPTER 4

IREMEMBR: FLICKR MEMORY PALACE

[*iremembr*](#) is a web-based installation artwork that investigates the relational materiality of memory, through digital memory objects, proximity, and intimacy. In this intervention, a Web-based *memory palace* has been created from which a collection of high-resolution 'photo-images'⁸ merges the personal with the public memory, while the 'photo-image' reveals the multilayers, intercorporealities, traces and expressions of memory. *iremembr* acts as a memory palace that in its process captures the transition between the traditional physical family photo album of the past, and the virtual digital one of the present, highlighting new forms of digital memory materiality as movements of memory are created, traced and located as a possible system of memory.

With the continuation of the age of information, and more recently the age of connectivity – defined by van Dijck (2011, p.4) as information coded into algorithms towards Web social and economical capital – its development towards ubiquitous technology, social networks, and Internet access - ways of remembering are being altered in their temporality, spatiality, and the way in which memories are distributed (Hoskins 2009), as well as that personal and public memories are being merged. Annette Kuhn (2007) argues that the vernacular photograph is key to cultural memory and memory work, and that photographs provide specific kinds of insight to social and cultural aspects of memory. My exploration in this chapter is with how Internet platforms such as Flickr deal in the vernacular 'photograph', and develop, permute, enable and revoke memory as expression. This chapter also addresses the portfolio's core questions around what happens to the memory object in its mode of technological connectivity and transformation, how digital memory moves as it overlaps vernacular cultural terrains.

iremembr seeks to explore these questions of 'ars' and 'vis' – memory storage and the act of remembering itself. It explores the relations between subjective attachment – the

⁸ In this document, I framed the digital photograph as a 'photo-image', as its attributes become quite different to the traditional photograph, this is investigated further in this chapter, as I investigate the photograph as a digital object of memory.

sense of belonging to a group or community – and the technologisation and cultural transformation of the ‘transitional object’ and ‘holding environment’, and how memory objects are transformed in the process of being made public and collective.

4.1 Methods & Conceptual Narrative

The methods I used in the creation of *iremembr* draw from the research methods introduced in chapter 1 and extend in chapter 2 as (1) collecting data, scoping terrains and developing the initial concept; (2) materialisation, in which the medium is explored, here as an exploration between space, tools and artifact, between mechanical and embodied articulations; (3) public interventions and its participation, (4) reflective practice in each of these different stages, in which both my choice of aesthetics and others in art fields are discussed in relation to networked memory.

I also borrow broadly from auto-ethnographic techniques, in which I investigate how *my* memory object is transformed in the process of being made public and collective. These methods enable me to not only investigate, discuss, or intervene in the process of technologisation and cultural transformation, but to also develop the research itself as an intervention from which I turn my subjective research position (this chapter), to others (chapter 5), and to cultural objectification (the portfolio and its interventions).

In treating this portfolio, within both Merleau-Ponty’s concept of ‘flesh’ (1964; chapter 3) and Winnicott’s play theory (1953; chapter 3), I identify an original ‘holding environment’, my Flickr site (see below), and its object of memory, my digitised photographs as transitional objects.

In chapter 3, I have discussed how the ‘transitional object’ and ‘holding environment’ are crucial for the possible realisation of embodied expression and the possible act of memory. I have also discussed how, in the making of the transitional object, both the objective and subjective are found and how the subjective body is maintained, transformed, or erased in the digital process.

Collecting data: navigating Flickr memory palaces (fig.3, p.67)

The concept of this work evolves from a collecting of my photographs that started



Figure 3. Flickr collection, sample

some three years prior to my PhD studies as I had begun the digitisation of my personal family photographs made some 30 years before by my mother, as part of a personal and precious vernacular heritage. My album (fig.3, p.67) very much acted as a transitional object between my lost childhood and the uprooting of my own culture, and it enabled me to stay connected with this past while I was in a new time, and a new cultural terrain. Through the process of digitisation. I was setting out to test whether the object would or would not survive and whether it would still be both an objective and subjective object, it also led me to think about what it is that Flickr was as a place to hold my memories.

Flickr offers an extensive data-management system, from organising your 'photo-images' by date to distribution across other social Web platforms. Flickr promotes itself thusly:

With over 5 billion photos (many with valuable metadata such as tags, geolocation, and Exif data), the Flickr community creates wonderfully rich data. (Flickr 2015c)

To do this [keeping a blog of moment, sharing of best pictures or video, share photos privately, we want to get photos and video into and out of the system in as many ways as we can: from the web, from mobile devices, from the users' home computers and from whatever software they are using to manage their content. And we want to be able to push them out in as many ways as possible: on the Flickr website, in RSS feeds, by email, by posting to outside blogs or ways we haven't thought of yet. What else are we going to use those smart refrigerators for? (Flickr 2015a)

It expands through various material objects, tools, such as mobile phones, tablets and desktop computers, and extends within Flickr as members are invited to develop its service via Application Programming Interface (Flickr 2015b)

In October 2014, Flickr had a total of 92 million users (Etherington & Contributor 2014). In July 2015, 10 billion photos were uploaded (2015), and in 2013, more than 3.5 million new images were uploaded on a daily basis (Jeffries 2013). Flickr, although accommodating the stock of images, have as their prime focus the sharing and participation of its members:

The best integrations contribute to the Flickr community by encouraging members to converse, share, and curate. Integrations that primarily use Flickr as a photo storage service or a stock imagery provider miss the point behind photo sharing (as well as violate the Community Guidelines). In other words, participate! (Flickr 2015)

I was interested in applying the ritual of 'photo-sharing' as I knew it to create a new version of my traditional family album.

There are a large number of people who consider their mobile phone and its camera to be an extension of them (Larsen 2013, p.XXV) - in the same way, for example, that reading glasses are - extending human memory to new spaces, gestures and new tools. Yet, to make a digital artificial memory one's own and 'habitable' (Manovich 2009, p.325), there is a process of relation to consider, a process of migration between one reality to another as the cultural imaginary and its sense of belonging are formed. In creating a Flickr album from the migration of my traditional family album to a digital networked version, I was creating a space that aimed to become 'habitable'.

My Flickr family album (fig.3, p.67) comprises around 10,000 'photo-images' (as of July, 2015), which are organised through Flickr's algorithm: chronologically (year, month, day) and Magic View (tagging, auto-tagging and image-recognition, 2015). This was made possible as a *pro-member*, which includes access to unlimited storage space for \$24.95/year.

I felt I could 'trust' Flickr to hold my 'photo-images' in its extension of the traditional public and personal memory ritual of sharing photographs and memory production, such as the photo-album (van Dijck, 2013).

This process and its possibilities offered me a different type of narrative in comparison to my traditional family album, where a different author had tightly selected images. The album contains 'photo-images' taken by myself or others that add to what has become a visual biography and family album. The choice of not deleting any picture found or collected meant that I was able to create a different kind of narrative from the traditional format (e.g. capturing rituals, holidays), such as the family album and from my ability to remember.

In its making, the Flickr family album revealed previously hidden narratives of my childhood (hidden in the sense that these photographs were not selected for the original photo-album). Through its exposure of colour scheme and repetition, it also revealed a visual archaeology of photography itself, for example, from the limitation of a film roll as opposed to the *happy shooter* that digital photography permits.

In this process, the album and 'photo-images' were changing my relation to my original album and memory rituals, as I knew it. And yet, as my project developed along with my willingness to gather all possible visual memories, a growing concern materialised. Memory practice is both about what is remembered and what is forgotten, but because of the digital possibilities (i.e. access, networks, communication, file exchanges), ubiquitous technology, and networked memory ritual of exchanging photo-images, it made the family album, a visual biographical collection, where forgetting was limited, making my Flickr family-album close to *hyperamnesia*. The family album was made only available to a selected group (i.e. friends and family), and while comments were rarely contributed, and tagging or auto-tagging only recently made accessible, its sharing was recognised by the individuals that it embedded.

The digital family album became a valuable object in terms of auto-ethnography and in terms of memoir. But it is in terms of Proust's 'madeleine' (1927) that it captured my senses, as 'photo-images' and texts create a live network of past memories connecting both the inner and outer world. Recalling Merleau-Ponty's 'flesh of the world' (chapter 3), Bollas (2008, p.50) psychoanalyst, explains:

All the time, as we amble about in our worlds, we come across objects, whether natural or man-made, material or mental. For the unconscious there is no difference between a material and a non-material evocative object; both are equally capable of putting the self through a complex inner experience. Wordsworth's memory of Grasmere was an internal mental phenomenon and the image of it in his mind was almost certainly more emotionally compelling than the actual sight of it. The adage that 'absence makes the heart grow fonder' may help us to see how a mental object, by virtue of the power of absence, crystallises memory so that mere mental recollection is redolent with meaning.

Although the process and artefact itself highlighted central elements, because of its

lack of publicness and collective participation or citizenship, that same lack restricted its dynamics as usability between the Internet platform and myself as a 'producer' (Bruns 2008).

So, here, *iremembr* was no longer about how individuals and technology mediate and materialise the memory object, but rather about a cultural objectification pending to actualisation and materialisation of a possible archive, such as the Mass Observation Archive, where life, the everyday, is recorded and collected as digital and material objects (ErlI 2008, p.123).

Materialisation & digital gestural articulations: metadata & algorithms (fig.5, p.76)

With the invisible becoming visible, a recent form of memory trace was being produced as algorithms locate and follow metadata (i.e. type of camera, camera setting, geo-location) and other algorithms cross-reference, for example, the auto-tagging from the image content, comments, tags and geo-location, creating a memory-trace and expression.

What was ephemeral, transient, unmappable, and invisible became permanent, mappable, and viewable. Social media platforms give users unlimited space for storage and plenty of tools to organise, promote, and broadcast their thoughts, opinions, behavior, and media. (Manovich 2009, p.324)

The Flickr family album came with no ending, as 'photo-images' taken with my mobile phone are instantly uploaded to the 'live' family album, making my album, according to Manovich, no longer a story but a collection led by algorithms:

The person is not narrated but compiled; memory is oriented toward the non-finished. The person is created as a file, a profile, a blog. As a result of the data-based creation man becomes less of a story and more of an algorithm. (Aczél 2010, p.157)

I would argue, that the Flickr family album is not less or more of one or the other, but that as a memory ritual it merges the one and the other, consequently forming a prosthesis that allows its members to extend their memories into the world. That said, I was interested in the social and networked dimensions of memory production, where

the public sharing of the Flickr album could offer the possibility for other Flickr participants to claim authorship by adding comments or tags and where dynamism and embodiment can be seen between Flickr's participants. In reference to the anthropologist James Clifford, Erll (2011, p.66) states that, '[m]emory seems to be constituted in the first place through the movement of people, objects and media'. The photograph acts, moves and alters within the technological system and with its new ritual of geo-placement and displacement as the digital object is networked in its singularity and plurality from one platform to another, from one group to another, from one home to another, and from one culture to another. These newly-found social rituals reflect a digital society where altered values, new memory and new behaviours adapt to new environments. Here, being public became central.

Materialisation & digital gestural articulations: body & memory trace (fig.4, p.73)

Having explored how Flickr moves, I was also interested in the process of revealing the trace of the *corps sauvage* – as Schmid (2015) found in the emotional tearing of a photograph, as one engages with the materiality of the photograph one also creates an additional personal narrative. I wanted to explore these aesthetics with my 'photo-images', as a way to merge both flesh and technological movements – an exploration that became central in my digital art genealogies (chapter 2). So I decided that in the process of scanning I would add motion, in this way dragging the photograph along on the scanner bed as the image was captured by the scanner head itself, moving the photographic grain of the images, similar in some ways to painting with a palette knife, locating the gesture itself within the artist's own collection of movements and crafts. The formation of the photo-image became a balancing act between memory and traces of my movements and the metadata as each photograph were scanned at over 10,000 dots or pixels per inch (DPI) in order to merge both the representation of the original photograph and its human interaction. The high DPI scanning was a very slow process, while the tool had its own limitation (how high the DPI could be set and whether the image itself could be opened due to file size once scanned) that said, this enabled multiple layers and dimensions to be exposed from the original photo-image. For instance, through the process of zooming in (i.e. clicking on the 'photo-image' and using the 'command+plus' short-cut), the aesthetics and experiences of the images become less painterly, subjective or embodied and more readable as digital noise and

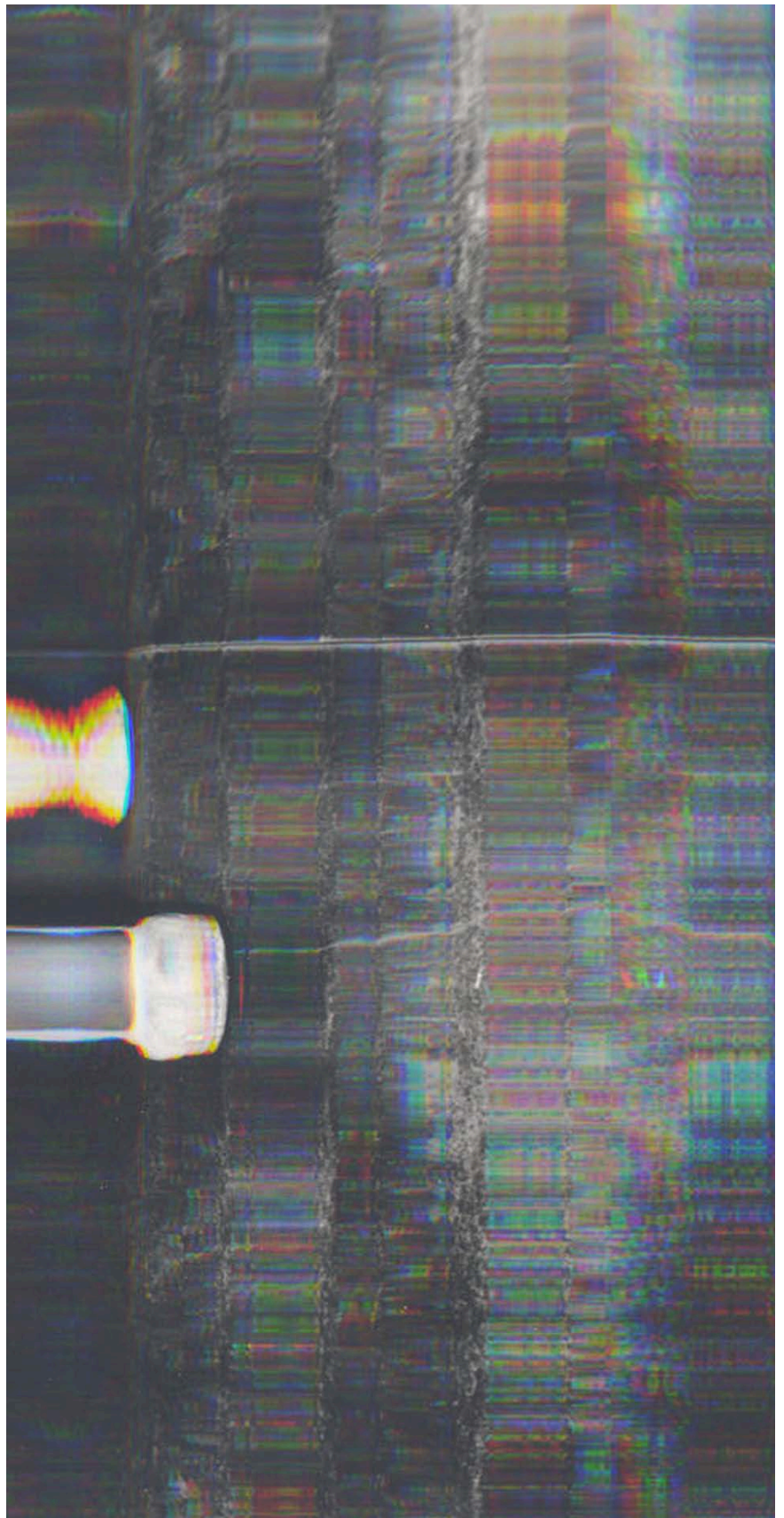


Figure 4. iremembr, close-up

technological traces. However, because of Flickr's 200 megabytes file size limit per image, it meant that I lost the deeper dimensions of these works once they were posted on Flickr – or that an additional step to access this dimension was needed (i.e. as well as clicking on the image, one would also need to use the 'command+plus' short-cut), which was not intuitive. For the work to be 'connected' or 'switched-on' to the Internet was central, however, so a compromise was reached in the aesthetic experience.

The new Flickr album *iremembr*, containing a series of abstract photo-images, was now a memory palace formed of digitally materialised metadata of mementoes, relics, found objects and texts, all interlinked. It was no longer my transitional object but one that others could find or discover as a walkthrough, in its layered navigation towards creative exploration of others' memory palaces.

I was interested in, and needed to think through, this process of the alteration of algorithms and its related metadata. Although the album had only recently been made public, I also invited additional potential comments and tagging so that ultimately the album did not have to be fixed in its narrative. More importantly, it also had the option of becoming a collective and networked artefact, altered and managed by Flickr's 'auto-tagging' that links 'photo-images' and albums to other 'photo-images' and albums – but also by its 'producers' as they 'tag', 'comment' and 'favourite'. This potentially creates a multi-layered memory, as a memory is within a memory, within another as experience:

[...] just as the store clusters like-objects in such units, our mind does much the same thing, with the salient exception that we add personal meaning to each and every one of the things we see. But we do not just see them. We experience them. (Bollas 2008, p.50)

Public interventions & play

James Bridle (2012a, pt.6:27), writer and artist, states:

The network is not some kind of magic thing that changes all of our behaviour. But it does reveal things that weren't necessarily visible before. It doesn't engender entirely new experiences, but it changes the way that we relate to them, because things that previously were spread through time and spread through geography are now so much more visible to us, all the time.

To address this audience, I am now drawing from other artworks that share similar aesthetics with *iremembr*.

4.2 Art Fields

These social rituals have been explored on different levels - as I see it on different levels of interactive aesthetics – that can be found in Digital art (see my digital art genealogies, chapter 2) with the works of George Legrady's *An Anecdoted Archive* from the *Cold War* (1993) and *Pockets Full of Memories* (2001), as well as Chris Marker's *Immemory* (1997) and *Ouvroir* (2007) in their building of digital memory palaces and digital historical archives. But, also and more specifically in works such as Hasan Elahi's *Tracking Transience: The Orwell Project* (2005-present), Joachim Schmid's *Other People's Photographs: Self* (2008-2011) and Erica Scourti's *So Like You* (2014), vernacular social rituals become part of the digital medium.

Scourti's *So Like You* weaves personal archives of text and photo-image between online communities and Google Searches by Image engine algorithms. Whilst being both concerned with what happen to personal experiences once publically available on search engines, and the questions of attribution and authorship that it raises, Scourti states: "No photo now appears as a single image – it is connected to its tags, its metadata, its title" (Photographers' Gallery, 2014), thus highlighting how the photo-image is social.

This social phenomenon was also explored in the artwork of Joachim Schmid and his series of 96 books *Other People's Photographs: Self*, collected between 2008 and 2011. Schmid found, organised and categorised photo-images from Flickr to create 'visual encyclopedias', that explored categories (or 'subject groupings'), visual patterns and movements from amateur photographers, forming a new archive of vernacular photography and investigating new forms of popular taxonomising:

Airline Meals · Airports · Another Self · Apparel · At Work · Bags · Big Fish · Bird's Eyes · Black Bulls · Blue · Bread · Buddies · Cash · Cheques · Cleavage · Coffee · Collections · Colour · Commodities · Contents · Currywurst · Damage · Digits · Documents · Dogs · Drinks · Encounters · Evidence · Eyes · Faces in Holes · Fauna · Feet · First Shots · Fish · Flashing · Food · Fridge Doors · Gathered Together ·

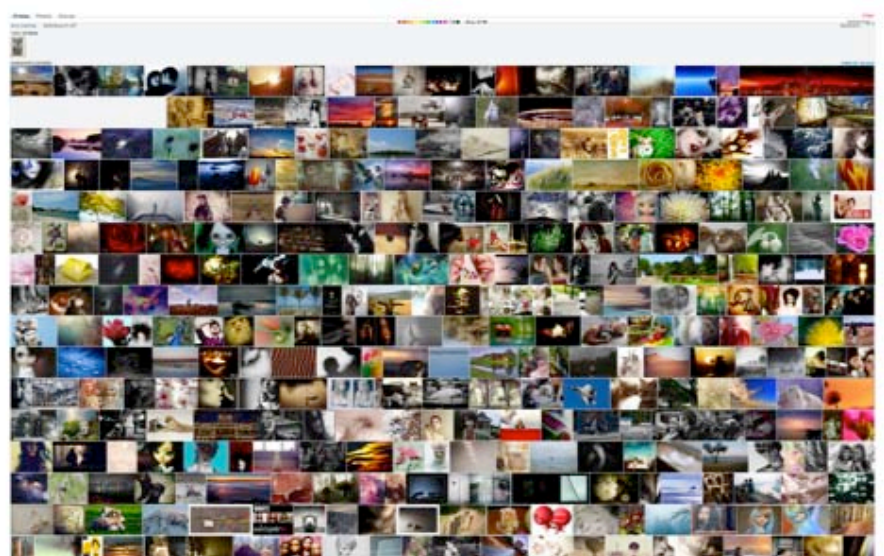
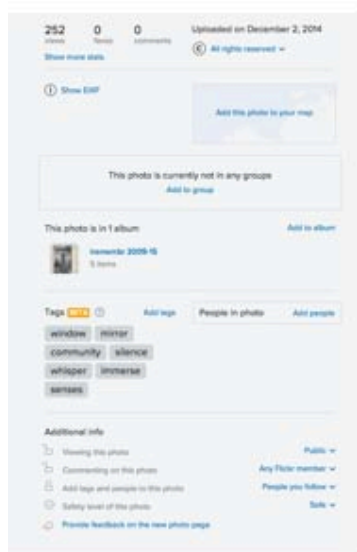


Figure 5. iremembr, sample

Gender · Geology · Hands · Happy Birthday · Hotel Rooms · Images · Impact · In Motion · Indexes · Information · Interaction · Kisses for Me · Lego · Looking · Maps · Mickey · Models · More Things · Mugshots · News · Nothing Wrong · November 5th, 2008 · Objects in Mirror · On the Road · Parking Lots · Pictures · Pizza · Plush · Portraits · Postcards · Purple · Pyramids · Real Estate · Red · Room with a View · Self · Sex · Shadow · Shirts · Shoes · Silvercup · Sites · Size Matters · Space-Time · Statues · Sunset · Surface · Targets · Television · The Other Picture · The Picture · Things · Trophies · Tropic of Capricorn · Various Accidents · Wanted · Writings · You Are Here. (Schmid 2008)

What Schmid explores as an art practice is implemented and automated through social media platforms, where algorithmic sorting of various forms enables categorisation, sharing and time-lining, and produces new forms of image-sharing as an integral part of everyday life.

Schmid's and Scourti's works fix in time the metadata, tagging system and algorithms, the digital social elements of the photo-image. Something that in my own practice I was keen to maintain 'live'. This liveness is found in the work of Hasan Elahi's *Tracking Transience: The Orwell Project* (2004-present) in which he developed a mobile application that tracks and makes public his everyday life in real-time: creating his own archive or database of all his movements since 2004, he places himself as the 'produser'. This reflects my values of objectifying myself, before objectifying others to inform my ethical values.

In empowering Internet and Web 'produsers', a form of activism takes place as a stand for a value or belief, and in the case of *iremembr* as questions of cultural and social capital in relation to collective and cultural memory.

4.3 Memory & Theory: 'Movement, Space And Time'

As individuals engage in new acts and processes of remembering, traditional memory rituals are adapted that engage with these new processes, new tools (e.g. applications, software), the expanding and now pervasive Internet environment – described by Manovich (2009) as the 'universe' – and with the temporality of this hybrid reality. Specifically, due to engagement with the production and assemblage and circulation of cultural objects, boundaries, have changed, altering memory production, materiality and cultural perspectives, including perhaps the sense of

'near' and 'far', and of self and other. This is not to imply total determination, but rather to allow for technology to influence and re-make. Thus, as Salvatore put it:

Although the production of representations is not rigidly determined by the devices used, these technologies of seeing and displaying influence the construction of alterity. A collection of devices ranging from printed press to ethnological exhibits (from romantic novels to photography), representational technologies are the vehicles through which statements about other cultures are produced and disseminated. (Salvadore 1998, p.73)

Interactivity, tools & social changes

Beginning to think this through, it is first important to note that we are observing a process of expansion and increase in scale. Since the first digital camera (1998), the first mobile phone camera (2001) and the introduction of Web and mobile photo management and sharing platforms such as Flickr (2004), personal memories are no longer only capturing family rituals, traditions and milestones (i.e. marriage, birth, achievements, etc.) with a couple rolls of film with 12 or 24 exposures. There has been a massive expansion of photographic activity:

17.2 billion photographs were taken in the US in 1993, 8.9 billion photos were taken in 1977, and 3.9 billion in 1967. (Cronin 1998, p.70)

This expansion is not merely a difference in quantity; it has also produced a change in what the active practice of photography means. Individuals are finding new rituals of recording and conserving their memories and of engaging with the world – and moreover, the division between these is more fluid than previously experienced.

My argument is that the taking of a photograph today is no longer the act of thinking about the framing and authenticity of the photograph in an effort to create a faithful record of a person, location and event (and I recognise that it was never as simple as that). With the rise of mobility and of pervasive connectivity come different sets of intentionality and different ways of engaging in and with the world. This has been recognised by the photo-community *Aperture* (Batchen 2015):

The inference could not be clearer: social media has triumphed over mere media, or at least over the photographic medium as we once knew it.

The ubiquity of mobile and wearable technologies means that as well as holiday shots, celebration and family pictures, personal memory rituals and the personal memory production of the photo album now also include categories such as food, selfies, pets, gadgets, fashion, captioned photos, and indoor and outdoor activities (Hu et al, 2014). Individuals now have access to fast, cheap modes of image production and communication, extending photography as a memory practice to an everyday commodity – and even doing more in that it produces a mindset in which each moment *needs* to be captured and *needs* to be shared. Or, at least, this is the injunction of the software companies, and has become a culturally acceptable norm, as Manovich puts it, with ‘the trajectory towards constant capture and broadcasting of one’s everyday life is clear’ (2009, p.324).

Networked memory objects

Beginning to create a shared continuous presence and new forms of immediacy, and therefore changing the concept of temporality associated with traditional memory practices circulating around photographs, the *photo-image* is something new, and thus it becomes important to distinguish the photograph from the photo-image. The latter refers to the photograph, yet is much more diverse and distinct in its mobility and in the ways it forges and breaks connections.

The ‘photo-image’ – as it circulates and is mobilised – is central to contemporary memory production. Following the historian Pierre Nora (1989, p.15), I want to suggest that it is useful to consider this current state of memory production in terms of what Nora calls ‘rememoration’, defined as a history of second degree. Sokołowska-Paryż (2012, p.144), however, argues that ‘rememoration’ is a kind of framing strategy for remembering to remember the past in the present. This reveals the way new image technologies are producing a new dynamic in which the past and self are mediated and extended by new networked technologies.

Specifically, in contemporary times Web 3.0 services have become central to vernacular and public memory through their various algorithms for collecting, organising and sharing the everyday (e.g. Facebook’s Timeline; Flickr’s Camera Roll, Instagram), and these are central not only to personal and individual lives, but also in relation to public and institutional memory as it is ‘provided’ or ‘generated’ by organisations such as charities, museums and universities. This brings me to my first

point: these memory streams are connected.

Second, I want to suggest that free Internet platforms, applications and systems also merge methods of connectivity by initially promoting participatory practices, communities and e-democracy (Garde-Hansen, Hoskins & Reading 2009; Van Dijck 2013, p.4), and evolving social, vernacular and memory practices where production is led by user-generated content, hence challenging both the content and hierarchy of memory institutions (such as museums, archives and libraries). This may be simply a matter of quantity. As Kaplan & Haenlein (2010, p.59) note:

Flickr provided access to over 3 billion photographs, making the world-famous Louvre Museum's collection of 300,000 objects seem tiny in comparison.

Political tool towards social & cultural capital

As the vernacular form of image production further extends into cultural content, shared cultural memory becomes an increasingly dominant form of memory production, raising questions about the dynamics of everyday memory production, of agency and governance, and about the dynamics of user-generated-content, web corporations and institutions. Internet platforms are formed of many participants including citizens, organisations, corporations and institutions. This tension has historically tended to entail a trajectory that leads to increasing privatisation. Consider, for instance, Flickr, which now sells itself as:

The home for all your photos. Upload, access, organise, edit, and share your photos from any device, from anywhere in the world. (Flickr 2015)

As a side step, it is key to mention how 'tracking', 'stalking' and digital capital and commodity, in the information economy, become part of the collective and cultural memory mode or system. Internet platforms such as Flickr, Facebook, Google and their respective and connected collections of images and 'photo-images' are not simply being gathered as forms of memory-reservoirs; these accumulations of metadata have political implications. For example, when face recognition systems are being perfected through access to images of 'friends' and which can then, through their extension and the development of additional technologies, invade one's personal embodied terrain (e.g. the NSA and Facebook), ethical questions are raised

around the production and use of algorithms, especially as technology becomes more and more wearable (i.e. FitBit, Garmin, Jawbone Apple Watch), more and more genetically traceable (i.e. 23andme, AncestryDNA, FamilyTreeDNA, Chromo2, National Geographic Genographic).

Flickr was designed in 2004 by Ludicorp, a small Canadian organisation that promoted collectivity and democratic community as a site of memory as an archive of the possible (Hartley 2009) and as a utopia. Once bought by the Yahoo corporation in 2005, Flickr's utopia, as a site made by communities for communities (van Dijck 2013) became a corporate mission to sustain and capitalise on the social capital image:

After the takeover by Google and, in the latter case, Yahoo, the sites' corporate owners kept nurturing the image of collectivity and user centered operation long after the strategies had transmogrified to the commercial real. (van Dijck 2013)

Flickr/Yahoo promoted social capital through photo sharing, photo management and circulation of the digital goods (as metadata and digital objects). This can be found in Flickr/Yahoo's Terms of Service:

[Flickr/Yahoo has] the license to use, distribute, reproduce, modify, adapt, publicly perform and publicly display such Content on the Yahoo! Services solely for the purpose for which such Content was submitted or made available. (Yahoo! 2015)

It also promoted cultural capital with the launch of the *Commons* in 2008 and the *20 Under 20* in 2014. The *Commons* hosts 93 European and international memory institutions (Commons 2014). The Commons also offers access to 'hidden treasures from the world's public photography archives' (Commons 2014), encouraging institutional *producers* (Bruns 2008) – where the role of producer and user become one – and Flickr citizen-participants to share knowledge in the form of text (i.e. comments, tags, favourites, embeddedness and embedding). *20 Under 20*, launched in 2014, offers Flickr's citizens the chance to vote for 'the world's most extraordinary young photographers under the age of 20' (Commons, 2014), who will be selected ultimately by a panel of *producers* and Flickr corporates, and curated, exhibited and promoted by media and creative institutions (e.g. Vogue magazine).

This collective memory can be also found in the access to Flickr's non-commercially valuable application program interface (API), which allows insiders and outsiders to expand Flickr beyond its own platform (Flickr API 2015), allowing its *producers*, as both user and producer, to expand their networks, collectivity and connectivity, their cultural goods, and the corporations capital as a whole.

Audiences, flesh and silicon memory

José van Dijck (2013) elaborates on Grimes and Feenberg's (2009) social engagements with Internet platforms, and expands on Hoskins's (2009) nuance of current 'collective memory' and 'networked memory', for example, by differentiating and merging the *producers' connectiveness* and corporate designs through automated technological systems of connectivity:

The meaning of 'social' hence seems to encompass both [human] connectedness and [automated] connectivity. (van Dijck 2013, pp.11-12)

This thought ties into Jenkins's (2006) concept of media convergence and the conflicting production of (in this case) cultural memory as it celebrates both diversity and homogenisation whilst being cultivated from both commercial and grassroots sources.

In this sense, Flickr's memory production intertwines the personal, the vernacular, the corporate and the institutional, thus demanding that the traditional way of understanding collective and cultural memory as two different pathways, one concerning the vernacular and the second concerning institutionalised memory practices (Aczél 2010, p.158), be re-thought. My point here is that Flickr is not alone in this, but is rather symptomatic of a broad shift. This produces questions related to Nora's discussion of *lieux* and *milieux de mémoire* (1989; chapter 3) as dead or live communities of memory.

Nora (1989, p.7) explained that '*lieux de mémoire*' only exist when '*milieux de mémoire*' ceased to be. This is clarified when Nelson (2003) adds that a '*milieu de mémoire*' is a place where participatory and networked memory practices occur:

Communal, belongs to public life, functions through a network of associations with diverse places, spaces, and groups, relies upon metonymic constructions, and, like human memory, condenses, abridges, alters, displaces, and projects fragments of the past, making them alive in the present for particular groups. (Nelson & Olin 2004, p.74)

Thus '*lieux de mémoire*' (1989, p.19) are working in opposition to this, as they capture a play between history and memory in which one can find coexisting elements of an 'imagined' *symbolic aura* (e.g. material archives), with *objects of ritual* (e.g. the Bible, manuals) and with *symbolic actions* (e.g. crossing oneself in a church). For a site of memory to be a '*lieu de mémoire*' there must be a 'will to remember'. Thus, a site becomes a '*milieu de mémoire*' through its embodied subjective trace from which the *will to remember* can be expressed. This can be found in ubiquitous image production today:

Images are used, to preserve memories, but also to construct individual and group narratives of oneself and one's life. [...] Many participants reported using cameraphones to capture frequent, mundane images of their daily lives. Some intended these as a record of their daily life; others began this as experimentation or playfulness but then, in retrospect, realised that they had a record of the pattern and texture of their lives. (van House et al. 2005)

That said, as technology surpasses the human conscious ability to remember or the conscious 'will to remember', ubiquitous photography and Web 3.0 Internet services such as Flickr provide a fast overload of memory objects (as rituals, relics, symbols) where everything seems worth remembering and where the 'will to remember', and of being human, is mediated and curated by technology and corporate design. As a *lieu de mémoire*, Flickr became a place of complexity that permeates continuous states of mourning of lost time (as each moment is documented) and past values (e.g. refashioning of old media, such as the photograph, and their social possibilities), whilst nurturing a sense of eternal being and ultimately *being human*.

The *lieux* we speak of, then, are mixed, hybrid, mutant, bound intimately with life and death, with time and eternity; enveloped in a Mobius strip of the collective and the individual, the sacred and the profane, the immutable and the mobile. (Nora 1989, pp.18-9)

In this sense, Flickr becomes a site of 'cultural imaginary', a memory palace where both *lieu* and '*milieu de mémoire*' merge as a play between technology, being human and imagination. It is also a *lieu* and *milieu* where the stateless and the nationless, as citizens, can revive their lost communities as groups are created or re-found through the self-curation that members produce (Erll 2011, p.23). Nora sees '*lieux de mémoire*' as an artificial placeholder for the no-longer existent 'natural collective memory', and therefore as a process of mediated artificial memories.

To conclude, and in thinking of my 'topology of memory', this chapter highlights concerns surrounding what occurs to the embodied and subjective trace once memories are digitised. This trace is central to the act of remembering itself – to acts of memory. It has been possible to circumvent these concerns through the use of tools (e.g. the scanner) between digital technologies and the body, and it becomes possible to see how the subjective embodied trace can be explored using these tools in a non-prescribed way. However, can the use of software also provide ways in which movements as expression can be performed?

It is clear that a site such as Flickr, in its recapturing and refashioning of traditional memory objects (e.g. the photo album, the photograph), memory rituals (e.g. the sharing of photographs) and as a site of memory (e.g. *lieux* and *milieux de mémoire*), enters the realm of the Post-Digital, creating new materialisation and experiences that focus on association rather than preservation or retrieval (Aczél 2010, p.159).

Andrew Hoskins (2009), in his essay 'Digital Network Memory', asks: will the tagging of images in Flickr ultimately shape what will become the equivalent of canon and archive for those with whom we share our photographs (Erll & Rigney 2009, p.103)? *iremembr* traces the digital memory object through its locative, corporeal and temporal experience, highlighting complex forms of memory (from the act of forgetting to hyperamnesia) that lead to the questions: In the process of digitalisation, as I turn to communities, charities and art gallery as 'holding environments', what becomes of the body and its expression in relation to memory production of others? What becomes of the transitional memory object as new forms of tools subvert it? These questions are addressed in the next chapter.

CHAPTER 5

RENDEZVOUS: COLLECTIVE MEMORY, 'HOLDING ENVIRONMENT' & 'TRANSITIONAL OBJECT'

The [*Rendezvous*](#) art project is both a series of investigations and digital art interventions – *Objets Trouvés* (2012) and *L'Album* (2013) – as possible memory palaces, that look at collective and networked memory, and in which personal sets of memories from older communities – shared and gifted during a series of workshops - come into public and technological terrains.

In continuing to test and develop my earlier topology, I refer to the possible concept of a 'holding environment' (1971, p.111), a term that relates to Winnicott's development and exploration of the transitional object within play theory (1971, chapter 3) as I ask what happens when personal memories, here specifically in reference to older community groups, are digitised, and how the digital and material memories are then perceived and accepted. Ultimately leading me to question whether the act of remembering can be still performed in the context of these digitised memory palaces.

5.1 Methods & Conceptual Narrative

The project has been developed through my engagement with a series of social activities that ran with Fabrica, an art gallery and charity based in Brighton, and with the participation of older-generation community groups: the Black & Minority Ethnic Community Partnership Elders (BME Elders) in Brighton and the WRVS in Portslade and Coldean, two charities concerned with both social inclusion and the wellbeing of the older generations. *Rendezvous* was one of nine projects commissioned by Fabrica for the Growing an Older Audience programme (GOA), which aimed to increase the inclusivity and engagement of older communities with contemporary art using Fabrica as a social space. It was at the core of the programme and its projects to offer its participants opportunities to enhance their quality of life through social engagement.

The commissioned projects lay in the art sector and offer various forms of engagement and perception in current contemporary artwork, from a multi-sensory perspective

(*Second Sight* 2010-2015) to a digitally-mediated experience (*Rendezvous*, 2010-2015), and from a critical discussion (*Conversation Piece*, 2011-2015) to a cultural dialogue (*Going to See Culture Together*, 2010-2015). Central to Fabrica's value and ethics, and therefore to these projects, was a focus on community outreach. Thus these projects were located within the community space itself as well as via the Internet and the gallery space. The GOA programme included a series of social events in which most of the projects were brought together at Fabrica, bringing citizens, audiences and related communities together in the engagement, perception and experience of their collective memory, social creative activities and contemporary art practice. GOA and, through it, *Rendezvous*, was funded by the Arts Council South East.

My own roles in the GOA programme included being a member of its 'creative team' and 'project manager' as well as sole artist for the *Rendezvous* project. Fabrica had been interested in the collaborative initiative, together with WRVS and Thomas Ainsworth, a researcher in design for well-being, and the series of reminiscence workshops we held in 2009 that explored the narrative surrounding and the embodiment of memory objects. Following a series of discussions with Laurence Hill, Fabrica Head of Communication, and Liz Whitehead, Fabrica co-director, I was invited to develop *Rendezvous* within my research and through GOA's programme.

Rendezvous is a collection of fragmented personal memories that have been developed through my creative methods as introduced in chapter 1 and as applied in chapter 4. Reiterated here as a process of (1) collecting data & navigating, here, collective memory palaces, the community hall, and the objects and individuals it holds (2) materialisation & digital gestural articulations (3) public interventions in reflection-in-action focusing on the conceptual and perceptual articulations whilst continuing to draw from Winnicott's play theory.

As discussed in chapter 3, Winnicott places 'play' as an extension of the transitional phenomena located within a 'holding environment' in which 'nurturing' and 'belonging' are central. Winnicott (1953) offers as an example the 'holding environment' for a newborn, the mother (e.g. womb, feeding). I would add that over a lifetime the transitional phenomena becomes a loop from which new 'holding environments' widen into the cultural world, extending to family, friends, community and nation, and of course now to the Internet (fig.2, p.64). Thus, the holding environment becomes a

space in which expressions are made possible.

Winnicott (1971, p.38) also sees play as a creative process, as a 'fusion or diffusion of the subjective object and object objectively perceived'. 'Play' as a creative process leads to expression and the 'experience [of] objects on a variety of levels that establishes their ultimate reality' (Hamilton 1992, p.249) as new holding environments. 'Play' is both exciting and pleasurable, and thus forms key expressions: love, hate and aggression (Hamilton 1992, p.249). These are seen as part of the development, in this context, of a creative idea, of memory, and of love. 'Aggression' is seen as testing the holding environment to enable belonging and attachment (Hamilton 1992, p.248) This is also found with the materiality of the transitional object.

Structuring 'playing' as stages of attachment and detachment, in which 'love' and 'aggression' are performed in the creation of a new potential 'holding environment', reveals three possible treatments of the 'transitional object': (a) survival of the object – attachment; (b) destruction of the object – detachment; and (c) latent but unperformed aggression, leading to fetishism of the object (Winnicott 1953).

In thinking about how this is reflected in my own creative methods (see chapter 1), I thus locate (a) the survival of the object – attachment in the 'collecting and navigating' stage of the project a series of reminiscence workshops from which materials were gifted to the project by members of these communities; (b) the destruction of the object – detachment in the 'materialisation' stage, from which I place the production and testing of digital transitional and memory objects in newly conceptualised structures and architectures; (c) either the latent but unperformed aggression, leading to fetishism of the object, or the performed aggression leading the 'letting go' of the cultural object in the final public intervention stage, which I also see as the dispersing of transitional objects of memory through new holding environments, social events and public engagement with, in this case,, digital artworks.

I understand each of these stages as bringing memory into operation as a social process between the storage and acts of memory through my 'topology of memory', following the technologisation of memory and the process of deterritorialisation between personal, public and technologised 'holding environments' (Winnicott 1971, p.111; chapter 2).

Collecting data: navigating memory palaces, the community hall

The initial ‘collecting and navigating’ stage of the project was to hold a series of social activities during which these communities could engage with and share their personal memories.

Working with older individuals and communities was specifically chosen as cognitive and memory research suggests older individuals return to formative memories more frequently than younger individuals. Rubin et al’s *Lifespan Retrieval Curve* (1986, p.202–221) demonstrates that formative memories created between the ages of 10 to 30 are more frequently recollected when subjects reach their 50s and beyond. Although I refer to this study because of its focus on the age group I work with, I am also aware that the memories recalled in these activities may not be the only ones remembered, but these are more likely to be the most fond or traumatic since these memories help individuals construct and maintain their values, aspirations, and identities. The dynamics of and findings for these groups and communities, although central in understanding the ‘holding environment’, do not provide any claim on the group or community themselves.

The selection of older communities and individuals for participation in the project was initially made through my previous work with WRVS, which led to my introduction to Nicola Bengé who, through a previous three-year funded WRVS and English Heritage project, had clear expertise in working within this area. She had also developed and maintained a clear trust with both of the groups and communities she had worked with. It became clear that collaborating with Nicola Bengé on this ‘collecting and navigating’ stage was central to the realisation of this project. Consequently, we agreed on the type of social activity – a series of ‘reminiscence workshops’ – that Nicola would facilitate and which I would both participate in and document. The project was then introduced to three different older-generation groups: the WRVS New Larchwood Group in Coldean, WRVS Memories Past in Portslade, and BME Elders in Brighton (fig.6, p.89). Each group was given the choice to opt in or out of the workshop as individuals and as groups. This was central as neither Nicola nor I wanted the groups to feel obliged to participate or welcome us into their regular gatherings, but also because the project required trust and a safe environment for the sharing of memory. As it turned out, all groups welcomed the project.



Figure 6. Rendezvous, reminiscence workshop with BME Elders community

The workshops were about sharing a personal, generational, trans-generational or locative narrative. The social activities were based on the structure of the reminiscence workshops, featuring 'show and tell', 'memento activity' and 'reminiscence about pictures/objects'. Nicola asked the participants to share their stories and memories through the use of personal objects of memory that they had brought to the social activity. In cases where participants had neglected to bring their objects, they were asked to think of an object and the memory they attached to it. Nicola Benge facilitated the workshop as part of her expertise and familiarity with the group members. My role was to become a participant and document the workshop process through audio recordings, photography, and scanning of the gifted memory objects.

Each workshop lasted about two hours and took place in the groups' respective and local community halls (apart from the last workshop held with BME Elders, as the first social event did not work as the group was too large). The structure of the workshops was to discuss the different objects of memory that the individuals chose to bring in. A large number of the objects brought to the workshops were family photographs, often portraits or of life rituals such as births, weddings and awards celebrations.

As most of the members of the two WRVS groups had originated in the South East, locative and cultural histories were recurrent themes as memories were shared. In contrast, all members of the BME Elders, Brighton group originated from countries other than the UK, leading to the sharing of historical and international cultural backgrounds (e.g. locative Indian culture).

Each group had different dynamics due to their differing group sizes (these varied from 8 to 30 members) and due to the way in which they organised themselves or were organised.

WRVS Memories Past, Portslade met on a weekly basis in their community hall. Rod, one of its members, aged 73, chairs and manages the group (2012). This meant that Memories Past had regular activities from bowling, dining out and being involved with projects that support knowledge or/and the charity itself. Central to this group were the close relationships developed between the members, who were supportive and acted as lifelines for one another in facing loneliness and loss, as well as in maintaining an active place in society (appendix 2).

Rod (2012) provisionally also supported the second group that I worked with, New Larchwood WRVS, Coldean, with the hope that the group would find its own identity as Memory Past had done. This meant that the group had been more passive in initiating activities that would forge them together as a group and, consequently, the members of New Larchwood WRVS had yet to discover one another. This was reflected in the conversations during the workshops as traumatic, personal and cultural memories were shared, including loss, abandonment, crime, bombing and other cultural histories (see appendix 2).⁹

The third group, BME Elders, Brighton (fig.6, p.89), was closer to a community than a group, largely because of its numbers. A series of activities were organised and coordinated by the charity itself rather than by a designated or volunteering member as found with WRVS. This meant that during the two organised events with this community, there was a great disparity in the numbers of attendees. For instance, in the 'reminiscence workshop' there were over 20 attendees; this became unmanageable in the sharing of personal, historical or cultural memories. This led to a second activity; a trip to Hove Museum, where the numbers were 8, providing a more manageable group to discuss memories.

The aim of the reminiscence workshops was for me to develop a relationship with each group and become familiar with their 'holding environment', how it might function and what kind of transitional objects were being used in these subjective proximities.

During the 'reminiscence workshops', the individuals brought in objects that would act as a memory trigger to a cultural event, a feeling of 'home', a personal narrative or to cultural traditions. However, the attachment that the participant had to their object did not differ through its materiality at that point. The materiality may have mattered when the object was initially chosen as a relic or memento, but by the time the workshop was held the participant had a collective and quietly understood attachment to their object,

⁹ I prefer to remain evasive in referring to the memories, as I feel that some topics were highly sensitive. In addition, the project was not about one specific memory, one specific participant, but about these individuals as a group and community. The memories themselves could contribute to an oral histories project, but here, what becomes more relevant is the genre in which they sit (traumatic, cultural and personal).

as they all invested time in nurturing the object and preserving it from the effects of time and the environment. The objects were passed around from one individual to another while the memories were shared, making the object of memory a collective transitional object to which individuals attached themselves as they added their own memories within this curated environment: the community hall. This was found, for example, in a school photograph that Gladys brought and its attached memory of the experience of posing for school photographs in the 1930s. However, once the object had been carefully handled as a fragile and precious object, it was returned to Gladys, unaltered, its narrative uninterrupted.

My sense of how the objects were being used was that they were transitional – in the sense that the object is the only place from which ‘holding environments’ overlap and from which both inner and outer realities intertwine (Caldwell & Joyce 2011). It can be assumed that there are different levels of transitional phenomena that are hardly noticeable, as they have become part of our make-up, taking the form of time transitions, of loss, or of new places. For example, Christine brought a reproduction of a painting of dancers to express her regret for not having learnt to dance and her hope to start learning to in the near future. Thus, the transitional object is not exclusively a state of mourning lost times, but can also become a state of expression towards a new ‘holding environment’.

However, the role of the memory object can be seen as a transitional object in limbo, as one is not willing to destroy the object, not willing to let go of that ‘holding environment’, and thus is unable to form a new one. For example, Frederic recalled the memory of dusting the collection of statuettes belonging to his wife, who had passed away the previous year, thus nurturing the objects she cherished. However, being quite maladroit in this act, led to one of the statuettes falling and breaking. Frederic described how he could hear his wife telling him off as it happened. Winnicott (1953, p.7) explains how when the object is not destroyed, the object turns into a fetish object. This is opposed to the transitional object that has been destroyed yet survives, testing its resistance and thus enabling a new holding environment to become possible. Only then can the object or place hold the possibility to become cultural, and intertwined with the cultural flesh (Merleau-Ponty chapter 3). When the object does not survive the destruction (intentional or not), the transitional object is no longer, and a new indexical sign rewrites the original one. This process is seen in the participant dusting the

statuettes: the object was damaged, so the participant glued it back together, allowing the transitional object to survive the unintentional destruction (of course, not all aggression and destruction has to be so literal).

These objects enabled the workshop itself to become a new holding environment as participants shared their own loss or joy and identified with others'. The community hall, and the workshop, became a holding environment that 'held' these transitional objects or failed transitional objects (that then become fetish objects) and produced a space in which collective memory could operate.

All workshops were recorded through audio recordings, photographs and the image scanning of each object of memory. In particular, image scanning provided a form of objectivity in relation to the object as I did not compose or frame the image. But most importantly and in explaining my choice of tools, all of these processes were less invasive for the community member's regular social activities.

At the end of the workshops, each group was asked to complete a questionnaire (appendix 3) so that Fabrica, through Morris Hargreaves McIntyre, a strategic research consultancy (appendix 4), and I could reflect on the participants' social experience in relation to their memories, objects and environment.

Materialisation & digital gestural articulations: metadata & algorithms

The focus of this portfolio is technology and cultural transformation. Given this, I want to reveal what happens when the memories from these groups are digitised and reproduced, and how these relics might 'move' to a new, 'networked' 'holding environment' as possible memory palace and within the context of digital art practice.

Once the workshops were completed, I was left with precious representations of mementoes and of relics that had acted as transitional objects. This led to a series of ethical concerns. Taking away others' precious memories as scanned images and audio recordings from the original, a trusted and safe 'holding environment' brought a level of anxiety and responsibility that I battled with throughout the process of its digital materialisation and appropriation. Each of the groups and the communities were very much aware of the process as the project was explained to them through discussion

and written forms (appendix 5), but all the same, the anxiety regarding what I needed to focus on – the memories themselves or the form of memories – was considerable and moving, as I did not predict the richness of their memories or the generosity of each individual and my newfound attachment to them. In this dilemma it came to light that this process reflected elements found in play theory, mentioned above: the three stages of the survival of the object (attachment); the destruction of the object (detachment); and the object becoming cultural and/or fetishised. This was to become the materialisation process of the creation of new technologised ‘holding environments’ and ‘transitional objects’ as a potential memory palace.

Materialisation & digital gestural articulations: body & memory trace

‘Love’ & the transitional object

At this point I had what became a collection of digital images of scanned gifted memory objects, photographs and audio recordings. From these scanned materials I needed to discern what still held the original narrative, and I refer to this process as a ‘bioscopy stage’. ‘Bioscopy’ is defined as a ‘medical examination of a body to determine the presence or absence of life’ (Webster’s Dictionary 2014). In the context of *Rendezvous*, I chose the term ‘material bioscopy’ as the process of dissecting the digital objects of memory to see which emanate forms of embodied subjectivity and attachment that I could work with. This method extends the process found in the technological gestural articulations in chapter 4. I want to clarify I am not discussing the value of the digital relic, but rather its index (Peirce 1955) once digitised. In this context, the index refers to a past experience that the object holds, for example the representation of a torn or burnt photograph that artist Joachim Schmid (Fontcuberta et al. 2007) so often uses in his work, not only bringing aesthetics but also a human interaction with the object and its narrative – this can be seen as the *index*.

After a number of experiments using image and video editing software (e.g. Adobe Photoshop, Final Cut Pro, Adobe Premiere), it became clear that most of the digitally scanned relics were ‘alive’ with narratives. The next part of the ‘material bioscopy’ was to create a dialogue between medium, representation and expression.

To understand digital media as a medium of embodied expression, the artist must push the ‘bioscopy’ process to discover where the resistance, parameters, and therefore the

life of the medium itself lies. This process is also central to Winnicott's play theory as the stage of detachment and destruction – only then one can discover the limits. This is by no means a new concept: it is embedded in creative practice.

'Aggression' & detachment of the transitional object

The digital relics still carry traces of a past life; each representation of the original deterioration is an index of its micro-narrative and time, leading my practice to experiment with how the pixel, the medium of the digital relic, could also be altered from its original order. Consequently I created a visual glitch that would also refer to time and the digital texture as well as to digital fragility itself. Pushing through the 'destruction' (e.g. errors, glitches) of the digital image allowed the revelation of the materiality of the digital. José van Dijck (2007, p.21) discussed how 'memory is not mediated by media, but media and memory transform each other'. However, to choose to represent memory through a digital reenactment or as a digital archive, and to use the digital as prescribed through the ready-made aesthetics that so many software applications provide (e.g. Adobe Photoshop and its many effects), still silences the true dialogue between medium and the represented object or narrative, as they simply conform to the tool. For example, when Frank Auerbach painted a portrait, he selected his palette knives and the paint itself. Then, when he began painting, he did not allow the paint to simply sit and represent – he worked the medium, and in the process conveyed narrative, embodied intervention and a continuous dialogue between the represented and the medium. The same can be explored through digital art practice which will be investigated throughout this dissertation.

Each digital image of the objects of memory was put to the test as I altered their file format from still to moving image. I was interested in merging one video with another – one of the objects with itself or one of the objects with the individual to whom it belonged – by mixing and merging the ASCII code of the file, which was accessed through the TextEdit application. Another method that I explored was the conversion of video files into sound files and the subsequent application of various audio effects to the file (such as delay, reverb and volume fades) within the software Audacity. These files were then converted back to a video format. Here, I was using existing software in a way that was not intended, and in doing so revealed some of the digital fabric of the files themselves through disrupted code (ASCII). The aesthetic was basic, a single image that became damaged or glitched. The visual effect often became quite painterly

– and in some respects formed new kind of *nature morte*, or portrait. Once I became satisfied with the aesthetic in relation to initial memory through the process of detachment, I felt that I needed to reconnect the object to the human trace that I felt was still lacking. This was due to using software as a tool of deconstruction and reconstruction – the embodied trace was only present in its indexical reference, thus leading me to question how the digital object of memory could be embodied.

Sonic objects

To address this I firstly explored other gifted materials - the participants' compelling narratives. Here there was a fine boundary, as I only wanted to reveal a sense of their original context and emotions, not the narratives themselves as they were told in different holdings. I found myself using software (Audacity, Final Cut Pro) that enabled me to distort and stretch these narratives, creating ghostly or murmured sonic aesthetics that left traces. These traces were not to illustrate the moving images, but to add elements of embodied memory as I experienced during the workshop activities. This aesthetic was not new to me, it was one that I had used in previous works (*Salle de Danse*, 2005; *Les Archives*, 2007), where I took a sonic memory and left only traces of it, creating a possible unconscious trigger as familiar cultural patterns are recognised or otherwise. I was ultimately testing the sonic elements as I had been testing the scanned images.

Secondly, to address the question of embodied trace, I returned the represented memories to a material form as a series of lantern slides – the object referring to a past life whilst bringing tactility and smell from the wooden frame of the slide itself. I thought that adding an embodied sense might support the re-found attachment from the initial object of memories. Whilst being represented within a series of 'lantern slides', the moving images were also located on the video hosting service website Vimeo.com and the two were connected through Quick Response code (QR) technology. Vimeo, as a Internet platform, can also be considered a place of cultural memory. According to Aleida Assmann (2006) – and re-iterated here - cultural memory is formed of mediated individual and/or social memories. This mediation takes the form of 'material representation' that is dependent on environments such as museums, monuments, art galleries and, I would add, Internet platforms, where collective engagement is made possible, as is the case with Vimeo. The piece in this format merged both old technologies and aesthetics with digital and connective ones, making the artwork of

Rendezvous and its 'matrix' an invitation to the audience to experience the work by selecting and placing a QR tagged object (a lantern slide) over an Apple iSight camera held in a stainless steel frame lit from below, allowing the slide to reveal, or connect to, its content: a 2D representation of one of the relics initially shared by the members of the WRVS and BME Elders communities. Placing a single slide on the camera stand triggers the video projection of an online moving image that displays an abstract form of the original narrative offered during the workshop phase. The system allows for the material object to be connected to both a visual narrative and to online communities, such as the *Growing an Older Audience's* blog, my research blog, and Vimeo. The matrix and medium therefore become the dialogue between the digital medium and the shared, collective, narrated selves (i.e. between participants, myself as the digital artist, relics and audience-user).

Public interventions & play

The next stage focused on placing the digital object, the artificial memory of the original transitional object, in a new holding environment for the older-generation community members to re-find traces of their expression as visual narrative. Caroline Bassett (2007, p.112) discusses the life narrative, per Ricoeur, as the continuous process of narration that reflects the mediation and the experience of the micro-narratives through the digital artwork, the re-appropriation of narrative through the re-experienced and re-narrated. *Rendezvous* as a whole encapsulates Bassett's 'tale at its fullest', 'transfigured' and 'described' (2007, p.112), as I frame Bassett's 'narrative' as 'expression' within my 'topology of memory' (chapters 2 and 3).

An objective of art practice is to question our being in the world, so when Alex Potts (2000, p.269–283) discussed Donald Judd's work as 'art concerned with [...] being embedded in the network of relations between self and [the physical] world and self and others' (Plate & Smelik 2009, p.43), he highlights how the selves (the audience, the digital artist and the artwork) mediate with the world (e.g. the gallery space, the Internet) and with the other (the audience/user) to then reveal that 'as such, his sense of place is also a sense of time and space' (ibid). Therefore to question location within digital art practice is to question a continued progress of existence of the digital trace of memory and of the many narratives that the digital artwork represents, but also to question a continued progress of survival, loss and therefore fear and desire. Bassett,



Figure 7. Rendezvous, Objets Trouvés

in discussing interactive art and questions of memory, adds to Cavarero's (2000, p.33) argument that 'narrative belongs to lived human existence not to post-mortem fame' by stating that 'narrativity is not only how history interpreted a life, it is an ongoing relation of the self to the world' (Bassett 2007, p.113). This again brings us to think that the past is an experience waiting to be re-experienced and re-shaped, making digital art practice the ideal and necessary platform to live the experience of individual and collective remembering.

I thus propose to consider the *Rendezvous* artwork, *Objets Trouvés* (fig.7, p.98), as a new 'holding environment', as it – as digital artwork – offers an engaging perspective on cultural memory (chapter 2). *Rendezvous*' art matrix, referred to an earlier process and medium, allows cultural memory to focus on individuals forming a community, and on single relics forming a collection of digital indexes and human interventions (through non-prescribed manipulations of software, as stated in chapter 4). With *Rendezvous*, the digital art practice remembers to question the materiality of its media: the digital process (tool), the digital artifact (material & space), and the digital selves (cultural and flesh). It also questions the transformed engagement of remembering a past through individual and collective reenactment, consequently creating a personal or collective experiential dialogue between self and society. However, while *Rendezvous*' digital artwork - *Objets Trouvés* - is a 'holding environment' by itself, it is also one that needs to be located in larger 'holds'.

Fabrica, as a contemporary visual arts charity housed in a Grade II listed church in the center of Brighton, is already full of histories. This helps in thinking of it as a holding environment. Additionally Fabrica, together with Nicola Benge, created a series of social events (e.g. *Relativity*, 2011; *Rituals*, 2012; see appendix 6) that echoed in part the activities found in the community hall, whilst also introducing new ones such as *Objets Trouvés*. It was clear that the public, workshop participants, and community groups find Fabrica to be a place of expression as they shared more stories, participated in creative workshops and danced. In the midst of this familiarity, it was agreed with Fabrica, Nicola Benge, and individuals from the reminiscence workshop, to place *Rendezvous* as part of these social activities.

The public and community groups and communities were invited to engage or re-



Figure 8. Rendezvous, L'Album, close-up

engage with memories or their own or of others. Unfortunately, due to crowd/participants noise and the particular acoustics of the venue, the sonic element was mostly lost in the running of other social and cultural activities. As a whole, the individuals who gifted their memories for the project were happily surprised by seeing their initial object in a different format and asked many pertinent questions in relation to the process. However, it was clear that the technological aspect of the installation artwork was creating an interruption to building a possible attachment with the participant's initial trace of memory – it was not part of their memory ritual to place a wooden slide on a lit surface. This became more evident when I pursued *Rendezvous* in a different format, a different installation artwork, *L'Album* (Chevalier, Duff, 2014; fig.8, p.100), in which a collection of gifted personal photographs, belonging to Justin Grize, were projected on a photography album. As the pages were turned, new and glitched moving-images were found. The participants knew exactly what to do, and could then engage in the unknown part of the work - its technologisation. As it stood, the 'holding environment' that I created within *Objets Trouvés* left the individual disconnected and even displaced (when the technology was not understood). In taking their memories and making them collective, in focusing on the material trace as opposed to both material trace and related memory rituals, I failed to maintain the quality of the subjective and embodied trace. I believe this was due to placing the focus on tactility as a memory experience – one that did not belong in an embodied reminiscing ritual. The other reason for the loss of quality of the subjective trace was due to using software in a non-prescribed way as opposed to thinking of creating my own tools to explore digital expression (tool-making and software are further investigated in chapter 6 & 7).

5.2 Theory and Memory

The digital artwork had clearly changed from its original status and questioning of the transitional object and holding environment, as these no longer existed. However, the work still provided a place from which memories were reenacted and shared, in the context of Fabrica, its website, and the Internet platform I was using, as personal histories became collective and public. Radstone (2000, p.9) argues that 'in the contemporary remembrance boom, memory is aligned with issues of subjectivity and representation, privileging invention and fabrication over authenticity and lived experience' (Plate and Smelik 2009, p.16). Aspirations (as a digital artist, as audiences

or 'producers') are not factual; rather they are what allow us to move towards the future. *Objets Trouvés* recalls narrated values and beliefs as a reenactment of life, as a 'third-memory' or post-memory, hence 'rendering it possible for later generations to reconstruct their cultural identity' (Rodriguez & Fortier 2007, Introduction).

Rendezvous addresses cultural memory as being both collective and individual because it addresses 'members of a group as individuals' and places individual participation in 'a wider historical horizon that is not only transgenerational but also transnational' (Chapter 2, Assmann, 2006, pp.220-221). Erll (2008, p.5), in reference to Halbwachs, also discusses cultural memory as the collective individual, or the shared *points de vue* of the past experience, which can only be actualised by the individual. Whereas Assmann looks at generational memories in relation to national memory (Assmann, 2006, p.214; see also chapter 2), in the *Rendezvous* project I have explored them through the lens of a collective older community. José van Dijck (2007, p.3) states how memory as acts of remembering is central to well-being and identity:

Remembering is vital to our well-being, because without autobiographical memories we would have no sense of past or future, and we would lack any sense of continuity. Our image of who we are mentally and physically, is based on long-term remembrance of facts, emotions, and experiences; that self-image is never stable but is subject to constant remodeling because our perceptions of who we are change along with our projections and desires of who we want to be.

In exploring how cultural knowledge and personal histories, as fragile and breaking memories, are remembered, I have extended my core research questions and ask: What happens when desire is not met, when attachment is not made possible, and when belonging fails? How, through the exploration of technological memory, can artificial memory palaces help these individuals?

5.3 Art Fields

In my earlier digital art genealogies (chapter 2), it is possible to find how the aesthetics of *Objets Trouvés* and *L'Album* have developed, especially in reference to video art, Net art and Glitch art in their technological articulations and aesthetics. But also, and more specifically, I have taken into account artworks that address digitised personal

narratives made public through artworks such as *My Boyfriend Came Back From the War* (Olia Lialina 1996) and *FaceGrid* (Chui Yin Wong et al 2012).

However, *Objets Trouvés* artwork led me to the creation of fragile and artificial memory, and therefore artworks such as *Lorna* (Lynn Hershman Leeson 1979-1982), *Failed Memory* (David Szauder 2013+), and *Ghost of the mp3* (Ryan Maguire 2014) in which respectively notions of personal narratives and miscommunication, technological 'failures' in the memory object, and memories of these gathered technological 'failures', leading to artificial post memory artwork such as *The Third Memory* (Pierre Huyghe, 2000).

Third-memory and dislocation

In his work *The Third Memory* (2000), French artist Pierre Huyghe produces a reenactment of an individual memory, which is experienced and re-experienced over time through mediatisation and cinema. 'Third-memory', in this case, refers to re-enacted memory based on the original experience and the experience of its screen reenactment, while post-memory is the experience of 'passed-on' memory that is only experienced through someone else's recollection over time.

Objets Trouvés invites the narrated self to be explored from different perspectives, experiences and interactivities. Initially individuals shared their stories by interacting with an object of memory, then again through the digital installation artwork as a whole, and finally via the Internet as a home-user. Online video delivery offers the possibility for the work to be re-experienced; however, this can only take the form of a recollection, not as a primary experience. Placing the interactive element within the limits of screen culture and habits (e.g. 'surfing the web') in order to transform the role of the active audience to a witness and user limits the producers' self-investment and therefore their experience. *Objets Trouvés* invites its audience and users to leave with the conceptual artefact of a third-memory or post-memory, thus 'negotiating the relationship between self and society, between personal and cultural memory' (van Dijck 2007, p.21).

To conclude, I thus place *Objets Trouvés* as a reenactment, as a third-memory or post-

memory, depending on the attachment and expression performed, that ultimately informs my memory topology, my digital art genealogies, and creative methods, in how embodied gestural memory becomes central to the technological articulation of collective and cultural memory.

Winnicott's discussion on play theory is not only central to *Objets Trouvés* as digital art practice, but is also central in clarifying *Objets Trouvés* as a transitional location for collective remembering. However, in this context, questions of transformation of the digital relic and of narrated selves within cultural memory are raised. How can one nurture the digital trace of memory, the transitional object, which is central to entering new cultural environments? This has been partially addressed in this chapter with the recognition of familiar gesture and memory rituals, and will be explored further in public gestural participation with installation artworks in the following chapters.

CHAPTER 6

UNTITLED#21: 'PLAY' & DIGITAL INTERACTIVITY

[*Untitled#21*](#) is an experimental interactive installation and collaboration with Andrew Duff, sound artist, within which we investigate different forms of play and interactive design, as identified in chapter 5, core to thinking about a networked memory palace. *Untitled#21* is also a response to an invitation to create an artwork that responded to the Ancient Mayan myth, a prediction of a world apocalypse on the 21st of December 2012, for the *Final Light* exhibition (Phoenix Brighton, 2012).

Andrew Duff and I were keen to create an interactive space and observe how the public behaved within it. *Untitled#21* is not political but experimental in continuing to think about how attachment with/to digital technology is made possible in installation art.

6.1 Methods & Conceptual Narrative

In this artwork, my approach reflected my creative methods of collecting, materialising, and public interactions discussed in chapter 2, whilst working in collaboration. The collaboration was based in the combining of craftsmanship but most importantly in iterative discussions around forms of interactivity. This meant that I focused on the visual elements while Andrew Duff focused on sonic tools and together we considered interactive elements between technology, the visual and sonic materials, as well as forms of possible expressions the audience may have in engaging with the artwork.

Collecting data: navigating memory palaces

In starting to conceptually think about the work, I collected a series of images that would symbolically refer to 'the end of the world' from my Internet-based Flickr family album. At the time Flickr Magic View was not created, so my selection was reliant on tags such as 'birth' 'landscape', 'mountain', 'volcano', 'sunset' and 'others'. Its visual narrative was basic as it traced a trajectory from birth to post-human. Its concept was minimal in merging technology and flesh aesthetics.

In thinking about what kind of interactivity we wanted, we quickly agreed that as the audience would enter the installation space, their bodies' movements would affect the flow of the narrative by causing the audio/visual narrative to become distorted and 'glitched'. As discussed in chapter 2 and reiterated here, glitching can "reveal the machine's techné and enable critical sensory experience" (Menkman 2011, p33), here a technological visual interruption. We were also keen on the technology being discreet – in contrast with *Objets Trouvés* (chapter 5) – by creating a smooth, non-technologically-intrusive experience.

Andrew Duff favored the MAX/MSP/JITTER (MAX; fig.9, p.110), software-authoring environment as it is designed to be pieced together in a modular fashion, widening its usability in creating new tools and possible interactivity in control environments. Consequently, we agreed that MAX would be the ideal tool to enable the connective craftsmanship between bodies and the sonic and visual elements. This led Andrew Duff to gather a series of demos from the software shared libraries and open source MAX patches, helping us to understand what materials would be needed.

Materialisation & digital gestural articulations: metadata & algorithms

The MAX patch was built as an environment within which specific objects could be held and networked. This was key as it guided the format of what could be visually and sonically produced. Within MAX, a visual coding language, two 'jit.qt.movie' 'objects', or 'blocks' of code and two 'sfplay~' objects, both with the use of cross-fading to allowed for smooth transitions between the basic narrative video and audio, and the glitched versions.

Visual 'Jit.qt.movie'

In creating the 'Quicktime sequences' I produced a basic narrative of sequenced photo-images. The first was created in Apple's FinalCutPro software as a slideshow-video with cross-fades between each image. For the second video, I initially worked on each image in TextEdit, a basic text editor application, so I could corrupt the underlying data within the images by moving, copying and deleting elements of the raw code within the image files. The resulting files render the images damaged and 'glitched' as data elements have been moved or removed, so chunks of the images are damaged, in the wrong location, or no longer present. Again, these images were

brought into FinalCut Pro to add cross-fade transitions between each of them. However, in doing so, I came across the problem of importing corrupted images that could not be read by the software. To overcome this issue, I utilised an alternative, open source application – Gimp (GNU Image Manipulation Program) – that enables the photo-images to be access and saved once more to a format that FinalCut Pro was able to read. The sequences were designed as one-minute loops.

Sonic objects

The sonic element was generated with noise and random modulation on a modular synthesizer, chosen to enable chance and strange and unexpected results as part of the composition process. The resulting audio file was then processed with the open source PaulStretch application, enabling the sonic sequence to be time-stretched (digitally stretching the original length of the sound and in the process adding or interpolating between the samples of sound, generating a lengthy and smooth transition) by 100 times, creating a softer and more ambient soundscape that could draw and hold individuals in the space.

However, in the running of the patch and in limiting the amount of CPU (Central Processing Unit) used to avoid computer crash, we decided to join the ‘glitch’ composed audio to the ‘glitch’ moving image so it became one file. The main narrative audio file had its own thread in the software patch, which played in synchronisation with the main narrative video file.

Materialisation & digital gestural articulations: body & memory trace

In creating a MAX-based interactive tool Andrew Duff selected a number of help files within MAX itself, and open source patches from Mark Cetilia (2012) that allowed us to experiment with Frame Differencing. This involved using a webcam pointed in to a space (representing the installation space) to analyse how much difference there was between one video frame and the next as a basis for how much the projected image should change in response to movement in the room. Tracking specific movement in a room was deemed too difficult, as it would have required participants to wear a particular colour or trackable object, and would also disrupt a key initial desire for the technology to be discreet. Additionally, we believed through experience (visits to other interactive exhibitions), that tracking colour or tags (e.g. RFID, QR code) could

also lead to a more 'knowing' interaction by participants: 'I have been given this tag, so it/I must behave in a particular way'.

For Andrew Duff, it was of interest to create a level of ambiguity by monitoring how much difference there was from one moment to the next, and for both of us to see if and how individuals would work out what they were provoking by their actions in the space.

The space was marked with white tape on the floor – delineating without overstating from where any movements were tracked. Both audio and video were networked in the same way, so that when an individual entered the space and continued to move, it would begin merging the 'treated' audio and moving image with the original ones, 'treated' as discussed above.

Public interventions & play

The piece was successful in the sense that participants enjoyed playing with the interactive element of the artwork. Their participation would centre on developing an understanding or learning of what they were expected to do, how this was happening and leave. Others would watch others participate.

However, in creating an interactive space in which the technology would be of little intrusion (not to replicate the identified issues from *Objets Trouvés*) it felt that we failed. This was mainly due to the play element dominating the overall narrative, but also due to the technology (laptop, projector, cables) and the white tape on the floor delineating from where to where the interaction took place, stimulating the known behaviour the audience appear to have with interactive work. In continuing to think about audience participation, technology and narrative, Andrew Duff and I came to the realisation that the problem was not the visibility of the technology, but instead what kind of play it was stimulating, leading me to think further what role 'playing' takes within my own and collaborative artworks.

6.2. Play Theory: Vernacular, Educational, Imaginary Narratives

Winnicott states that it is in the act of playing that the individual is able to be creative and in this act he or she can discover their self (Winnicott 1971, p.54). In locating

'playing' as a creative act that enables transitions between inner and outer reality, towards participation in new potential 'holding environment', within cultural terrains as stated by Winnicott (1971, p.7):

[...] the transitional object does not 'go inside' nor does the feeling about it necessarily undergo repression. It is not forgotten and it is not mourned. It loses meaning, and this is because the transitional phenomena have become diffused, have become spread out over the whole intermediate territory between 'inner psychic reality' and 'the external world as perceived by two persons in common', that is to say, over the whole cultural field.

However, it is also recognising that 'playing' in the way that it becomes creative is not always possible, as seen in *Objets Trouvés* (chapter 5) and in *Untitled#21* in which the technology became obstructive or limited in creating forms of attachment necessary in the act of playing.

'Playing' in *Untitled#21* has been designed within my creative methods, between social architectures and participation. However, in this piece, the act of playing was not found to be creative. Instead Andrew Duff and I had created a space in which participants acted as triggers revealing the piece one-way interactions. Thus in creating an interactive space with limited actions, we had stripped away the potential voice of the participants. In some way this could be compared to a game with no purpose, making 'holding' impossible, and if holding was not possible then nor was creativity - or the creation of any memory.

In a discussion on strategies of interactive art, cultural theorist, Ryszard Kluszczyński (2010) approaches different possible interactive intentions listed as 'instrument, game, archives, labyrinth, rhizome, systems, network and spectacle' (2010, p.3), triggering me to think further about my creative methods by questioning what my own position is in relation to designing interactivity – or choreographing audiences in architectures. It has been approached in previous artworks (chapter 4 & 5) but not in terms of interactive design.

In *Untitled#21* it was clear from the start that Andrew Duff and I wanted to focus on the technology and how participants would interact with the work, whilst attempting to

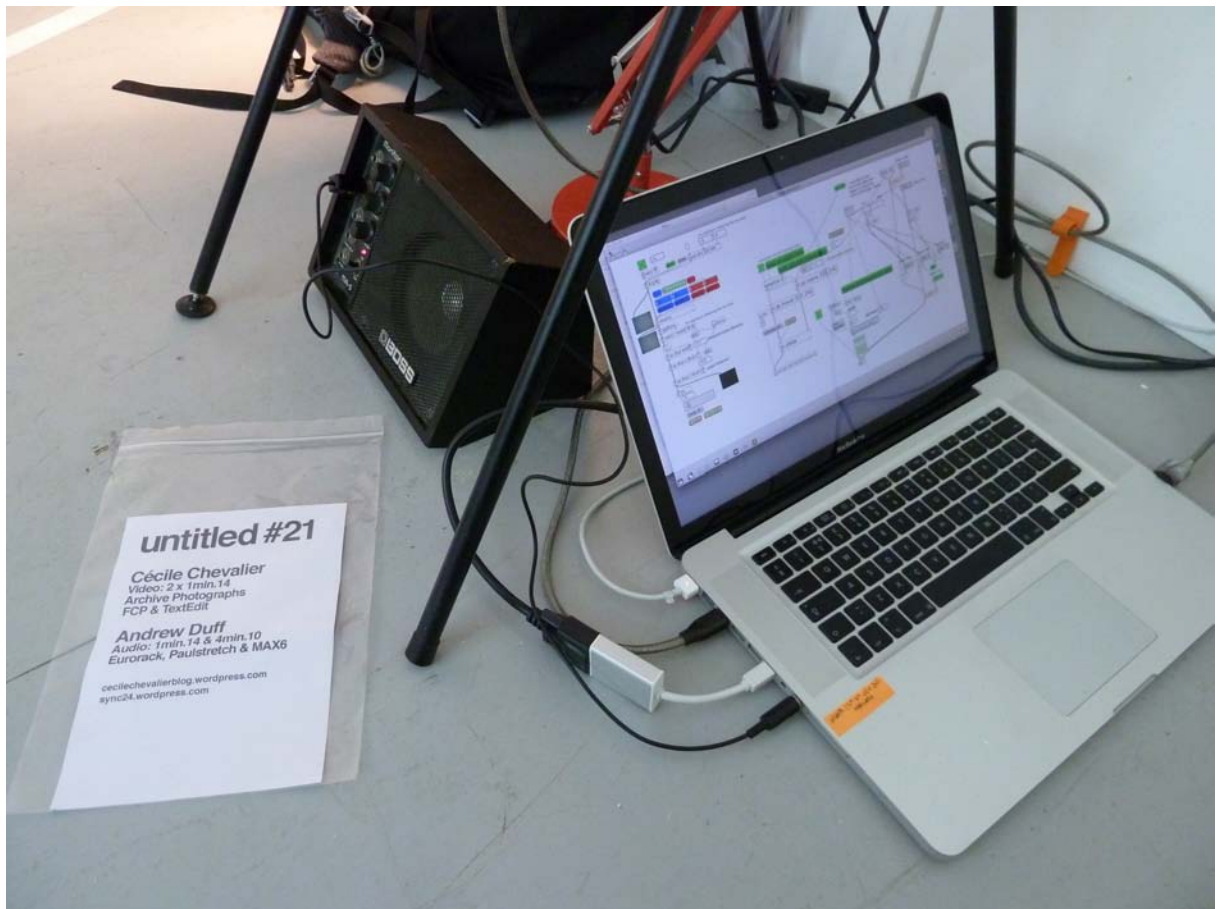


Figure 9. Untitled#21

make the interactive elements invisible for the audience to just *be* and to not be technologically limited in their actions – as experienced in *Rendezvous, Objets Trouvés*. However, in doing so it meant that when individuals recognised possible interactions, there had been no designed purpose as such: there was no task, no challenge, no contribution to a collection, no access to a new perspective, no walkthrough, and no creativity. In the struggle of finding a balance between interactivity, technology, perceptual and conceptual perspectives, I needed to be bolder and think further about possible interactive designs and aesthetics.

6.3 Art Fields

Since Marcel Duchamp's early invitation for the audience to become a manipulative physical force (Schwarz, 1969, p.443) in his action and kinetic sculpture *Roue de Bicyclette* (1913-1964), the aesthetics of audience participation in art has evolved reflecting technological development – as discussed in my digital art genealogies, chapter 2. For Duchamp, *Roue de Bicyclette* enable the participant's self to become a core part of a system in which the individual's own movements became both mechanical and sensitive:

In a way, it was simply letting things go by themselves and having a sort of created atmosphere in a studio, in an apartment where you live. Probably to help your ideas come out of your head. To see that wheel turning was very soothing, very comforting, a sort of opening of avenues on other things than material life. (Schwarz 1969, p.442)

Participation in relation to responsive architectures has consistently offered different distancing forms of design interactivity that promote extended, embedded and embodied actions. However, with digital technology being more and more accessible (in terms of affordability and access to expertise), extending the artists toolbox, it is possible to see how new interdisciplinary interactive designs evolved since Duchamp's kinetic sculptures *to virtual, tangible and immersive environments*.

This is reflected in recent national and international UK-based exhibitions such as *Decode: Digital Design Sensations* (Victoria & Albert Museum, 2009), and its curated themes: code, interactivity and network; *Digital Revolution* (Barbican, 2014), described as an immersive exhibition of art, design, film, music and videogames digital

archaeologies and digital future; *Big Bang Data* (Somerset House, 2015-16), a major exhibition of diverse, dynamic, data-driven artworks and objects to demystify the world of data; *Electronic Superhighway* (2016 – 1966) (Whitechapel Gallery, 2016) ‘to show the impact of computer and Internet technologies on artists from the mid-1960s to the present day’ (Whitechapel Gallery, 2016)

These exhibitions as a whole form digital perspectives that bridge interdisciplinary practices in inviting the audience, producers, users, and consumers to become part of the work, to become part of local, national, global networks and architectures. In these perspectives, and in my experience of these artworks, it is possible to see different approaches in bringing the audience closer to the artworks, approaches that I categorise as ‘screen-based virtual architectures’, ‘tangible architectures’, and ‘tracking immersive architectures’.

Screen-based virtual architectures

‘Screen-based virtual architectures’ are formed and mediated by gestures and tools that stimulate design drawn from the everyday communication technology (television, computer, Minitel French Videotex online communication service 1982-2012, mobile phone) and game play (e.g. ‘login’ and ‘enter’, ‘select’, ‘like’). In its extended architecture, it is possible to see vernacular virtual ‘real’ environments. This is found in *iremembr* (chapter 4) as the everyday social network rituals and habits are brought in to the narrative it generates and in its navigation aesthetics.

These levels of distancing and interaction are also found in numerous artworks such as *Lorna 1979-1982* (Lynn Hershman Leeson, Superhighway exhibition, 2016), *Tesao Horny* (Eduardo Kac, 1985, Superhighway exhibition, 2016), *My boyfriend Came Back from the War* (Olia Lialina, 1996; *Digital Revolution* 2014), *Antiom* (1994; *Digital Revolution*, 2014), *wwwwwwwww.jodi.org* (JODI 1995; *Digital Revolution*, 2014; *Superhighway* 2016) *Exquisite Clock* (João Henrique Wilbert 2007; *Digital Revolution* 2014), *Dronestagram* (James Bridle, 2012-2015; *Big Data* 2015-16), *Image Atlas* (Taryn Simon & Aaron Swartz 2012; *Superhighway* 2016).

In my experience of these artworks, I found that the interactive design was mainly located in actions that I was familiar with, as a walkthrough that formed a personal, public, global narrative, as shared information through a series of tasks based in the everyday. For example, *Lorna 1979-1982* (Lynn Hershman Leeson 1979-1982) invites its audience to change TV channels with a remote controller to navigate through a

personal narrative. *Dronestagram* (James Bridle 2012-2015) interrupts the user's own everyday virtual 'real' environment, in making the distant and invisible, part of the consumer, user and produser's everyday experience:

For a few weeks now, I have been posting images of the locations of drone strikes to the photo-sharing site Instagram as they occur [...]. Making these locations just a little bit more visible, a little closer, a little more real. (Bridle 2012)

'Playing' in these artworks, is constructed in the everyday, of technology bridging different realities (i.e. from personal to public narrative).

Tangible architectures

'Tangible architectures' invite a different closeness in bringing together arms-length tactile actions and tangible tool as design artifact, and/or re-appropriating objects tagged with, for example, RFID, reacTIVision fiducial, or QR code. These act as triggers in a system that stimulates object-relation action. This is found in *L'album* (Chapter 5), where the audience is invited to turn the pages of a traditional family album, an action that is familiar by most, thus bringing the object's history in its recontextualisation and aesthetics. This is also found in Quinten Swagerman's, Jasper Van L'Oenen's and Mr Stock's artwork *Pristitrope* (2012) in which the audience is invited to turn the object – reenacting the objects own mechanical history whilst introducing a new digital narrative. In other forms of tangible design, the work of Richard Vijgen, *Deleted City* (2012), with its designed interface and touchscreen, enables access to the Geocities archived materials, leading the act of 'playing' to be located as series of walkthrough narratives and information sharing, making 'hold' possible through the objects' connected histories and information.

Immersive tracking architectures

'Immersive tracking architectures' invite embodied navigations and bring in an audio/visual representation of the audience in action. This would most often be captured by sensor technology. It stimulates actions such as 'waving limbs', 'moving across a space' and 'stillness' as experienced with *Untitled#21*. These may also be found in dance practice, and/or motion captures game (Nintendo Wii, Microsoft XBOX Kinect).

This kind of embodied action was dominantly captured in the *Decode* (2009) and *Digital Revolution* (2014) exhibitions, with artworks that either project a reflection(s) of participants in virtual environment or one that places participants in a constructed environment. Both place the participant self at the core of the work. In both exhibitions it is possible to see how ‘immersive tracking architectures’ are mostly entertaining, and at times spectacles.

Here, I am considering my experience with the digital artwork *The Treachery of Sanctuary* (Chris Milk, 2012), exhibited at the Barbican. The process was very controlling in its sequencing: queue, enter, time-limited experience with specific ‘flying’ task, exit, echoing theme park experiences. The work as been described as “a large-scale interactive triptych: a story of birth, death, and transfiguration that uses projections of the participants’ own bodies to unlock a new artistic language” (Milk, 2012) and although the works itself does offer this clearly, the curatorial compromise between crowd management and engagement with the interactive artwork, conflicted with unlocking this ‘transfiguration’, with achieving the set task or challenge. Other ‘immersive tracking architectures’, using motion capture, such as Rafael Lozano-Hemmer’s *The Year’s Midnight* (2011; *Digital Revolution* 2014), Mehmet Akten’s *Body Paint* (*Decode* 2009), Fabrica’s *Venetian Mirror* (*Decode* 2009), Daniel Rozin’s *Weave Mirror* (2007; *Decode* 2009) but also Ross Phillips’s *Videogrid* (2008; *Decode* 2009) in their interactive design, as well as task and challenges, promote creative access to new networks through specific actions. It could therefore be argued that the artist, in the creative design of the pieces, becomes both choreographer and master puppeteer.

‘Immersive tracking architectures’ that are immersive in ‘real’ constructed environments, such as Umbrellium’s *Assemblance* (2014; *Digital Revolution* 2014), and Chris O’Shea’s *Audience* (2008; *Decode* 2009), in my experience, enable the audience to navigate their body seemingly freely. Although tasked challenges are still choreographed, the scope of actions is rich, making ‘immersive tracking architectures’ a live space bridging the everyday in the technological and sensory imaginary.

Although not present as such in these exhibitions, it is worth pointing out that ‘immersive tracking architectures’ can also include wearable technologies, here merging the nuances between the projected mirror and constructed environments’

interactive aesthetics. However, my own practice has yet to evolve towards such architectures.

To conclude, I want to insist that reflecting on my experience of these exhibitions and specific artworks helps me in understanding the value and aesthetics that I want to hold on to in creating a new network memory palace. It is not an objective review of these exhibitions or artworks, nor is it claiming that these are the only artworks in these categories or even the only categories in interactive design. It is a reflection on how my own experience of these works informed my own sense of value and my methods around interactive design in my work, when 'play' is made possible, and what cultural terrains it bridges. This has led me to think of playing in interactive digital arts as a configuration between (1) architectures (material & software) & distancing levels (embodied, embedded, extended); (2) navigation & participation production levels (vernacular, histories, imaginary); (3) tool & navigation controller (controller, trigger, body), reflecting my topology of memory.

In wanting to create spaces where audiences can 'play' and can express themselves – core to the relation between attachment and network memory – I needed to create (1) 'Immersive tracking architectures' that are immersive in 'real' constructed environments; (2) with creative production levels; (3) from which the audience's body can improvise as they become part of this system:

[I]n these highly specialized conditions the individual can come together and exist as a unit, not as a defense against anxiety but as an expression of I AM, I am alive, I am myself. From this position everything is creative. (Winnicott 1971, p.76)

'Immersive tracking architectures' will be explored further in the following chapter 200.104.200.2., whilst asking what cultural, political, social and personal memory expressions (in reference to Aleida Assmann's cultural memory fragmentation) networked memory enables or revokes.

CHAPTER 7

200.104.200.2. MEMORY PALACE

In this chapter I turn to [200.104.200.2](#), an interactive installation and collaboration with sound artist Andrew Duff. It is also the final – and most substantial – piece of my art practice, which connects with the earlier discussions and considerations of memory, shared and individual, collective and cultural, and its transformations in digital conditions.

In this piece the focus shifts from the personal digital transitional object of memory, and from questions of collective sharing in holding environments, to a tight focus on producing an awareness of the role of digital networks as central to processes of making, sharing, letting move, letting fade and mixing forms of memory. The work is situated in relation to the art of memory (Yates 1966), and sets out to explore a form of memory spatialisation in relation to post-digital aesthetics and to ideas about the materialisation of ‘networked memory’ (Hoskins 2011). In these ways it links to the earlier works in this portfolio and develops themes that I have already engaged with.

7.1 Methods & Conceptual Narrative

200.104.200.2 continued to reflect my creative methods approach (discussed in Chapter 1 & 2, and applied in chapter 4, 5, 6), thus collecting data and navigating memory palaces, materialisation and digital gestural articulations and public interventions whilst continuing to work in collaboration.

As per *Untitled#21*, the collaboration was based on the combining of craftsmanship but most importantly on iterative discussions around interactivity. While the genesis of the idea and overall design of the concept was mine, the collaboration was equal, and the work evenly distributed. Building was completed by both of us, while the sound design was collaboratively developed as an architecture and composed/materialised by Andrew Duff.

Collecting data: navigating memory palaces

Having explored in the previous artworks 'virtual and tangible architectures' as a way to perceive how networked memory 'moves', I now turn to explore 'immersive tracking architectures', as constructed Internet imaginary (see chapter 6), as memory palace.

The concept and aesthetics of the work was to turn the experience of sending memories across networks of cables – largely evanescent when 'using the Internet' – into something tangible, something seen and something that can be engaged with bodily and collectively.

These were developed with reference to, and in a sense as an analog re-making of, the Internet terrain, its Internet platforms and its new habits and rituals, its new ways of organising material and material memory. As discussed in chapter 2 and re-iterated here, information and memory loss are intimately connected:

Keeping track, recording, retrieving, stockpiling, archiving, backing-up and saving are deferring one of our greatest fears of this century: information loss. (Garde-Hansen, Hoskins and Reading 2009, p.5; chapter 2)

Because of this, digital memories, 'networked objects, constructed in the commonality of the World Wide Web' (van Dijck 2007, p.48; chapter 2), become increasingly important, and moreover, we have to see the Internet as a memory system.

In thinking about both concept and aesthetics, collecting here became about perceptual and conceptual experiences that could symbolically represent ways in which collective memory moves within digital and networked terrains. I thus experimented with life-size maquettes, different materials and aesthetics of these whilst asking: What happens when the density of acrylic or copper threads were changed, how would it move? How would it fall? How would it feel on the body in action? How could these different experiences refer to and expand upon networked memory?

This led me to gather symbolic material referencing Internet technology and the human body. I placed stainless steel in relation to the Internet aesthetic, as a material that is not corrosive and that can be easily associated with technologies and industries, it is hard and it would provide the main structure of the physical artefact 200.104.200.2.

Also in this piece, thin copper wires are employed as a material used to facilitate our access to communication as well as forming a resonance to the human body as a collection of 'hair' through its suppleness and colour, thus symbolically merging digital and human bodies. The symbolic history of the copper material is also reflected in the title of the piece, the IP address of one of the biggest copper pits in the world (located in Chile, 2015), in which raw material, technology and bodies merge.

Sonic objects

In the process of collecting interactive conceptual and perceptual experiences, it became clear that sound was to be a core element to the work: as the density of copper increased, as copper threads collided with one another, so the noise it generated grew. Though sound had been an understated part of my previous artworks and collaborations, the raw volume of sound from the clashing wires was an unforeseen element at an early stage in the development of the work, here it was different, it was clear that sound could navigate the interactive aesthetics of the work. This revelation led to the decision of collaboration. Although I have a clear sense of sonic aesthetics, it was not my area of expertise. As we had previously collaborated, Andrew Duff was able to bring a different dimension to the work.

Our ideas around sound developed through initial discussions and interactions with the steel and copper structure. Both of us were interested in the 'silent' Internet. Andrew Duff was keen to explore the idea of the sound of data transfer and to incorporate it into our work. Looking beyond the computer, and with the proliferation of Wi-Fi and 'always-on' high-speed broadband or fibre optic Internet connections, we no longer have to endure the Internet dial-up sound we grew so familiar within the nineties. Computer noise has become increasingly hidden, apart from the tapping of the keyboard and clicking of a mouse – no longer is there the sound of floppy drives or CD drives springing open. With the solid state drives in our – for example - iPads and Macbook Pros, and we rarely hear cooling fans, we switch off 'feedback' sounds, and the mute button helps us *not* to hear the start-up sound. Computers are doing as Mark Weiser wished – being a quiet, invisible servant (1996), as digital technology has become more and more ubiquitous, more and more part of our everyday, more and more 'post-digital' as discussed in chapter 2 .

Today the Internet is carrying us through an era of widespread distributed computing towards the relationship of ubiquitous computing, characterized by deeply imbedding computation in the world. Ubiquitous

computing will require a new approach to fitting technology to our lives, an approach we call “calm technology.” (1996)

In discussions, I asked Andrew Duff (2015) what data transfer sounds like now. He replied:

It's not all that pleasant, though as a sound artist, some elements may be interesting to use, but nothing about it clearly *sonically* communicates what is happening in front of your common or garden computer user – no interactions with data are clear. We can hear the flashing of the LEDs that show us we are connected and that data is being ‘transferred’. We can hear the power supply in the unit. And we can hear some other, unknown noises. Listening to these sounds whilst using my computer, though, there is little meaningful correlation between the visual or audible information arriving that I am requesting, manipulating or managing.

Working with these abstractions, Andrew Duff set out to create a MAX application that could navigate these unruly sounds and data, leading this discussion towards the materialisation of building a memory palace – one that re-made and re-materialised the palace that is made through the Internet platforms, and one that could hold conversations and interactions.

In building the tool, Andrew Duff drew from a history of ideas found in experimental and electronic music and sound design which explored spaces that resonated with and built on the work of John Cage's *4'33* (1952) and Russolo's *The Art of Noises* (1913). The tool could be seen as an attempt to realise Atau Tanaka's interpretation of Jacques Attali's “future potential musical forms that are not finished works, but instead generated at the time of listening” (2005, p.288) or, in the case of the *200.104.200.2* installation, at the time of interacting. All of these influences and Duff's own interests were echoing my own.

Materialisation & digital gestural articulations: metadata & algorithms

The process of materialisation *200.104.200.2* (fig.10, p.122), became a stainless steel structure 2.5 meters high, 2 meters long and 2 meters wide, from which over 3000 copper wires hung. The structure itself could be accessed or entered by participants, as it was tracking, connecting and extending each of their movements through fine

colliding wires.

Tool-making & sonic objects

This physical and prosthetic work became a collaboration around issues of interdisciplinary aesthetics and practices as sonic digital reenactment merged with digital embodied practice, for example, the reenacting of the early Internet noise merged with the corporeal connection between bodies and wires.

Both Andrew Duff and I, myself through my art practice in installation and Duff through his work on sound instruments, are interested in exploring the relationship between media arts and tool-making. ‘Tool-making’ can be seen as working with the history, resistance and fabric of the material – which is itself transformed in digital times. Art curator Christiane Paul and photographer Jack Toolin wrote in *The Emergence Of Video Processing Tools* (2014, p.53)

[O]ne could argue that artists creating their own tools tend to be more invested in exploring new forms of creation and achieving independence from existing distribution structures, while artists using industry-developed technologies tend to be more interested in exploring the condition of ‘seeing’, as well as distribution and its effects.

In our artwork, tool-making was engaged in thinking through the construction of the whole, how to make an Internet apart from the Internet and how to build a memory palace from copper wires and stainless steel tubing. Tool-making was also specifically involved in the production of the audio software. Andrew Duff initially developed the bespoke audio processing software in MAX, a modular visual programming language, and also assembled contact microphones following Nicolas Collins’s guidelines in *Handmade Electronic Music* (2009, p.31–44). A ‘piezo’ disc is used as a contact microphone to sense vibrations through solid objects and in the process uncovers hidden sounds, inaudible to human hearing. In this project, the microphone’s piezoelectricity is generated through the transference of mechanical stress caused by the clashing copper wires and the stainless steel frame.

The sounds of the clashing wires are treated through various processes that sonically represent and interpret data compression through the application of audio/data encoding, audio gates, probability, bit reduction, retrieval and re-storing of data, spatialisation, and the feedback and traces these processes leave behind, both

physically – through exploring the space – and within the software platform itself.

200.104.200.2 invites audiences, citizens to once again listen to the communication process just as we used to ‘hear’ the Internet before the ‘always-on broadband’ we are used to today: when it broke, while we waited, we heard the sound of a modem connecting. Additionally, there are today still other ways to hear the Internet, most notably through various forms of sensing. In a sense the piece also mimics or relates to techniques such as circuit sniffing (Collins 2004), through which now ‘quiet computing’ and electronic connections and protocols may still be tapped into and sonified.

In thinking about developing an Internet aesthetic that fits this work, we were also informed by digital artworks that have investigated ways of making silent data talk, notably with the artworks of Ryan Maguire’s *The Ghost in the MP3* (2014), which ‘salvag[es] the sounds and images lost to compression via the MP3 and MP4 codecs’, and Natalie Jeremijenko’s *Live Wire (Dangling String)* 1995) an 8-foot-long piece of plastic wire connected to a small electric motor, which itself is connected to an Ethernet cable. The information passing through the cable causes the wire to twitch: the more traffic, the more twitching. ‘Making the invisible visible’ is actually a quite common method/concept of many digital and non-digital artworks, as art as a whole invites different ways to perceive the world. Here, works that had an impact on my perception and therefore thinking, were Rachel Whiteread’s *House* (1993-94) and her focus on the negative space to define a presence; Christian Boltanski’s *La Reserve des Suisses Morts* (1990) through the absence of the bodies to address their liveness and loss of liveness; Heidi Tikka’s *Mother, Child & The Double* (2004), again in the absence of the body but presence in its embodied life-like digital interactivity; and Cornelia Parker’s *Cold Dark Matter: An Exploded View* (1991), which freezes the space in-between in the decomposition of movements as the space between actions between frames.

There are now countless examples of making data ‘talk’ that have been used in artistic practices of various kinds. Moreover, a particular genre of these has grown rapidly over the last ten years since the introduction of the Arduino and its ability to interface between the computer and the physical world. Many of these have also been concerned with thinking through the role of audiences and/in their relation to data, as well as making data talk in a humanistic way.

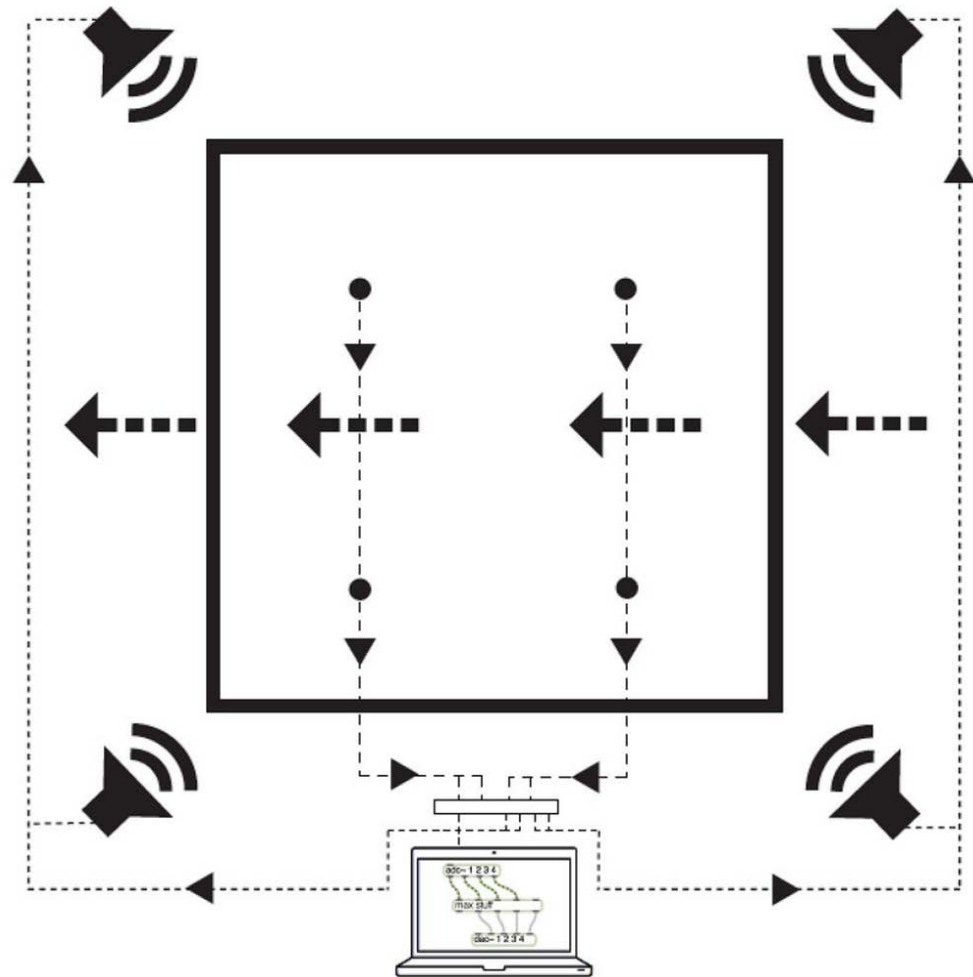


Figure 10. 200.104.200.2

Materialisation & digital gestural articulations: body & memory trace

In creating an immersive 'real' and 'Internet imaginary' environment from which participants can bring their existing embodied vocabulary, it is possible to see how creative expressions can be realised - as discussed in chapter 6.

In this collective experience, the aesthetic of the work is altered, as it holds onto the passage and interaction of individual and collective embodied participations. Over time, those same bodies interact with the space; their breath, sweat, oil and the environment oxidise the art object, while their experience, translated to sound and digital memory object, accumulates on the hard drive and then in the Cloud. *200.104.200.2* therefore becomes a 'holding environment' in which embodied human memory converges with 'silicon memory' (Garde-Hansen et al 2009 p.13; chapter 2) towards the expression of new memory objects and thus a new kind of cultural memory.

Now I turn back to sound and audiences, and to the ways in which sound was integral to the production of memories, the inhabitation of my structure.

The tool developed in MAX, along with the associated hardware (handmade contact mics, a sound card etc.) thus enables bodies in action with the copper wires to merge with the indistinct conversations that occur within the piece and are captured by 'piezo' contact microphones.

The sounds produced through the movements made by interacting with *200.104.200.2* – movements that are immediately 'gone' – merge through contact microphones and the software, and are 'given back' as a tangling of sounds that are now 'sound memories', which then loop back to the participant, the performer, the citizen. All, and in all embodied modes, create a tactile audible feedback experience.

200.104.200.2 thus becomes a displaced reenactment of contemporary digital social practice, making the Internet a new form of memory palace. The next section will address this in more detail.

It is important to emphasize that the installation work is 'not quite the Internet' in its reenactment of forms of simulation (e.g. of a vast global network of wires and connections and messages) – it is material. Indeed, one of my intentions here was to stress the materiality of Internet materials and of the bodies of its users. *200.104.200.2* is a memory place and a memory machine that holds bodies, their traces and their

expressions.

Public interventions & play

The role of the audience with the installation work is essential for the piece to *be*. It also shares similarities with the Internet, as the Internet needs use and activation for metadata to be formed and for algorithms to function in a useful way. The audience in both spaces can be seen as citizens who choose to act. They may act in one or several of the following roles: (i) the performer/produser: as one who is creative and appropriate to the space, (ii) the participant/user: as one who explores but does not belong, (iii) the beholder/casual browser: as one who chooses to sit on the boundaries of the installation space, one who chooses to browse. Thus, 'action' is made a central part of installation artwork aesthetics (Reiss 1999, p.xiv; Bishop 2006).

In observing participants in action, I was able to see how *200.104.200.2* (fig.11, p.127), was bringing together virtual, tangible and immersive architectures that through a democratic choice, could become a space for collective expressions – here towards memory, memory of the bodies, memories of the discussions shared, memory of the sound generated. It was possible to see and experience how sound became a transitional object between personal and cultural 'real' imaginary. Networked technology was no longer an obstruction or an interruption – as discussed with *Objets Trouvés* and *Untitled#21* (chapter 5 & 6).

In the process of peer review (CCPRG 2015) and the academic and public exhibition of the work (*Doctoral Day* 2014; *Found in Translation* 2014), this tension became clear. *200.104.200.2* was presented as an installation artwork, and firstly as a formal system that materialises Internet relations as a topology made of copper wires, stainless steel, digital patches, sound and bodies. However, as I observed and joined individuals participating with the piece through actions such as playing, exploring, and connecting, and watched how they produced actions, movements and interactions – all of which left memory traces or ephemeral and material expressions of memory (e.g. the copper's changing shapes, the light it enabled that changed as it flexed, the sound loops), and which also altered the space itself, thus forming a looping system, that altered with each engagement.

7.2 Play Theory

200.104.200.2 has now become a networked memory architecture, a live system from which real-time processing of the captured movement is translated as audio data through storage/delay, pitch shifting and bit-reduction/compression, capturing the dynamism between what Bergson defined as material time and embodied duration (Bergson 1939). Thus, in this displaced rematerialisation and reenactment of contemporary digital social practice, a peculiar form of 'holding on' is enabled and explored. Earlier chapters (notably chapter 3) have discussed what constitutes a 'holding environment' and this too, as I will go on to discuss, is a holding environment of a kind.

To briefly recap, the 'holding environment', as defined by Winnicott is 'a place where "holding", "handling" and "object-presenting" form a safe space of transition between the subjective and cultural body' (1971, pp.111-12; chapter 3). Here, within the safe space provided by the artwork, what is transitioned towards is the kind of public imaginary experience and memory the Internet provides. *200.104.200.2* is space for Internet reenactment. Within this holding space, this 'not quite the Internet' and 'not quite the "real world"' space, it is possible to find connectivity, collectivity and self-awareness as body movements connect to copper wires, colliding one wire to another and to the stainless steel structure. These movements are captured via the contact microphones to be digitally translated in the control environment's MAX patches, to form and shape a digital soundscape and new memory objects that then loop back to the participating audiences.

Sonic objects

Sound is key to *200.104.200.2*. It is sound that holds and expresses the earlier impressions of bodies in space and in technologised ('wired') space. Without the combination of the sound and tool, the work would be reduced to a limited aesthetic experience, not a holding environment from which expression can be performed, experienced and perceived. In the case of *200.104.200.2*, these sonifications of memory traces are provoked through bodies interacting with the copper wires; created as the audience decide to participate and/or perform; and stored on the computer/Cloud and replayed as digital data through additional embodied interaction.

In the sense that the sonic element of the piece became a transitional object, it enabled 'play' in a way that allowed it to become creative. In doing so, it also altered the work towards instrumentality, as the networked architecture could be performed.

This sense of participation and instrumentality is of course not a new concept: it has been discussed in relation to *Untitled#21* (chapter 6), with recent art exhibitions and in part in my own digital art genealogies, notably those considered in relation to my own practice (chapter 2) such as Kinetic art, Fluxus, Situationist art, as well as Neo-Concrete art (1950s-60s), in which complex relations were created to engage the viewer as an active participant:

Neo-concretism aimed to redefine the making of art and its relation to the spectator. It involved the impregnation of geometric languages with vital experience. (Herkenhoff 1999, pp.7–61)

Digital interactive art, then, extends the audience's embodied corporeal experience, forming a silent dialogue between memory storage and acts of memory. In its reenactment of the networked memory, the artwork is therefore not only a repository of memory but also a memory palace in which the audience fixes memory and creates traces of their shared experience, becoming part of the Art of Memory (Yates 1966) itself.

However, one of the initial concepts of the neo-concrete art movement was to '*quebrada moldura*' - translating as 'break the frame' (Pérez-Barreiro & García 2014, p.49). This led me to consider the 'frame' in relation to the Internet terrain, and the screen that we take for a frame and that we continually dive into. Thus, breaking away from screens, projections and monitors became essential as a way to understand the digital materiality of memory.

In this sense the work is presented as a post-digital artefact or collection of artefacts, both physical and audible, and as a set of relations between space, digital and material



[Figure 11. 200.104.200.2](#)

traces, and bodies. It is post-digital in that it insists on senses and practices that break with and break out of a screen metaphor and make something that is three-dimensional: a memory palace and networked architecture that may be 'entered'.

7.3 Art Fields

In the development of *200.104.200.2*, Andrew Duff and I were both influenced by other artworks exploring forms of art that enable 'play'. Specifically, as the overall architect of the piece, I was informed by *Still Waves of Probability* (Schendel 1969), *Penetrable* (Soto 1975), and *The Wonderful World of Abstraction* (Dahlgren 2006) among other works. These all share some aesthetics with my work; all involve hanging wires of plastic, nylon or ribbon, while some of these works invite their audiences to 'play' in the sensuous exploration of the artwork. In experiencing these artworks I felt that my body and my 'playing', were materialised in the whole of the work and became part of its broader aesthetic.

I was also interested in 'play' that stimulated forms of creativity as discussed in chapter 6. Such participation, or performativity, can be found in 'immersive tracking architectures' as in the works of Marie Sester, *Access* (2003), Anthony McCall, *Breath* (2004-2006) and artists' collective Daily Tous les Jours (DTLJ), *The Swings: An Exercise in Musical Cooperation* (2013) and *Mesa Musical Shadows* (2016). In these works, here named as examples that informed my practice (as making and thinking), and not as the only representatives of 'immersive tracking architectures', light and/or sound can be seen as the transitional object that holds the audience towards collective creative participation or performance. In *200.104.200.2*, it is sound within its architecture (inclusive of bodies, or in the absence of bodies). In creating a space from which creative action can be produced or performed, the structure of the work moves towards live architecture and instrumentality, where sound, technological and material spaces and bodies become part of a network, a system in its aesthetics.

In thinking about instrumentality and sound, my explorations into sonic art focused on works capturing embodied actions between the audience and the tool, such as Ken Gray's *Electrosculpture* (1978) and Ellen Fullman's *Long String Instrument* performance (Hovancsek 1998). There are several versions of the latter musical art instrument, which has been described as '120 80-foot-long strings that are suspended at waist height, stretching from a wall to a large resonator box' (Hovancsek 1998).

Artworks described earlier in the context of reflection on 'immersive tracking architectures' present example of more recent instruments (Sesters, McCall, DTLJ).

In conclusion, and in thinking about my topology and networked memory in relation to *200.104.200.2* and other interactive artworks that generate a form of play and creativity, it is possible to see that 'play' and 'attachment' are made possible through the creation of a vocabulary of embodied movements that is wide enough in its spectrum, and sufficiently familiar for audiences to express themselves. It is in this sense not a matter of designing a tool, as discussed through this chapter, but of designing a democratic instrument – democratic in the sense that it does not require a specialist language to be performed, since its language is based on what may be considered everyday body movements, but also embodied explorative movements.

Initially, like any artwork, the installation was my transitional object, the transitional object of the artist, as it enabled me to objectify my subjective concept and create a new holding environment where others could be 'held'. My intention was to use this to tie my work to theoretical concerns that were also 'my own'. However, I came to understand that building a holding environment for others to be held can only happen in the letting go of the work – in the removal of my subjective attachment – thus enabling the possibility for it to become a cultural object (as opposed to a fetish object). However, in having discussed *200.104.200.2* in relation to investigations and interventions, and in relation to questions of collective and networked memories as well as their various theorisations, I ask: Can digital installation artworks and digital systems be a 'holding environment' for all? Is the Internet a holding environment for all? The answer, I found, was that no one individual can make a claim on this kind of space – it is a collective place, thus mirroring systems of communication and experiences of the Internet, which are also, and in ways that are often forgotten, entirely collective.

CHAPTER 8

CONCLUSION

In the process of this portfolio I was able to investigate, intervene and reflect on ways in which collective memories are represented and may be engaged with or re-accessed in the process of digital and cultural transformation. I was able to ask (1) how these palaces enable or impede or even fail the expression of collective embodied memory, (2) how memory moves between personal, public and Internet repositories, and (3) how digital art can explore these questions.

I began by working to generate an initial map of memory – both to further identify and recognise various terrains and possible architectures that may be subject to digital transformation. This map set out the grounds of the terrain that I was questioning through my investigations of the digital transformation of various modes of memory (e.g. fig.2, p.64). These investigations, interventions and my methods informed the type of creative practice I understood through building digital art and interactive installations. They equally informed the theoretical engagements that framed my understanding of the map as starting point, but not necessarily as an end point.

I was after capturing an interactive memory system, a memory palace that was working with the subjective body trace and its possible expressions of memory. This led my explorations around digital cultural transformation to question what environment and tools could be created to experience the traces of the digital *corps sauvage*, to become collective and cultural expressions of memory.

8.1 Research overview

In chapter 2, I offered a discussion of digital memories as they have been discussed and questioned, leading to a concept of what digital memories may be considered to be, where they are located and what becomes of our bodies. In drawing from Aleida Assmann's concept of *memory* as acts of memory and storage of memory and what I considered ultimately as a dynamic system, I began to shape a possible map of

memory. However, it was through both drawing from my own digital art practice and genealogies and others' maps of memory that I was able to identify possible terrains and social architectures that ultimately would let me develop the initial topology of memory, as it intersects with the technological condition of today.

The map - reiterated here - is topological in its attempt to capture new spatialisation of memory, as new terrain and new orders of memory emerge. It is also dynamic as it seeks to understand how networks, bodies, social places, objects and different terrains of memory shift and move to form new collective memory. However, mapping possible terrains, architectures and bodies was not enough; I needed to think about its possible articulations. How could the body move in this conceptual map? The body has been central to my digital art practice and genealogies. It also became central in this initial mapping, as all terrains, social architectures and imaginaries are perceived from it.

In chapter 3, I focused on creating possible articulations and movements by drawing from theories and text as media to perceive and focus on mode of transitions and transformations around memory palaces. I continued to develop my topology through the discussion of concepts of time and embodied perception – central to any memory practice – as a mean to articulate the ways in which I formed my thinking on the storage of memory and acts of memory. I therefore drew from Bergson's concept of objectification and the internalisation of time, and by drawing on Merleau-Ponty's concept of objectification and the subjectivity of the body through his ontological work and concept of *la chair*, the 'flesh'. I also drew on Winnicott's discussion of play theory, and his concepts of transitional phenomena and transitional objects, to explore ways in which storage of memory and acts of memory move topologically and transit from one reality to another, and the ways in which time, body and space interlace. This contributes to the working out of my 'topology of memory', which I then understood had to be conceptualised as a relational process, an interlacing of embodied subjectivity and objectification. The next four chapters discussed a series of interventions in digital artworks designed to further test out specific architectures of memory, as I set them out in my topology.

The artworks in chapters 4, 5, 6 and 7 became constructed digital memory palaces within virtual, tangible, and immersive environments from which I set out to test whether forms of collective memory, as movement, as shared expressions were

possible.

In chapter 4, I discussed the artwork *iremembr*. This media artwork, the first piece of my practice introduced in this document, investigated digital materiality of memory through the digitisation of the traditional family photography album as an object of memory. In doing so, I offered a broadly auto-ethnographic method, investigating how my memory object is transformed in the process of being made public and collective, as memories move from the personal terrain to the Internet terrain and its Internet platforms.

In this intervention, a Web *memory palace* had been created from which a collection of high-resolution 'photo-images' offered different types of distancing in their transformed state, while the photo-image, unlike its 'source', revealed traces and expressions of memory through its metadata, and became a multi-layered narrative as it connected to other photo-image and public collections, as they shared algorithms.

The process undertaken in the work was an attempt to capture an embodied digital trace of memory – such as the tearing of a photograph, or the brush stroke of a painting – by scanning each photograph from the photography album with movement in the attempt to capture the embodied digital trace of memory, whilst deleting the original representation and leaving only its abstract traces. This was successful in some part, as I understood the role of the tool – the scanner – as a way to merge the embodied memory and silicon one. However, the tool was quite limiting in its embodied capturing of the memory object.

Also, although the collection of 'photo-images' is in a public space, and part of the Flickr community, it was lost in the billions of photographs on the site, quietly sitting there for individuals to find in a casual browsing mode – in this sense the collection became closer to a forgotten album, a lost memory palace than the 'live' *milieu de mémoire*.

In chapter 5, I discussed the *Rendezvous* art project, in which I worked with WRVS and BME Elders, older communities and charities, and Fabrica, an art gallery and charity based in Brighton. It investigated ways in which social and collective memories are processed differently in digital environments. I asked how new forms of 'holding

environments' are made and the degree to which they are even possible when the *transitional object* – originally offered by members of these communities – as an object of memory takes on a different material trace.

The project led to the understanding of how material and transitional objects of memory became voiceless digital memories when the subjective trace became technologised through non-prescribed software translations. It was clear that while the holding environment provided by Fabrica was ideal in encouraging expressions of memory, its material and digital connections were such that the transitional objects offered by the members of WRVS and BME Elders communities led to a loss of embodied and affective qualities during the computational creative process (using mostly corporate Adobe tools). The objects were no longer transitional but simply body-less objects, from which the overlapping of the subjective and objective body ceased. This led me to reflect on how bespoke tool(s) might offer a way to more productively investigate the holdings of embodied trace, of the memory and transitional object in the process of digitisation.

In chapter 6, I introduced *Untitled#21* a public intervention and a collaboration with Andrew Duff, sound artist. *Untitled#21* was part of a group exhibition that responded to an Ancient Mayan myth (Phoenix Brighton, 2012). In this collaboration both Andrew Duff and I wanted to explore ways in which audiences 'play' with interactive digital artworks, and more specifically what kind of play became possible. *Untitled#21* is a screen interaction, from which the audience's broad gestures would create 'glitch' aesthetics interrupting the original visual and audio narrative. In the attempt to make discreet technology the audience's play became limited on the possible levels of interactions (moving of arms and legs). In a sense, there had been no transitional object for the audience to hold on to, and there had not been enough play vocabulary for the audience to make it their own. Consequently I started investigating current exhibitions that have attempted to capture a digital art landscape - at times also including artworks that would have influenced such practice - and started reflecting on different interfaces and the forms of play they generated. This was not a scoping of all interfaces but ones that were reflective of these exhibitions. In doing so I was able to identify digital architectures of memory that also reflected my own previous explorations: 'virtual architectures' & *iremembr*, 'tangible architectures' & *Objets Trouvés* and *L'Album*, 'immersive tracking architectures' as projection of the self &

Untitled#21, 'immersive tracking architectures' as constructed space, the one architecture I had yet to explore, but one that would be built and discussed in the next chapter.

In chapter 7, I introduced *200.104.200.2*, a digital art installation created in the continued collaboration between myself and sound artist, Andrew Duff. *200.104.200.2* was discussed as a displaced reenactment of both contemporary digital social practice and the Internet as memory palace, in which a built memory palace, made of stainless steel and copper, enabled sonifications of memory traces to be provoked, created, stored and replayed as digital data. The piece was presented as a post-digital artefact (or collection of artefacts both physical and audible), inviting the user/participant to once again listen to the communication process just as we used to 'hear' the Internet before we were 'always on broadband' like we are today.

As a collaborative intervention which set out to undertake a deterritorialisation – of a form of memory from its location in the Web to this new architecture, and from the Internet cultural imaginary to public and personal cultural imaginary terrains – this implied architecture in the sense that it is social, that it can be navigated, in the sense that it goes beyond its material structure. *200.104.200.2* explored a codifying perspective and aesthetic, and operated as a dynamic system moving between the installation's own materiality, the technology's dimensions and participants' bodies.

In making *200.104.200.2*, which was also a copper-based communications 'network' - the network of wires that the cage supported in this sense 'became' the Internet- it was part of my intention to create a holding space from which one could chose to behold, participate and/or perform various acts of making and engaging with 'made' memories. I wanted to push memory as embodied expression and explore how memories could be formed and re-engaged with through sonic and material transformation in *200.104.200.2*, a memory palace.

This was only possible through the creative production of a democratic and creative instrument (both the MAX patch and structure) - one that could be played by most as the audience could find their own voice, their own subjective expression. These aspects in earlier memory objects had produced dysfunctioning memory palaces: with *Objets Trouvés*, voices had been stripped away through the use of software editing

programs; with *iremember*, voices had been lost in the hypermemory realm; with *Untitled#21*, the voices were expressionless as they were limited in their movements, in their vocabulary.

I needed to explore some of the digital materiality of the digital as a medium. In doing so, my research highlighted different platforms (screen-base/virtual, tangible and immersive) and different play that failed, interrupted and provoked forms of collective and networked memory, that could only be perceived in experience, as silicon systems merged with the *corps sauvage*.

It was the initial topology (fig.2, p.64) that enabled me to reflect on possible ways to articulate different digital architectures of memory as memory palaces. Nonetheless, the topology was essentially designed as, and remained, a tool to allow me to better formulate my research questions. Indeed, it ultimately reflects the impossibilities that formal systems create as fixed, bodiless representations, as became acutely evident in my struggle to express networked memory as a dynamic system.

200.104.200.2 overcame, in its materialisation and participation, the impossibilities of the visualisation of my 'topology of memory' as it became a networked memory palace, one that could create and collect collective expressions as examined in the discussion, investigations and interventions throughout this document.

8.2 Conclusion

I have discussed ways in which 'networked memory' can be perceived in its digital materiality as it crosses over personal and public cultural terrains. I have also discussed the ways its social architectures can become topological mapping, investigated in my creative practice by engagement with screen-based, tangible and immersive systems. Also and most importantly in the process of navigating different social architectures whilst creating memory palaces, I was able to recognise the role of digital tools as they evolved towards bespoke instruments, that sensitised the acts of memory, whilst highlighting issues around networked memory.

The tools used, mostly software editing programs and digital media hardware, ultimately were limited in capturing embodied expressions (as these tools were not

designed for such tasks). My actions became generic as they enabled me to save (or not) what forms of memory could be shared, and how they could be transformed. This issue did not show in my topology, as its articulations were based on the process of internalisation, externalisation and transitional objects. This struggle between embodied expressions and software tools highlights a need to investigate further what is gained, lost and muted in digital embodied modes of creativity. The need seems all the more acute as increasing aspects of collective memory are made digital, and as digital technologies continue to pervade our everyday life, forming a new language with new hierarchies.

However, and for now, I have through digital art practice, media and memory theories, my tailored creative methods (located in digital art and play theory), and in collaborations, used tools that have enabled the making of creative instruments that enable expressions of the *corps sauvage*, and expressions that are key to collective memory. Therefore, through my investigations on how to express ways in which networked memory as a dynamic system could be thought of (initially as an abstract model, and later a series of visual articulations (e.g. figures 1 & 2), I understood that it could not be finally represented in a fixed form. Instead I made manifest my own sense of memory, and its transformations, by offering a networked memory palace that was accessible to all, to share collective memory located in everyday actions.

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APPENDIX 1

ETHICS

Appendix 1 ethics**Pro forma approval for an MPhil/ DPhil research project**

(These procedures are adapted from the Social Research Association Guidelines. Please complete each section, **where applicable**. It is not expected that any answer should be more than 500 words, except where there are very specific issues of ethical concern to be addressed.)

This form should be completed and appended to the Research Proposal submitted for approval:

NAME OF STUDENT

Cécile Chevalier

NAME(S) OF SUPERVISOR(S)

Dr Caroline Bassett, Mr Kirk Woolford

PROJECT TITLE (This should be descriptive and give an indication of the broad area in which the research project is to be undertaken.)

RENDEZVOUS A collaboration with Fabrica, WRVS (New Larchwood Group Coldean & Memories Past Portslade), BME Elders (Black & Minority Ethnic Elders) and Cécile Chevalier (University of Sussex)

Keywords: reminiscence, technology, identity, culture, touch, haptics, engagement, Internet, interface, senses, emotion, narrative (Collective & personal), social space

PURPOSE OF STUDY (This should set out the aims and objectives of the study, including its value in terms of contribution to social scientific knowledge, policy debate, or the wider society, including those who may be the research subjects.)

1. Participants will have a sustainable role in promoting their voice within contemporary visual arts environments.
2. To reflect the group's interest in a social experience, while strengthening and developing the participants' relationship with Fabrica by tying in to Fabrica's exhibitions - *House of Vernacular* (vernacular photography) and *40-part Motet* (the voice).
3. To create a 'mobile box' allowing access to visual contemporary arts from various locations (i.e. care home, charities, small elderly communities)
4. To identify, through observation and discussion, some of the determining factors for participants to continue their engagement with the visual contemporary arts.
5. To explore how cultural objects such as exhibited photograph, personal photograph are perceived and how the construction of narrative is altering between the artifacts

Appendix 1 ethics

of being part of WRVS or/and BME Elders community and of a safe environment where individuals can feel safe to participate and share their memories to peers.

Participation in this project will be offered to the WRVS community as a part of the WRVS and BME Elders communities. The project will offer three workshop and 2 outings. All activities will share the same research objectives.

RESEARCH METHODS

Qualitative data will be gathered through a number of case studies set in interactive workshop settings (see appendix 3). Each workshop has been designed to facilitate scenarios in which participants will interact and engage with objects actively. This is to enable participants to provide meaningful feedback based on real experiences. Each workshop has been designed to encourage experiences that will provide insights into the research objectives. Data will be gathered through observation, recorded group discussions and informal interviews. Utilising three methods of qualitative research will enable outcomes from a number of perspectives to be 'triangulated' to identify common factors -achieving a more balanced and meaningful understanding of the research objectives. The general public will also be able to engage and review the work created with the gathered materials from the participants.

An online blog will mirror the collaborative process and its critical review.

THEORETICAL FRAMEWORK FOR RESEARCH PROJECT

The critical framework draws upon Marshall McLuhan and Merleau-Ponty's explorations of the role of objects in mind and body relations, raising questions about how cultural objects within digital and analog formats are perceived and how the construction of narrative is altering with artefacts within social environments (social network, community centre, at gallery). Presenting questions such as: Is engagement informed by a digital fictional object or by the technology? How cultural objects such as exhibited photograph, personal photograph are perceived and narrated? How does the construction of narrative alter between the artifacts and their social environments (community centre, art galleries and Internet/cyberspace) and its narrator?

WORKSHOP & GROUP VISITS

The workshops aim to encourage a broader approach to contemporary arts, by exploring the relationship between embodied, personal narratives and the social environment – from Fabrica gallery, arts galleries, to WRVS and BME Elders community centre.

The workshops and visits will explore of the role of objects in mind and body relations with individual over 70 raising questions about how cultural objects (i.e. exhibited photograph, personal photograph) are perceived and how the construction of narrative is altering between the artifacts and their social environments (i.e. Internet, art galleries, community centre).

The workshops will be facilitated and documented by Nicola Bengé and Cécile Chevalier.

CASE STUDY WORKSHOPS 1,2,3 & 4

The participants will be asked to select one of the 3 offered activities:

- **'Memento activity'** Laying out various mementos on table. People have a few minutes to pick their favourite 3. Group go round to talk through why people have picked the ones they did. Asking questions about the memories from this and personal style.
- **'Reminiscence about pictures/objects'** in your home at a specific time (20s; 40s, childhood). Do you remember them? What kinds of pictures/object?

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and their social environments (community centre, art galleries and Internet/cyberspace)

6. To identify user perceptions of active vs passive engagement with objects through narrative construction.
7. To identify significant relationship between user engagement with analog and digital objects (i.e. the photograph and its digital version).
8. To identify, through observation and critical discussion, relationships between physical and cognitive forms of interaction in persons over the age of 70 years.
9. To develop research skills necessary for working with individuals in the community. These skills include, conducting interviews, facilitating practical workshops, collecting data (visual and audio recordings) and evaluating outcomes.

RESEARCH BACKGROUND (This should provide the rationale for the study. For example, does it repeat a study done previously and, if so, why repeat it? What research methods are to be used?)

This collaborative study between Fabrica, WRVS, BME Elders & Cécile Chevalier (University of Sussex) explores the relationships between narrative, interactivity and reminiscence in individuals over the age of 55 years, with the purpose of contributing to the Fabrica's audience research and to conduct a series of activities that will inform the development of Cécile Chevalier's PhD project.

Fabrica has previously worked with WRVS, Portslade, during the initial research phase of *Rendezvous*, and is keen to continue and extend that relationship while promoting the accessibility to contemporary visual arts to the over 70 years of age.

WRVS Portslade & Coldean & BME Elders motivation is a social one, and see visiting the gallery as a social event to be carried out as a group.

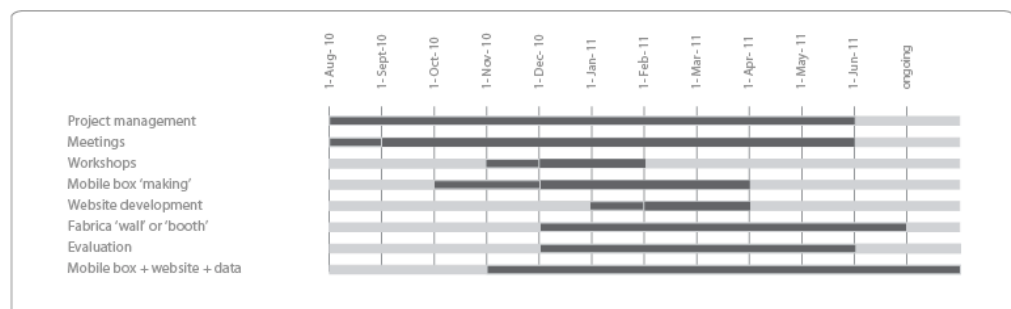
Nicola Benghe is a freelance community artist and reminiscence facilitator, Nicola will be facilitating the series of activity. She has worked for numerous clients such as [Age Exchange](#) and [Brent Council](#), and continues to work with the over 55s to promote heritage and social history exhibitions through oral history recordings, intergenerational activities and reminiscence workshops, resulting in 'memory quilts', plays, interactive tea services and a heritage website to record memories of the way we used to live.

Nicola Benghe has worked as a reminiscence and oral history project coordinator for a national charity such as WRVS and community group such as BME Elders. *[for CV see appendix 2]*

The project aims to increase the engagement of elderly communities with Fabrica as a social space while creating a role, a voice for its participants. It aims to do so by continuing developing their relationship with the gallery and tie in to the exhibitions at Fabrica, House of Vernacular (vernacular photography) and 40-part Motet (the voice).

RESEARCH DESIGN (Describe briefly what will be done and how research subjects are expected to participate? What will be expected of them? Time commitments and the data-collection sections should be specified. Data analysis and methods should be indicated.)

A Study Exploring the Relationships Between Interactivity and Reminiscence is suitable for the over 55, wishing to meet more people, all sessions are free. It will run with the support of Nicola Benghe Memory facilitator for WRVS, Cultural Heritage Plus. The participants will benefit



POTENTIAL BENEFITS AND HAZARDS: RESEARCH PARTICIPANTS
(What risks to research subjects are entailed by their participation? Are there any potential physical, psychological or disclosure risks that can be anticipated? What is the balance of possible benefits and potential harms? What procedures have been established for the care and protection of research participants – eg insurance or medical cover – and the control of any information gained about them?)

Potential benefits for research participants will include participation in community activities specifically designed to encourage social interaction in a safe environment, active engagement with research that seeks to benefit the over 55 communities.

However questions will require participants to reminisce on past experiences and memories. This could, unintentionally, provoke emotional responses or upset the individuals. Cécile Chevalier is currently a WRVS volunteer and has gained previous experience in working with elderly communities through previous research project. Cécile will also get the support of Nicola Benghe who is an experienced memory facilitator and has received training in working with elderly community through WRVS and Heritage Plus. Nicola Benghe has also previously work with both WRVS and BME Elder communities.

Participants may require refreshments or toilet access more often than is scheduled in the workshop timetables. Participants can access all necessities freely at all times. Wheelchair access. The community centre has a wheelchair access.

Participants may not want to participate in the project for the full two hours scheduled for each project. Participants can choose when to participate in each workshop and for as long as they wish to. There is no obligation to participate in or complete any workshop activity.

A few participants will have limited mobility – or physical disability – taxi will be provided to guaranty their inclusivity in the project.

Fabrica and Cécile Chevalier will request consent from participants for their contribution in the study and for recordings of the event to be made via signed consent forms. An information sheet will be provided for participants at least one week before participation and again on request.

[for consent form see appendix 5]

POTENTIAL BENEFITS AND HAZARDS: RESEARCHERS (What risks to researchers are entailed by the project? What risk assessments have been made? What procedures have been established for the care and protection of research participants?)

Cécile Chevalier is at no risk. Cécile Chevalier will be supported at all time by Nicola Benghe and each charity – Fabrica, WRVS and BMECP.

POTENTIAL BENEFITS AND HAZARDS: RESEARCH PARTICIPANTS (What risks to research subjects are entailed by their participation? Are there any potential physical, psychological or disclosure risks that can be anticipated? What is the balance of possible benefits and potential harms? What procedures have been established for the care and protection of research participants – eg insurance or medical cover – and the control of any information gained about them?)

Potential benefits for research participants will include participation in community activities specifically designed to encourage social interaction in a safe environment, active engagement with research that seeks to benefit the over 55 communities.

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A few participants will have limited mobility – or physical disability – taxi will be provided to guaranty their inclusivity in the project.

Fabrica and Cécile Chevalier will request consent from participants for their contribution in the study and for recordings of the event to be made via signed consent forms. An information sheet will be provided for participants at least one week before participation and again on request.

[for consent form see appendix 5]

POTENTIAL BENEFITS AND HAZARDS: RESEARCHERS (What risks to researchers are entailed by the project? What risk assessments have been made? What procedures have been established for the care and protection of research participants?)

Cécile Chevalier is at no risk. Cécile Chevalier will be supported at all time by Nicola Benghe and each charity – Fabrica, WRVS and BMECP.

RECRUITMENT PROCEDURES (How have research participants been recruited? Is there any sense in which their participation might be 'obliged' – eg as students, prisoners or patients?)

WRVS Portslade, WRVS Coldean and BME Elders have been approached to collaborate on the project- each member of the selected community is free to opt out of any activity at any stage.

INFORMED CONSENT (Where appropriate, consent of participants must be requested, preferably in writing, and participants given an information sheet setting out the reasons for the study, the benefits of their participation and how the data is to be stored. Copies of the consent forms to be used should be appended. Where covert research methods are to be used, there should be a brief justification of how the interests of those being observed will be protected.)

WRVS and the researchers will request consent from volunteers for participation in the study and for recordings of the event to be made via signed consent forms. An information sheet will be provided for participants at least one week before participation and again on request.

DATA PROTECTION (The project should comply with the requirements of current legislation. How is the data to be stored, with what degree of security and what third parties will have access to it – eg public data archives?)

The collected data will be kept in a lock cabinet while edited reports, films, photographs and audio will also be archived at the secured Fabrica archive.

CONFIDENTIALITY AND ANONYMITY (What steps are to be taken to safeguard the confidentiality of records and the identity of research participants?)

Publications will not identify people by name, unless they are in agreement for their name to be published. Consent will be requested before any multimedia (audio, film, photography) recordings are published. At anytime the participant can choose to opt out of that signed agreement.

.....
TO BE SIGNED BY THE STUDENT:

I confirm that I have read the University Guidelines for Research and agree to abide by them:

I confirm that I have read the Social Research Association Guidelines or Guidelines of my professional association [.....] and agree to abide by them:

Should the research project change in a significant way from that previously approved, I accept that it is my obligation to bring those changes back to Director of Graduate Studies for further consideration for approval:

TO BE SIGNED BY THE SUPERVISOR(S):

I/We confirm that I/we have read the University Guidelines for Research and agree to abide by them in supervision of this project:

I/ We confirm that I/we have read the Social Research Association Guidelines or Guidelines of my/our professional association [.....] and agree to abide by them in the supervision of this project:

TO BE SIGNED BY THE DIRECTOR OF GRADUATE STUDIES

I confirm that this project has been approved (where there are special issues of concern, these must be brought forward to the School Research Governance Committee for consideration. A copy of all Research Proposals must be kept for audit by the School Research Governance Committee.):

Rendezvous Workshops

A collaboration with Fabrica, WRVS, BME Elders and Cécile Chevalier (University of Sussex).

Research focus: personal and collective narrative, memento, and social space
Dates: Jan/Feb 2011

Aim

To explore the relationships between older people's narrative and engagement with contemporary visual art as a social environment, while focusing on identity and sense of quality of life through visual objects.

Objectives

- Participants will have an optional role in promoting their voice within contemporary visual arts environments.
- To reflect the group's interest in a social experience, while offering the participants further involvement with Fabrica, art gallery, Brighton.
- To create a 'mobile box' allowing access to visual contemporary arts from various locations (i.e. care home, charities, small elderly communities)
- To identify, through observation and discussion, some of the determining factors for participants to continue their engagement with the visual contemporary arts.
- To explore how cultural objects such as exhibited memento, personal memento are perceived and how the construction of narrative is altering between the artifacts and their social environments (community centre, art galleries and Internet)

The project will aim to identify

- Individual and behavioural factors [which] determine decisions to engage in such activities and how these change
- The effects of personal narrative, support networks and cultural differences on attitudes towards contemporary visual art as a social space.

Workshops

The workshops aim to understand how the lives of older people can be improved by examining the construction of narrative with artefacts (such as memento) in social environments.

The workshops will be located in Brighton/Hove/Portslade.

The participants will be asked to select one of the 3 offered activities:

- **'Memento activity'** Laying out various mementos on table. People have a few minutes to pick their favourite 3. Group go round to talk through why people have picked the ones they did. Asking questions about the memories from this and personal style.
- **'Reminiscence about pictures/objects'** in your home at a specific time (20s; 40s, childhood). Do you remember them? What kinds of pictures/object?
- **'Show and tell'** – Each to bring a memento or mementos from a specific time (childhood, 20s, 30s, etc.) during the session and to discuss this with the rest of the group. What it is, why you brought it, why it's special to you?

2pm Introduction of the workshop, the research + Q&A and of each other

2:15pm Group discussion. The group will discuss their interpretations of the memento and how their senses or lack of a specific sense possibly altered their experiences.

3pm *tea & cake break*

3:30pm Group discussion. The group will discuss their interpretations of the collections and how their senses or lack of a specific sense possibly altered their experiences.

3pm Return to "today" after each session ends, Q&A, next workshop

4pm End of workshop

All workshops will be recorded with audio and photography recordings.

Selected recorded material will be gathered to make a digital memory box (computer, photograph-object as trigger, Internet) as well as having a dedicated space in Fabrica next exhibition - *The Forty Part Motet* by Janet Cardiff.

RENDEZVOUS QUESTIONNAIRE

A collaboration with Fabrice, WRVS (New Larchwood Group Coldean & Memories Past Portslade), BME Elders (Black & Minority Ethnic Elders) and Cécile Chevalier (University of Sussex)

ABOUT YOU

NAME: _____

Where do you live?

Portslade ☐

Hove ☐

Coldean ☐

Brighton ☐

Other: _____

Prefer not to say ☐

What town or county or country do you originated from?

Prefer not to say ☐

Which of these age bands are you in?

☐ 55-64

☐ 65-69

☐ 70-74

☐ 75-79

☐ 80-84

☐ 85-90

☐ 91 +

Prefer not to say ☐

RENDEZVOUS QUESTIONNAIRE

A collaboration with Fabrica, WRVS (New Larchwood Group Coldean & Memories Past Portslade), BME Elders (Black & Minority Ethnic Elders) and Cécile Chevalier (University of Sussex)

Which of the employment sector are you retired from?

- ☐ Art/cultural industries
- ☐ Creative/ communication/ media
- ☐ Charity /voluntary
- ☐ Education
- ☐ Local Government /Civil Service

Other _____

Prefer not to say ☐

ABOUT THE WORKSHOP

Do you enjoy contemporary art?

Yes ☐ No ☐

What kind of workshop are you happy to do?

(Please select one or more option)

- Life drawing /drawing ☐ Theatre ☐ Reminiscence ☐
- Making ☐ Learning new skill ☐ Day Trip ☐
- Museum and gallery visits ☐ Singing ☐ Dancing ☐
- Film/book club ☐ Other: _____

RENDEZVOUS QUESTIONNAIRE

A collaboration with Fabrica, WRVS (New Larchwood Group Coldean & Memories Past Portslade), BME Elders (Black & Minority Ethnic Elders) and Cécile Chevalier (University of Sussex)

Did you find the workshop too tiring?

Yes ☐ No ☐

What time of the day would suit you best to attend a workshop?

Can you travel to Brighton lanes independently or would you need travel assistance?

Yes ☐ No ☐

What motivated you to contribute to Rendezvous workshops?
(Please select one or more option)

☐ See a particular exhibition. Which one? (Please specify)

☐ Visit the Hove museum

☐ Socialising

☐ Visit the cafe/restaurant

☐ To contribute to research

☐ Enjoy a new experience

☐ To meet new people

☐ Other (Please specify)

Appendix 1 ethics**RENDEZVOUS QUESTIONNAIRE**

A collaboration with Fabrice, WRVS (New Larchwood Group Coldean & Memories Past Portslade), BME Elders (Black & Minority Ethnic Elders) and Cécile Chevalier (University of Sussex)

Did anything interfere with your ability to enjoy the workshop?

Yes ☐ No ☐

(If YES, please specify)

What would or is improving your quality of life?

- ☐ Family support
- ☐ Being part of a community
- ☐ Being active
- ☐ Socialising
- ☐ Sharing your life experiences
- ☐ other (*please specify*)

We thank you for your time.

RELEASE FORM*A collaboration with Fabrica, WRVS, BME Elders and Cécile Chevalier (University of Sussex)*

Name: _____

Your voluntary contribution of recorded narratives, photographic and other materials will form part of the collection of materials relating to the Rendezvous project. This form has been drawn up to ensure that your contribution is used only in accordance with your wishes.

I understand and agree that the copyright of the recorded materials and its content will be shared between myself, Fabrica and Cécile Chevalier and make available in the following ways:

Archive	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Research purposes	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Research practice	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Educational purposes	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Public performance, display, exhibition	Yes <input type="checkbox"/>	No <input type="checkbox"/>
As a source of information that may be published	Yes <input type="checkbox"/>	No <input type="checkbox"/>
For broadcasting purposes by Internet, radio or TV	Yes <input type="checkbox"/>	No <input type="checkbox"/>

May your name be mentioned?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
-----------------------------	------------------------------	-----------------------------

Are there any further restrictions you wish to place on this material?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
--	------------------------------	-----------------------------

Please specify

Narrator / participant _____ (Signature) Date _____

Address _____

Interviewer/ facilitator _____ (Print)

_____ (Signature) Date _____

Fabrica, 40 Duke Street, Brighton, BN1 1AG
 Cécile Chevalier, University of Sussex, Silverstone Building, School Office, Arts Road, Falmer, BN1 9RG

APPENDIX 2

RENDEZVOUS AUDIO SHEETS

Appendix 2 Rendezvous Audio Sheets

	00:46:02	00:48:50	tennis ball - football - playing in the street	rod	tennis ball	sport/activity
MZ02	00:49:44	00:49:56	how old are you're only a boy	rod/rod.p		sentence
	01:00:00	01:08:00	photo album from the argus (nikki)	rod+group		
MZ02	01:08:26	01:10:26	photo (1942) - rod.p aged 2 - being a foreigner, being from Yorkshire	rod.p	photo	
	01:12:30	01:13:39	my mum ...1918 born... (b1917)	rod.p	photo	
MZ02	01:14:55	01:15:30	being name rodney	rod.p	battleship	personal narrative
MZ02	01:16:00	01:19:07	newspaper article titanic	rod.p	newspaper	history/culture
MZ02	01:19:07		newspaper article king giving upi his throne	rod.p	newspaper	history/culture
MZ04	00:01:30	00:03:10	apprentership as opp to going to university	Gladys		education
MZ04	00:03:11	00:03:22	no many years to look forward to	Gladys		getting older
MZ04	00:03:23	00:03:50	going to australia again - mobility prob	Gladys		traveling
MZ04	00:04:00	00:04:11	looking through the old albums and remember	Gladys		reminiscing
MZ04	00:04:12	00:04:55	but I don't think I have got a lot of ambition now... now it is memories really...	Gladys		ambition
MZ04	00:04:59	00:05:31	you miss feeling needed... [tearful] ... if I didn't have much family, I would want	Gladys		getting older
MZ04	00:05:32	00:06:29	health being good - help other people along ...	Mary		getting older
MZ04	00:06:30	00:07:10	so helpless to become a burden to people, ... ask the doctor for something to ta	Gladys		getting older
MZ04	00:07:19	00:07:29	I just want to leave as long as possible ...	Alan		getting older
MZ04	00:07:30	00:08:31	going on holiday south africa...	Alan		traveling
MZ04	00:09:21	00:10:20	Doris's older sister (doris 107)	Rod.P		getting older
MZ04	00:10:21	00:11:20	family and friends...	Pat		getting older
MZ04	00:11:20	00:11:32	I was born in 1952, I can remember that, but I can't remember how old I am'	Pat		getting older
MZ04	00:11:33	00:12:06	I always wanted a cottage in the country with a few ducks and chicken...	Rod.P		ambition
MZ04	00:12:09	00:12:16	retired when I was 65, but it never happen...	Rod.P		getting older
MZ04	00:12:17	00:12:34	I like going out and meeting people...	Rod.P		getting older
MZ04	00:12:35	00:13:12	friends around you... helps you carrying on	Gladys		getting older
MZ04	00:14:13	00:15:20	Gladys's husband died... after being married for 66years...	Gladys		personal narrative
MZ04	00:15:21	00:15:41	Couldn't bare to sit indoor all day... not even for one day...	Rod.P		getting older
MZ04	00:16:00	00:17:24	family so good, independence	Rod		getting older
MZ04	00:17:25	00:17:36	I want to leave as long as I can'	Rod		getting older
MZ04	00:17:37	00:18:49	disability & independence	Rod		getting older
MZ04	00:18:50	00:20:30	family in australia - daughter sort it finance for his flat [tearful] - story about gra	Rod		getting older
MZ04	00:21:00	00:26:00	discussion about current vs past generations	group		
MZ04	00:26:00	00:30:00	lottery ticket & hope for others	group		ambition

HOVE MUSEUM WITH BME ELDERS						
	TIME in	TIME out	NOTE	WHO	object	theme
MZ05	00:05:08	00:05:13	dreaming'			
MZ05	00:05:50	00:07:20	worries about getting old are keeping -up with the technoly'	colin		today
MZ06	00:00:10	00:01:33	trying early camera object; 'oh!'; 'it's wonderful'			reminiscing
MZ06	00:06:55	00:07:30	car toys			toys
MZ06	00:07:40	00:08:30	dolls Cabbage ones... 'used to make our own dolls and play with it'			toys
MZ06	00:10:10		all about hove and how it came to be			

WRVS COLDEAN'S LARCHWOOD						
	TIME in	TIME out	NOTE	WHO	object	theme
MZ02	00:09:25	00:12:30	mouthorgan - music	Peggy	mouthorgan	music
MZ02	00:14:00	00:14:25	his wife	alan	his wife	relationship
MZ02	00:14:35	00:15:15	everything I owned gone	alan		
MZ02	00:15:30	00:16:12	toy keyboard	alan	toy keyboard	
MZ02	00:17:00	00:19:30	teddy(bear) 36 years old	nikki	teddybear	toy
MZ02	00:20:18	00:20:54	brother falling asleep - comfort	rod.p	ear	personal narrative
MZ02	00:23:17	00:25:57	school photo - 1928 (8 years old)	gladys	photo	
MZ02	00:27:10	00:27:17	what made you bring this photo? That was the only one I could find!	gladys	photo	fact: memory
MZ02	00:27:22	00:27:27	but it is lovely to go back to your memories	Peggy?		reminiscing
MZ02	00:27:45	00:27:57	photo for special occasion	gladys	photo	photo
MZ02	00:27:57	00:28:10	school photo: get that stupid grin of your face	rod.p	photo	photo
MZ02	00:28:11	00:28:57	school experience - ruler	peggy		personal narrative
MZ02	00:28:58	00:29:14	not allow your own feeling (gladys)	group		
MZ02	00:29:15	00:30:26	being in a 'home' - being picked on	peggy		personal narrative
MZ02	00:30:36	00:30:55	strict 'home' - being cane.slipper	Peggy	cane+slipper	personal narrative
MZ02	00:31:15	00:32:20	do you remember the year you were born?	gladys/peggy		personal narrative
MZ02	00:34:45	00:36:05	my grandmother house made from memory	rod.p	memory box	personal narrative
MZ02	00:36:50	00:37:47	being bombed (5-6 years old)	rod.p		personal narrative
MZ02	00:40:49	00:43:50	being abandoned	peggy		personal narrative

Appendix 2 Rendezvous Audio Sheets

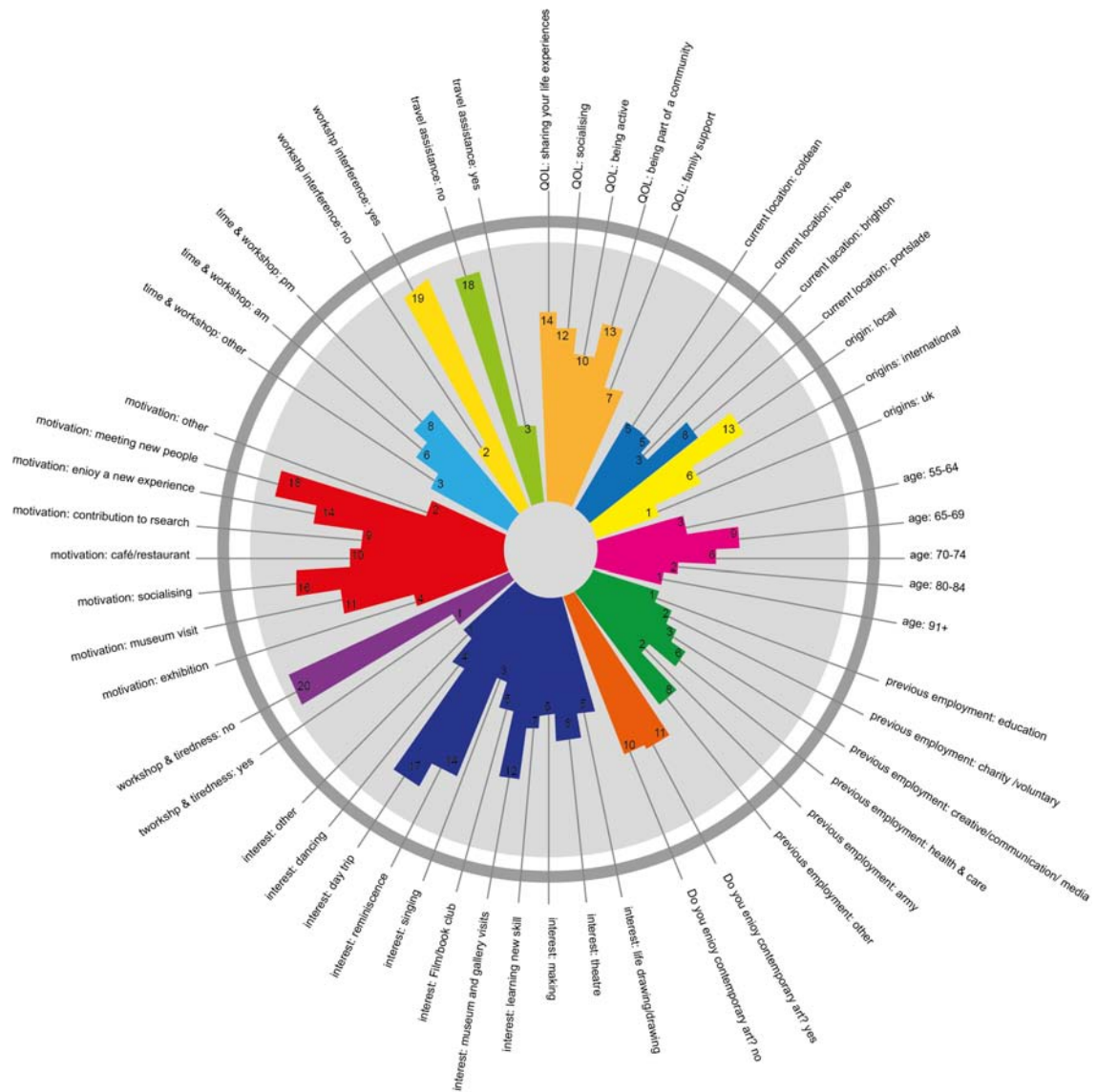
WRVS PORTSLADE'S MEMORIES PAST						
	TIME in	TIME out	NOTE	WHO	object	theme
MZ03	00:10:50	00:16:09	learning to drive - regret, the other would be to play an instrument	Janet/janyce	car	regret
MZ03	00:16:10	00:16:43	sunshine away - singing	group		
MZ03	00:18:09	00:23:33	photo boat - favourite ship		photo	personal narrative
MZ03	00:24:00	00:25:59	scottish flag ... scottish	Rod.P		personal narrative
MZ03	00:26:00	00:28:00	cottage where he would have like to live in To build a log cabin	Rod.P		ambition
MZ03	00:28:40	00:31:00	To build a log cabin...	Rod.P	postcard	ambition
MZ03	00:31:01	00:036:30	to dress up... learning an instrument		image	regret/music
MZ03	00:38:20	00:40:38	camel	jane ?	camel	traveling
MZ03	00:42:12	00:45:12		farah	frame photo	history/culture
MZ03	00:45:13	00:45:13	the lovely cup... sharing	farah	cup/trophy	history/culture
MZ03	00:48:40	00:50:10	letter read (cup)	nicola	cup/trophy	history/culture
MZ03	00:50:38	00:55:30	book -	farah	photo book	history/culture
MZ03	00:57:01	00:58:17	loved to learn to dance ... wish I could learn to dance and learn to drive	?	wed photo o	personal narrative
MZ03	00:58:18	00:59:22	ballroom dance - love being a children nurse	?		regret
MZ03	01:01:54	01:03:42	political correctness, get on my nerves... newspaper... to get read of the lot of them and start	rod.p		history/ culture
MZ03	01:04:01	01:04:56	to be hairdresser ... to be a nurse....			regret
MZ03	01:05:00	01:05:18	good health... family... die quickly	mrs.		getting older
MZ03	01:05:20	01:05:51	passion for singing being a crooner like frank sinatra	mr		ambition/regret
MZ03	01:05:52	01:06:50	+ raf pilote	mr		ambition/regret
MZ03	01:09:28	01:11:00	win lottery - buy a bit of ground and build my own house - grand daughter ...	christni??		ambition
MZ03	01:11:30	01:13:33	to leave independly ...	janet		getting older
MZ03	01:14:26	01:14:40	not going out with some curls on ... tbc			
MZ03	01:14:41	01:15:31	independence ... you			getting older
MZ03	01:17:14	01:18:24	people doing things for me			getting older
MZ03	01:18:29	01:18:43	sort the world out	jane		history/culture
MZ03	01:18:44	01:19:10	some dreams that neither of us would want to go before the other	jane	***	relationship
MZ03	01:19:30	01:20:00	story/joke told- last man left alive ...	rod		humour

APPENDIX 3

QUESTIONNAIRES, POST WORKSHOPS

(from participants found on the USB stick, also see figure 3, p.71)

Appendix 3 questionnaires, post workshops

Questionnaires results overview

APPENDIX 4

FINAL REPORT, FROM GROWING OLDER AUDIENCES, FABRICA

(Please see USB stick)

APPENDIX 5

WORKSHOP LEAFLET INTRODUCTION

Rendezvous Workshops

A collaboration with Fabrica, WRVS, BME Elders and Cécile Chevalier (University of Sussex).

Research focus: personal and collective narrative, memento, and social space
Dates: Jan/Feb 2011

Aim

To explore the relationships between older people's narrative and engagement with contemporary visual art as a social environment, while focusing on identity and sense of quality of life through visual objects.

Objectives

- Participants will have an optional role in promoting their voice within contemporary visual arts environments.
- To reflect the group's interest in a social experience, while offering the participants further involvement with Fabrica, art gallery, Brighton.
- To create a 'mobile box' allowing access to visual contemporary arts from various locations (i.e. care home, charities, small elderly communities)
- To identify, through observation and discussion, some of the determining factors for participants to continue their engagement with the visual contemporary arts.
- To explore how cultural objects such as exhibited memento, personal memento are perceived and how the construction of narrative is altering between the artifacts and their social environments (community centre, art galleries and Internet)

The project will aim to identify

- Individual and behavioural factors [which] determine decisions to engage in such activities and how these change
- The effects of personal narrative, support networks and cultural differences on attitudes towards contemporary visual art as a social space.

Workshops

The workshops aim to understand how the lives of older people can be improved by examining the construction of narrative with artefacts (such as memento) in social environments.

The workshops will be located in Brighton/Hove/Portslade.

The participants will be asked to select one of the 3 offered activities:

Appendix 5 workshop leaflet introduction

- **'Memento activity'** Laying out various mementos on table. People have a few minutes to pick their favourite 3. Group go round to talk through why people have picked the ones they did. Asking questions about the memories from this and personal style.
- **'Reminiscence about pictures/objects'** in your home at a specific time (20s; 40s, childhood). Do you remember them? What kinds of pictures/object?
- **'Show and tell'** – Each to bring a memento or mementos from a specific time (childhood, 20s, 30s, etc.) during the session and to discuss this with the rest of the group. What it is, why you brought it, why it's special to you?

2pm Introduction of the workshop, the research + Q&A and of each other

2:15pm Group discussion. The group will discuss their interpretations of the memento and how their senses or lack of a specific sense possibly altered their experiences.

3pm *tea & cake break*

3:30pm Group discussion. The group will discuss their interpretations of the collections and how their senses or lack of a specific sense possibly altered their experiences.

3pm Return to "today" after each session ends, Q&A, next workshop

4pm End of workshop

All workshops will be recorded with audio and photography recordings.

Selected recorded material will be gathered to make a digital memory box (computer, photograph-object as trigger, Internet) as well as having a dedicated space in Fabrica next exhibition - *The Forty Part Motet* by Janet Cardiff.

APPENDIX 6

RENDEZVOUS EVENT NOTICES

Relativity

A day of creative events celebrating the theme of family



An exciting, drop in, free event at Fabrica gallery celebrating family life through moving memories from Caplan films, family portraits with artist Jake Spicer, Curious Cakes, a contemporary still life reel of family rituals, and creative workshops with Jane Rindham.

We follow this event with a cosy evening showing of the classic film *Mid-August Lunch* with popcorn, mulled wine, cocoa and mince pies, all for £10.

aimed at the whole community, especially older people. Enjoy tales, films, creative activities and tea. Visitors can relax and encounter visual art in an entertaining, fun, creative way.

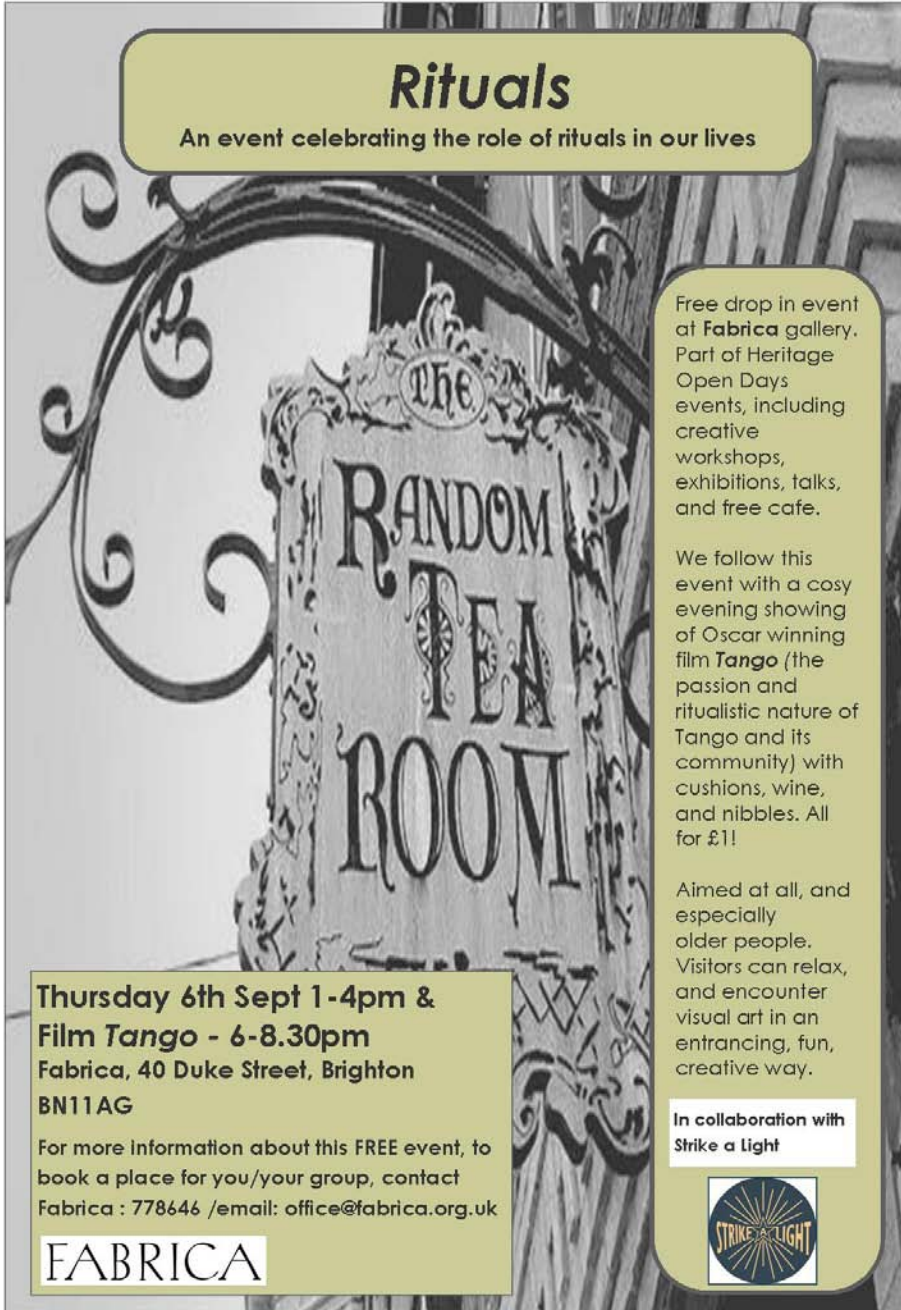
In collaboration with **Strike a Light**



Tuesday 6th December 11-4pm & Film Mid-August Lunch 6-8.30pm
 Fabrica, 42 Duke Street, Brighton BN1 1AG

For more information about this FREE event, to book a place for you or your group, contact Fabrica on 01273 778 646 or email office@fabrica.org.uk

FABRICA



Rituals

An event celebrating the role of rituals in our lives

Free drop in event at **Fabrica** gallery. Part of Heritage Open Days events, including creative workshops, exhibitions, talks, and free cafe.

We follow this event with a cosy evening showing of Oscar winning film *Tango* (the passion and ritualistic nature of Tango and its community) with cushions, wine, and nibbles. All for £1!


Aimed at all, and especially older people. Visitors can relax, and encounter visual art in an entrancing, fun, creative way.

Thursday 6th Sept 1-4pm & Film *Tango* - 6-8.30pm
Fabrica, 40 Duke Street, Brighton BN11AG

For more information about this FREE event, to book a place for you/your group, contact
 Fabrica : 778646 /email: office@fabrica.org.uk

FABRICA

In collaboration with
Strike a Light



Date: 20-August 2012

Dear

You are invited to the **Ritual event** organised by **Nicola Benge & Fabrica** (see enclosed flyer for more information) where my work amongst other works and activities will be showcase. The Ritual event is an opportunity to see one of the outcome of my collaboration with WRVS, BME Elders & Fabrica.

The Ritual event will take place on:

**Thursday 6th of September, between 1-4pm
at Fabrica, Brighton**

The event is **free** but you will need to book a place by phoning Fabrica on **xxxxxx**, so that they can make sure they have enough tea and cake for everyone!

I thank you for your time and contribution. It was a true pleasure to meet you and hear your stories.

Kindest regards,
Cécile

Note: if you have any trouble with mobility do let Fabrica know as they should be able to arrange transport for you.

APPENDIX 7

ARTWORKS

portfolio iremembr rendezvous untitled#21 200.104.200.2

CECILE CHEVALIER PORTFOLIO

Remembering to remember: a practice-based study in digital re-appropriation and bodily perception

Memory, as well as its cultural role, has been transformed through technology and become highly computational, thus altering not only the ways in which memory is stored, embodied and performed, but also how memory is thought about. There is a long history of engagement and interventions between art practice and questions concerning memory that have produced new possibilities in investigating these digital cultural transformations of memory. I have situated my work within this tradition.

As digital technology alters ways in which knowledge is produced, stored, connected and shared, new terrains, tools and artefacts are formed; new cultural practices alter the ways in which we remember and the ways in which memory is processed, destabilising traditional 'historically encoded' social habits: religion, authority, morality, traditional values, or political ideology' (Diamantaki, 2013). Drawing from Aleida Assmann's *ars and vis* (2011), respectively the concepts of memory storage (e.g., technology, arts) and memory energy (e.g., the act of remembering), I investigate the relational materiality and interactive aesthetic in new memory (e.g., Andrew Hoskins's 'networked memory', 2011), whilst drawing on play theory (Winnicott, 1978) and digital art as creative deterritorialisations. I also use various theorisations of memory and embodiment (e.g., Bergson, Merleau-Ponty, Nora, Erll, van Dijk) to test out current memory materiality as it transits to or from Internet memory palaces. I thus investigate and ultimately provide a triangular perspective: I am interested in how memory moves from a 'public cultural imaginary' to a specifically Internet one, from a 'personal cultural imaginary' to an Internet one, and from an 'Internet cultural imaginary' to a public imaginary.

A series of digital art interventions – *iremembr* (2009–15); *Rendezvous* (2010–15); *Untitled#21* (2012) and *200.104.200.2* (2012–15) – were created and connected to different questions about memory, such as what is meant by collective memory today and how digital materiality of memory can be understood. These questions have been taken up in media art and are relevant to digital culture studies and critical studies, thus offering a perspective of new forms of doing memory between the digital space, the actual world and its new material interventions that requires that we rethink of memory. Each uses forms of digital mediation, from the scanning of memory objects, to RFID and QR code technology, to MAX MSP software and tool-making, and to Web services and their algorithms.



portfolio iremembr rendezvous untitled#21 200.104.200.2

I REMEMBR

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Statement

iremembr (2009-15), is a media art work that investigates relational materiality of memory through digital memory objects, proximity and intimacy. In this intervention, a web memory palace has been created in which a collection of high-resolution photo-images merge the personal with the public memory, while the photo-image itself reveals the multilayers, intercorporealities, traces and expressions of memory. The artwork's questions surround storage and the act of memory, as well as the expression of the subjective embodied memory trace – as body expressions are being silenced in the process of technologisation and cultural transformation.

Methods

iremembr acts as a memory palace that, through its processes, captures the transition of the traditional family photo album to the digital. Flickr photo album, and its experience creates new forms of memory, thus leading to digital materiality, trace and place of memory. *iremembr* is a series of five images located on the Flickr Web service. Each image has been taken from my personal family album and scanned at over 10,000 dots per inch (DPI), merging the representation of the original photograph with its human interaction and with motion. The high DPI enables multi-dimensional forms of the photo-image: as you zoom in, its aesthetic and experience become less painterly and more digital noise. Through this, in addition to tagging and Flickr auto-tagging, the work plays with various dualities of the expression of memory. In doing so, my approach is close to the auto-ethnography method in that I investigate how my memory object is transformed in the process of being made public and collective.

Context

Annette Kuhn (2007) argues that the vernacular photograph is key to cultural memory and memory work, and that photographs provide insight to social and cultural aspects of memory. In this case cultural memory can be reflected as part of an established system of materiality and experience, as the Flickr Web services develop, permute, enable and revoke memory as expression, as desire and as politics. This is found in the work of Erica Scourti's *So Like You* (2014), where she manipulates digital data sources using Google's 'Search by Image' engine, and Lev Manovich's *Selfcity* (2014), a collection of selfies and media visualisations. In both of these works behavior patterns are revealed through various algorithms to collect, organise and share the everyday (e.g., Facebook's 'Timeline'; Flickr's 'Camera Roll', Instagram), leading to new media art practices being replaced by big data creative practices (Manovich, 2013).

Create a site



Documentation

iremembr - 2009-15 (click [here](#) for media art work) (click [here](#) for close-up)

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Public & Academic Dissemination

iremembr (click [here](#) for its web link)

Paper, *iremembr*, June 2014

[Things to Remember: Materializing Memories in Art and Culture, International Conference, Nijmegen](#)

portfolio iremembr rendezvous untitled#21 200.104.200.2

Create a site!

RENDEZVOUS

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Rendezvous (2010-2015) is a practice research project, crossing over reminiscence workshops, community-led public events and digital art installation works, that investigates the concepts of memory, embodiment and cultural transformation.

In its foundation, the Rendezvous project was developed through my engagement with a series of social activities run with and for groups of older-generation communities and charities in Brighton (WRVS/RVS and BME Elders), and with Fabrica, an art gallery and charity based in Brighton. Fabrica received funding from the Arts Council, South East, to lead the Growing an Older Audience programme (GOA), which consisted of nine projects including Rendezvous. Fabrica, WRVS and BME Elders intersect in their cultural imaginaries, as older communities are transiting between the milieux and lieux de mémoire (Nora). This is central to the project as digital cultural transformation occurs, here implemented through digital art installation and facilitated by the gallery space, leading to a process of deterritorialisation of the cultural imaginaries from public imaginaries to Internet imaginaries. This offers a window into how digital materiality and the aesthetic of memory is and can be perceived, shared and revoked.

Methods

The reminiscence workshops provided the social place of memory in which participants felt safe to participate and share their memories whilst having the option to opt out at anytime. There were three reminiscence workshops, one for each of the three local community groups (WRVS, Coldean; WRVS, Portslade; and BME Elders, Brighton), two outings to a local museum, and the exhibition at Fabrica. All were documented through digital photographs and audio recordings, while memory objects were scanned and digitised, forming a collection of vernacular memories that became the core element of the digital art installation.

Two digital art installations were created:

Objets Trouvés (2010–13) is formed of a series of glitched moving images and soundscapes, wooden 'lantern slides', a metal frame with a lighted top, an icamera, a Web service and RFID tags. Each of the three 'lantern slides' holds a scanned image of one of the memory objects that some of the participants chose to bring to the workshops. As the members of the public place a lantern slide over the lighted table, it connects and grounds a glitched moving image that is located on the Flickr Web service. The installation was located at Fabrica as part of two public and national Heritage Open Days (Day Events, Relativity Dec. 2011; Day Event, Ritual, Sept. 2012), both led by Nicola Bengé.

L'Album (2013–15), a collaboration with sound artist Andrew Duff, is a response to *Objets Trouvés* in terms of access and engagement, replacing the wooden slides with a family photo album onto which glitched moving images were projected, using QR code and a bespoke software application, as one turned the pages. The content was offered by Justin Grieze, his personal collection of family portraits. The work was reviewed during the academic symposium Mediamorphosis in 2013.

The overlapping of tactile engagement, together with the digital deterritorialisation of the digital photo-image, plays with proximity, temporality and spatiality. Consequently, elements of disconnection or displacement are brought together, allowing for the object to be shared or lost and making the digital process one of vernacular cultural memory from which personal expression or mutation can be found. The glitched moving images subvert the photo-image as an object of representation towards digital expression of memory.

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Public Dissemination

Exhibits

L'album (Chevalier, Duff), Mediamorphosis Symposium, University of Sussex, May 2013
 Mediamorphosis was co-funded and supported by the Doctoral School's Researcher-Led Initiative (RLI) fund.
 It is also supported by the Attenborough Centre for the Creative Arts, University of Sussex.
<http://reframe.sussex.ac.uk/mediamorphosis/mediamorphosis/artworks/>
Objets Trouvés (2010-13), GOA & national Heritage Open Days, Sept 2012
<http://www.growingfabrica.org.uk/programme/special-daytime-events/rituals/>
Objets Trouvés (2010-13), GOA & national Heritage Open Days, Dec 2011
<http://www.growingfabrica.org.uk/programme/special-daytime-events/relativity/>

Website & reports

Growing an Older Audience website (2011- 2015)
<http://www.growingfabrica.org.uk/programme/research/>

Growing an Older Audience, Fabrica - Report, 2013
http://www.growingfabrica.org.uk/wp-content/uploads/2011/03/GOA_report_July2013_lowres.pdf

Paper & Publication

Remediating the Social Conference, Edinburgh College of Art, Edinburgh, UK , November 2012. Paper
 ELMCIP is supported by the HERA Joint Research Programme (www.heranet.info) which is co-funded by AHRC, AKA, DASTI, ETF, FNR, FWF, HAZU, IRCHSS, MHEST, NWQ, RANNIS, RCN, VR and The European Commission FP7 2007-2013, under the Socio-economic Sciences and Humanities programme.
<http://www.elmcip.net/conference>
 Cécile Chevalier, *Rendezvous: A Collaboration Between Art, Research and Communities* in Simon Biggs, ed.,
Remediating the Social (ELMCIP, Bergen, 2012). Print ISBN: 978-82-999089-0-0. E-book ISBN: 978-82-999089-1-7.
 Permanent identifier: <http://elmcip.net/node/4635>. Open access, pp. 116-121
http://elmcip.net/sites/default/files/files/attachments/criticalwriting/chevalier_rendezvous.pdf

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untitled#21

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Statement

Untitled#21 (2012) is an experimental interactive installation and collaboration with Andrew Duff, sound artist, within which we investigate different forms of play and interactive design, core to thinking about a networked memory palace. Untitled#21 is also a response to an invitation to create an artwork that responded to the Ancient Mayans myth, a prediction of a world apocalypse on the 21st of December 2012, for the Final Light exhibition (Phoenix Brighton, 2012).

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Documentation

Untitled#21 installation work, click [here](#)

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Public & Academic Dissemination

Final Light, Phoenix Brighton, 2012, group exhibition.

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200.104.200.2

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200.104.200.2 (2012-2015) is a multimedia installation created in collaboration with sound artist Andrew Duff. 200.104.200.2 is a displaced reenactment of both contemporary digital social practice and the Internet as memory palace in which sonifications of memory traces are provoked, created, stored and replayed as digital data. The piece is presented as a post-Internet (Rhizome, 2013; Olsen, 2004) artefact (or collection of artefacts both physical and audible), inviting the user/participant to once again listen to the communication process just as we used to 'hear' the Internet before the 'always-on broadband' that we are used to today. With the proliferation of 'calm' - technology, many of the sounds of digital connectivity and communication have disappeared, although through techniques such as circuit sniffing (Collins, 2004) these electronic connections and protocols still be tapped into and sonified.

Methods

As a collaborative intervention and deterritorialisation from Web imaginaries to the public imaginary, 200.104.200.2 lead to a codifying perspective and aesthetic as a dynamic system between the installation's own materiality, the technology's dimensions and bodies. The piece itself is formed of over 3000 copper threads, which collide as the participants' or performers' individual movements are extended from one thread to another. These movements then merge through contact microphones and bespoke audio software to form a digital soundscape and a new memory trace that then loops back to the participant, the performer, and the audience, creating a tactile audible feedback experience. The real-time processing of the captured movement is translated as audio data through storage/delay, pitch shifting and bit-reduction/compression, capturing the dynamism between material time and embodied duration (Bergson, 1939). It draws from play theory (Winnicott, 1978) and media art installation as a way to investigate digital cultural transformation of memory.

Context

The work is situated in relation to the art of memory (Yates, 1966) as a form of memory spatialisation in relation to post-Internet aesthetics and to ideas about the materialisation of 'connective memory' (Hoskins, 2011). In its collaboration regarding sonic space, Andrew Duff referred to John Cage's 4'33, Luigi Russolo's The Art of Noises and Tanaka's interpretation of Jacques Attali's future potential of musical forms as unfinished works that are generated at the time of listening – or in this case, at the time of interaction. In addition, as part of our collaboration we investigate the creation of tools as way to explore digital relational materiality of memory, in this sense as a way to explore systems of memory as the material topology of memory.

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Documentation

200.104.200.2 installation work, click [here](#)
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Public & Academic Dissemination

Paper, @Digital Research in the Humanities and Arts (DRHA) conference, Dublin, Sep 2015
Paper, overall research practice, inclusive of 200.104.200.2 @Sussex-Santa Cruz Digital Media Exchange, Dec. 2014
Exhibit & paper, 200.104.200.2 (Chevalier, Duff) @Found in Translation Symposium, May, 2014
Exhibit, 200.104.200.2 installation (Chevalier, Duff) @Media, Film and Music Doctoral Day, University of Sussex, June, 2014
Exhibit & discussion of work in progress @Creative and Critical Research Practice Group (CCPRG), April 2014