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Children and computers: collected works (1995-2014)

Wendy McMurdo

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Children & Computers

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A commentary submitted in partial fulfilment of the
requirements of the University of Westminster for
the degree of Doctor of Philosophy by publication.

Wendy McMurdo, January 2015

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Abstract

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This commentary focuses on my photographic and film work that takes the relationship between children and computers as its theme. The text opens with a description of my earliest digital research project *In a Shaded Place* (1995), which explored the introduction of computers into early learning. I then go on to discuss a series of projects that focus similarly on the relationship between children and digital culture from this period to 2014.

Over a series of chapters I discuss my own practice in relation to the early impact of the computer on photography, the impact of the introduction of the Internet on children and the development and impact of computer gaming on young people. I also discuss the enduring interest in childhood as a theme in photography, reflecting on the work of key artists, curators and writers working in my field whom I have exhibited and been published alongside over the period covered by the commentary.

All of the projects included here address the question: *How has the computer (and, by extension, the information age) affected the ways in which we describe and depict ourselves?* Over the period covered by this commentary there has an unprecedented shift in the understanding of the role and function of photography. There has also been a marked shift in attitude to the representation of the child in society. Both of these subjects have deeply informed my practice.

I conclude my commentary with a description and analysis of my 2009 project *The Skater* and a description of what I perceive as my own contribution to new knowledge, which includes the impact of my work on the understanding of the representation for the child in photography and also its implied critique of the impact of the computer on photography at the beginning of the digital age.

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Introduction

'In relation to contemporary art, questions about the making of art and its mainsprings, methods, themes and concerns have focussed on children and their natures and capacities as a standard by which to test and define adult activity. In art, as in many other aspects of experience, children become the pattern and promise of futurity – not for themselves alone but also for society as a whole. For this process does not only run in one direction, with children growing up into artists.'
Warner, 2005

It is often to the site of childhood that we return to explain or to understand the adult self. In psychoanalytic terms, it is only through this retrospective analysis that we can truly begin to unravel how and why we are the way we are. As Marina Warner alludes to in her essay on play 'Self Portrait in a Rear View Mirror' [Warner, 2005], it is for this reason that artists and writers have consistently returned to the site of childhood to find adequate ways to represent adult states. Her assertion that it is to children that we look to find a 'pattern and promise of futurity' is particularly relevant in the context of this commentary.

It is to this 'pattern' that I have looked to find the subject of my own work, focussing on what arguably has produced the most significant changes in the lives of children from the late 20th century on – the shift from an analogue to a digital world. Here, I describe and explore my own work which has looked specifically at children's evolving relationship to the computer.

In the course of this commentary I shall discuss my own exhibitions, images, publications and screenings that have all taken childhood as their central theme. Whilst the image of the child has come to dominate my practice, I have also worked with other subjects, such as developments in science and technology and the growth of artificial intelligence. These subjects relate to the theme of children and computers but for the purpose of this commentary I will focus particularly on the representation of the child in my work.

The projects elaborated on in this commentary have been produced over a period of fifteen years, beginning at the point at which the image of the child first appears (unexpectedly) in my work in 1995. The commentary opens therefore with an exploration of my first digital project *In a Shaded Place* from 1995. In chapter two I set the scene for the production of new work, which looks directly at the introduction of the computer itself into early years education.

There, I also discuss the role of the child within the school, the growth of the Internet and the development of networked play, all of which informed my own work. I conclude my commentary in chapter three with an analysis of *The Skater* from 2009/10, which explores the relationship of the teenager to the avatar in digital role-play and the now ubiquitous role of the computer in the lives of the majority of western children.

In the period covered by this commentary, I have had the opportunity to publish and exhibit with many artists and writers similarly focussed on the image of the child. Their respective work on the psychological, social, political or imaginative lives of the child has informed my own and I cite their works here with thanks. Collectively, this work creates a kaleidoscopic picture of the child, as childhood has reinvented itself decade on decade. For my own part, I have focussed particularly on the introduction of the computer and its impact on the imaginative life of the child. In this text I consider my work on this theme looking at how, why and when this work has evolved over the last decade. My commentary, therefore, consists of a written exploration of a series of thematically linked components that include exhibitions, films, publications and art works. Here, I bring all of these related projects together for the first time. For the purposes of this commentary, I have reflected mainly on work that has been produced from 2000 onwards.

However, as a prelude to a discussion of this work, I have also included a reflection on a key early project *In a Shaded Place* (1995).

In Chapter 1, I reference this early series as this project was to set the scene for the themes and motifs that were to inform and shape my work for many years to come. Towards the end of this commentary, I discuss my most recent 2014 solo show *'Digital play – collected works 1995-2012'* (Fig 1). This survey exhibition was composed of work from several key projects – all of which focussed on the image of the child[1]. In this commentary, I follow a very similar trajectory to that taken in this recent exhibition. However, here I use words instead of images to better explain the motivations and desires that have compelled me to spend over a decade exploring our evolving relationship to the digital universe.

The works/exhibitions/publications cited in this commentary include: *'The Skater'* (2009-2010), *'Only Make Believe: Ways of Playing'* (2005) *'An Unwritten Future'*, EXIT (2011) *'The Games Hall (i)'* (2007), *'Through the Looking Glass – childhood in Contemporary photography'* (2005), *'The Loop'* and *'Avatar (i)'* '(2009-2010), *'Digital Play – Wendy McMurdo, collected works (1995-2012)'* 2014' and *'How We Learn'*, April – May (2014). Please see the end note for full details on each of these works/ projects.

Figure 1
'*The Robot Workshop (iii, ii & iv)'* 2010 Wendy McMurdo

1 http://generationartscotland.org/exhibitions/digital-play-wendy-mcmurdo,-collected-works-(1995-2012)/

Chapter 1

'My twin, the nameless one, wild in the woods'
255th Dream Song of John Berryman

'What is the self? This seemed an apt question to reconsider at the beginning of the digital age. Any previously held notion of the self as constant and unchanging (a position often presented through traditional forms of representation such as portraiture, for example) was to be seriously challenged in the coming decade. The introduction of the computer from the mid-80s on, was to create dramatically altered landscapes for communication and visualisation. These changes, however, were but mere links in an ongoing chain of cause and effect as evolving technologies continued to force social change.

> The development of a palpable awareness of the self can be followed through the changes by means of which it is produced, beginning in the middle ages when information first began to accumulate – the increasing number of family and self-portraits; the development of mirrors, the development of autobiographical elements in literature, the evolution of seating from benches to chairs, the concept of the child as a stage in development, the ramification of multiple rooms in small dwellings, the elaboration of a theatre of interiority in drama and the arts and, most recently, psychoanalysis. [Stone, 1996]

Figure 2
'Solo Violinist, St. Mary's Music School, Edinburgh' 1999 Wendy McMurdo

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The introduction of the computer (as with the introduction of photography itself a century before) was clearly providing artists and photographers with a new set of rules and methods. Artists were now given a completely new road map with which to locate themselves in the world. Moreover, this new map suggested the presence of hitherto unmarked territories. Almost immediately, artists and others began to rewrite it.

Early beginnings

In 1993, I completed an MA at Goldsmiths College, University of London and was subsequently appointed as a Henry Moore Research Fellow at the University of Sheffield in the North of England. At this point, although very interested in what could then be accurately described as 'new media', I had no access to any computing facilities for the production of artwork. (Whilst artists and engineers had been experimenting with computers, software and code in an institutional setting from the 1960s, the introduction of computers as standard studio tools for photographic imaging was to come later, in the early 90s). The post in Sheffield – established to explore new developments in print technologies – came with a computer attached and was to be a first opportunity to test many of the ideas I had developed as a student at Goldsmiths. Specifically, I wanted to use the opportunity to explore the impact of the computer on traditional, autographic photography – to use digital tools to find a new visual language to

express the ideas that I saw emerging at that time in the work of writers and curators such as Sandy Stone, Donna Haraway and Jeffrey Deitch (*Post Human*, 1992).

Developments such as the rapid growth of digital and online visual archives, the introduction of the internet's first graphical browsers in 1993 and the eventual introduction of affordable digital cameras were informing the work of a new generation of practitioners interested in both utilising and making sense of these transitions. Artists and photographers from this early period began working with an amalgamation of materials, using digital tools and methods alongside traditional techniques to produce new hybrid works, which fitted into neither one nor another category. German artist Karin Sander, for example, was experimenting with the earliest 3D scanners producing sculptural objects using new scanning techniques. I first saw these strange and wonderful objects when I exhibited with Sander as part of *Scanner* at the Wattis Centre for Contemporary Arts in California in 2000 and also in *The Anagrammatical Body* at ZKM, Karlsruhe, Germany in the previous year. Sander's tiny plinth-bound figures were made up of code relayed to an early prototype 3D printer and then reconstituted in 3 dimensional, sculptural form. In an interview with Harald Welzer in 2002, Sander described how she wanted to work with *'things that are already present within the system ... render(ing) something visible*

that is already present but that has hitherto escaped perception, that exists in a latent state'. Also shown as part of *The Anagrammatical Body* were Dutch artist Inez Van Lamsweerde's influential works exploring sexuality, media and digital culture in her 1993 *Final Fantasy* series. These artists, and the many others involved in *Scanner* and *The Anagrammatical Body*, were experimenting with new technologies to produce works which in different ways acted as litmus tests for the technological conditions at that time. I too wanted these important changes to register in my own work.[2]

In a Shaded Place (1995)

In both *Scanner* and *The Anagrammatical Body* I exhibited works from my first digital project *In a Shaded Place*. This project had begun in 1993 – a point at which I had been particularly interested in Sandy Stone's research examining the relationship between computers, human interaction and play. Many artists at this point were interested in the development of computing as it related to the military / military applications.

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2 *'The Anagrammatical Body – the Body and its Photographic Condition'* included 40 artists and was curated by Peter Weibel. The exhibition began at the Neue Galerie in Graz, Austria in 1999 and travelled to ZKM in Karlsruhe, Germany in 2000. *'Scanner'* (2000) included 11 artists; Jeremy Blake, Jim Campbell, John White Cerasulo, Craig Kalpakjian, Lynn Kirby, Clifford Le Cuyer, Wendy McMurdo, Paul Pfeiffer, Karin Sander, John F. Simon Jr. and Amir Zaki and was curated by Larry Rinder at the Wattis Centre for Contemporary Art in San Francisco, California.

Figure 3
'In a Shaded Place' (1995). Catalogue, Site Gallery, Sheffield.

However, artists and theorists such as Stone (a transgender activist) were more concerned with the influence of prosthetics and the relationship of the body to the computer (looking, for instance, at how remote computer interaction allowed our relationships to others to take a more fluid and mutable role). In *The War of Desire and Technology at the Close of the Mechanical Age* Stone documented several of her projects that had looked closely at how groups used digital forums (early multi user domains and then chat rooms) to create new, fluid relationships. With this research, she looked at a hitherto overlooked aspect of computer interaction: the importance of play in the digital world. *'What'* she asked *'is the importance of play in an emergent paradigm of human-computer interaction?'* Stone understood play as one of the fundamental ways in which we explore our potential as human beings, and whilst she was thinking primarily about adult play in *War and Desire* she also predicted that it was children who would feel the impact of the coming digital revolution most keenly:

> *'There also seems to be no question that a significant proportion of young people will spend a significant and increasing proportion of their waking hours playing computer-based games and so far the implications of this trend have yet to be fully addressed in academic forums. A major*

obstacle appears to be the feeling … that computer games are beneath serious notice. It is (however) entirely possible that computer-based games will turn out to be the major unacknowledged source of socialization and education in industrialized societies before the 1990s have run their course.' [Stone, 1996]

In my evolving work with children, this seemed like an important question to pose too. How would play – clearly an essential component of identity formation – evolve in the coming decade? This was to become one of my central research questions as my work developed.

My project *In a Shaded Place* (Fig 3) came out of an extended period of research looking directly at the ways in which one particular group of children used play. In 1993, I began to sit in on weekly drama classes in Sheffield hoping – through direct observation – to begin to understand the mechanics of play (I had no children of my own at this point and very little contact with the children of others). By observing this group of children (children who, in effect, would evolve into the first generation of so-called 'digital natives') I hoped to find some clue as to how to test Stone's theory that, as the nature of play in the technological universe changed, so too would we.

As mentioned, the first appearance of the child in my work was – initially at least – unexpected. At the outset, I had planned to develop *In a Shaded Place* with a group of adult amateur actors. When I later discovered that the only amateur dramatics group meeting regularly in my area was made up of children, the die was cast and I began to work with children for the first time. In beginning to do so, I was struck by the seriousness with which they approached the task. The traditional image of the playing child as happy and carefree was not one that I saw when I looked through the cameras viewfinder.

In *Playing and Reality* [Winnicott, 1971], D.W. Winnicott described the playing child as inhabiting *'an area that cannot easily be left'*, an area from which s/he will not easily be distracted. It is into this play area he observed that the child *'gathers objects or phenomena from external reality (and) without hallucinating the child puts out a sample of dream potential and lives with this sample in a chosen setting of fragments from external reality'*. With *In A Shaded Place*, I tried to picture the child's relationship between external reality on the one hand and the imaginative world on the other, the coming together of which Winnicott described as the 'dream potential.' (Fig 4)

Figure 4
'The Somnambulist' 1995 Wendy McMurdo

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Figure 5
'Creative Camera: 30 years of writing' (2000)
ed. David Brittain, Manchester University Press

3 *In a Shaded Place* was first shown at Site Gallery in Sheffield in 1995 and subsequently produced as an international touring exhibition by The British Council from 1995-1998. In the years that followed, the work from this project was included in many group exhibitions and publications, most recently in Sylvia Wolf's book *The Digital Eye* [Wolf, 2010] and subsequent exhibition of the same title.

The initial photography for *In a Shaded Place* went on for some months as I worked with the group each week during drama classes and in term time. During these sessions, I would shoot in school halls, backstage or in rehearsal spaces, photographing children as they worked through drama projects set by the teacher. These activities were usually simple improvisations where two or more children (the students often worked in pairs) acted out various dramatic scenarios. The initial results from these sessions were good – much better than I expected – and I found it easy to capture through the camera the intense interactions of the children that I saw in front of me. They seemed oblivious to the presence of the camera, or perhaps its presence merely became part of the process of invention, performance and display as I, the viewer, became complicit in the construction of their myths and fables.

On bringing the material back to the studio, important decisions had then to be made as how to work with it. Whilst this initial photography was important, I realised from the outset that it was the post-production – the ways in which these images were subsequently altered – that was to confer the central meaning on these works. As I explained in the following interview for *Creative Camera* [Brittain, 2000], (produced after the first showing of this work[3]) it was initially to the history of (manipulated) photography that I looked, for clues as to which way to turn. (Fig 5)

Wendy McMurdo: *The images' (from In a Shaded Place) 'at one level or another refer back to photographic modes of production used as early as 1850 (some early images use up to 30 separate negatives). These images were intended to cater to tastes for elaborate compositions in painting rather than to refer to any critique of photography itself. Obviously, the work could be considered to relate to a history of montaged work, and does reflect this (especially an interest in surrealist works). One image that is very important to me is a well-known photograph entitled 'Abattoir'. It was taken by Eli Lotar in Paris in 1929 and used most famously to illustrate Bataille's 'Documents'. Leaning along the bottom of an exterior wall are a neat row of severed horses legs standing to attention. The uncanniness of the severed limbs and the uncomfortable relationship between the once animate and inanimate mirror, I think, an aspect of my group pieces.*

Sheila Lawson: *On a formal level, you have produced an impossible fusion of times and spaces which elicits a strong feeling of the uncanny.*

Wendy McMurdo: *Yes, this fusion of the times is a critical element in the work. As you say, the group pieces are anxiety provoking because, rationally, we believe that only one of us can exist. Freud's text on the uncanny, written in 1919, is useful here.*

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He attempts to describe the uncanny, defining it as arising from a number of fears or anxieties. In the case of these images, there are perhaps three major fears, which result in a feeling of the uncanny. First, he states that the uncanny is aroused when we have 'doubts as to whether or an apparently inanimate being is really 'alive' (an anxiety as to the relationship of the between animism and mechanism – fear of the automaton); second, we fear the loss of sight (implied when we fear that only one of the real sitters is present, hence the rest must be sightless); and thirdly, we harbour a fear of what Freud describes as one of the most prominent themes of uncanniness, that is the idea of the Doppelgänger.[4]

4 *Doppelgänger* – Wendy McMurdo interviewed by Sheila Lawson' [Brittain, 2000]

5 Williams continues: *'Doppelgänger enters the lingua franca of psychoanalysis thanks to Freud's much quoted essay on the uncanny (unheimlich), in which he defines uncanny experiences as resulting when 'something which is familiar and old established in the mind becomes alienated from it only through the process of repression'. Rooted therefore, in the dark recesses of our own fears and anxieties, the uncanny unfolds through repetition and coincidence as it invokes the sense of fatefulness, of something inescapable, of chance becoming destiny.'*

Towards the end of this interview, I begin to discuss one of the most prominent themes of *In a Shaded Place* – that of the doppelgänger. The theme of the double was embedded both in the history of photography and also in psychoanalytic culture, finding its most famous expression in Freud's 1919 essay *Das Unheimliche*. However, this motif appeared much earlier in literary forms, finding what is perhaps its most complex expression in James Hogg's novel *The Private Memoirs and Confessions of a Justified Sinner* (1824).

In Hogg's novel, a mysterious double incites the subject to murder, introducing the theme of multiple personalities (later explored in Robert Louis Stevenson's 1886 novella *The Strange Case of Dr. Jekyll and Mr. Hyde*). The divided self was also a recurring theme in early cinema 'when it was discovered that the screen could be split and otherwise manipulated' to suggest the possibility of multiple selves [Williams, 2001].

In chapter three, I discuss the early origins of the doubled self, found in the theme of mirroring explored in Greek mythology. Here, however, I describe my earliest experimentations with the motif of the double, as expressed through digital photography and *In a Shaded Place*.

In the final images for this project, I positioned one child next to herself – her own figure doubled within a single scene. These figures faced inwards, suggesting that the subject was in imminent danger of meeting their other self – in Freudian terms the ultimate taboo and in some cultures considered to be fatal. In her essay *Identity Twins*, Gilda Williams writes:

Although this fear lies at the centre of Wendy McMurdo's double (triple and quadruple, and further multiplied) portraits, hers are not sinister images. In contrast to Galeen's or Calvino's doppelgängers, which present menacing figures who embody a sort of death warning, in McMurdo's self-confrontations the encounter is neither violent nor unexpected. Like Alighiero Boetti's collage Twins (1968), in which the artist levitates quite cheerfully, hand in hand with himself in a garden, in McMurdo's work we seem to witness a kind of serene, if momentous, meeting. Her subjects posed to perform a kind of relaxed inevitability. Though we are unsure whether these images are real or not, i.e., in Freudian terms whether the people photographed are mechanized, digitally manufactured beings or living creatures, we are not frightened by this bewildering – and unresolved impossibility.[5] [Williams, 2001]

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Figure 6
'Catherine Cowan, Merlin Theatre, Sheffield' 1995 Wendy McMurdo

The final exhibition for *In a Shaded Place* consisted of a series of images featuring local children, many of which were shot in the local church hall/community theatre. In these images, the children were shown doubled, and often using one of the rudimentary props left lying in the rehearsal or back-stage spaces in which the children would play. A bench, a scaled-down table and chairs or even a bale of hay – all were used to produce makeshift tableaux, which I would then photograph. In *Catherine Cowan, Merlin Theatre* (1995) (Fig 6) the subject pulled such a prop to centre stage, and then sat in front of the red velvet curtain that divided the backstage area from the hall itself.

> Here 'McMurdo has draped a huge red curtain behind her subject, who, tellingly, is dressed in a floral print, to enhance the faux-garden allusion of her scene...Nothing in fact is real or recognizable in our everyday (heimlich) existence, and nothing here stands for itself...There is no moment of certainty, of reference to anything that exists beyond the frame' [Williams, 2001].

If, as Williams suggests, there was no 'moment of certainty' in these images, then this reflected both the status of photography (a previously autographic medium challenged by algorithmic culture) and the lives of children themselves at this point (as the potential influence of the internet was beginning to make itself felt).

In the light of these changes, working with children as a means by which 'to test and define adult activity' seemed a useful way forward. After returning to Scotland in 1996, I decided to continue to focus on the relationship between children, play and the computer. Now, however, I wanted to deepen my engagement with the subject, looking more directly at the ways in which the computer was shaping children's day-to-day lives. My experiences during the production of *In a Shaded Place* had provided me with a practical and effective way of working with young people and I decided to continue to engage with groups of local children. Now, however, I wanted to broaden my perspective and look more deeply into the day-to day lives of children, with a particular focus of the emerging importance of the computer in their lives.

The school – next to the family – was the institution that clearly had the most impact on children's lives. For this reason, it seemed like a good place to start. This was a place where I could work productively with groups over an extended period. When my local school authority finally granted permission to photograph within the institution, I began to work regularly within the school system, observing first-hand the changes in computer learning in the classroom, more or less as they occurred. In the following chapter, I explain in detail what I found there and the work I produced in direct response to these findings.

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Chapter 2

Computer Class – images of childhood as metaphor for a crisis of identity in the digital age

In 2012 NESTA and The Science Museum published a major report [Blyth, 2012] on the legacy of the BBC's Computer Learning Project (CLP). The retrospective report described the establishment and development in the early 80s of the influential CLP and also sought to identify possible future ways forward for computer education in the UK.

The document described the introduction of what had been a wide-ranging and ambitious scheme, which aimed to change the culture of computing in Britain's homes. From 1982 onwards, the scheme had engaged the public at large with the culture of computing (hitherto only available to those in university or research facilities). The results of the CLP were felt by the majority of UK school children.

By 1986, BBC Microcomputers were being used in 82% of UK primary schools and their introduction was to foreshadow the rapid growth in computer use for children over the next decade.

This rapid proliferation of computers in schools was to provide the context for the development of my next body of work, which was to look directly at the influence of computers on early years education. With *In a Shaded Place* (described in Chapter 1) I had begun to work with children and childhood as a means by which to explore the impact of emerging digital culture on society as a whole. Following on from this, I wanted to look more closely at developments that were shaping digital culture for children specifically. It was clear from many perspectives that this was a subject worthy of extended attention. The rapidity of the take up of microcomputers into schools (as documented in the BBC CLP report) indicated that the computer was here to stay. Quite how rapidly it would be assimilated into culture – and into the lives of children – was not yet known. This was undoubtedly a period of transition – a period where we would pass through several states of acceptance as we absorbed the changes that digital culture was to bring.

It had become clear during my very productive period at Sheffield that working with children and childhood in the context of exploring / referencing the digital world could be successful. There was something unexpected and powerful about the coming together in artworks of the two strands of enquiry: a documentation of the lives of children on the one hand and an interest in the development of digital culture on the other.

I knew instinctively that I wanted to develop these ideas further. I had also learnt from *In a Shaded Place* that it was possible to work across platforms, using both analogue and digital media to produce 'hybrid' images that better represented the rather schizophrenic condition of photography at that point in time.

I now had to decide how to approach my subject and what working methodologies to adopt. There were certain parameters already in place: it was important to me that any new and emerging projects be shot on location and not in a studio setting. Emphatically, I was not interested in staged re-enactments. Rather, I wanted to collect data from on-going activities, shooting events as they happened in the 'real world'. I knew too (as with the earlier doppelgänger portraits) that it would be to the use of post-production techniques that I would turn to confer final meaning on my work. The computer therefore, would become not only a tool but also the work's central subject. Working in this way and with these 'rules' I hoped to create images that would exploit what photographic historian Geoffrey Batchen had described as the future anterior characteristics of analogue photography (the complex play of the 'this has been' and the 'this will be' that was first characterised by Roland Barthes in *Camera Lucida*, against the very different spatial characteristics of the digital image. In fact, I wanted this juxtaposition to become the central subject of my work.

Working within Schools

I decided that the best way to initiate the research for this project was to begin on the ground, looking at early developments in digital education in primary schools. After requesting permission from the local school authority, I began to work in schools, documenting computer classes for children of primary school age in Edinburgh. As outlined in the NESTA report, computer learning at this time was basic, consisting of a rudimentary curriculum of introductory programming and game playing. Despite its limited nature, this early introduction of computing into schools was to significantly affect children's attitudes to the subject as they grew up. The legacy of the BBC's Computer Learning Project in schools was to pave the way for the next generation of programmers. As Tilly Blyth pointed out in the report:

> '... this phenomenon was particularly apparent in cities such as Dundee. Sinclair's ZX81 and ZX Spectrum computers were built at Timex's Scottish plant in Dundee. Workers, their families and friends often gained access to the machines, or gained an interest in programming, and the city became full of budding programmers.' [Blyth, 2012]

Figure 7
'Computer Class (i)' 1997 Wendy McMurdo

Figure 8
'Computer Class (ii)' 1997 Wendy McMurdo

6 *'Only Make-Believe'* explores the innate relationship between play, make-believe and art, through the work of over thirty modern and contemporary artists. The link between play and creativity deepened during the twentieth-century and the exhibition focuses on the important historical, social, psychological and cultural aspects of this subject. The exhibition introduces the key modern theories of child psychologists and educationalists, such as Friedrich Wilhelm Froebel, Melanie Klein and Maria Montessori, and traces the effect that these theories had on the development of creativity.' Retrieved: http://www.comptonverney.org.uk/modules/events/event.aspx?e=52&title=only_makebelieve_ways_of_playing

7 Digital toys were however beginning to evolve at this point, and I talk about these in more detail in chapter three where I discuss the role of digital gaming in my later project *The Skater*.

Figure 9
'Only Make Believe: Ways of playing.' (2005) Ed. Marina Warner, exhibition and publication, Compton Verney, UK. pp. 92-94

The physical legacy of the BBC's CLP was very much in evidence when I went into primary schools to photograph computer education in situ for *Computer Class (i) & (ii)* (Fig 7-8) (also shown in (Fig 9) as part of a publication to accompany the 2005 exhibition *Only Make Believe* curated by British writer Marina Warner.[6])

As mentioned, at the time that these works were made, computer education for children of primary school age was still rudimentary. Computer classes for this age group were conducted on BBC Microcomputers made available as stand-alone computers wheeled in and out of the classroom. Course content consisted of basic software packages provided by the CLP, which contained elements of programming, problem solving and creativity. Internet access for school children was, of course, not yet a reality (the BBC itself had registered its own domain name in 1991 but this was not in use until 1993).[7]

This context, then, presented an environment where newness and expectation were part of the fabric of early experiments in computer learning. The computer was a novelty, an unknown quantity and a transitional object. In *Computer Class (i) & (ii)* two young children are shown, each seated in the middle of the same classroom. Formally, they face into each other but in other ways they remain apart, as their gaze never meets. In the respective backgrounds (both identical) cabinets are arranged with a selection of traditional toys and playthings.

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The children are pictured concentrating on an object located somewhere in front of them, not visible to the viewer. Both subjects have their hands raised, as if on the brink of action. Something, however, is missing (implied by the work's title).

These images can be read in several ways: as images descriptive of our relationship with the digital world but also as a continuum of images that made the invisible their central subject (beginning with the arrival of Victorian spirit photography). From the end of the 20th century, there was a resurgence of interest in themes of the supernatural and the uncanny, brought about in part by the introduction of computation and algorithmic photography.

It seemed that shifts in the ontology of the medium brought about by digitality created exactly the uncertain conditions – social change and uncertainty – where the *unheimlich*[8] might truly flourish. From 1999 on, I participated in several shows that addressed and reflected these themes directly, including *Unheimlich* at the Ffoto Museum in Winterthur (1999) and ESP with Susan Hiller and Brian Catling at the Ikon Gallery in Birmingham (1999).

As touched upon, one of the main focuses for *Computer Class (i) & (ii)* had been the early development of the Internet. Towards the end of the 90s there was widespread social concern in relation to children's exposure to the then new and unlicensed space of the World Wide Web. As early as 1982 however, there was already an awareness that it was children who might be most dramatically affected by shifts in communication technologies.

The chosen media of communication clearly affects the socialisation process, noted media theorist Neil Postman. The printing press created childhood and electronic media are 'disappearing' it' – the 'it' in question being childhood itself.[9]

It was clear for many commentators and parents from the early 90s onwards, that access to the Internet was but a long chain of worries. Technology in all of its forms was eroding childhood – a chain of events begun, according to Postman, with the introduction of the Guttenberg Press and now reaching its crescendo with the introduction of the Internet. In the face of these (often reactionary) responses, I wanted to adopt as neutral an approach as possible to my own readings of these developments, recording these events (computer education) in as straightforward a way as possible. 'Simply' for me meant photographing children at play in situ in their classrooms. In choosing to 'remove' the computer in *Computer Class (i) & (ii)*. I did so to highlight the growing importance of the relationship between the child and the Internet and was aware at this point that the generation pictured in *Computer Class* were, in effect, to be the first to use the computer as a tool for early learning. It therefore seemed particularly important for me to begin to document these early steps by this pioneering group.

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8 Recently, this term has re-emerged in relation to discussion of emerging practice in regards to Internet culture. Italian Curator and writer Domenico Quaranta, who has written extensively on the history and development of Internet based artist projects, launched his *In the Uncanny Valley* project in 2011. This curatorial project explores what he describes as a study of objects or images that 'exceed the limit' or go beyond what we find acceptable in culture. The encounters he collects are often created – and then made visible – online, with the Internet then becoming the repository for these encounters.

9 In his book *The Disappearance of Childhood* [Postman, 1982, 1994], Postman describes the historical context for the construction of childhood and also gave evidence for its potential demise.

Expanding Vision – the Internet and the home

Whilst observing children and digital play within the school system at this time, I also wanted to expand my project and to explore the increasing influence of the Internet in the home. In response, and parallel to, the production of *Computer Class*, I began to develop a series of images shot in children's own homes. Here, I wanted to look at *how, why* and *where* children used computers and I began to work on this project with families I knew, observing children in the more familiar environment. One group in particular, a family of five children living with their parents in what had been an old, large Victorian hotel on the East Coast of Scotland, proved to be very good subjects. The children here roamed freely around their home, creating their own idiosyncratic environments and play spaces as they went. I photographed these children in their own rooms and also in more public areas of the house. In one image the oldest child in the family is pictured – as with the children in *Computer Class* – engaged with a screen (not immediately visible to the viewer). In other pictures in this series, I contrasted traditional, object-based play (as with *Ben with Mask* (Fig 10)) with digital play (as with *Roxanne* (Fig 11)) with a view to comparing the two. The work resulting from this research formed part of the exhibition and publication *'Through the Looking Glass – childhood in contemporary photography'* [Kearney, 2005], which I discuss below.

Figure 10
'Ben with Mask, Summerfield House' 1997 Wendy McMurdo

20

Representations of childhood in contemporary photography

There was a renewed interest in the representation
of the child around the beginning of the millennium.
Continuously a subject for photography since its
inception, this re-examination – in part at least – came
out of a general anxiety as to what exactly childhood
might become in a new digital world. As many historians
of childhood (including Postman) identified, childhood
itself was clearly a socially constructed state – and
therefore one subject to change as societies themselves
developed. Photography itself had played an important
role in the definition of childhood, documenting and
monitoring the social and legal status of children
from the birth of the medium onwards. From the early
photography of Victorian street urchins to Edith Tudor
Hart's photographs of street children in London in the
1930s, photography has sought to capture the social – if
not the psychological – status of the child.[10]

10 *'Edith Tudor Hart – In the Shadow of Tyranny'* published
   by Hatje Cantz, with essays by Roberta McGrath, Anton
   Holzer and Duncan Forbes [2013].

Figure 11
'Roxanne, Summerfield House' 1997 Wendy McMurdo

Figure 12
'Through the Looking Glass – Childhood in Contemporary Photography' (2005)
ed. Fiona Kearney, exhibition & publication, Ireland: Glucksman Gallery. pp. 86-87

Similarly, changes in the lives of children in the late 20th century continued to attract the attention of artists. Works such as Susan Hillers' 1999 installation *Psi Girls* (the child as supernatural medium), Inez Van Lamsweerde's *'Final Fantasie'* Series from 1993 (childhood as a manufactured, digital and sexualised composite) and Rineke Dijkstra's beach portraits (the sexualised teenage body) reflected the on-going flux in the status of the child, with artists reacting to changing social conditions.[11]

Curators were making these links too and between 2000 and 2005 I participated in many shows, which explored the subject of childhood. These included: *Niños* at The Centre for Contemporary Art in Salamanca, Spain (2000), *Unheimlich* at the Ffoto Museum, Winterthur, Switzerland (2000) and *Through the Looking Glass – Childhood in Contemporary Photography* (2005) at The Glucksman Gallery in Cork. Writers, sociologists and media theorists were also producing interesting work on the subject.

Several key publications exploring the representation of childhood, both in photography and the larger social sphere, appeared at this time. These included Anne Higonnet's *Pictures of Innocence: The History and Crisis of Ideal Childhood* (1998) and Hugh Cunningham's *The Invention of Childhood* in 2006 (both of these writers were to appear with me in a publication in 2011 for EXIT Imagen y Cultura entitled *About 10* [Olivare, 2011]).

In 2014, I took part in yet another project centered on the theme of childhood and photography. This time, however, the emphasis was not on representations of childhood but rather on an exploration of collaborative projects that engaged with children as active participants. This exhibition, funded by the Paul Hamlyn Foundation and curated by Belfast Exposed gallery, in many ways exemplified the shift in the understanding of the rights of the child as subjects in the past decade. Pioneering work with children in this area of collaborative practice was led from the 1980s on by American photographer Wendy Ewald, whose work was included in this exhibition *How We Learn*, alongside projects by myself and a group of practitioners interested in working with children in a collaborative way.[12]

11 I exhibited alongside Susan Hillers *'Psi Girls'* in 'ESP' (Susan Hiller, Brian Catling & Wendy McMurdo at the Ikon Gallery in Birmingham in 1999), with Inez Van Lamsweerde with her *'Final Fantasie'* series in *'The Anagrammatical Body'* (at The Neue Galerie, Graz in 1999-2000) and alongside Rineke Dijkstra's beach portraits (as part of *'Through the Looking Glass: Childhood in Contemporary Photography'* at The Lewis Glucksman Gallery, Cork, Ireland, in 2005).

12 *'How We Learn'*, an exhibition at the Belfast Exposed Gallery, Ireland, with Wendy Ewald, Julian Germain, Wendy McMurdo, James Russell Cant, Marysa Dowling and Belfast Schools.

Through the Looking Glass (2005)

In *Through the Looking Glass* at The Glucksman Gallery, Cork curator Fiona Kearney selected works from six artists all of whom used childhood as a major theme in their work. In an accompanying essay in a book of the same name, Kearney explains the exhibition's title with its allusion to Lewis Carroll's text:

> *'Through her adventures in Wonderland, Alice is confronted with questions of identity and meaning. With a growing awareness of self, she earnestly contemplates the difficulties in distinguishing between dream and reality. Likewise, the artists in Through the Looking Glass create pictures of childhood that explore ideas of representation and truth.' [Kearney, 2005]*[13]

For this exhibition, I showed work from three different series: work from the *Doppelgänger* series, images from a short series picturing children at home, (described above) and large photographs from a series shot with children from within the museum.

Working within the Museum

In the year before *Through the Looking Glass*, I had begun to shadow school parties, on educational visits to various local museums, a process which evolved naturally from photographing in the classroom. During the course of these visits, I would follow groups as they moved around various museum exhibits, photographing them as they went. I became particularly interested at this point in the children's reactions to the taxidermy on display. *Girl with Bears, Royal Museum of Edinburgh* (Fig 13) is an early image from an on-going series (1999 to present) shot on location at The Royal Museum of Scotland in Edinburgh. In this image, a young girl is pictured crouched in front of a display case, viewing the bears behind glass in the vitrine just ahead of her. The girl is confronted not only by a rearing bear but also by the reflections on the glass where she sees two faces reflected rather than the expected one. This image was described by Claire Doherty in her essay 'Give me a Child until He is Seven'.

> *'The juxtaposition of still, small figures with the stuffed animals is inspired. There is a doubling of the frozen moment, as if, like the animals, the children themselves are preserved and presented for our intense scrutiny – the surface of the photographs providing the barrier between viewer and child.' [Doherty, 1999]*

Figure 13
'Girl with Bears, Royal Museum of Scotland, Edinburgh' 1999 Wendy McMurdo

13 *'Through the Looking Glass: Childhood in Contemporary Photography'*. Artists included Rineke Dijkstra, David Farrell, Anna Gaskell, Martin Healy, Loretta Lux, Wendy McMurdo.

Figure 14
'Martin with Owl, Royal Museum of Scotland, Edinburgh'
1999 Wendy McMurdo

14 Nowhere was change in museum culture seen more
profoundly than in the presentation of contemporary
science. In 2000 I was commissioned by The Science
Museum in London to produce a body of work for their
newly opened Wellcome 'Who Am I?' Biomedical Gallery.
This new gallery was produced to explain contemporary
developments in Bio-medical science. Themes included
the discovery of DNA, the science of sex selection,
and the development of contemporary neuroscience. I
focussed on childrens' reactions to these themes and
displays and in response produced a series of portraits.
These were displayed in the gallery itself and on their
website. In response to rapid changes in the field of
Biomedical sciences, many of the display cases in
the *Who Am I* Gallery were a decade later extensively
remodelled. Retrieved: http://www.sciencemuseum.org.
uk/smap/collection_index/wendy_mcmurdo_lifestyle_
affects_appearance.aspx

15 Other dolls in the collection were even cruder in their
construction – large bones wrapped in simple cloths,
precursors to the dolls made from wooden spoons that are
more familiar to us as emergency play objects. In Spring of
2014, I began working again with this archive, using film,
photography and lenticular print production to document a
significant part of Lovett's collection.

The museum – or rather our relationship to the objects within it – became an increasingly important part of my work. Now, the world of simulation (or simulated experience at least) was becoming part of our reality and our relationship to both the real world and the objects within it was subtly changing. These were ideas that I had also explored in a series called 'Young Musicians', which was also included in *Through the Looking Glass*. In this series I had focussed on the shifting nature of the distribution and manufacture of music in an emerging digital domain (see Fig 2). In what way would this affect the way we understood and used the museum? It was becoming clear towards the close of the 20th century that the notion of the museum as the central repository for knowledge was being seriously challenged by the rise of the Internet.

Peter Weibel (who had curated a show in which I took part in 1999 (*The Anagrammatical Body*, chapter one) wrote directly about this in his keynote speech *'Web 2.0 and the Museum – The Noah's Ark Principle'* for the Museums and the Internet (MAI) Conference in 2007 [Weibel, 2007]. Here, Weibel described the Museum as a kind of *Noah's Ark* – or, rather a floating raft, which could only collect a chosen few. He goes on to contrast the space of the museum with the that of Web 2.0 – a space which he describes as an *'endlessly expandable Ark, an endlessly deep archive, a ship, a floating crate, wider than it is long, longer than it is high, higher than it is wide.'*

It was clear that museums at this point were well aware of this and having to find new strategies to engage audiences. The culture of museum display, like the culture of photography itself, was going through a radical revision. The decade during which I shot in museums saw the majority of these spaces change beyond recognition. The bears in *Girls with Bears* have now gone (as have the displays that appeared in images such as *Martin with Owl* (Fig 14)). They have been replaced by a new narrative and images from Weibel's 'endlessly expandable ark.'[14]

Only Make Believe – Ways of Playing (2005)

There was one museum object however that did remain unchanged in one of the museums that I regularly visited. In fact, I remembered this object from my own school visits to the Museum of Childhood in Edinburgh in the 1970s, when it was prominently displayed on the ground floor of the museum (it remains there today). The shoe doll (made circa 1905) is part of a larger collection of 'makeshift' or 'emergent' dolls collected at the turn of the 20th century by amateur folklorist Edward Lovett. Lovett amassed a collection of over 600 dolls made for poor children and collected in the east end of London at the end of the 19th century. I first photographed objects from this archive as part of my research on play in 2004 (recently I have returned to work with this collection).[15]

Figure 15
'The Shoe Doll (ii)' 2004 Wendy McMurdo

The shoe doll was made from a workman's boot, upturned and wrapped in a scrap of fabric and lace. The positioning of rudimentary features (scraps of tin for the face) transformed this object into a plaything for a working class child. It was clearly a toy with the minimum of detailing yet at the same time, an object onto which its owner could project hopes and desires. This doll was truly a blank slate, onto which we could scribe our own identities. For me, this object contained all of the themes and conflicts regarding the relationship between technology and play that I had been so interested in working with in previous projects. There was also something strangely robotic about this doll. (Frances McKee his essay '*Now Object Perceive Me'* [McKee, 2001] described it as existing in the 'pre-history of the robot'. In 2005, writer and curator Marina Warner exhibited *The Shoe Doll* (2004) (Fig 15) as part of *Only Make Believe – Ways of Playing*, [Warner, 2005] using it as a frontispiece to her essay *'Self-Portrait in a Rear View Mirror'* for the accompanying book to the exhibition (Fig 16).

The figure of the toy was clearly a source of fascination for Warner who described the subtle balance between the imaginative space of the child and the open nature of the toy as being exemplified in the blank figure of the shoe doll. These questions began to occupy my thoughts from 2005 on and led to the production of new bodies of work developed specifically to look at the role of robotics and digital gaming in 21st century play, which I discuss in the next and final chapter.

Figure 16
'Only Make Believe: Ways of playing.' (2005) ed. Marina Warner, exhibition and publication, Compton Verney, UK. frontispiece

Chapter 3

*The Digital Mirror – photography,
play and identity in a networked age*

'Ourself, behind ourself, concealed'
Emily Dickinson[16]

In this final chapter, I discuss my 2009 project The Skater. With this project, I wanted to explore the impact of digital and online gaming on the imaginative lives of children. By the beginning of the millennium, children were spending more time on line than ever before – something that I felt was worthy of much closer examination. In 2007, I began to photograph children as they played with a variety of hand-held gaming devices (Fig 17).

Figure 17
'The Games Hall, Edinburgh' 2007 Wendy McMurdo

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16 'Margaret Atwood quotes the poem as an epigraph to her
   compelling novel *'Alias Grace'* ' (1997) [Warner, 2001]

26

Figure 18
'EXIT – Image and Culture' (Issue 40) Dec – Jan 2011, pp. 80 – 81 (portfolio page)

Figure 19
'EXIT – Image and Culture' (Issue 40)
Dec – Jan 2011 (cover image: Wendy McMurdo)

By the time I began working on *The Games Hall*, 2007 (which explored the introduction of hand-held gaming for the young) twenty years had passed since the introduction of broadband to the consumer market and children were spending more time online than ever before. In *The Skater* I wanted to focus on this group, looking in particular at the nature of fantasy and make-believe in the networked world of computer gaming.

A year later, I began working with an older group of children (pre-teens), photographing them as they spent time playing online (Fig 20-21). In looking more closely at what type of games these children played, with whom and where, I hoped to understand why this group were so drawn to these environments. The games I was observing children play were varied, from online multi-player scenarios to single-player games focussing on a variety of gaming skills. Built into all of these activities however was the need to constantly improve on past performances, as the player was invited to keep track of their scores as they progressed through the game.

Figure 20
'The Skater' (2010) Wendy McMurdo. Publisher: Ffoto Gallery, Wales. pp. 30-31

Figure 21
'The Skater' (2010) Wendy McMurdo. Publisher: Ffoto Gallery, Wales. pp. 32-33

The competitive aspect of this play encouraged repeat visits to what were becoming increasingly sophisticated and immersive environments and it was easy to understand why many children might opt to spend more time in these digital domains than in the 'real' world. Simulation after all gave consistent returns with controllable results. In *Alone Together* [Turkle, 2011], Sherry Turkle described this attraction for children to repeatedly return to the digital game:

> *'Children grow up in a culture of video games, action films, fantasy epics, and computer programs that all rely on that familiar scenario of almost losing but then regaining total mastery: there is danger. It is mastered. A still-more-powerful monster appears. It is subdued. Scary. Safe.'*

As discussed in chapter one, the introduction of computation into children's homes (and subsequently into UK primary schools) began in earnest in the early 90s. A decade later both computation and wide-spread internet access was standard for most school-age children.

One of the largest academic studies on the impact of computers on children *Children and Electronic Media* [Brooks-Gunn and Hirschhorn Donahue, 2008], stated that *'children, particularly adolescents, [now] had an almost constant access to media and as a result, were spending more time using media than they did engaging in any single activity other than sleeping.'* The statistics gathered in that study clearly indicated that children were gravitating towards the screen to both play and communicate with their peers, moving beyond the world of traditional, object based play and into a world of simulated realities. Furthermore, as the internet began to blur the traditional relationships between 'producer' and 'consumer' children too began to produce and consume simultaneously, modifying and then making public the results of their labour via the Internet. Children, like adults, were visibly now part of a complex, pervasive web of data, images and media streams, much of which was targeted specifically at them.[17]

With *The Skater* I wanted to consider these statistics but to look at them through the rubric of play. Play – widely recognised as an essential building block in healthy identity formation of children – was changing in this digital era. It was likely that the changes brought about by the introduction of digital culture would redefine childhood in significant ways.

Watching children playing online is different to watching children play with more traditional toys (dolls or action figures, for example). In more traditional play, the object of the child's attention is clearly visible and externalized. The viewer can clearly see the object of the child's attention. Digital play, however, hides this object of the child's attention from the outside viewer and therefore can make this experience uncomfortable for those on the outside. This type of play can – from the outside – produce feelings similar to those of watching a child play with an invisible friend or watching a child hearing voices that only she or he can hear. As Sherry Turkle observed, networked, digital play obviously gives us the opportunity to play with, but apart from, others – essentially, therefore, linking the concept of the uncanny directly to the digital space. (If the uncanny could be described as the conjuring up of something that is both strange and unfamiliar, then beginning to play with someone you've never met for the first time must qualify as truly *unheimlich*).[18]

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17 The term 'prosumer' was first used in 1980 by Alvin Toffler in *The Third Wave* [Toffler, 1980] to describe the ways in which the role of producers and consumers would begin to blur and merge due to the development of communication technologies.

18 *'McMurdo presents a series of portraits of young 'gamers' at play, which function as a paradigm for future generations immersed in a highly mediated world. These inanimate but charged 'characters' allude to how identity is formed in a virtual environment – where fantasy slides into reality and back again, within the looped world of the game'* Retrieved: http://www.ffotogallery.org/wendy-mcmurdo—the-skater

A cat's cradle of implicated looks

In computer play a child uses a digital avatar (as opposed to the more traditional doll or toy) to access his or her role in the game. In effect, the child has to make herself again to allow the self to function in the virtual world. This theme of repetition and doubling – suggested by the theme of the avatar – is one that has run through my work from its earliest beginnings. As Hal Foster pointed out in his 1996 essay 'Return of the Real' [Foster, 1996] both art and psychoanalytic theory 'relate repetition and the real to visuality and the gaze'. (In relation to the work of Warhol, Foster suggested that *'repetition serves to screen the real understood as traumatic. But this very need also points to the real, and at this point, the real ruptures the screen of repetition.'*)

This theory of repetition – that its use represents both the traumatic and our complex relationship with the real – was very important to me as I was beginning to work with early experiments in the digital world. With *In a Shaded Place* (described in chapter one), I began to use the theme of mirroring to express the complex issues at play in the act of looking (and being looked at) in the late 20th century.

For *The Skater* project, I wanted again to consider the theme of mirroring and mimesis but seen now through the prism of computation. How had mirror theories, for example, changed since the introduction of computation?

Whilst mirror theories were clearly of importance in psychoanalytical theory (both Freud and Lacan had positioned the mirror theme centrally in their respective works, both from differing perspectives) mirror mythologies had in fact begun much earlier.[19] This has been discussed in some depth in relation to my own work – in particular *Helen, Backstage, Merlin Theatre (The Glance)* (Fig 22) by Hilde Van Gelder and Helen Westgeest's 2011 *Photography Theory in Historical Perspective – case studies from contemporary art* [Van Gelder and Westgeest, 2011]:

> *"The fascination for the characteristics of the mirror which may provoke confusing effects, such as in McMurdo's Helen and Wall's Picture for Women could be considered as a topical issue, particularly when one thinks of Andy Grundberg's remarks in Crisis of the Real that 'postmodernist art accepts the world as an endless hall of mirrors'."*

Figure 22
'Helen, Backstage, Merlin Theatre (The Glance)' 1996 Wendy McMurdo

19 'In *" The Mirror Stage as Formative of the I as Revealed in Psychoanalytic Experience"* Lacan sketches a conception of the ontology and epistemology of the human psyche which underlies his massive revision of Freudian thought.' [Stockholder, 1998].

Whilst Grundberg's 'hall of mirrors' reference brings to mind the scopic trickery of the fairground or of film noir, the image could also be employed to describe the trickery of those who masquerade behind false descriptions online in order to confuse others. 'Surprisingly', Gelder and Westgeest note,

> "confusion caused by mirroring and the fear and power of mirroring already play a central role in mirror mythologies formulated in antiquity, which were used throughout the ages of art history to explain the origin or essence of the visual arts. This observation was inspired by how Philippe Dubois relates photography's characteristics of 'mirroring' and 'the frozen moment' to the classical mirror mythologies of Narcissus and Medusa in his book L'Acte Photographie ... Narcissus was surprised by the new experience of an image and did not yet realize that it was a doppelganger of him. McMurdo seems to present the girl Helen in the same role as Narcissus, with digital photography as the new 'medium' instead of the water surface."

Hal Foster further develops the theme of mirroring in relation to the Medusa myth in his 2003 essay Medusa and The Real [Foster, 2003]. 'The uncertainty treated by the Medusa myth centres on the power of the gaze and the capacity of representation to control it'.

Clearly theories regarding the power and construction of the gaze evolve from the beginning of the development of the science of optics onwards. 'Implicit here' suggests Foster 'is that some ancient approximations of perspective, theories of mimesis and study of optics might be driven by the need to control the primordial power of the real-as-radiation.' In other words, the real is seen as a 'Medusan realm that resists all order, whether pictorial (as in perspective) or philosophical (as in mimesis), or scientific (as in optics).' Foster later goes on to explain that to 'tame the gaze is not to block it entirely: it is to deflect it, to redirect it as a mask does'.

The complex interplay of gaze and reflection contained within the Medusa myth was taken up by Lacan, who refuted the Cartesian model of vision (where the subject has totally mastery over the real and its representation) describing us rather as being caught within a 'cat's cradle of implicated looks', existing in a world where we screen the world through the production of images to 'filter the real (and to) protect the subject from the gaze of the world, capture it light ... and tames it in images, as images' [Foster, 2003].

Westgeest and Gelder alluded to this complex interplay of looks when they described Helen as like a Narcissus looking into a pool:

> 'Although one cannot see a mirror between the two "versions" of the girl in this photograph, the girl looking at herself suggests, at first sight, the presence of a mirror. But girls do not mirror each other symmetrically, which provokes a confusing effect. The location, backstage, brings to mind the comment by the visual culture theorist Sabine Melchior-Bonnet that a mirror acts more or less as a theatrical stage onto which each person creates him or herself from an imaginary projection, from social and aesthetic models'. [Van Gelder and Westgeest, 2011]

Westgeest and Gelder observed that the mirror can act as a 'stage' onto which we can reassemble ourselves as an 'imaginary projection'. This description could equally now be used to describe the ways in which we habitually use technology in the form of the Internet to re-present and re-form ourselves according to different social contexts online. Whilst Helen might have been unable to recognise the reflection that peered back from the reflected surface at the dawn of the Internet age, her eight-year-old counterpart today would almost certainly be more knowing. Now children are much more savvy to the role-playing etiquette of online engagement.

30

The Loop (2009-2010)

Psychologically speaking, we look often to the Internet not for people that are different from us but for people who are the same. Social networking sites, for example, use specific algorithms to pull like-minded people together (the very name Facebook indicates the narcissistic inclination of such networks). From such social sites we can pull our various self-images together from a variety of sources – editing and re-presenting them back to others online as a seemingly coherent whole. Many artists, such as American web artist Evan Roth, have used this idea to explore the psychology of our online engagements. Roth's *Internet Cache Self Portraits* present the visual contents of his own memory caches as wide-ranging installations or montages illustrating the psychology of multiple online engagements. In such works it is clear to see that – in several ways – the Internet now acts as a mirror which allows its users to plough the 'social and aesthetic models' referred to by Melchier-Bonnet in *The History of the Mirror* as discussed in Westgeest and Gelder's text.

In *The Loop* (Fig 23) I wanted to focus on this idea of the technologically constructed self. Certainly for adolescents (the group that I was looking at in *The Skater* project), the use of internet linked computers clearly played a large part in identity formation.[20]

Figure 23
'The Loop' (2009) Dir. McMurdo/Holmes. Production still.
http://vimeo.com/58538538

Figure 24
'The Skater' (2010) Wendy McMurdo.
Publisher: Ffoto Gallery, Wales.

As discussed in the previous chapter, engagement with digital games, with the internet and with mimetic systems in general encouraged a particular type of play – play that involved an extended and often unseen set of players where the self was often 'decentred'[21]. Our dependence on mimetic systems has created a complex environment for children. For them, the space between what is 'real' and what is 'virtual' often seems ambiguous.[22] With *The Loop*, I wanted to explore this theme, focussing on the actions of a young girl as she looks at the glassy screen of her computer. Seeing a digital avatar move on screen the young girl begins to follow the actions of the avatar.

20 'Teenagers make it clear that games, worlds and social networking (on the surface, rather different) have much in common. They all ask you to project an identity'. Teenage identities were regularly forged in a maelstrom of data, text, image and video, using a variety of social networking platforms [Turkle, 2011].

21 Marina Warner in her 2002 essay *'Ourself behind Ourself, Concealed: Ethereal Whispers from the Dark Side in Tony Oursler's The Influence Machine'* [Warner, 2002] describes our sense of 'romantic individuality' as being *'decentred, evacuated and occupied, haunted and unhoused and the self multiplied and scattered.'*

22 'I recall my daughter's reaction when she was seven, to a boat ride in the postcard blue Mediterranean. Already an expert in the world of simulated fish tanks, she saw a creature in the water, and pointed at it excitedly and said "Look mommy, a jellyfish! It looks so realistic!" When I told this story to a friend who was a research scientist at the Walt Disney Company, he was not surprised. When Animal Kingdom opened in Orlando, populate by real, that is biological animals, its first visitors complained that these animals were not as "realistic" as the animatronic creatures in Disneyworld, just across the road'. From Close Engagement with Artificial Companions' [Wilks, 2010].

Figure 25
'Avatar (i)' 2008 Wendy McMurdo

23 To collect motion capture data, games developers would attach motion sensors at key points on the skaters' bodies. As the skaters went through their routines, the developers could then capture sophisticated data, allowing them to reproduce the skaters' movements on screen. In this case, these data were used to create figure skating avatars, which the player could use his controls to manipulate on screen. (Fig 24. Still from Nintendo Wii Winter Sports)

As she does so, her moves mirror those of the skater and she becomes implicated in the action (Fig 24). *The Loop* was conceived as a two-screen piece with each screen sitting side by side. On the left, the figure of a young ice skater is shown going through an ice-skating routine. On the right, a young girl mirrors the skater's actions seen on the left, trying to perfect what she sees. In this way, *The Loop* picks up the themes of mirroring and repetition first explored in *In a Shaded Place* (as described in chapter 1). The girls become locked in an endless cycle of repetition and mimicry.

The Loop was co-commissioned by New Media Scotland and first screened at Ffotogallery, Cardiff (2009) and thereafter at Inspace in the Informatics Forum, Edinburgh (2010) and as part of *Digital Play (collected works 1995-2012)* at Street Level Photoworks in Glasgow in the summer of 2014.

I partnered with screenwriter Paul Holmes to co-direct *The Loop*. Paul Holmes is a member of The Screen Academy at Edinburgh Napier University where I was a research fellow at the time and worked with me to develop ideas for a dual screen short film that would explore my themes. He led me through the process of development, from story boarding the initial ideas, to scouting for locations, rehearsing actors, finding a cinematographer and editor and finally installing the finished piece.

The Loop was part of a larger project that began not with a film but with a series of photographs (Fig 25). I had been interested in photographing a group of young figure skaters who had provided the motion capture data for one of the digital games that I had observed children play with as part of my earlier research. In photographing the real-life skaters, I wanted to compare their movements to that of their synthesised digital avatars and, if possible, sit the two side by side (Fig 23).[23]

This interest in the uncanny, digital or robotic movement was something that I'd explored in several projects, from *In a Shaded Place* to a more recent exploration of social and humanoid robotics in 2012.

From these early photo sessions, I made a series of images, which showed the skaters as small figures suspended, mid-action. In their frozen state, they resembled frames from a paused game or rather figures held in suspension, awaiting the instruction to move forward. These photographs were intended to represent the skaters' digital avatars as much as their real-life selves. In her essay *'Illusio and Mimicry in the Age of the Avatar'* [Bell, 2010] sociologist Vikki Bell describes these images as *'like bodies yielding to a powerful force – a gust or blast that propels her off her feet'*. The gusts or blasts that Bell describes in *Avatar (i)* are produced not by the actions of the skater, but through a combination of my own consciousness and the algorithms of the computer.

At the close of *Photography Theory in Historical Perspective*, Gelder and Westgeest suggest that this fundamental change in the ways in which we construct images must eventually affect the ways in which we see them also.

> *'Media theorist Arjen Mulder (2000) posits it was not the photograph that was digitalized, but the consciousness and gaze of the observer. This makes what really took place before the camera less important: instead, what matters is how the observer interprets it. Likewise, Helen, Backstage challenges the viewers into asking themselves whether their gaze and consciousness are already digitalized or whether they can still look at it as an analog photograph'.*

Similarly, Daniel Rubenstein and Katrina Sluis argued that *'when software and image collide, the result is not just a different, processual image, but also a paradigm shift with implications for thinking about the ontological link between representation, memory, time and identity'* [Rubenstein and Sluis, 2013].

In the 1995 interview with Sheila Lawson for Creative Camera [Brittain, 2000], I described the image of the double as evoking *'a two-faced Janus, and particularly the Medusa who looks both forward and back'*. This idea is developed further in the Rubenstein and Sluis essay in which they describe photography itself in these terms:

> *'Like a two-faced Janus, photography points in two directions at once: one side faces the world of objects, people and situations as they appear in the real world, and is occupied with the representation of events by flattening their four dimensional space onto the two dimensional plane of the photograph (Flusser). The other side points towards photography's own condition of manufacturing, which is to say towards the repetition and serial reproduction of the photographic image. When software and image collide, the result is not just a different, processual image, but also a paradigm shift with implications for thinking about the ontological link between representation, memory, time and identity.'*
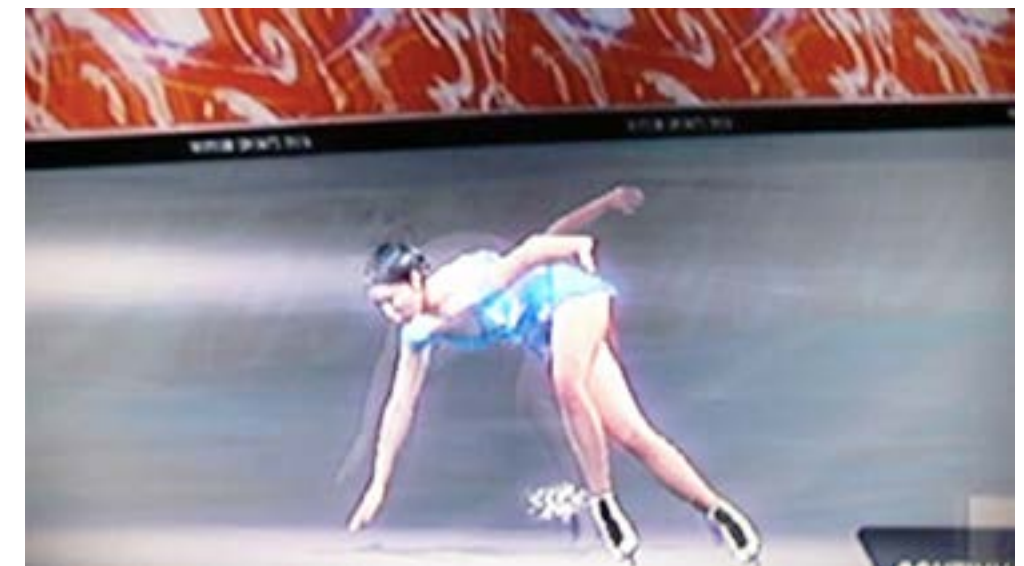

Figure 26
Still from interactive wii computer game

Conclusion

When we look at the lives of children – as I have chosen to do over the last twenty years – we can easily understand how their consciousness and their gaze might, as Mulder suggested, have been 'digitalised'. Certainly the 'ontological link between memory, time and identity' discussed by Rubenstein and Sluis has changed since the introduction of the computer. These changes have brought with them complex questions regarding the future of both photography and of childhood. Where we once looked to photography to help us understand the passage of time, different mechanisms might clearly be needed to do so in the future. In my own work, I have turned to the image of the child to explore what these changes might be. The representation of children has consistently provoked debate and the ways in which children are represented and portrayed in the wider world clearly reflects on prevailing social and political mores. In addition, the collective representation of childhood also presents us with a 'pattern and promise of futurity' as the Warner quote at the beginning of this commentary stated *'not for themselves alone but also for society as a whole'*. We would therefore be wise to keep a watchful eye over the ways in which their images are used.

Figure 27
Work in progress (Digital animation) 2014 Wendy McMurdo

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In my 2014 survey exhibition *Digital Play (collected works 1995-2012)* all the images and projects selected were those that included the image of the child.[24] Whilst earlier works exhibited responded directly to the arrival of digital culture (work from the *In a Shaded Place – the digital and the Uncanny* series, for example) later works such as *The Skater*, *The Loop* and *The Games Hall* explored the rise of digital culture via its impact on the lives of the young (looking, for example, at the ubiquitous use of social media and the popularity of online gaming). In this way, the exhibition documented the social and technological changes affecting the lives of children from the mid 90s to date. However, the exhibition also documented the shifts from analog to algorithmic image-making that have re-defined the medium of photography during the same period.

From my images shot on film, transferred to drum scans and reworked as digital files in the mid-90s, to my hyper-real images of *The Skater* produced directly from high resolution digital cameras, the shifting nature of the photographic image can be traced (in the changing means of production) from one body of my work to the next.

Over the last decade, an open and experimental approach to photography has always been important to me and I have found myself re-thinking my own approach to my subject as the medium rapidly evolves. Whilst still focussing on childhood, identity and play as a central theme, I find now that the figure of the child herself has begun to disappear in my work. Instead, the toy or the inanimate object has become important. Automation has becomes a central theme. Film – or moving image – begins to figure more prominently. Digital techniques, which might once have been employed to mimic the real, now become a more visible and central component of work. The importance of process begins to dominate too (Fig 27).

As I begin to work on new images involving collage, montage and lenticular techniques, the illusionistic space of pre-digital photography recedes into the background. Now, the focus must be on defining a new visual language – one that better encompasses the distance – at once short and very long – that we have all travelled since the introduction of the computer.

How does this work contribute to 'new knowledge'? In the context of this commentary, there are *two* ways that my work could be described as contributing to new knowledge: one is in the works investigation of the representation of the child in photography and secondly, in my works exploration of the impact of digital culture on fine art photography.

The interest in childhood as a theme has had a long and interesting history in both photography and photographic theory, and I develop this scholarship further looking at the status of the child in a digital age. In my work I have often used the image of the child as a vehicle by which to better explore the social and technological shifts brought about by the introduction of digital culture. As my work has developed, it has reflected the sociological and technological shifts that have affected children's lives. I have used the iconography of childhood, alongside digital methods to explore the emergence of the 'information age' and its implication for society and for photography itself.

Wendy McMurdo, 2014

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24 '*Digital Play – Wendy McMurdo (collected works 1995-2012)*' was staged at Street Level Photoworks in Glasgow from 28th June – 17th Aug 2014 as part of 'Generation – 25 years of Contemporary Art in Scotland'. http://www.streetlevelphotoworks.org/event/wendy_mcmurdo.

List of Publications

Below, I have listed the series of publications (monographs, authored chapters, group exhibitions, solo exhibitions and screenings) referenced in support of my PhD by publication. Many of the texts listed here can be accessed and read in full at: http://wendymcmurdo.com/text/

1. **The Skater** – Wendy McMurdo (Monograph)

Authors: Bell, Vikki; Drake, David; Roberts, Russell, Holmes, Paul; McMurdo, Wendy Publisher: Ffotogallery Wales, Cardiff. ISBN: 978-1-872771-73-1. Date: August 2009 Illustration: 30 colour. Published to mark Ffotogallery's 30th Anniversary Commission

2. **Only Make Believe: Ways of Playing** (Publication) Artist's contribution: Portfolio (2 plates & frontispiece) Curated: Warner, Marina Date: 2005 ISBN:0-9546545-6-0 Publisher: Compton Verney House Trust, UK

3. **EXIT – Imagen y Cultura** (Journal) Artist's contribution: Portfolio (5 plates, cover and frontispiece). Publisher: Olivares & Associates, S.L. Madrid Date: November/ December 2010/January 2011 (Issue 40 – About 10) ISSN: 1577-272-1

4. **The Games Hall (i)**, 2007 Artist's contribution: Photograph. Exhibited: Wendy McMurdo – Childhood, Fantasy and Play, ICIA, Bath UK & 2014, Glasgow. Published: The Skater, EXIT (Issue 40), Source 2012, issue 70.

5. **Wendy McMurdo – Childhood, Fantasy and Play**. Exhibition Artist's contribution: Solo Exhibition, curator: Dr. Daniel Hinchcliffe. Venue: Institute of Contemporary Interdisciplinary Arts (ICIA), Bath, UK Date: 12 Oct 2011 – 27 Jan 2012.

6. **Through the Looking Glass: Childhood in Contemporary Photography** Artist's contribution: Portfolio, publication, exhibition (5 plates); Group Exhibition Curator: Fiona Kearney, Publisher: Lewis Glucksman Gallery, Cork, Ireland; ISBN: 0-9502440-7-4. Hardcover: 98 pages. Date: 2005

7. **The Loop and Avatar (i)**, 2009 Artist's contribution: Photograph and Film. Screenings at various sites including: Ffotogallery Wales (2009-2010) Inspace Edinburgh (2010) the Tin Shed and the Ben Pimlott Building Goldsmiths University London (2013).

8. **Digital Play – Wendy McMurdo, collected works 1995-2012** (June-Sept 2014). Solo exhibition/screening. Streetlevel Gallery, Glasgow.

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Wendy McMurdo, Artist's contribution: Monograph – to accompany exhibition. Authors: McKee, Francis; Williams, Gilda; Publisher: Salamanca, Spain: Ediciones Universidad de Salamanca. 2nd ed. 2001.

The Digital Eye – Photographic Art in the Digital Age (Publication) Artist's contribution: 2 plates & cover. Author: Wolf, Sylvia Publisher: Prestel Verlag ISBN: 978-3-7913- 4318-1 175 pages Date: 2010

Unheimlich – Artist's contribution: Portfolio (7 plates); Group Exhibition. Curated: Urs Stahel. Publisher: Fotomuseum Winterthur, Zurich (2000)

Creative Camera – 30 Years of Writing (2000). Artist's contribution: Cover, illustrated interview, Wendy McMurdo & Sheila Lawson.

List of Illustrations

Figure 1
'The Robot Workshop (iii, ii & iv)' 2010 Wendy McMurdo

Figure 2
'Solo Violinist, St. Mary's Music School, Edinburgh' 1999 Wendy McMurdo

Figure 3
'In a Shaded Place' (1995). Catalogue, Site Gallery, Sheffield.

Figure 4
'The Somnambulist' 1995 Wendy McMurdo

Figure 5
'Creative Camera: 30 years of writing' (2000) ed. David Brittain, Manchester University Press

Figure 6
'Catherine Cowan, Merlin Theatre, Sheffield' 1995 Wendy McMurdo

Figure 7
'Computer Class (i)' 1997 Wendy McMurdo

Figure 8
'Computer Class (ii)' 1997 Wendy McMurdo

Figure 9
'Only Make Believe: Ways of playing.' (2005) Ed. Marina Warner, exhibition and publication, Compton Verney, UK. pp. 92-94

Figure 10
'Ben with Mask, Summerfield House' 1997 Wendy McMurdo

Figure 11
'Roxanne, Summerfield House' 1997 Wendy McMurdo

Figure 12
'Through the Looking Glass – Childhood in Contemporary Photography' (2005) ed. Fiona Kearney, exhibition & publication, Ireland: Glucksman Gallery. pp. 86-87

Figure 13
'Girl with Bears, Royal Museum of Scotland, Edinburgh' 1999 Wendy McMurdo

Figure 14
'Martin with Owl, Royal Museum of Scotland, Edinburgh' 1999 Wendy McMurdo

Figure 15
'The Shoe Doll (ii)' 2004 Wendy McMurdo

Figure 16
'Only Make Believe: Ways of playing.' (2005) ed. Marina Warner, exhibition and publication, Compton Verney, UK. frontispiece

Figure 17
'The Games Hall, Edinburgh' 2007 Wendy McMurdo

Figure 18
'EXIT – Image and Culture' (Issue 40) Dec – Jan 2011, pp. 80 – 81 (portfolio page)

Figure 19
'EXIT – Image and Culture' (Issue 40) Dec – Jan 2011 (cover image: Wendy McMurdo)

Figure 20
'The Skater' (2010) Wendy McMurdo. Publisher: Ffoto Gallery, Wales. pp. 30-31

Figure 21
'The Skater' (2010) Wendy McMurdo. Publisher: Ffoto Gallery, Wales. pp. 32-33

Figure 22
'Helen, Backstage, Merlin Theatre (The Glance)' 1996 Wendy McMurdo

Figure 23
'The Loop' (2009) Dir. McMurdo/Holmes. Production still. http://vimeo.com/58538538

Figure 24
'The Skater' (2010) Wendy McMurdo. Publisher: Ffoto Gallery, Wales.

Figure 25
'Avatar (i)' 2008 Wendy McMurdo

Figure 26
Still from interactive wii computer game

Figure 27
Work in progress (Digital animation) 2014 Wendy McMurdo

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