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**Emotionally charged:
A practice-centred enquiry of digital jewellery and
personal emotional significance**

Jayne Wallace

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

July 2007

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Previous presentation

Elements of this research have been presented in workshops, conferences, books and journals over the past five years.

In (Downs, J. & Wallace, J. 2002) I presented collaborative research with Jennifer Downs to the *Design and Emotion* conference 2002, organised by the Design and Emotion Society and the Design Research Society. This research explored the use of a personal construct psychology tool to learn aspects of how jewellery was perceived and understood.

In (Wallace 2003) I presented early stages of the research and achieved a place at the conference doctoral consortium at *HCI2003: Designing for Society* organised by the British HCI Group. This paper described my formulations of a contextual review (extended in Chapter 2), critique of current digital devices (extended in Chapter 3) and methodology (extended in Chapters 4 & 5).

The international contemporary jewellery conventions^ *Ornata 2003* Zurich, gave me the opportunity to present and discuss early stages of the research relating to jewellery and personal emotional significance (extended in Chapters 4 & 5) to an audience of contemporary jewellers. A research seminar hosted by the University of Central England, Birmingham Institute of Art and Design 2003 also gave me the opportunity in 2003 to present my research to peers across the UK academic community in art and design.

In (Wallace, J. & Press, M. 2003) I collaborated with Mike Press to describe the value of a jeweller's perspective to the design and consideration of wearable digital objects for the *Sixth Asian Design Conference*, 2003, Japan (extended in Chapters 2, 3, 4 & 5).

I was invited to present my research at a multi-disciplinary research seminar focusing on the experience of technology at the Interaction Design Centre, University of Limerick, 2004.

In (Wallace, J & Press, M 2004 [1]) I presented a collaborative paper, written with Mike Press at the *PixelRaiders2* conference, Sheffield Hallam University. The paper (extended in Chapter 4) presented the concept of beauty as an emotional term related to enchantment, intuition and empathy and as a key aspect of craft practice, stating the relevance of craft to design in a digital age. The paper won the conference award for best paper and was selected for publication in the *Design Journal* (Wallace, J. & Press, M. (2004[2]).

I was an invited keynote speaker at the *ChallengingCraft* conference, Gray's School of Art, Aberdeen, 2004. The conference focused on the validity of craft to our current age and how the many aspects of craft practice and the resulting artefacts may have new relevancies in a developing digital age. I was able to present (Wallace, J. 2004) the first of my digital jewellery proposals at this conference and offer my perspectives on the valuable qualities of craft practice to a digital age (extended in Chapters 2,3,4,5 &7).

I collaborated with Andy Dearden (Wallace, J. and Dearden, A. 2004) on a chapter for the book *Future Interaction Design* edited by Pirhonen et al. (2004) published by Springer Verlag. We used the opportunity to discuss digital jewellery as experience, taking aspects

of Wright and McCarthy's (2004) work on experience to digital and non-digital jewellery. We explored the relevance of a framework for experience to the design and consideration of what digital jewellery could be and our approach to design in this area (related work can be found in Chapters 4, 5, & 7).

Direct collaboration with McCarthy and Wright led to (McCarthy, J. Wright, P., Wallace, J. and Dearden, A. (2004 [1&2] & 2006) in which we focused on the experience of enchantment in human-computer interaction and digital jewellery presented at *CHIFringe 2004* and *DIS 2004* conferences and selected for publication in *Personal and Ubiquitous Computing Journal 2006*. This work drew from my previous collaborations on *beauty* with Mike Press and enabled me to consider further the role of enchantment for digital objects (extended in Chapter 4 & 7).

In (Wallace, J, Dearden, A & Fisher, T. 2005) I presented to the *Wearable Futures* conference the three final digital jewellery pieces along with methods and perspectives leading to these. Our paper focused on contextualizing the future potential of wearable technologies. The paper was selected for publication in the journal *AI and Society 2006* (Wallace, J, Dearden, A and Fisher, T. 2006) (extended through Chapters 2, 3, 4, 5, 6 & 7).

Films of each piece were exhibited as part of the *Wearable Futures 2005* conference and as part of *Interrogating Fashion* at the ICA, London and London College of fashion (2005).

I have presented the research to art and design departments at Loughborough University during 2005 & 2006 as part of my role as visiting lecturer. I have also been invited to present the research to art and design departments at the University of Central Lancashire (2006) and the Royal College of Art *Goldsmithing, silversmithing, metalwork and jewellery* department (2007).

I was a guest presenter at the Royal College of Art AHRC Methods Network Expert Seminar 'Blue Skies and Singing Rings' in 2006, where I was able to present my methods, overview of my approach and final pieces to leading contemporary jewellers, crafts-practitioners, researchers and developers of digital technologies.

I have collaborated with Wright and McCarthy in 2007 (Wright, P, Wallace, J and McCarthy, J. (In press)) for TOCHI; the leading journal in HCI to focus on the aesthetics of experience centred design, using one of the doctoral pieces (blossom) as a case study.

In (Wallace, J, Jackson, D, et al. 2007) I presented my methods, research approach and final pieces to the FACT workshop Northumbria University along with pieces of digital jewellery made following the doctoral research. It was key to demonstrate the implementation of the relevant technologies within some of the doctoral work and to articulate the value of jewellery as intimate forms of object to researchers and technology developers.

Abstract

The aim of this research was to explore the possible integration of digital technologies and contemporary jewellery towards the development of digital jewellery; jewellery objects embedded with electronic components. I sought to investigate the relevancies and appropriateness of such integration as extensions of contemporary jewellery through personally and emotionally significant experience.

A critical contextual review reveals that wearable digital objects are fast emerging phenomena, but that the majority of existing approaches to their development, both conceptual and physical, are from outside the field of contemporary jewellery. In consequence the majority of developments commonly miss many of the subtleties and dynamics of what contemporary jewellery can be. Notable differences relate to interpretations of the aesthetics of jewellery, the relationship jewellery may have with the body and the role jewellery may play within human relationships. This critique is extended through the notion of the *gadget*. Current approaches to the design of wearable digital objects are led chiefly by an opportunistic use of the body as a mobile location serving to satisfy an increasing desire for ubiquitous computing. Such approaches encourage interpretations of digital objects as function led devices that have a transferable significance, are part of a fast paced consumption cycle and neglect considerations of emotionally rich interactions between people and digital objects.

I have developed a practice-centred methodology rooted in craft practice that tests the appropriateness of contemporary jewellery practice as a creative strategy and research tool in the development of personal and emotionally significant digital jewellery. My process focuses on the involvement of individual participants with the aim of weaving aspects of their personal histories that are emotionally meaningful to them into pieces of digital jewellery. Innovative methods (stimuli) draw on methods from Interaction Design and atypical approaches to contemporary jewellery practice to facilitate contemporary jewellery practice as a directly social activity. In addition the research develops a perspective of the interconnected sensibilities within craft practice, of beauty, enchantment and empathy that enable it to offer an approach centred on the social and discursive elements of emotion.

The participants' responses to the digital jewellery proposals reveal insights into opposing expectations and assumptions of digital objects and jewellery objects and also how the digital jewellery proposals were interpreted and appropriated in a personally emotionally significant context. Additional insights are revealed relating to perceptions of jewellery as intensely personal types of objects, strong connections between participants' inter-personal human relationships and their personal criteria for beauty and to shifts between how the participants referred to the pieces as personal or shared experiences depending on whether they regarded them as a piece of digital or non-digital jewellery.

The research culminates in a body of work, both physical and conceptual that has relevance for both design and theory. Contributions to knowledge are claimed in the following areas:

- The novelty of the investigation to explore the relevancies and appropriateness of digital jewellery for personally and emotionally significant experience.

- The identification that the highly prescriptive and limited nature of existing approaches to digital objects limit our experiences as well as our expectations and assumptions of what *digital* can be.
- The characterisation of jewellery as a particular, intimate form of object that has a strong role within our developing sense of self and within meaningful and personal human relationships. And the utilisation of jewellery as a vehicle through which to explore the potential for digital objects to have a meaningful and personally significant context.
- The extension of contemporary jewellery practice through this utilisation; through creating a characterisation of contemporary jewellery practice as a process centred on emotion as social, discursive and human-relational; and through a hybrid methodology, where jewellery and craft processes integrated methods from HCI.
- The creation of a reflective view of craft practice as an innovative, empathic creative strategy relating strongly to beauty, which identifies the value of craft practice to a digital culture.
- The resulting series of physical jewellery objects that are both physical and conceptual propositions of digital jewellery. They act as challenges and alternatives to current assumptions of digital qualities and demonstrate that digital jewellery may be personally meaningful and have a different pace and texture to current digital objects. Each individual piece proposes a different class of object.
- The identification of the following from the participants' responses: strong connections between inter-personal relationships and a personal criteria for beauty: shifts in their perceptions of jewellery from personal (non-digital) to shared with an intimate group of people (digital): complex tensions around the *idea* of digital jewellery that related to assumptions of materials, aesthetics, functionality, status of object and lifespan.

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1 Introduction

As computing and digital technologies become more ubiquitous in their conception, possibilities of bridging digital objects with the human form are increasing. Designers are seeking to site technology on the body (corporate examples include IBM [1&2], Philips (2000), Nokia [1] and Nike [1]). In tandem, theorists are considering the relationship between technology and the body (Norman in his predictions of wearable technology and body implants (1998), Coyne in terms of embodiment, corporality, our experience of the real and conversely disembodiment in cyberspace (1999), Trend approaching the issue in terms of the diminishment of physicality in our experiences as our use of technology grows (2001) & Rheingold in discussing the developments, implications and possible consequences of wearable computing and cyborgs (2002)). As digital technologies extend their reach into our lives, our increasing interactions with them raises the potential for captivation, enchantment and fascination (McCarthy & Wright (2003, 2004), Coyne (1999)), or conversely, frustration, apathy and doubt (Norman (1998, 2004), McCullough (1996), Cooper (1999)).

Despite the views of Norman (1998) and McCullough (1996) that technology led design has resulted in a climate where technology is too intrusive the increased miniaturisation and mobility of digital technologies has led to a number of proposals for digital objects which use *jewellery* as a way to locate communication and information devices on the body. However, these developments are emerging from outside the field of contemporary jewellery. Consequently digital jewellery is significantly under-explored within contemporary jewellery practice and the emerging developments from other fields present a narrow interpretation of both jewellery and digital technologies. In terms of aesthetics there is a distinct naivety regarding the form, material, connection with the body and scope of interaction of a digital jewellery object. Moreover there is a paucity of approaches that consider emotional and intimate attachments people form with and around objects. These limitations are evident in both physical and conceptual constraints. Beyond this, the qualities that we have come to associate with the *digital* are born from a predominantly consumer electronics field and are both narrow and hindering if we wish to consider digital

technologies having wider, more emotional scope in our lives. Therefore an exploration of digital jewellery that addresses these issues and seeks to escape the limiting assumptions we have of the digital is needed.

In collaboration with McCarthy and Wright (McCarthy, Wright, Wallace & Dearden, 2005) I maintain that there is a need to extend our understanding and vision of digital experience into ones ripe for enchantment. McCarthy & Wright (2004) call for a new way of visualising experience with technology: as creative, open, relational and a constituent *infelt experience*. This kind of approach relates to the felt, emotional and sensual qualities of our experience. Corporate design inevitably conceives wearable digital objects in terms of mass consumption. This has an impact upon the types of interaction proposed, the aesthetics and the interpretations of jewellery objects. Jewellery is often a component of the context of an intimate relationship between people. The relationship between an individual and a piece of jewellery can therefore be personally meaningful.

Craft practice can be an intimate and empathic process engaging a practitioner as an individual in the expression of personal ideas through the creation of objects. More specifically it is a form of practice that fuses learned knowledge of making with the desire to create objects *for people*. The human is very present in craft objects, both in the *trace* of the maker and in the humanising of various processes, materials and technologies. As such craft as a practice presents a unique approach to the design of digital objects, yet with a few notable exceptions (e.g. McCullough 1996), there have been few attempts to examine craft's implications for design in an increasing digital culture.

Contemporary jewellery also has a very unique position both in terms of discipline and medium. Based in craft practice but crossing borders with design and fine art it has a conceptual breadth that enables it to offer valid discourse in each area. As a form of object it is fluid in terms of function, whilst being centred in human relationships and the projection of self to others and to ourselves. It therefore offers a ripe environment within which to explore the potential of personal emotional significance in new digitally interactive forms of jewellery objects.

My chief aim in this research was to explore the possible integration of digital technologies and contemporary jewellery. I endeavoured to investigate the relevancies and appropriateness of digital jewellery for personal, emotionally significant experience.

In order to understand the current terrain in this area I reviewed current approaches to body centric digital objects and found that existing approaches characterise the *digital* in a particular way. This dominant casting or characterisation was shown to have limited both our experience and expectations of digital objects. By contrasting such work with examples from contemporary jewellery I was able to illustrate that jewellers had taken very different approaches to the design and contextualisation of body centric objects. To illuminate the differences further the gadget served as an extreme case of object that exemplified the highly prescriptive and limited nature of our collective assumptions as to the aesthetics and functionality of digital objects. Both gadget critique, and the collective expectations of digital technologies supported a set of anti-objectives for my research.

The role played by jewellery within this enquiry is essentially threefold as lens, tool and vehicle. I acknowledged that it is an unusual and particular form of object: intimate, human-relational, acting as a conduit to other times, places and experiences and as such often having a strong role within our developing sense of self. As a lens jewellery has been something through which to view and critique current approaches to body centric digital objects. As a tool it has been a form of object through which to propose and demonstrate new aesthetics and contexts for digital technologies. And as a vehicle it has provided a means through which to explore new areas and aesthetic potentialities of the digital terrain.

As a result of this enquiry I sought to extend the context of contemporary jewellery practice. This research presents digital technologies as a new extension to the creative palette for jewellers. It also demonstrates a different approach to the development of digital objects, from the perspective of a jeweller. I have characterised my practice as a process centred on social, discursive and human-relational aspects of emotion and demonstrated the relevance of craft and contemporary jewellery practice through my hybrid methodology, within the field of Human Computer Interaction.

Leading on from this last point I have endeavoured to characterise craft practice and its relevance for design in a digital culture. This centred on my vision of craft as an innovative, empathic creative strategy relating strongly to beauty.

Finally I created a series of physical jewellery objects that represented digital jewellery propositions resulting from my engagement with a small number of participants. The jewellery pieces represented both physical and conceptual propositions that acted as challenges and alternatives to current assumptions of digital qualities and presented a personally meaningful form of digital jewellery. My goal was not to digitally realise the pieces at this stage, but to be aware through discussion with electronics specialists that my propositions were sound and easily realisable.

1.1 Scope and methods

This research is about the design and application of personally emotionally significant digital jewellery using the perspective and methods of a contemporary jeweller. My proposal centres on a vision of craft practice as an innovative, creative strategy, engaging with particular sensibilities and sensitivities. My methodology has been, in part, to use my practice as a contemporary jeweller to work with people on an individual basis to gain empathic understanding of aspects of their lives. My aim was to access personally meaningful elements of my participants' lives and to interpret these fragments through the design of digital jewellery.

It is important to note that there are also developments in digital textiles and clothing, which overlap with the focus of this research in terms of mobile digital technologies worn on the body. However, in this research I have focused on body centric objects rather than garments or textiles.

The research process has culminated in a body of work, both physical and conceptual. The results have relevance for both design and theory with regard to our experience of digital objects, of creative practice within digital culture and the value of contemporary jewellery as a process centred on social, discursive and human-relational aspects of emotion.

I first explored the potential of digital jewellery in my masters practice through which I created jewellery relating to different aspects of *communication*. Many of these pieces directly referenced the use of digital technologies. *Bare* (1997 no image available) explored the use of digital technologies within jewellery forms as sensors of bodily biometrics, translating the data gathered from a body into pulses of light, *Echo* (figs. 1 & 2 1999) related to a popularised aesthetic of futuristic, *space-age* technological objects worn on the body and *Speak Up* (figs. 3, 4 & 5 1999) acted as a personal commentary on the increased prevalence of mobile and stationary surveillance devices. Each of these pieces and series were made to question both my own and an audience's opinion of the increased use, reliance on and expectations of digital technologies.

Figs. 1 & 2 Jayne Wallace 1999

Echo

Silver and steel

Figs. 3, 4 & 5 Jayne Wallace 1999

Speak Up

Silver, steel and plastic coated wire

Through developing the pieces and critiquing existing forms of information and communication devices I became aware that the issues raised by the potential integration of digital technologies and jewellery were considerable. From my position as a contemporary jeweller I had a contribution to make and a particular location, centred in my practice, which differed from many of the positions of other people designing and conceiving digital objects located on the body. I had the opportunity to ask many more questions and to explore a particular path forward into how integration may be possible that is an extension of contemporary jewellery.

My approach has been centred in my craft practice, which has an inherent hybrid aspect arising from engagement with issues extraneous to craft practice itself in order to fuel or inform ideas within practice once again. However, through this research, my practice has embraced further hybridity, by engaging with theory, method and practice connected to, but outside of my field of study. In bringing together separate disciplines one aim has been to extend the existing sensitivities and sensibilities of my own practice as a contemporary jeweller. Moreover, I believe it is important for contemporary jewellers to engage with the potential of digital technologies, as such materials can be an extension of a maker's palette, and to be aware of the development of wearable digital objects; as these developments share common ground with jewellery.

1.2 Objectives

1. To critically review the current capabilities and development of digital devices and ubiquitous computing particularly in the context of jewellery and body centric digital objects.
2. To identify key qualities of contemporary jewellery as a genre of object in order to highlight the potential relevance of an approach centred in contemporary jewellery practice to the design and conception of digital jewellery.
3. To identify qualities currently associated with gadgets that serve as a set of anti-objectives for the development of digital jewellery.
4. To identify existing expectations and assumptions of digital jewellery.
5. To develop and demonstrate research methodologies for integrating digital technologies with contemporary jewellery, presenting a critical reflection of the methodological and design issues arising from the investigation, identifying issues for wider contemporary practice.
6. To investigate the relevance of craft practice as a creative strategy in the developments of body centric digital objects and our experiences within digital culture.
7. To produce a body of work, both conceptual and physical, that explores and represents design propositions that integrate digital technologies with contemporary jewellery in relation to personal emotional significance.

1.3 Thesis structure

Following the introduction, chapter 2 will present a contextual review focused on two categories of object: contemporary jewellery and pervasive computing relating to wearable computing and body-centric digital objects. The review will draw on craft, contemporary jewellery, industrial design, HCI and interaction design to review the context and different approaches to the development of each category of object. The chapter will identify gaps in existing design and literature that this research endeavours to address and will also offer a context, position and grounding for this research.

Chapter 3 (The gadget) will seek to establish a critique of current motivations and approaches towards digital objects centred on the notion of the gadget, drawing attention to the ways many current functionalities of digital objects limit our experiences as well as our expectations and assumptions of digital objects. Key differences will be asserted between contemporary jewellery objects and digital objects and the chapter will detail how this critique of gadgets and the underlying assumptions and expectations of them serves as a set of anti-objectives for the digital jewellery resulting from this research.

Chapter 4 (Methodology 1) will present the theoretical development of my methodology. With personal emotional significance in the development of digital jewellery as the central elements to this work this chapter begins by presenting a spectrum of conceptions of emotion from biological correlates, to felt experience and personal biography. This contextualisation of methodologies exploring emotion will show that practical and theoretical attempts to address emotional qualities of experience are at present limited. The chapter continues to explore alternative methodological approaches that consider craft practice as an intellectual form of making with particular qualities relating to beauty, enchantment and empathy. These latter qualities (beauty, enchantment and empathy) are explored in detail and developed to form principal theoretical perspectives that support this research and a particular standpoint in relation to craft practice.

Chapter 5 (Methodology 2) will outline the development and practical application of methods through exploratory studies involving individual participants. The rationale behind the individual exploratory studies will be detailed centring on the use of contemporary jewellery practice as a direct social activity and as a way of facilitating considerations of digital jewellery as intimate, personally emotionally significant objects based on an individual's personal biography.

Chapter 6 will explore how the digital jewellery proposals were perceived by the participants highlighting key insights from the responses relating to firstly the participants' feelings of the digital jewellery proposals in relation to personal emotional significance and secondly the participants' thoughts and feelings concerning a tension around the integration of digital technologies and jewellery objects.

Chapter 7 will offer reflections on the approach that has been adopted and issues that have arisen from the research outcomes. The perspective of digital jewellery, as a new category of object, that has been developed through this research will be articulated. Finally the chapter will detail the research conclusions in relation to the initial objectives and will outline the theoretical contribution this research claims to make, stating the potential for further research.

2 Contextual review

Digital jewellery can be contextualised from two distinct perspectives: contemporary jewellery practice and pervasive computing practice relating to wearable computing and body-centric digital objects. Through a historical review of jewellery as a social signifier it can be seen that contemporary jewellery is both rooted in this context, but also a category of object that has moved beyond this. Contemporary jewellery often operates as a vehicle through which to present an idea and a means for jewellers to comment on issues connected to jewellery or themes extraneous to the subject.

A review of approaches to wearable computing shows a stark contrast between the concerns of pervasive interaction designers and those of contemporary jewellers. In particular, contemporary jewellery practice has demonstrated its value for exploring notions of felt experience. With a view to framing the potential of digital jewellery practice a number of these notions are explored: the use of jewellery practice as a vehicle for the exploration of a maker's sense of selfhood; *preciousness* originating from personal significance stemming from an individual's personal biography and experience of human relationships; the use of jewellery as part of a dialogue and as a tool to facilitate dialogue; and contemporary jewellery as a particular form of object that has an intimate and constant *relationship* with the body, not defined by wearability.

Consideration of wearable computing and body-centric digital objects reveals a shift in our relationships with, and experiences of, digital technologies during the last sixty years. By examining the developments in wearable computing (or *wearables*) and digital jewellery proposals from non-jewellers and contemporary jewellers, the contrasts between developments in body-centric digital objects and contemporary jewellery can be highlighted. Developments in wearable computers are shown to centre on the computer as a permanently worn and permanently *on* communication and information device. In contrast with contemporary jewellers, the makers of wearables regard wearability as a primary concern, often in spite of discomforts of scale and weight. Contrasts arise on a number of

other dimensions relating to: interaction, usability, aesthetics, the relationship between the object and the body, and the role of digital technologies in human relationships.

Digital jewellery proposals from non-jewellers generally originate from a desire to enable ubiquitous mobile technology use. In such cases the body is predominantly seen as a convenient location on which to place digital devices, and jewellery is conceived as a conventional form of adornment. Many examples can be shown to be technology led, simply redeploying functionalities and interaction paradigms from existing devices. These approaches fail to significantly address notions of personal significance and affective potential. Similarly, industrial design proposals for wearable technology emphasise a conventional *futuristic* aesthetic at the expense of a wider conception of the nature of digital jewellery.

In contrast, proposals from contemporary jewellers can be shown to emphasise human relationships, a wider aesthetic, a more considered relationship between digital jewellery and the body, and implicit and unconventional interaction. Another significant aspect of jewellery centred approaches is their articulation of the value of craft practice in the development of digital objects. However, there is a paucity of approaches that examine the emotional significance of objects in relation to personal histories and narratives whereby emotion can be considered a discursive and social phenomenon.

2.1 Jewellery

Jewellery as a category refers to objects that in simple terms are worn, placed on, or relate to the body, though in reality there are many diverse extensions, subcategories and shifts in this relationship. This section positions contemporary jewellery as a practical and academic sub-discipline within the connected fields of art, design and craft, and establishes the perspectives and motivations of makers of contemporary jewellery focusing on themes and perspectives key to this research area.

2.1.1 Historical context

Historically, jewellery has operated as social and cultural signifier (Turner 1976; Metcalf 1993; Dormer & Turner 1994; Watkins 2002). Critics Dormer & Turner (1985) described jewellery as:

“...a shrewd monitor, reflecting the ups and downs not only of money and fashion, but also of political, social and cultural change.” (Dormer & Turner, 1985: 178)

Anthropologist Randall White offered a rich interpretation of the role of jewellery in understanding aspects of any discovery of collective human coexistence. Jewellery, according to White (1989, 2002[1], 2002[2]), not only functions to denote or display social status, but more significantly acts as a defining signifier that a collective actually functioned as a society; jewellery is a central feature in social and cultural positioning.

“... there has been a significant trend in social anthropology toward viewing social identity as constructed and communicated through the medium of bodily adornment... we can no longer treat personal ornaments as mere trinkets. To the contrary, they were fundamental components of even the earliest Upper Palaeolithic social systems.” (White, 2002[1])

Although in social anthropology, and in many jewellery texts, jewellery is valued as a social signifier, in layperson’s terms common assumptions place jewellery primarily in the role of adornment or ornament; a role, which is often regarded as a fashion accessory (Baker 1978), or related to demonstrations of wealth and social status (Shields 1988;

Peacock 2002; Turner 1996). Maker and gallery owner, Paul Derrez observed that for the wider public there are:

“...easy... standard mass-produced pieces” (Derrez, 2005: 11)

In Derrez’ statement we may interpret *easy* as jewellery objects that are wearable practically, recognisable as common forms of jewellery and objects that do not provoke questions or debate. The enduring historical context of such forms of jewellery is to reflect a form of belonging, a form of residing within the ideas and themes associated with jewellery, and, as Dormer and Turner (1994) argue, a consequence of this is that much commercial jewellery is designed to fit within a narrow conception of jewellery. However, these traditional cliches and roles of jewellery have been questioned, challenged and extended by a perspective of Western European jewellery rooted in craft practice stemming from the 1950s (Westin 1993; Turner 1976). This is contemporary jewellery.

2.1.2 Contemporary jewellery

Following the Second World War the impact of modernism and advances in technology and mechanisation led many jewellers to reappraise the methods and materials they used. A growing social and political awareness also led to re-evaluations of the motivations and relevance of jewellery practice (Turner 1996). This shift in perspective was championed by the New Jewellery Movement from the mid 1960s (Turner 1976; Turner 1996; Dormer & English 1995) and extended into jewellery education and practice as Contemporary Jewellery within the UK, often referred to as *Art Jewellery* or *Studio Jewellery* throughout the rest of Europe. Jeweller Caroline Broadhead states that contemporary jewellery:

“sloughed off the assumed connotations of wealth, luxury, durability and privilege...” (Broadhead, 2005: 25)

Such perspectives continue to influence contemporary jewellery practice and design and position jewellery as a vehicle through which to explore more radical relationships between both self and object, and between maker, audience and practice (Hogg 2004; Watkins 2002; Partington 2004). Dormer and Turner (1994) asserted that contemporary jewellery is the term used to describe a certain genre of jewellery, which in general terms express concepts

other than those communicated by the function of the object. There are notable overlaps with the motivations of fine artists, in the use of objects as metaphor or signifier; though key differences include a continued and constant reference to the body and the role of craft practice in its production; as Christoph Zellweger states:

“You can not make paintings without reference to painting, nor can you make jewellery without reference to jewellery and relating the jewellery itself to the body.” (Zellweger, 1999)

Rosolowski (2002) and Partington (2004) claim that the contemporary jewellery perspective acts to provoke, challenge and extend assumptions as to the form and function of jewellery, though this is only possible by maintaining a connection to the roots and historical or traditional context of jewellery.

2.1.2.1 Jewellery as a vehicle for comment and expression

New Jewellery Movement makers such as Emmy Van Leersum and Gijs Bakker had a significant impact on how we conceive contemporary jewellery today. Their advocacy of inexpensive materials, expansion of the expressive and referential potential of jewellery, and rejection of narrow conceptions of form and body-object relationships (figs. 6 & 7), represented a deliberate social and aesthetic decision. Van Leersum and Bakker presented jewellery as a vehicle by which to question the social and cultural dynamics of jewellery consumption and production.

Fig. 6 Gijs Bakker 1967

Shoulder Piece

Anodized aluminium

Fig. 7 Emmy Van Leersum 1968

Necklace (object to wear)

Contemporary jewellery has also served as a platform for ethical comment. In *Gold makes blind* by Otto Kiinzli (fig. 8) a black rubber armband completely concealing a gold ball, was made to challenge the audience, and the makers of jewellery, to consider the human injustices conducted in direct relation to the mining of gold. Viewers were led to consider whether they believe there is a gold ball within the piece and if so, whether they perceived the piece to be of greater value even though the gold was hidden. Attention was drawn to the importance of South Africa in gold production, where apartheid was still in operation when this piece was made, Kiinzli's aim was to question willingness to use or wear the products of such regimes. Bernard Schobinger's *Holiday in Cambodia* (fig. 9) highlighted issues of social decline and human abuse. Schobinger stated that he felt a responsibility as a maker as someone with an audience, to draw attention to social and political injustice through the work he made (Turner 1996).

Fig. 8 Otto Kiinzli 1980

Gold Makes Blind

Rubber and gold

Fig. 9 Bernhard Schobinger 1990

Holiday in Cambodia

Silver

The notion that a jewellery object may be a vehicle for the expression of a statement (in these cases ethical statements) was a significant and motivating component of these pieces. This stems from a certain perspective within contemporary jewellery, that of *Conceptual Jewellery* in which the idea takes precedence over the object (Turner 1996).

In 1968 jewellers Kiinzli, Schobinger and Degen chose to refer to themselves as *Jewellery Artists* and became advocates of the avant-garde jewellery movement where jewellery was

made not as adornment, but as message mediators (Riklin-Schelbert 1999). These perspectives echo and parallel similar developments in art occurring in the 1960s and were driven by the desire of jewellers to distance themselves from the use of jewellery as a statement of socio-economic status and develop it as a vehicle for comment on other social constructs, for example, morality, power and social decline (Riklin-Schelbert 1999). In the 1970s jewellers such as Joachim Baur and Manfred Nisslmiiller began to extend conceptual jewellery beyond both the notion of an object worn on the body, and the necessity for an object itself. Nisslmiiller offered amongst other things pieces of text as jewellery, and Baur's *Schmuckrahmen* (fig. group 10) used an empty picture frame as a device to surround or trap scenes, objects, and views, in the suggestion that they are the piece of jewellery.

Fig. group 10 Joachim Baur 1976
Schmuckrahmen (Jewelleryframe)
Wood and gold

Whether these pieces are accepted as jewellery remains a moot point (Poston 1994; Dormer & Turner 1994; Sandino 2002) but the primary significance of this work is that these pieces were made by jewellers exploring the medium of jewellery as a concept driven discipline and acted to challenge not only the confines of the subject, but the understanding of the opportunities for jewellery practitioners.

There persists through contemporary jewellery a subtext of comment and provocation, which serves to demonstrate how contemporary jewellers have used their work as vehicles through which to make social and personal comment. Turner (1996) asserts that jewellery

still has a role in our society, an enduring facility to express emotions and to communicate ideas. He posits that jewellers no longer have to produce pretty, decorative designs:

“they can make stronger, more relevant work which might address the dilemmas in society and by so doing, oppose them.” (Turner, 1996: 88)

Contemporary jewellery practice is now accepted as a critical and reflective process.

2.1.2.2 Exploring a maker’s own sense of selfhood

Connected to the idea of jewellery as a vehicle for comment and expression is the notion of contemporary jewellery as an exploration of a maker’s own sense of selfhood. Mah Rana’s piece *Lost but loved* (fig. 11) is an example of a contemporary jeweller exploring her identity, distinct individuality, and what *self* meant to her. *Lost but loved* is a self-reflective piece, the making of which spanned a year, during which time Rana saved the hair she lost whilst washing it and kept it in twelve old jewellery boxes. At the end of the year she took some hair from each box and put it in a traditional gold locket, engraved *Lost but loved*. The piece taps into the historical vocabulary of jewellery, sentimentality and tradition. Description offered by Rana of the ceremony of making the piece lends a narrative backdrop to the final objects, which form a metaphor for the transience of, and attachments we have for, our physical appearance and youth. Beyond this reading, lies an autobiographical work, as Astfalck (2003) comments, Rana has shared with the audience a process of exploration into aspects of what she regards as self.

Fig. 11 Mah Rana 2001/02

Lost but loved

Gold (antique locket) hair, and antique jewellery boxes

This is not an unusual use of practice, many makers perceive themselves to be intimately linked with the work they make and use it to express issues central to their own understanding of selfhood. Celio Braga (fig 12) specifies aspects of what *self* means for him; he describes the fragility of the human body and its inevitable transience (Braga 2005) as central interests in his exploration of selfhood.

Fig. 12 Celio Braga 2002-3
***Rubros* (in progress)**
Felt, cotton and red glass beads

Beyond the significance of the fragility of the human body as something that denotes being human Braga focus on these issues as a personal exploration of his sense of self. By focusing on the body, how people live with disease and attempts to cure themselves Braga uses his practice to explore his personal identity related to these issues and experiences. In the series *Rubros* (fig12) red glass beads were stitched tightly together over a mass of corpuscle-like forms to suggest blood cells in mutated states. In the connected series *Full Blown*, mortality and the vulnerability of the human body were explored through the creation of objects referencing the moment in time when a fatal disease emerges in the body (Braga 2005).

As can be seen from this work, contemporary jewellers are both familiar and comfortable dealing with the theme of self-identity (see also Ozeki, Cheung & Eichenberg, section 2.1.2.3). In contrast with industrially designed products, which are typically presented as *closed* objects, that is, of a prescribed context of use, branded identity and managed meaning, many contemporary jewellery objects are presented as *open* objects which stem from the maker's personal history and sense of self. Much contemporary jewellery welcomes ambiguity and is open to interpretation.

2.1.2.3 “My precious”

Explorations of the *self* in contemporary jewellery centre on personal criteria of preciousness related to those things that are personally meaningful and emotionally significant for an individual. Although a wearer or audience has the ability to perceive anything as precious, the desire to focus, through jewellery practice, on preciousness related to personal and emotional significance has endured for many jewellers. Themes such as memories, loss and connections to other people, places and experiences have been explored in these terms. Jewellery operates in part as objects that hold personal associations with an emotional meaning for the owner or maker, and as objects that function within a personal, emotional vocabulary between people. Metcalf argues that jewellery not only functions in this way, but because of its emotional significance can “touch people” (Metcalf, 1993).

While some makers approach notions of loss and memory by seeking to maintain and save aspects of experience, others explore their memories and present interpreted fragments of it through their work (Eichenberg fig. 15). Hiroko Ozeki and Lin Cheung (figs. 13 & 14) created mourning jewellery that sought to reflect on loss and offer something new emerging from it.

Fig. 13 Hiroko Ozeki 2001

Tear Collector

Silver

Fig. 14 Lin Cheung 1999

Memoria

Ear pins. Silver and gold

Ozeki’s *Tear Collector* is a silver cupped rose petal made following the death of her Father. Cheung’s piece *Memoria* is a pair of ear pins of which she says:

“In memory of my Mother. Whilst sorting through her belongings, I came across several ear scrolls that did not belong to an earring. After putting her affairs in order, I gave the lost scrolls a meaning once more in the form of new jewellery.” (Cheung, 2001: 25)

Where the maker handles personally significant subject matter, this intimacy can be reflected in the qualities of the jewellery pieces. As in much jewellery made by Iris Eichenberg (fig. 15) that draws on her childhood memories (Schouwenberg 1998) pieces often operate as puzzles and fragments of the maker’s story. Preciousness arises in an individual’s feelings or more specifically the *felt* significance of objects because of their place in an individual’s biography (Ozeki, Cheung and Eichenberg) and connects strongly to the significance of objects for an individual’s sense of self (Rana and Braga see section 2.1.2.2).

Fig. 15 Iris Eichenberg 1998

Brooch

Wool and silver

2.1.2.4 Dialogue

Contemporary jewellery practice not only involves exploring or expressing selfhood as an individual maker, but also involves different forms of dialogue with an intimate or general audience, something that Broadhead describes as:

“a continual two-way process...” (Broadhead, 2005: 25)

For some makers it is a way of exploring these feelings through making and then expressing them to an audience as a piece of jewellery (Kiinzli, Schobinger see section 2.1.2.1). Practice may also operate as a vehicle through which a maker can pursue an

internal dialogue in exploring their sense of self, personal experiences and biographies (Rana and Braga, section 2.1.2.2 Cheung and Ozeki section 2.1.2.3).

For jewellers Cathy Chotard & Fabrice Schaefer (fig. group 16) jewellery practice as a dialogue has been explored more directly through *Correspondences*: an atypical use of practice and a project in which both makers communicated during the course of a year through producing and exchanging jewellery alone. During this time the pieces became the elements of an extended dialogue between the two makers. Although the meanings, interpretations and communications were not disseminated to a wider audience, the project can be interpreted as an externalisation of the implicit intimate dialogue of making. Here the continuous dialogue of making is teased open by discretising exchanges between the two makers in the form of jewellery objects.

Fig. 16 group images Cathy Chotard and Fabrice Schaeffer 2003

Correspondences

10 rings by each maker, mixed media

As already established (sections 2.1.2.2 & 2.1.2.3) jewellery often functions largely within and to signify interpersonal relationships. These associations and referents give jewellery particular and distinct qualities that afford dialogue around these notions.

Fig. 17 Astfalck, Paxman & Horn 2004

The meeting of hearts and hands

Mixed media

In *The meeting of hearts and hands* (fig 17) jeweller Jivan Astfalck collaborated with photographer Kate Paxman and curator Andy Horn, within a series of exhibitions titled *Self* (Craftspace 2004), to explore the role of *belonging* in relation to cultural, physical and personal identities. The collaborative described their search to characterise and explore jewellery practice within lived experience rather than objectified comment making. Their approach features within a development in jewellery practice where practice itself is increasingly embedded in a direct relationship with the audience it is made for. This development can be charted from the increase of work that plays with and comments on the structures and dynamics of social and inter-personal relationships (Sandino 2002) to jewellers who make pieces that “evolve through the interaction with the wearer” (Astfalck et al 2004) and where practice becomes a form of action research, embedded in collaboration with the particular audience.

In *The meeting of hearts and hands* a group of female refugees, living in Birmingham, shared aspects of their pasts with one other to develop an understanding of what *belonging* meant to each person. One outcome of the project was a piece of jewellery made collectively, symbolic of the group’s shared stories and feelings. Astfalck et al (2004) described the role of creative practice as a way to:

“... open up access to a poetic discourse...leading us to new understanding, explanations and discoveries... focused on an exploration of identity, drawing upon narratives of memory, experience and sense of self...” (Astfalck et al, 2004)

Astfalck used the term “poetic discourse” where language is used for its aesthetic qualities to convey an emotion or express feelings in addition to, or instead of, purely notational and semantic content. The ambiguity of connotational meaning in poetry resists the single definitive reading, leaving language open to multiple interpretations. By focusing on a particular theme that is inspired by the emotional content of personal stories shared by a group of people, this practice enables conversations that purposefully lead to new understandings of the theme.

This approach draws influence from an earlier project *KPZ-02* by Ulrike Bartels and Malin Lindmark Vrijman. *KPZ-02* (Bartels & Lindmark Vrijman, 2002) was an interactive art project based in Amsterdam instigated by the council and inhabitants of a residential area within the Baarsjes, a culturally diverse neighbourhood. One aim of the project was to enhance interpersonal contact in the area between the neighbours. Bartels and Lindmark Vrijman described their focus as:

“the personal relationship between people and objects... where the personal and emotional are involved...” (Bartels & Lindmark Vrijman, 2002)

One central theme was *home* and within one strand of the project members of the community shared, with each other and the jewellers, their stories of what *home* meant to them. These were interpreted by the jewellers through the making of pieces of jewellery and other objects for each participant (figs. 18 & 19).

“I possess one of my mother’s dresses. I keep it in my closet but I’d never wear it...” (participant)

“At home I can shut the door behind me. I don’t have to carry myself like out there on the street.” (participant)

**Fig. 18 Ulrike Bartels and
Malin Lindmark Vrijman**
Dress
Gold chain and jewellery box
project KPZ-02

**Fig. 19 Ulrike Bartels and
Malin Lindmark Vrijman**
Handle Chain
Gold plated aluminium
Project KPZ-02

Similarly to Astfalck they describe their practice as an opportunity to play an active part in society. They maintain that everybody has a story to tell and state that:

“...(we) are prepared to make the effort that is needed to make it heard, or more accurately, seen.”
(Bartels & Lindmark Vrijman, 2002)

Both projects by Astfalck et al, and Bartels and Lindmark Vrijman have adopted an altruistic stance through the use of their practice as a tool to open up channels for dialogue. They use practice to engage with groups of people and individuals to facilitate dialogue around issues of community thereby offering new insights into the role of contemporary jewellery practice as an effective medium to explore notions of identity, felt experience and human relationships.

2.1.2.5 The body

Before considering the nature of wearable digital objects it is important to characterise the relationship between contemporary jewellery and the body. Bruce Metcalf asserts that jewellery is

“...inextricable from the presence of a living person...” (Metcalf, 1993: 23)

His statement shows jewellery to have a constant relationship with the body. However, it is important to recognise that in contemporary jewellery this relationship is not dependent on a jewellery object being worn, or even being wearable, as work by Rikkinen (fig. 20) and Fink (fig. 21) demonstrate. Rather, for many contemporary jewellers it is the *idea* of the jewellery object being worn on the body that is the key component of this relationship (White fig. 22). Metcalf (1996) describes this as the flexible criterion of wearability in contemporary jewellery.

Fig. 20 Anna Rikkinen 2002

Angel
Print on glass

Fig. 21 Bernhard Fink

1995
Mirror Ring
Glass mirror

Fig. 22 Hazel White 1995

Defence mechanism #4
Steel and surgical glue

Wearability has been explored to extremes in contemporary jewellery, from the physical permanence of a jewellery object on the body (Skubic 1975; White, 1995) to the transience of jewellery made from light (Dahm, 1989) and shadow (Juriens 1997). In contemporary

jewellery practice wearability is a considered aspect, often employed to strengthen the concept of the piece.

In contemporary jewellery the body is more than spatial convenience but it is a unique location, regarded commonly by contemporary jewellers as the site of self (Braga, Eichenberg, Rana section 2.1.2.2 & 2.1.2.3) as Michal Ann Carley states:

“Ultimately, the site of substantiation is the body. With it we live and breath... onto it we adorn and attach markers of our being.” (Carley, 1997: 22)

The role of the body for many jewellers is the site of our experiences, of our sense of self and, as Priimägi (1997) claims, the border between ourselves and the environment. Therefore, jewellery has considerations of self and personal meaning as a central focus and has the potential for qualities that may be absent from other forms of objects that we encounter. Thus, jewellery has a unique position as a medium. As Rosolowski (2002) maintains because of this relationship with the body jewellery is the locus of intimate interactions and affords the maker unique avenues for expression.

2.2 Wearable computing and body-centric digital objects

There has been a radical shift in our relationships with, and experiences of, digital technologies during the last sixty years (Greenhalgh 2002). Developments of body-focused digital objects have fundamentally altered our relationship with digital technologies, both physically and emotionally.

Early conceptions of technology-physiology fusions were cautionary tales, illustrated in Lang's vision of the future *Metropolis* (1926) (fig. 23) and Kit Pedler's *Cybermen* 1966 (fig. 24), in which emotions and sense-of-self of the emergent entity are sacrificed in the synthesis.

Fig. 23 Fritz Lang 1926

Metropolis

Fig. 24 Kit Pedler 1966 (original)

Cyberman Dr Who

In contrast, contemporary visions emphasise the assignment of human qualities to machines. Chris Cunningham's music video (figs. 25 and 26) for Bjork's *All is Full of Love* portrays two robots falling in love as they are manufactured. Similarly, Cynthia Breazeal's *Kismet* (fig. 27) is an experiment in social robotics in which a gremlin-like robot aims to elicit emotionally engaged responses from its human companions (Breazeal, 2000).

Figs. 25 & 26 Bjork 2001

All is full of love

music video directed by Chris Cunningham

Fig. 27 Cynthia Breazeal 2000

Kismet

Social robotics experiment

Both examples demonstrate a change in perception and imagined possibilities of digital objects, on the part of both artists and technologists, in which human emotions and individual experience are key elements of the development of digital technologies. Some modern approaches to the synthesis between digital technologies and the body retain an echo of Lang's vision. Isao Shimoyama's cockroach (1997) (figs. 28 & 29) moved in reaction to electronic signals sent to its body via implanted electrodes.

Figs. 28 & 29 Isao Shimoyama 1997

Robo-roach

Cockroach with electronic implants

Whilst Shimoyama's research involved only insects, *Digital Angel* (Applied Digital Solutions 2003), *Soulcatcher* (Cochrane 1998[1 & 2]) and Kevin Warwick's *Project Cyborg 2.0* (2002) incorporate the implantation of digital technologies into the human body. *Digital Angel* was proposed as a form of surveillance, *Soulcatcher* was motivated by Cochrane's desire to capture thoughts and feelings on a silicon chip (Grossman 1998) and

Project Cyborg 2.0 was an experiment to link the human nervous system to a computer with a view to recording the physiological manifestations of human emotions. Inevitably, such work raises fundamental moral and ethical questions relating to the motivations for, and appropriate use of, technology-body integrations.

2.2.1 The wearable computer

The phenomenon of the wearable computer has arisen from the desire to create a mobile, personal computer system. The *computer science* vision of the wearable computer is typified by the MIT *wearables* group (fig 30):

“... to shatter this myth of how a computer should be used. A person’s computer should be worn, much as eyeglasses or clothing are worn...With heads-up displays, unobtrusive input devices, personal wireless local area networks, and a host of other context sensing and communication tools, the wearable computer can act as an intelligent assistant, whether it be through a Remembrance Agent, augmented reality, or intellectual collectives.” (MIT, 2000)

Steve Mann (1998), the pioneer of mobile computing, defined the *wearable* as a computer that is permanently worn, on, accessible, and open to commands during all activities, controlled by, and subsumed into, the user’s personal space (figs 31 & 32). Wearables are an element of Mark Weiser’s *Ubiquitous Computing* proposal (1993) in which all everyday objects have computational resources embedded within them. Conceptions of wearable computing have a distinct aesthetic drawing from the notion of the *cyborg* (Rhodes 1997, Mann 2001), a term I used to describe a human augmented with technological attachments (Clynes & Kline 1960). Rhodes (1997) described the notion of the *cyborg* as a key influence in the development of wearable computing.

¹The word *cyber* originates from the Greek *kybernan* meaning to steer or control.

1980 1985 1991 1995 1998

Fig. 30 MIT *Wearables* group

Version 1.0

Circa 1997

Fig. (group) 31 Steve Mann

Wearables

circa 1980- 1998

Fig. 32 Steve Mann circa 2005

Eyetaq

Wearable computing

The makers of *wearables* aim to house the personal computer on the body maintaining the convention of screen, keyboard and mouse. Wearables have been worn (by their originators) despite their bulky size and weight, and it is readily apparent that considerations of the aesthetic possibilities or the intimate nature of the relationship between the body and the object remains under-explored. Technological innovation has to date been the dominant concern for *wearables* research. Thad Stamer (2001) outlined the challenges facing the development of *wearables* as power use, heat dissipation, networking, interface design and privacy; with no mention of the user's emotional experiences of such devices.

Wearable computing perspectives on the relationship between technology and the human body are fundamentally limited both in terms of physical conception and emotional diversity and richness. The relationship between person and computer is dominated by a

fascination with mobile and ubiquitous computer use, and barely questioned beyond this. Though recent notions within the wearables community include *social weight* (Kettley, 2002), the impact on social interaction when wearing a computer in public, there is a distinct absence in the wearables literature of discussion concerning the beauty of form and interaction, or the felt significance to the artefacts.

2.2.2 Digital jewellery from non-jewellers

Wearable computing has not considered the relationship between technology and jewellery. However, proposals for body-centric technology that do not place such a central emphasis on *ubiquitous computer use* have originated from non-jewellery disciplines. Examples of digital jewellery have been presented by both human-computer interaction researchers and by industrial designers.

2.2.2.1 Digital jewellery and human-computer interaction

Bubblebadge (figs. 33 & 34) and *Body Coupled FingeRing* (fig. 35) are examples of early human-computer interaction outputs. Each example posits jewellery as a vehicle for digital communication, and the body as a mobile location for such devices.

Figs. 33 & 34 Jennica Falk & Staffan Bjork
1999 *The Bubblebadge: A wearable Public*
Display

Fig. 35 Fukumoto Masaaki & Tonomura Yoshinobu
1997 *Body Coupled FingeRing: Wireless Wearable*
Keyboard

The *Bubblebadge* houses a digital display, to display text generated by the wearer, by a specific environment or by the viewer. In one scenario the brooch could show the viewer if they had received any new emails, at which point the viewer may end the conversation with

the wearer and go and check her or his emails. Such ideas alone obstruct any face-to-face interaction occurring between wearer and viewer. Falk and Bjork (1999) described jewellery as “primarily eyecatchers” suggesting that their interpretation hinged on jewellery as a vehicle for mobile information display rather than anything more personally significant. The significance and potentially rich experiences of viewing or wearing jewellery discussed through section 2.1 are absent in such interpretations.

FingeRing similarly focuses on usability and treats the body as a convenient location to situate an electronic device. Sensors are attached to each finger in the form of rings to facilitate the input of data into a portable or wearable personal digital assistant (PDA). Though jewellery terminology is employed in the title, *FingeRing* ignores any considerations of how contemporary jewellers have developed hand and finger worn objects, or the wider significance of the designs to the wearer.

Other examples of exploratory projects addressing jewellery and digital technologies conducted by non-jewellers are *StoryBeads* (Barry 2000), *Wearable Dreams* (Ossevoort 2002), and *Electro-Jewels* (Dekoli 2002). *StoryBeads* (figs. 36, 37 & 38) are small pod shaped plastic beads encasing computers that store and transmit digital text or images. The beads connect together as a necklace with a central pod housing a display screen. Once connected to a network each bead can download text or images and then display them on the necklace display. Barry worked with children using story telling and sharing personal stories as a way to generate the images and text stored by the beads.

Figs. 36, 37 & 38 Barbara Barry 2000

StoryBeads

Plastic and electronic components

ElectroJewels (figs 39, 40 & 41) was a two-week workshop during which children and relatives participated with engineers and a professional jeweller to make quick wearable objects with embedded electronics and LEDs.

Figs. 39, 40 & 41 Margarita Dekoli 2002

ElectroJewels

Wearable Dreams (figs. 42 & 43) used a questionnaire to explore the variety of relationships between people and their favourite wearable objects. Using this information Ossevoort developed stories around the answers and expanded the stories into interaction scenarios. Two responses were interpreted as forms of digital jewellery.

Fig. 42 Stijn Ossevoort 2002

WearableDreams

Fig. 43 Stijn Ossevoort 2002

WearableDreams

Each of the three projects focused on potential interactions between people and digital objects, rather than jewellery objects themselves, and used jewellery as a platform to explore the interactions. Interestingly, none of the researchers were jewellers, and although in some cases jewellers were involved in some aspects of the process, the interpretations of jewellery were very limited. At most jewellery was interpreted as an accessory and relied

on basic fabrication methods such as stringing beads. The forms served predominantly as a casing for the electronics. In their defence the projects do not purport to contribute to the field of contemporary jewellery. The intention of the projects was to use engagement in a creative practice (telling stories and making jewellery) to facilitate the exploration of wearable digital objects. In this respect they are particularly significant steps in the use of jewellery as a vehicle to explore human experiences and relationships.

2.2.2.2 Digital jewellery and industrial design

IBM Research has been exploring digital jewellery through the work of Denise Chan, a mechanical engineering graduate (figs 44, 45 & 46). Chan's concept was a set of jewellery objects, which together functioned as a wearable mobile phone.

Mr* my>>>1<r mu «TW1 y fW<mi lf<chn I ttMHI depl.

Figs 44, 45 & 46 IBM Research concepts 2000

Digitaljewellery

To indicate an incoming call a light flashed on the ring, the phone number of the caller was displayed on the bracelet, and to answer the call a button could be pressed on the bracelet, the speakers were situated in the earrings and the microphone in the necklace (Spring 2000). Cameron Miner, founder of IBM's Almaden designLab and lead researcher on the digital jewellery project justified the research on the grounds that:

“if you have something with you all the time, you might as well be able to wear it” (Miner, 2003)

IBM also described a chief motivation being the usability challenge of multi-functional devices and considered that it had found an answer to this problem:

“by taking the interface apart, putting it in the appropriate places, and allowing them to communicate wirelessly, IBM thinks it has a practical way to solve the problem.” (Schwartz, 2003)

This emphasis on function masks significant problems concerning the relevance of such devices to people, or how such devices can enhance communication between people. IBM’s endeavours typify an approach to digital jewellery that is driven by the desire to translate existing digital devices into wearable, ubiquitous devices. Aesthetically the jewellery proposed by IBM follows generic notions of how a necklace, ring or bracelet should look, what Derrez referred to as *easy* (section 2.1.1), and these interpretations are only altered, slightly, to offer a form, which adheres to a cultural stereotype of a *futuristic* aesthetic. Such *futuristic* proposals are deemed suitable by the designers to fit into a category of *digital jewellery* (see the discussion of *the gadget* in Chapter 3).

Research and development at Philips (2000 [1 &2]) has produced concepts for the integration of technology in communities, homes, clothing and jewellery. Philips is an example of a company with a number of user-centred approaches to the design of digital devices:

“The traditional design disciplines are integrated with expertise from the human sciences and technology through a multi-disciplinary, research-based approach that makes it possible to create new solutions that satisfy and anticipate users’ needs and aspirations.” (Philips [2])

New Nomads was Philips’ exploration into wearable electronics, predominantly featuring clothing for a workplace or sports environment, but also jewellery in the form of buttonhole phone earpieces (figs. 47, 48 & 49) and piercings (figs. 50 & 51) that glow to alert a wearer. The pieces echo qualities of *products* or electronic appliances, both in terms of an aesthetic that is evident in other Philips appliances and in terms of functionality, where jewellery operates as a mobile phone or pager. Philips has interpreted jewellery as a generic accessory or cyber clubbing packaging for existing functionality.

Figs. 47, 48 & 49 Philips 2001

Buttonhole phone earpieces

New Nomads concepts

Figs. 50 & 51 Philips 2001

Piercings

New Nomads concepts

Adopting a social and cultural perspective that aims to “satisfy and anticipate users’ needs” (Philips [2]) distinguishes Philips from IBM. Yet despite a human centred and multi-disciplinary approach, it is not apparent that there is a jeweller within the design team, and there is an absence of openness to form and modes of interaction (in contrast with Philips’s home and furniture concepts). Once again digital jewellery is equated with objects that are small enough to be unobtrusive, constantly connected, and capable of being located on the body.

The notion of the *user* results in an inevitable emphasis throughout the design process on functionality and how a device is *used*. The contemporary jewellery notion of the *wearer* contrasts markedly with that of the *user*. The *user* interacts with an object because it enables or carries out a certain function. The *wearer* is engaged in a more body-centric relationship with the object. A jewellery object may be an extension of the *wearer*, and wearing jewellery relates to *being with* and *intimately* engaged with an object. Approaches that consider digital jewellery only from the perspective of the *user* are narrow conceptions of the relationship between body and object and what it means to wear something.

IDEO’s *Technojewellery* proposals for digital jewellery (figs. 52 & 53) include *Cellphone Rings*, where the ear piece and mouth piece are embedded in finger jewellery, and *GPS Toes*, toe rings which act as directional indicators and are wirelessly connected to a GPS receiver kept in a bag or worn on a belt. Elements of these designs show a more sensitive understanding of what it means to integrate an object into your appearance by wearing it. Their focus on the hands and feet are described by IDEO as:

non intrusive locations for useful innovations, these concepts prove that new devices needn't look alien to your person and that we can make technology adapt to our lifestyles rather than the other way around." IDEO [2]

IDEO demonstrate some consideration that their *Technojewelry* should echo aspects of when and where it is going to be worn. Wearing an object and using an object are considered in unison; however, the forms draw on the predominant *futuristic* aesthetic of product based corporate design (Chapter 3 *The gadget* section 3.1). Once again, jewellery is characterised primarily by its quality of being *non-intrusive* and located on the body. Fundamental aesthetic and conceptual concerns of contemporary jewellery practice, such as choice of material, methods of production, the relationship to the body and affective potential, are not apparent in these designs.

Fig. 52 IDEO 2001

Technojewelry

Digital jewellery concepts

Fig. 53 IDEO 2001

GPS toes

Digital jewellery concepts

In contrast to standard product design interpretations, Jozeph Forakis developed a number of wearable digital objects incorporating propositions for new concepts of functionality (fig. 54).

Fig. 54 Jozeph Forakis 2001

Others Eyes

Digital jewellery proposition

“Other’s Eyes” (fig. 54) is described as:

[a] shared experience system, which allows someone to see through someone else’s eyes, using a handheld miniature camera” (Terragni, 2002: 151)

The proposition of a *shared experience* suggests consideration of a positive emotional exchange, and mutual event. The openness of Forakis’ digital objects contrasts with the covert surveillance applications of miniaturised camera technology. By taking existing technologies and offering new concepts of use, Forakis emphasises interaction between people centred on their individual felt experience. This approach distinguishes this work from the most industrial design proposals for digital jewellery. However, once more a limited interpretation of the potential form and materials used is apparent.

Existing proposals for wearable and body-centric digital objects from non-jewellers fall short on four fronts. Firstly, the human body is regarded as a convenient location for digital objects, jewellery is considered merely to be a vehicle for locating these objects on the body. Secondly, most proposals simply deploy the functionalities of existing products in proposals for jewellery. Such function-driven approaches fail to capture the potential for digital jewellery to enrich and enhance people’s lives in new ways. Thirdly, an extremely narrow interpretation of what jewellery is, or can be, is evident in regard to form, material, methods of production, functionality and relationship between jewellery and the body.

Finally, there is a limited conception of a *digital object aesthetic* with designers clinging to a futuristic cliché (Chapter 3 *The gadget* section 3.1).

2.2.2.3 Digital jewellery propositions from contemporary jewellers

Within the field of contemporary jewellery, ideas associated with technology and digital culture have been explored as *themes* within non-electronic jewellery objects (Filmer 1995; Noten 1996). Tentative steps have also been made towards digital jewellery itself. Ira Sherman's collection of wearable technological devices aimed to highlight the changing role of technology in our everyday life. *The Arbitrator* (fig. 55) holds an arguing couple together for a set period of time, with a view encouraging a resolution. The use of technology in Sherman's work is his suggestion of how the evolution of wearable technology could play out.

Fig 55. Ira Sherman 1996

The Arbitrator

Steel, Stainless Steel, Brass, Plastic, Electrical Components

Nicole Gratiot Stober used technology to express ideas of human communication (figs. 56, 57 & 58). Her jewellery reacts to interaction between people using sensors and light sources that illuminate when the forms are touched. Gilhooley (1997) described the relationship between these pieces and the person interacting with them as reciprocal; the body responds to the digital changes in the jewellery, and the jewellery responds to the human touch.

Figs. 56 & 57 Nicole Gratiot Stober 1994

For Two Rings

**Magnets, stainless steel, perspex, LEDs with
electronic components**

Fig. 58 Nicole Gratiot Stober 1994

Light Brooches

**Stainless steel, plastic, LEDs, electronic
components**

Nicole Gratiot Stober © 1994 all rights reserved.

Photographer Christoph Grunig. Image courtesy Daniel Gratiot.

The focus of the pieces is human contact both in terms of relationships, and gestural, tactile connections. The manner in which the pieces react to touch demonstrates an appropriate and human-centred approach. Daniel Gratiot (2004) describes the work as:

“A series of works that make visible an exchange of that which is normally not seen.” (Daniel Gratiot, description accompanying image, private communication.)

Gilhooley (1997) describes Stober’s work as an example of the use of technology as a medium for communication and self-expression. The narrative structure of the pieces reflects a human encounter in the way the technology *conies to life*. The gesture of holding hands is amplified by the illumination of the jewellery. The pieces highlight the thrill of touch and also the potential embarrassment of the public display. Stober’s work offers a playful application of digital jewellery in human relationships. As distinct from the existing forms and functionalities of digital devices, it stands as an early example of contemporary jewellery objects that have crossed the boundary into digital jewellery.

Christoph Zellweger in collaboration with designer Peter Russell Clark and London-based electronics company Scintillate (figs. 59 - 62) produced a collection of digital jewellery involving precious metals and light emissions activated by touch sensors. Zellweger stated:

"In designing these pieces we wanted the softening of technology...the ultimate goal was to make the light itself the jewel" (Zellweger, 2003[2])

**Figs. 59 & 60 Christoph Zellweger, Peter Russell Clark &
Scintillate 2000
digitaljewellery
Precious metals, crystal, electronic components**

**Fig. 61 & 62 Christoph Zellweger,
Peter Russell Clark & Scintillate 2000
digitaljewellery
Precious metals, crystal, electronic
components**

Zellweger (2003[2]) saw the project as progressive because technology did not lead the process, but that the initial brief of digital jewellery for a mass market restricted the concept and design of the jewellery. He also felt there to be a tension arising from the assumptions and expectations people have of digital objects and the fast pace of technological advancement.

Zellweger implies that creating a mass-produced object was detrimental to his conception of digital jewellery. In comparison with his non-electronic pieces (see Appendix A) the digital jewellery are conservative in concept, form and material. The focus of the digital jewellery was the technology; whether in terms of *softening technology* or the progressive nature of the technology used. In contrast, Zellweger's non-electronic jewellery inhabits what he describes as the Avant-garde edge of contemporary jewellery.

"...There is always a concept behind jewellery... we always refer to 'contemporary jewellery', but maybe the faction of contemporary jewellery we are talking about is the 'Avant-garde'. They make statements, highest risk... Avant-garde jewellers, (are) not interested in the commercial, but the statement - interested in exploring the edge..." (Zellweger, 2003 [2])

Moi Sompit Fusakul conducted practice based research into *Interactive Ornaments* (figs. 63 & 64) ending in 2002. Crowley (2002) described the resulting pieces as:

"prototype jewellery... that 'interacts dynamically' with the wearer by indicating emotional changes in the wearer's mind." Crowley 2002

Through collaboration with technologist Kevin Warwick she produced three “fashion pieces created with the aid of technology” (Crowley, 2002) that sensed a wearer’s heartbeat and responded in three different ways. *Vein 2* changed colour as the wearer’s heartbeat increased, *Anemone* pulsed light from flower-like forms worn on the shoulder in rhythm with the heart beat and, *Aliform*, meaning wing shaped, responded to a heart beat by swelling and changing shape. Her approach was driven by the desire to make jewellery that was responsive to human emotions. By sensing physiological changes Fusakul’s intention was to create objects that display emotional changes in the wearer, though her reliance on physiological signatures made no attempt to incorporate social or discursive aspects of emotion.

Fig. 63 Moi Sompit Fusakul 2002

Aliform

NiTiNoI shape memory alloy, radiant colour mirror film, vactan plastic film & electronic components

Fig. 64 Moi Sompit Fusakul 2002

Vein2

Sideglow, pvc, vac formed plastic, rose gold plated base metal, iridescent glass beads & electronic components

Outlining her motivations and approach as a response to an increasingly “synthetic and denatured world” Fusakul aimed to use the integration of digital technologies in the creation of jewellery that could reflect externally the internal biological changes occurring in the wearer’s body (Fusakul, 2005).

“In general ... jewellery simply serves as an ornamental object, to decorate and enhance the physical beauty of the wearer or to advertise his/her wealth, personal characteristics, and beliefs. Jewellery has often not been considered as a medium of expression.” (Fusakul 2002, introduction doctoral thesis)

Fusakul’s doctoral research made significant steps within hybrid practice and the potential for integration of digital technology within jewellery. Her work prioritised the realisation of

her pieces technically and technologically and as such an articulation of hybrid practice or how her work extends contemporary jewellery and craft practice is as yet un-represented. Similarly her choice to focus on jewellery as *ornament* or *fashion pieces* selects one particular thread of jewellery and is limiting in the scope of contemporary jewellery where jewellery has been conceived, presented and experienced as “a medium of expression”.

Ulrike Oberlack (figs. 65, 66 & 67) is conducting research exploring the use of light within jewellery and dance-based performance described as:

“light as body adornment...to exploit the intrinsic characteristics of light on the body creating new visions of adornment.” (Oberlack, 2004: 91)

Figs. 65, 66 & 67 Ulrike Oberlack 2004

light as body adornment

Mixed media, LEDs and electronic components

The principal concerns here are the expressive potential afforded by the light for the dancers, and the use of digital technologies to extend the context of contemporary jewellery. This adornment and performance-centred perspective focuses on jewellery as a public display rather than as private, personal objects. Oberlack’s agenda is concerned with the relationship between light, the body and the body’s movements during dance performance, and the interplay afforded by the objects and the light emissions between different bodies moving together. The design of the jewellery objects arise from the developing context of Oberlack’s practice and personal aesthetic.

Sarah Kettley (figs. 68, 69 & 70) has explored the “crafting of wearable computers” at the boundary of Human-Computer Interaction and Craft (Kettley 2005).

“My research concerns the positive role that craft may play in the creation of novel personal technology products... (Her forms explore) the natural environment, in particular land, sea and skylscapes, to inform a familiar aesthetic for the technology-shy.” (Kettley, 2004: 61)

Fig. 68 Sarah Kettley 2004/5

Speckled pendant

with Prospeckll

Perspex, formica, gold leaf

Fig.69 Sarah Kettley 2004/5

Detail of pendant with

Prospeckll

Perspex, formica, gold leaf

Fig. 70 Sarah Kettley 2004/5

Speckled brooch

with Prospeckll

Perspex, formica, gold leaf

Focusing on social relationships, and interactions within a group of friends, Kettley made a series of wirelessly networked brooches and pendants. The detection of another jewellery piece causes LEDs to illuminate and the trace of a meeting between friends is left displayed as a light pattern on the pieces. Kettley asserted the value of ambiguity within the functionality of the pieces, allowing the wearers and viewers of the jewellery to interpret, personally, the social significance of the patterns of light displayed. By emphasising the value of craft perspectives and processes in the design and conception of *novel wearable technological products* she offers a perspective which supports many claims within this research also detailing the value of different aspects of craft for the design of digital jewellery and as a form of production within digital culture.

Most recently jewellers Hazel White and Sandra Wilson have begun to explore jewellery and digital environments. White’s collaboration with Ewan Steel, a multimedia artist (figs. 71 & 72), investigates the interaction between tangible jewellery objects and “code-based applications” (i.e. multimedia software applications). The interaction allows a wearer to direct onscreen content through the wearing and manipulation of a simple silver chain, enabling an interaction between an object and the digital system, a concept also employed by jeweller Sandra Wilson (2005) to present jewellery objects with relevant video and

audio, using motion sensors to trigger audio recordings as the viewer approaches jewellery displayed in a showcase (White 2005).



Fig. 71 Hazel White & Ewan Steel 2005

Prototype modular jewellery

Silver chain



Fig. 72 Hazel White & Ewan Steel 2005

Details from *Swarm*

(screen based visual element of the work)

Digital jewellery propositions from jewellers demonstrate a growing acknowledgement of the potential to extend contemporary jewellery objects. In many cases digital jewellery has been a direct attempt to use the interactive capabilities of the digital to realise greater social and emotional expressiveness (Sherman, Stober, Fusakul, Kettley). Unsurprisingly, the digital jewellery practice of contemporary jewellers demonstrates a wider scope of functionality, aesthetic form, and context of use, than is evident in the propositions of non-jewellers. The gestation of a contextualisation of digital jewellery in relation to the discipline of contemporary jewellery can also be identified (Kettley, Oberlack, White, Wilson). The fusion of craft skill and technological innovation occurring in these propositions of digital jewellery is a transformative moment in the development of contemporary jewellery and the experience of digital objects. We can see from these examples that the questions that these jewellers raise, and seek to engage with, are not matched by current approaches or perspectives from other disciplines. It is also evident that the transformative environment that a fusion of jewellery and digital technologies creates refers crucially to the scope and potential for extensions of contemporary jewellery practice.

2.3 Beyond current approaches to digital jewellery

This review has demonstrated the broad range of approaches and motivations to the conception and design of contemporary jewellery and wearable digital objects. From each approach and field arises a different interpretation of what constitutes a jewellery object. This in turn has had a significant impact on digital jewellery proposals. The review has formed a basis for the articulation of my personal position for digital jewellery.

Contemporary jewellery is an exploratory practice, which functions largely to expand the potential role and meanings associated with or represented by jewellery. A connection to the traditional and historical contexts and associations of jewellery facilitates these expansions by providing a background for contemporary jewellers to reflect on and respond to. The review has highlighted that a central and significant aspect in contemporary jewellery is a focus on human relationships, personal identity and selfhood. Jewellery objects commonly function as objects that hold personal emotional significance for their owners, as a connection to people, places and experiences and this phenomenon is commonly explored by contemporary jewellers through their practice. Jewellery objects have a particular intimacy, distinct from many other kinds of object, both in terms of their physical connection with the body, and their human-relational contexts. Wearability is a fluid consideration for contemporary jewellery, rather than a defining or driving aspect. Many contemporary jewellery pieces have limited wearability or are un-wearable; a physical and conceptual relationship between jewellery and the body is a more important aspect in contemporary jewellery.

Differences in the approach to the design of body centric digital objects between contemporary jewellers and non-jewellers highlight the gaps in current approaches and perspectives. A lack of engagement with the personal significance, aesthetic and emotional aspects of wearable computing (from non-jewellers), serves to demonstrate how the potential relationship between computer and body is under-explored. Wearable computers are not made or considered in terms of jewellery, but do have an impact on how non-jewellers consider both the developments and scope of wearable digital objects to be unfolding. By limiting designs to existing forms of wearable objects, i.e. helmets, watches

and eyeglasses the makers of *wearables* are missing many interesting opportunities and forms of wearable object. Interpretations of jewellery from non-jewellers demonstrate a general low level of interpretation of what a jewellery object may be. Many designs of digital objects are inspired by the technologies that make them possible, rather than the people who will experience them.

Although the questions raised and considered by contemporary jewellers as to the relevance and possible concepts of digital jewellery are not matched by current approaches or perspectives from other disciplines there is still a lack of contextualisation of digital jewellery within the field of contemporary jewellery, and the value of these developments are currently under-stated. Future digital jewellery objects have the potential to combine the human-relational contexts that jewellery has upheld historically, with the expanded exploratory and questioning roles afforded throughout contemporary jewellery practice.

3 The gadget

©2000 Randy Glasborgon www.flattstrgon.com

“This one doesn’t do anything. It’s the perfect gadget for those times when all you need is a little peace and quiet.”

www.glasbergen.com

Differences between the perspectives of jewellers and non-jewellers to the design of body centric objects can be supplemented by a critique of current motivations and approaches towards digital objects centred on the notion of the gadget. Despite early conceptions of a gadget as an object that is “interesting for its ingenuity” (Collins 2000: 484) the gadget can be better described as a novelty-focused object with a short life span and fleeting significance. The positioning and qualities of gadgets that give rise to such observations have their origins in ideas and assumptions stemming from spy accessories and retro futuristic visions. In many cases digital objects have become synonymous with gadgets and as a result are laden with the same assumptions and expectations. Conceptions of gadgets are far removed from those usually associated with jewellery or contemporary jewellery objects and are in part responsible for the intellectual resistance to the integration of digital elements within jewellery.

The properties of gadgets can be explored in terms of personal significance, identity, lifespan and function. By drawing on key philosophical positions to detail different forms of function, wearable computing, wearable digital objects, gadgets and digital jewellery can be contrasted. Whilst contemporary jewellery resides in the realm of human-relational attachment, communication, and personal emotional significance, gadgets provide a fleeting amusement stemming from their technological novelty. Differences in approaches

to the production and conception of objects, from both an industrial design and contemporary jewellery perspective, highlight a tension that arises from the blurring of boundaries between digital objects and non-electronic objects of our everyday experience (such as jewellery and furniture).

These issues can be explored through an examination of excursions into digital practice, for example, Zellweger's (2003[1]) collaboration on a mass production digital jewellery project and Dunne and Raby's (2001) *Design Noir* project. These examples give rise to insights as to the assumptions and expectations of gadgets. Zellweger felt that the connotations of a gadget were commonly connected to digital objects and were detrimental to the meaning and significance of his work, undermining a seriousness that he strived for in the contemporary jewellery that he made and something that was at odds with the drive in contemporary jewellery for an expression of self identity and emotional significance. Dunne and Raby's participant viewed gadgets as commonplace and impersonal objects, identifiable by physical attributes exposing their functionality, with a lack of intriguing qualities. As such gadgets were viewed as dismissible objects that can be easily read as something centred on a particular function, rather than something that begs inventive interpretation from a viewer.

3.1 The gadget in popular culture

The term *gadget* is described by Collins Dictionary as “a small mechanical device or appliance” and “any object that is interesting for its ingenuity” (Collins 2000: 484). This description suggests an object of novelty, remarkable and attractive because of its originality and inventiveness, and offers the *gadget* as both an intriguing object and a positive notion. However, other sources present the gadget as the device used by the bumbling fool, as in the cartoon *Inspector Gadget*, who owns a device for any, every, and no purpose (Gadget1 2007). Contemporary living magazines, such as *Innovations* (Innovations 2007), reside in a marketing niche for devices for even the most mundane and manually undemanding everyday tasks. There are two sides to the functional characterisation of the gadget. The dominant image is of the device with a specific or limited purpose. An alternative characterisation of the gadget is as an overly multifunctional device (where the novelty is the very multifunctionality). A gadget is valued for its novelty but this in turn contributes to its fleeting character and short lifespan.

In Western culture the gadget evokes the image of the James Bond spy accessory. The role of the gadget here is complex, Bond is a *gentleman spy* who does not rely on his gadgets, but who uses them in extreme circumstances. *Bond* gadgets work in a world of fantasy, a point Baudrillard (1996) makes concerning the electronic gadget, which he describes as the subject of a science of imaginary technical solutions. The notion of the *spy* has prevailed through gadget functionalities and aesthetics. Gadgets often have a machined aesthetic; sleek metallic silver or black miniaturised forms with little ornamentation. Another property strongly associated with the spy gadget is miniaturisation; digital gadgets that are small enough to be carried in a pocket or concealed easily, evoking the possibility of their deployment as tools of espionage.

Early projections of a futuristic space age gave rise to an aesthetic that has had a significant influence on the design of digital devices. The proposition of space travel in the 1950s and 60s, had an impact on the design aesthetics in many areas of everyday life including housing, clothing and furniture (figs. 73 - 76).

COMPUTER
SPACE

Fig. 73 Paco Rabanne

1967-68

Aluminium mini dress

Fig. 74 Pierre Cardin

1967

Cosmocorps

Fig. 75

Nolan Bushnell for

Nutting and

associates 1971

Computerspace

Fig. 76 Sanyo Electric

Corporation 1970

Living capsule

Visions of the future, such as Fritz Lang's (fig. 23 Chapter 2 *Contextual review* section 2.2) dystopian future of Metropolis (1927) and Jean Claude Forest's Barbarella (1962), both fed and reflected the futuristic aesthetic. These initial designs of space age futurism were born from modernist visions of the future centred on optimism. As Topham (2003) asserts:

"There was a popular feeling that if human beings could travel into space then surely anything was possible." (Topham, 2003: 39)

Space travel as a factor in modernity gave life a particular pulse and texture, a feeling of progress and optimism, of exploration and discovery responded to by designers and artists through concepts and functionalities that embraced the new possibilities that technology promised to bring. Life was supposed to improve because of new technologies; a notion echoed in the 1935 Du Pont slogan:

"Better things for better living through chemistry" (Du Pont, 1935)

Although the space age promise of how life would be was unfulfilled, current developments in digital technologies have reignited such visions. Associations between aesthetics, materials and expectations of digital technologies and digital culture draw influence heavily from the futuristic visions of the 1950s and 60s. The current *retro-futurism* is evidenced through an assumed futuristic aesthetic adopted by many designers (IDEO (2000 & 2001),

Philips (2000), IBM (IBM1&2 & Miner 2003), Nokia (Nokial), Nike (Nikel)) dictating what digital objects are assumed to look like based on the 1950s and 60s visions and to a large extent how they are expected to perform; usually in terms of ubiquity, repeatable function and constant access. Perhaps retro-futurism is bom from a desire to hold on to a future that was always promised, but denied to us. Designers of digital objects today who employ an aesthetic vocabulary grounded in notions of *espionage* (Chapter 2 *Contextual review* section 2.2.2.2 i.e. figs. 45 - 49) or a *space age* (Chapter 2 *Contextual review* sections 2.2.2.1 & 2.2.2.2 i.e. figs. 42, 52 & 53) can be criticised for designing illustrations or descriptions of a fetishised caricature and not engaging with new possibilities relevant to contemporary life.

3.2 Function

A gadget is an object, which is designed to enable completion of a task, and is valued for the novelty by which it does this. Novelty is in essence transient, as subsequently is the value we attribute to the gadget itself. Beyond this a gadget has a *transferable significance*. As a result the attachment a person has with a gadget is grounded in the functionality of the object itself and, partly because of the transitory nature of gadgets, the object represents elements of a consumer identity or fashion rather than elements of an individual's identity.

Although any object, including gadgets, may become personally significant to us, gadgets are not *designed* to be personally significant. Gadgets are, in general terms, replaceable. Newness and novelty are not undesirable qualities per se, but they are not foundational qualities within contemporary jewellery (Chapter 2 *Contextual review* section 2.1.2). Gadgets reflect the modern motivation towards all things new and progress. Whilst many examples of contemporary jewellery also demonstrate a drive to create something new and not seen before, there are equally strong drives to explore very different themes, for example, the enduring nature of human-relational attachment. Jewellery operates outside the world of task completion, but this is not to say that jewellery is without potential utility. To establish a clearer distinction between the ways different categories of objects operate, the notion of *function* must be considered.

Beth Preston (2000) addressed the problem of defining function by describing and linking the key philosophical research positions relating to the issue. Preston views the two prevailing (and seemingly competing) philosophical conceptions of function as complementary. Preston characterises Ruth Millikan's (1984, 1993) conception of *proper function* as:

“The proper function of a thing is what it is supposed to do, given what the ancestors it has been copied from in fact did...” (Preston, 2000: 27)

Here function is specified and denoted by a causal-historical account. Preston described this perspective as strongly normative, expressing standards of performance, meaning any other performances of a thing are either irrelevant idiosyncrasies or malfunctions. Preston

describes Robert Cummings (1975) *system function* as offering an understanding of function:

“...as a matter of what artefacts do in fact do in the way of useful performance.” (Preston, 2000: 46)

Here function is understood by its current performance, or disposition to perform within the system in which it is embedded. This perspective takes into account the multi-layered, lateral and ad-hoc roles an object may perform.

Preston draws on Michael Schiffer (1992) in identifying different types of function. Schiffer classifies function in terms of the kind of purpose they embody, distinguishing *technofunction*, *sociofunction* and *ideofunction*. *Technofunction* is the utilitarian function of a thing, for example, Schiffer described the *technofunction* of a chair to be to support seated humans. *Sociofunction* involves the manifestation of social factors, for example, the *sociofunction* of an expensive luxury chair is to manifest the economic status of its owner. Finally *ideofunction* involves ideological symbolism, for example, the wearing of garments as a component of a religious ceremony.

These types of function are not mutually exclusive. An object may, and typically will, embody a combination of functions. As Preston observes:

“...it is clearly the exception rather than the rule for a thing to only have one function.” (Preston, 2000: 30)

Function type facilitates a nuanced analysis of gadgets, digital objects and contemporary jewellery objects. If we consider digital jewellery as an extension of contemporary jewellery, motivated by the ongoing debates and perspectives from within the field, then we may employ this classification of function to distinguish digital jewellery from *wearables*, as well as from wearable digital objects and gadgets.

Jewellery is neatly pigeonholed by Preston as normally having only *sociofunctions* (Preston 2000), a classification, which is incomplete when we consider many non-electronic contemporary jewellery pieces. For example, Otto Kiinzli's *Gold Makes Blind* (Chapter 2 *Contextual review* section 2.1.2.1 fig. 8) which operates as ethical prompt and political

statement relating to the classification of *ideofunction*. Contemporary jewellery often operates to denote more than the social context, material qualities or values often associated with jewellery historically.

Wearable computers (Chapter 2 *Contextual review* section 2.2) predominantly adhere to the *proper function* of a computer, maintaining the components of monitor, keyboard and mouse, whilst breaking away from computers as static objects. Wearable computing is proposed by its developers as a pioneering endeavour, but this is almost exclusively in relation to technological development, the focus is the technology; how computers as communication and information facilitators can be worn and accessed constantly, rather than emotionally rich or human-relational communications.

Wearable digital objects from non-jewellers (Chapter 2 *Contextual review* sections 2.2.2.1 & 2.2.2.2) are chiefly based on an extended cycle of iterative, incremental versions based on *proper function*, where iterations of designs are based on the assumptions and expectations laid down by the previous version (e.g. incremental developments of mobile phones). The concepts of such products are not lateral, they evolve in incremental steps, perhaps altering slightly the *technofunction*, but maintaining the core idea of what has become the definition of what that object is *supposed to do*. *Ideofunction* and *sociofunction* are intrinsic to the wearable digital object but only within the narrow socio-economic conception of the consumer.

A gadget is based largely on *technofunction*, and indeed often unnecessary utility or multiple *technofunctions*. The *sociofunction* of a gadget can be to highlight the owner as a particular class of consumer, and references more than simple economic status, but identifies the owner as a progressive consumer that is aware and open to technological innovation (e.g. the early adopter). The *ideofunction* of a gadget is to advocate the value of newness, novelty and technological progress.

Digital jewellery, as an extension of contemporary jewellery operates to connect the *proper functions* of traditional jewellery, those of adornment, personal human-relational symbolism, and talisman, with the *proper functions* of contemporary jewellery, namely an object through which to question, explore and expand individual themes and ideas.

Contemporary jewellery operates predominantly in terms of *system function*, involving human-relational attachment and communication as well as personal emotional significance in how jewellery objects are actually interpreted and appropriated to suggest lateral and flexible forms and roles for the jewellery object, which impacts on the relationship to the categories of function. Unlike a gadget a contemporary jewellery object is not made to have a fleeting amusement or worth, it is based around the *sociofunction* of enduring attachment and often a connection to other people.

A digital jewellery object may combine the human-relational contexts that jewellery has upheld historically with the expanded exploratory and questioning roles afforded throughout contemporary jewellery practice and extend these perspectives to a new proposal of the function of a digital object. The assumption that any digital object may easily be classed as a gadget arises from qualities, previously discussed, concerning category associations and life spans, crucial to each are the cycle of production and consumption and lack of critical voice.

3.3 Cycle of production and critical voice

In discussing the current cycle of production of consumer objects journalist Matthew Wall argues:

“No sooner has the latest miracle device burst onto the market than it is replaced by a shinier, faster version... The technology cycle of development, launch, upgrade and replacement is becoming so short that many of us, as consumers, are suffering from “technoia”, a paranoid belief that the moment we buy a new gadget it will instantly become obsolete, which leads to a paralysing fear of shopping for all things electrical.” (Wall, 2006)

This cycle of production goes hand in hand with the ethos and essence of the gadget. If an object is designed to rely on novelty, and subsequently endure only a short life span, then a new version or different novel device must be ready in the wings to take its place. The fast pace of production requires a matching consumption to sustain the cycle. Gadgets are not built to last, either physically or emotionally.

There is a paucity of critical voices from industry in relation to this production-consumption cycle. With the fast pace of current technological development reflection and criticism are of particular importance if we are to avoid what critics Bender and Druckrey (1994) described as “a culture ornamented with gadgets but devoid of public accountability” (Bender and Druckley, 1994: 9). Concepts and designs are proposed and put into production based chiefly on the new functionalities afforded by technological innovation, often with little or no evidence of critical reflection. In the examples of wearable digital objects or digital jewellery from product designers (Chapter 2 *Contextual review* section 2.2.2.2) there is no evidenced debate or dialogue with jewellers or the themes pertinent within contemporary jewellery. The pace of production and consumption only exacerbates this situation as the emphasis is on the *new* or the *next* leaving little time for consideration. There is a need to consider alternative approaches and perspectives to those pushed and maintained by industry.

Journalist Matthew Wall (2006) observed that designers and producers of digital gadgets and objects have a responsibility to make products that “aren’t fit for landfill mere months after hitting the shops” (Wall 2006). Academic and interaction designer Irene McAra McWilliam described humans, as shifting beings who evolve and change constantly, and

posited that one of our main problems is that we have no time to embed our experiences (McWilliam, 2002). Similarly, art curator Monica Gaspar (Gaspar 2003) has spoken of the speed at which we consume objects focusing on those we increasingly use and throw away, arguing that we do not get to know these objects because we do not spend enough time with them. Gaspar talks of the value of slow speed in terms of allowing someone to notice the banality of experience acting as a lens in the eye, which allows us to notice details.

3.4 Digital + Jewellery

The predominant concepts and perspectives of industrial design highlight a fundamental difference between these approaches and those of contemporary jewellers. Design perspectives maintaining the fast production and life cycle of gadgets and other products is at odds with the perspectives and motivations within contemporary jewellery (Chapter 2 *Contextual review*). Commonly, the contemporary jeweller seeks to make objects of a *slow pace*, ones that have a lasting value in terms of personal emotional significance for the owner or audience.

Craft theorists such as Greenhalgh (2002) discussed the relevance of technology for makers of craft objects, and in recent years there has been an increase in the adoption of technology by craft practitioners. However, very few contemporary jewellers go beyond the expression of ideas and aesthetics attributed to digital technology in their work. Christoph Zellweger, who collaborated on a commercial project to design digital jewellery in 2000, described one of his aims as to “involve emotion in the piece” (Zellweger, 2003[1]). Zellweger views jewellers as artists trained to think about self-identity and personal emotional significance, these factors differentiate jewellers from many of the other designers of wearable digital objects. By contrast, gadgets are not born from a motivation to involve self-identity or personal emotional significance in the object and human-object relationship. Zellweger reflected that when making a piece of digital jewellery the main challenge for him was how to make something that was emotionally rich and yet also technologically sophisticated. This suggests that he found the two concepts at odds with one another.

“...we are still not sure, if it is a gadget or if it is a jewel because er, when we started this idea like in 97, 98 – in 2000 it was really ahead of things, in the time being, technology got so good, the lighting got so small now that every hand can do almost the same thing now, so there is a very short, er lifespan of these items, I’m not sure if we succeeded on that level either...and of course the idea of making it more interactive was also there, which we tried to resist, exactly to not get too close to gadgets...”
(Zellweger, 2003[1])

Zellweger expressed an uncertainty concerning whether his pieces were jewellery or gadgets based on the cutting edge nature of the embedded technology and the amount of functionality involved. The suggestion is that when the technology was “really ahead of

things” the piece was not a gadget, but once the technology became common place and had been surpassed by new developments he regarded the piece differently. His comments were not based on the form of the piece, but the technology and the consideration of the piece as a possible gadget undermined his perceived success of the jewellery. He went on to ask the question

“So how do you create a seriousness in your work, at the same time distinguish yourself from the whole gadget market?” (Zellweger, 2003[1])

In this statement Zellweger acknowledged firstly that the connotations of a gadget, which are commonly connected with digital objects, are detrimental to the meaning and significance of his work, and secondly that in contemporary jewellery practice there is a desire to achieve seriousness in the work made. The desire for seriousness described by Zellweger is wholly at odds with a piece of work involuntarily falling into the category of a gadget. The gadget *has* been used as a vehicle for serious work by designers and artists such as Rebecca Horn and Panamarenco (Dunne 1999), who have used and subverted gadgets to question our assumptions about a given theme or social context. However, this is quite different from imposed assumptions of gadget properties upon an object.

Jewellery is not often associated with a *technofunction* that is to say it is rarely thought of as having a utilitarian task orientated function. We develop attachments and consider jewellery objects to be important to us predominantly because of the *socio or ideofunctions* of the objects. Jewellery often holds or signifies associations of events or people for us. Conversely a gadget usually exists to perform one or multiple *technofunctions*. In terms of digital jewellery however the issue is more than concerning the *technofunction* of the jewellery.

Interviews conducted by Dunne & Raby (2001) in their *Design Noir* project give a critical, reflective perspective of the potential relationships and imagined contexts people form and create with electronic objects in everyday life. A series of furniture objects were produced, which were purported to be digital, but which were actually placebo prototype objects. Each object was *adopted* by someone and lived in his or her home for a period of time.

One participant in Dunne & Raby's (2001) project who had adopted a *noir object* reflected that it had characteristics of a digital interactive pet in that he felt it to be responsive like a real pet. However when asked if this association meant the object was gadget-like or gimmick-like he responded by stating:

"The charm of this chair is that it is disqualified from being in the Furby category because it is not presented as a gadget. It's completely concealed. When we first got it, it didn't even have a switch. It's not gadget like at all. It wouldn't be nearly as attractive if you could change the sensitivity, or programme it to come on at different times or it had an alarm clock built into it. It would just be another gadget." (Dunne & Raby, 2001: 51)

When the participant was asked how he would feel if other non-electronic objects were given electronic properties his reply was:

"I suppose it's difficult to get your head around whether it's a piece of furniture or a gadget, because as soon as you put any kind of electronics into something, does that become the main thing?" (Dunne & Raby, 2001: 54)

The participant felt so strongly that the object was not a gadget that when asked who may want to own an object like the chair he replied:

"I like the chair, but I wouldn't give the chair to a person like me because I like gadgets too much, and I definitely wouldn't give the chair to people who like gadgets... I don't think it is a gadget...none of the reasons that I like the chair has anything to do with any of the reasons I like gadgets... With most gadgets, a microsecond after you've bought them you regret it, because you know it's not going to give you what you want. Quite what it is I want when I buy a gadget, I don't know. I suppose it's that element of control over something. If you buy an electronic organiser you think it's going to transform your life, but all it does is remind you how disorganised your life really is. This seems to be different... one of the big things about electronic gadgets is the interface, and this doesn't have one...I like that the workings of it are a mystery. There's not an electronic bulge sticking out or any evidence of wires or anything. You could do that, but I think you would run the risk of turning it into something completely different. It might as well be made out of grey plastic... Gadgets seem so impersonal... I guess it's that divide between a gadget and something which is aesthetic." (Dunne & Raby, 2001: 54-56)

However when asked what life span he thought an object like the chair would have the participant reflected that:

"I can't get away from this artificial divide I'm making between something which is a bit of furniture and something which is gadget. If it's a gadget you toss it out of the window after a couple of years.

But furniture lasts forever, really. So it occupies a space between those things. I don't know. I suppose it is a sort of gadget, so I don't think it has a long span, which is a shame." (Dunne & Raby, 2001: 56)

The participant in Dunne and Raby's research articulated key tensions between personally significant digital objects and gadgets and also issues concerning gadget qualities. Notable points include that for him the chair was not "presented as a gadget"; apart from the aesthetics of the chair there were no switches or control panel, no interface, and consequently no means to control the functionality. These were all seen as positive, non-gadget-like, qualities of the piece, as seen in his claim that the object would not be nearly as attractive if it had switches or a recognisable functionality. Indeed a recognisable or familiar functionality would make the piece ordinary for him: "just another gadget", suggesting gadgets are not high on the participant's scale of worth. The fact that the function of the chair was not specified allowed the participant to imagine his own narrative for the object devoid of common associations of digital objects. He stated that if multiple, specified and familiar functions had been attributed to the chair then these would make the object more gadget-like.

Confusion arises regarding the category of an object when digital elements are embedded in everyday objects. Notably the participant admitted as soon as he buys a gadget he often feels a sense of regret, that the gadget will not satisfy his hopes. The participant also reflected that he enjoyed the mystery of the object arising from the hidden electronic "workings", a quality that would be lost if the chair adopted the overtly digital aesthetic of other "grey plastic" devices. The mystery of the object enabled imaginative speculation and appropriation of the piece and contributed to a sustained level of interest, intrigue and attachment. Finally, the participant described a gadget as impersonal; whereas to him the chair had become personal in a way a gadget could not. He had elevated the chair above the status of a gadget and as such it felt it should not be given to people who like gadgets.

3.5 Towards digital jewellery

The challenge for my research is how to create pieces of digital jewellery that are not perceived as gadgets and avoid the ways many current digital products limit our experiences as well as our expectations and assumptions of digital objects. Dunne & Raby's research illustrates the highly prescriptive and limited nature of our collective assumptions as to the aesthetics and functionality of digital objects. Digital objects have a specific categorization, an assumed life span, and level of significant worth. Once an object is presented as "digital" these associations over-ride the other qualities of the object. Jewellery is fundamentally at odds with the qualities inherent to gadgets. Yet even familiar objects such as chairs, once presented as having embedded electronics, may be perceived as gadgets.

My exploration of gadgets, digital objects, and contemporary jewellery, highlights key differences between each type of object. It has become clear that in some cases there is uncertainty as to the distinction between digital objects and gadgets, but contemporary jewellery and gadgets are essentially different. The motivations behind contemporary jewellery objects and gadgets are poles apart, as are our interpretations of each category. Contemporary jewellers have a strikingly different conception of the relationship between the *object* and the *body* from industrial designers. Furthermore, the role of personal emotional significance in contemporary jewellery has implications for the assumed lifespan of the artefacts created.

These differences have an impact on our attachment to objects. A focal concern of contemporary jewellery is the nature of enduring attachments to objects, through reference to human relationships and personal emotional significance. Contemporary jewellery relates to exploratory aesthetics and an open form of interpretation. The gadget is grounded in novelty, newness and transience and the result of a mimetic approach to design aesthetics. Gadgets have significantly influenced mainstream expectations and assumptions of digital objects, giving rise to a design culture that clings to clichés rather than extending the aesthetic vocabulary. The neomania of the gadget is now grounded in the maintenance of a fast paced consumption cycle. Built on seduction and desire, but with an empty

promise at its core; what Dunne (1999) calls the “material equivalent of one-liners.” (Dunne, 1999: 34).

This critique of gadgets, and our underlying assumptions and expectations of them, serves as a set of anti-objectives for my research. The following table, not presented as a comprehensive account of all of the possible differences between gadgets and contemporary jewellery, is a summary of points made in this chapter revealing key differences between qualities of both categories of object.

	Gadget	Contemporary Jewellery
Identity	Usually mass produced, commonplace and impersonal objects, representing elements of a consumer identity. If harnessing a <i>new</i> or cutting edge form of technology this object highlights the owner as a particular class of consumer, and references more than simple economic status; identifying the owner as a progressive consumer who is aware and open to technological innovation. Prescriptive, product design influenced aesthetics often linked to retro-futuristic interpretations of technology or espionage. Commonly having machine aesthetics: sleek metallic silver or black. Often miniaturised forms with little ornamentation and identifiable by physical attributes exposing their functionality.	Often a personal expression of self-identity and emotional significance by maker, wearer or both. Often made through an exploration of elements of personal identity or about a preservation of personal identity. Relates to exploratory aesthetics and an open form of interpretation. Not limited to any particular materials or scale, but always reference or have a relationship with the body. As intriguing objects that beg inventive interpretation from a viewer they are not easily dismissible, and are open to re-evaluation and attribution of meaning and narrative.
Personal Significance	Objects made to fulfil a task. The meaning we attribute to them is usually based either on the object’s ability to perform that task or its technological novelty. The significance is therefore often impersonal and transferable to another object.	Meaning is often based on human-relational experience; as such attachment is often personal, emotional and intimate. This significance is not transferable to other objects.

	Gadget	Contemporary Jewellery
Lifespan	<p>Short lifespan based on novelty or the usefulness of the object to perform tasks. This object provides a fleeting amusement stemming from its technological novelty. The neo-mania of the gadget is now grounded in the maintenance of a fast paced consumption cycle. Gadgets are often dismissible objects that can be easily read as something centred on a particular function, rather than something that begs inventive interpretation from a viewer.</p>	<p>Commonly, the contemporary jeweller seeks to make objects of a <i>slow pace</i> that have a lasting value in terms of personal emotional significance for the owner or audience. Often one off pieces. Objects that are embedded in our experiences over time, and objects that have a strong human-relational context. In this context they are objects that we return to again and again as a point of reflection on the experiences, places and people the object reminds us of.</p>
Function	<p>The main focus is on utility. Gadgets often function as tools. There are two sides to the functional characterisation of the gadget: either niche objects for very a specific / limited function or overly multi-functional, made for even the most mundane and manually undemanding everyday tasks. The gadget often advocates the value of newness, novelty and technological progress.</p>	<p>Contemporary jewellery objects are interpreted and appropriated to suggest lateral and flexible forms and roles for the jewellery object. Such objects often functions to present an aspect of our self to others or to represent or remind us of our relationships with other people. Functioning in this role the object becomes a conduit to transport us to other times, places and people and also a container for our feelings about that associated 'other'.</p>

The following chapters describe how I have used the properties associated with gadgets as qualities to be conscious of and to avoid. My approach has been to explore qualities that are often central to contemporary jewellery: those of human relationships and personal emotional significance. Chapter 4 presents the theoretical development of the methodology and chapter 5 describes the practical application of methods through exploratory studies involving individual participants.

4 Methodology 1: theoretical development of methodology

The contextual review and gadget critique (Chapters 2 & 3) have identified gaps in current approaches to the development of body centric digital objects and digital jewellery. My aim has been to develop a research programme that was both a critical and optimistic approach to the development of digital jewellery, and to establish an interdisciplinary position. The development of an appropriate (and possibly new) methodology was a key element of any such programme and the exploration of personal emotional significance in digital jewellery a central issue. This chapter will identify a spectrum of conceptions of emotion from biological correlates, to felt experience and personal biography, and show that practical and theoretical attempts to address emotional qualities of experience are limited. Notwithstanding occasional calls for a consideration of emotion in terms of the felt-life of technology (embracing emotional and sensual qualities of experience) little attention has been paid to such social and discursive aspects.

I characterise my approach in the context of my past practice, which has been constantly connected to an exploration of ideas concerning human communication. Furthermore, craft practice, as a key aspect of the methodology, is characterised as an intellectual form of making and I explore the notion of craft as a valid form of creative and intellectual endeavour. The scarcity of literature positioning craft in such a light, and its relevance to the development of digital culture, is also highly relevant. In essence, my methodology is to centre my inquiry into contemporary jewellery practice as a direct social activity, and thereby explore digital jewellery in terms of personal emotional significance both for others and myself. Importantly, the inquiry as to how objects become meaningful for people through the consideration of personal emotional significance, leads to the use of personal histories and biographies to explore the emotional role that objects play in people's lives.

4.1 Creating digital jewellery

In part, my research is an attempt to address and respond to a number of misconceptions as to the nature of jewellery and digital objects. These include limited commonplace assumptions as to the scope of jewellery. Contemporary texts argue that jewellery is a social, political and cultural indicator. As described in Chapter 2, these themes and shifts are established and investigated in current literature by Dormer and Turner (1985). But as Dormer (1997) suggests, there is a general failure to place such texts within a theoretical framework that would enable craft to position and expand itself. With a few notable exceptions, (McCullough 1996), few attempts have been made to examine craft's implications for design during the current period of rapid technological change. In addition jewellery texts predominantly articulate the position of critics, and not practitioners. The motivations, polemic and creative process of practice are rarely expressed from members of the jewellery practice community, and even more rarely through practice itself. As Bruce Metcalf asserts:

“Unfortunately, intelligent writing on jewelry is scarce... To date, most writing on Jewelry has stressed design, craftsmanship, and physical usefulness...” (Metcalf, 1993: 23)

In general, contemporary jewellers have not embraced opportunities afforded by digital technologies to extend the scope, and subsequently the subject, of contemporary jewellery. Where the notion of digital jewellery has been broached by industrial designers the conceptions have not progressed beyond a cliched futuristic aesthetic.

In contrast, my aim is to reveal and refine the relevance of contemporary jewellery (practice and methodology) to the development of digital technologies. As described in Chapter 2 (*Contextual review*) and Chapter 3 (*The gadget*) emotional values have been neglected and there has been a mechanistic treatment of emotional aspects of design (this is elaborated in section 4.2). The shortcomings of existing approaches and treatments highlight the opportunities for a more sensitive and insightful treatment. As Dunne (1999) asserts:

“the most difficult challenges for designers of electronic objects now lie not in technical and semiotic functionality, where optimal levels of performance are already attainable, but in the realms of metaphysics, poetry and aesthetics, where little research has been carried out.” (Dunne, 1999: 7)

Therefore, a key question that arises from this analysis of past and current practice in the design of digital objects is *how is it possible to make digital jewellery that avoids the qualities and associations of gadgets?* That is, finding a means of practice and a methodology that addresses the dehumanisation of the fast paced production and consumption cycles of digital objects (see Chapter 3, *The gadget*). In response, I proposed to address these shortcomings with a more human-centred practice, drawing on the human-relational context and personal emotional significance evident in much contemporary jewellery. Inevitably, this raises a number of related questions, which must be explored: (i) What is an emotionally significant object? (ii) How does an object become emotionally significant? (iii) How can contemporary jewellery practice contribute to this process?

Fundamentally, my concern is with jewellery and my critique of aspects of the development in wearable computing suggest a number of questions relating to body-centric issues in the design of digital objects: (i) What are the differences between wearables and contemporary jewellery objects? (ii) What is the role of the body in our experiences? (iii) What is the role of the jewellery object in terms of digital jewellery; (iv) What is the relationship between the jewellery object and the body in terms of digital jewellery?

4.2 Current methodologies

Contemporary jewellery spans the context of *fine art practice* (Astfalck 2005), *design practice* and *craft practice* (Dormer 1997). Thus, the design of digital jewellery inevitably encompasses aspects of art, craft, design, and human-computer interaction (HCI). The origins of HCI are rooted in psychology, and the predominance of systems, modes of interaction, and the notion of the *task*, illustrates the narrow cognitive perspective of HCI on the relationship between humans and computer-based systems.

"...the joint performance of tasks by humans and machines; the structure of communication between human and machine; human capabilities to use machines; algorithms and programming of the interface itself; engineering concerns that arise in designing and building interfaces; the process of specification, design, and implementation of interfaces; and design trade-offs." (Hewett, 2003)

With its focus on the evaluation and analysis of existing modes of interaction between humans and computers, HCI does offer a wealth of theoretical perspectives. Such methods have little relevance to the design and conception of emotionally rich digital interaction, or personal significance of artefacts. However, alternative and sympathetic treatments of emotion and experience are becoming increasingly popular within HCI. McCarthy and Wright (2004), propose theoretical and methodological perspectives regarding our experiences of technology. McCarthy and Wright observe that in HCI there has been an emphasis on the functional aspects of computer use, with a focus on issues of usability, to the detriment of other aspects of experience. The characteristics of usability, detailed by Shackel (1990), of an effective, flexible, learnable and satisfying to use computer system, no longer offer an adequate benchmark for our scope of interaction with digital technologies (McCarthy & Wright, 2004). In acknowledging that beyond usability, perspectives in HCI have engaged with our everyday experiences of digital technologies, they argue that there is still a neglect of the emotional qualities of our experiences and call for an attention to the *felt life* of our experiences with technologies and for new approaches in HCI embracing these aspects.

From a mainstream HCI perspective, the design of interactive systems starts with the elicitation of "user needs" (Preece et al., 2002) and through various methods aims to design

a solution to satisfy these. The premise here is that *needs* exist, and such an approach is born from the historical context of the design of computer systems to aid in the completion of tasks (whether at work or in the home). By contrast, the Interaction Design community have utilised innovative, creative approaches to the conception and design of digital environments, which share methods with art and design (Dunne, 1999; Dunne & Raby, 2001; Gaver, 1999; Anderson et al., 2003). Such projects have not, to date, considered digital jewellery, but do offer methods, which share creative dynamics and perspectives with art and design methods offering more open-ended, exploratory approaches to the design of digital artefacts and environments.

Anthony Dunne (1999) stated that one of his aims was to suggest how electronic objects might enrich rather than impoverish people's lives. With Fiona Raby he presented their perspective to be an exploration of ways to relocate digital objects beyond what they describe as:

“...a culture of relentless innovation for its own sake, based simply on what is technologically possible and semiologically consumable, to a broader context of critical thinking on its aesthetic role in everyday life.” (Dunne & Raby, 2004)

Dunne's work also involved the development of *probe* methods (Gaver et al., 1999, Gaver et al., 2001), which use creative processes inspired by the work of conceptual art groups including the Situationists, Dadaists and Surrealists to discover inspirational information about the participants involved in their research. The process involves presenting the participants with packs of creative, evocative tasks and questions “designed to provoke inspirational responses” (Gaver et al., 1999, pp. 21). Many of the *probe* activities were structured towards areas of information desirable to the researchers within the confines of the project, but others were left ambiguous, leaving open the space of possible responses. Both participants and process were regarded as *playful* and the approach was described as designing for pleasure. Gaver et al. (2004) state that a focus on pleasure requires a different approach to a focus on utility, suggesting that utility driven designs can be designed from outside the situation “standing back to assess difficulties and seek solutions.” (Gaver et al., 2004: 53). Designing for pleasure requires a more involved perspective, immersed in the situation.

Gaver et al. (2004) acknowledge that their probe methods have been adopted widely throughout industrial and academic design and research groups, but observe that not all employment of these methods have been done in the spirit intended, stating that many have rationalized the *probes* as a consequence of being unsatisfied with the playful and subjective nature of the approach, using them to “produce comprehensible results...[and] even use them to produce requirements analysis” (Gaver et al., 2004: 53). They go on to state that such misappropriations have missed the point of the *probes*, which by their very nature value uncertainty, ambiguity, play, subjective interpretation and exploration.

A shift in the traditional focus of industrial design on functionality and usability, to *design and emotion* has been evident in recent years. Deborah Lupton (1998) describes the full breadth of the spectrum of approaches to emotion. At one pole emotion is considered a set of physiological correlates, heart rate, blood pressure and skin resistance. At the other pole resides a social constructivist perspective of emotion, in which emotion is considered as a process that people do through social interaction, something that is highly social and discursive.

Design approaches have emphasised how products may be designed to elicit certain kinds of emotional response (Govers & Mugge 2004, Govers 2004, Govers et al 2003, Desmet 2000), and the measurement of emotions to this end (Desmet 2003, Desmet et al. 2000). Desmet focuses on images, appearances, and the visual stimulus of an object, and underplays the linguistic, discursive aspect of our experiences and interactions. This conception of emotion is unapologetically consumption oriented:

“...designers are seeking ways for their products to elicit emotional and behavioural cues...for the pragmatic reason that it increases product desirability.” (Bennett, 2003)

Pleasure and emotional significance are addressed as a component of a sales and marketing strategy. Akinori Nakanishi, general manager of Mitsubishi Motors, introduced the 2002 *Design and Emotion* conference, stating:

“... the corporation realised that no matter how refined the technological content of your car is, if it is not sexy, it will not sell!” (Nakanishi, 2002)

Bennett (2003) observed that such approaches seek to scientifically assess the emotional impact of a design by using what Eisermann, Director of Design and Innovation at the Design Council UK, describes as *Sensorial Quality Assessment Method* or *Sequam* (Eisermann, 2003) an approach based on behavioural science. Conversely there are also approaches to understanding the emotional meanings people attribute to objects through a more biographical context such as Csikszentmihalyi & Rochberg Halton (1981) and similarly McCarthy & Wright (2004), who view emotion as social and discursive phenomena.

4.3 Craft as research methodology

Practice-based art and design research is a relatively new phenomenon (Press 1995), dating back to the early 1980s. Malins and Gray (1995) describe formal research within the visual arts to be in its relative infancy, a result of which is a lack of distinctive research methodologies for each subject and a situation where artists, designers or craftspeople share approaches, similarly Bunnell (1998) articulates that within practice based art and design research:

“Methodologies have been borrowed and adapted from the Sciences and Social Sciences... often resulting in a multi-method approach...” (Bunnell, 1998)

The methods used in the conception of ideas of contemporary jewellery objects are rarely disseminated, most literature is descriptive of manufacture techniques, tending to be evaluative after the production, rather than as a discourse throughout the creative process. Methods exist but they are largely tacit. One reason for this may be the well worn, ongoing debate in the crafts suggested by Dormer (1997) that an object should be able to stand alone without the need for narrative or description, and that all knowledge of the piece is inherent in the object itself. This perspective has dominated in Craft and has been detrimental to the production of methodologies on the subject. One of my goals is to strive to establish a jewellery methodology for myself, taking a *naturalistic* methodological approach, seated in reflective practice as described by Schön (1991).

Press & Cusworth (1998) cite Steadman (1979) in describing how the dominant view of much design history perceives craft as a dumb activity, lacking formalised knowledge, but utilising learned practical skills. This preconception has endured, but as Press and Cusworth assert, has been counterbalanced by labour historians and design theorists since the 1970s, who have presented a far deeper view placing craft as a process, practice and approach as a unique form of knowledge and intelligent making (Press & Cusworth 1998).

“A notion of intelligent making emerges from the literature that is a mix of formal knowledge, tacit knowledge, physical and mental skill, contextual awareness, innovation and personal creative autonomy.” (Press & Cusworth, 1998: 15)

With specific regard to jewellery, contemporary texts (Dormer & Turner 1985; Astfalck et al., 2004) argue that jewellery is a social, political and cultural indicator. However as Dormer (1997) suggested there is a general failure to place such texts within a theoretical framework that would enable craft to position and expand itself. A view which is shared by Press (1997), who states that there is a:

“relative paucity of critical texts in craft... much writing in craft...is seemingly written to fill the gaps between pictures in catalogues or coffee table volumes – usually brokering the perfect marriage between sycophancy and an excitement equivalent to that of watching a bucket of plaster go off. ” (Press, 1997)

Similarly ceramicist Edmund de Waal (2000) asserts that discussions of craft are led by critics and not makers, and that makers need to write about their own work in order to make explicit, in part, the ideas and energy of their work. He describes craft objects as a language of form that a maker makes his or her own, something that has developed intuitively through making, and notably, something that arises from the complex context of a maker’s biography. That craft objects are “who we have been and who we are becoming” (de Waal, 2000).

Acknowledging and harnessing the potential and role of craft within a digital culture is a dominant challenge to both the process and context of craft. Craft practitioners cannot presume that there is relevance for craft objects and craft processes in a world where digital technologies and associated objects are increasingly prominent in public and private lives. Craft practitioners need to communicate and assert the value of this particular set of skills, approach and perspective.

In the field of design Norman (1998) and McCullough (1996) maintain that during the industrial age, design has been technology led driven by a functionalist approach, resulting in the current climate where technology is too intrusive. One way that craft practice could be presented to have value within the current climate of design is as a human-centred approach to the production of artefacts. Press (2003) argues that making is:

“a humanising element in our industrial culture and a source of innovation” (Press, 2003)

Craft theorist Greenhalgh (2002) elaborated on this potential by giving a more integrated view of craft and technology, acknowledging that technology has been present at every level of artistic development since the Renaissance. He asserts that craft is far from being anti-technology. Similarly Press and Cusworth (1998) maintain that craft practice was a major factor in the Industrial Revolution and is a highly relevant activity and perspective in our current age, not as an alternative to things associated with technology akin to William Morris' perspectives, but as an integral component of new hybrid forms of making and practice. Practitioners such as Jane Harris reiterate this characterisation of the importance of craft skills:

“The skills of ‘craft’ are more valuable to me now in, the changing face of Computer Graphic technology, than ever before.” (Harris, 1999)

The human centred properties of craft objects have the potential to enhance digital technologies and devices. Octavio Paz (1974) describes the craft object as centred in human context:

“Since the thing is made by human hands, the craft object preserves the fingerprints – be they real or metaphorical – of the artisan who fashioned it...they are a sigh: the scarcely visible, faded scar... being made by human hands; the craft is made for human hands: we can not only see it but caress it with our fingers” (Paz, 1974)

Paz (1974) asserts a key point concerning the life of a craft object historically; that the destination of the art object is usually the museum and the industrial object is ultimately the dustbin, but he posits that the craft object usually escapes both. Paz's view of the life of a craft object as one which is not short lived or distanced from human contact by placement in a gallery offers a view of craft objects as central to human life over a long period of time.

My roles as both practitioner and researcher allow me to be immersed in a practice-centred process, in which I may draw on my own experiences, and particular knowledge and sensitivities and skills set. Schön (1983) states that:

“a practitioner's stance towards enquiry is his attitude towards the reality with which he deals”
(Schön, 1983: 163)

My approach, within my craft practice, begins with personal perspectives to, or personal experiences of, an issue. These are developed as part of an inquiry of the perspectives of others. Such a way of working is evident in contemporary jewellery practice, although rarely articulated as such (Braga, Eichenberg, Ozeki see Chapter 2 sections 2.1.2.2 and 2.1.2.3). Similarly Guba (1990 pg.18) offers a perspective where methodology evolves through what a researcher considers to be 'knowable' and a growing personal awareness of his/her relationship with the 'knowable'.

As Dunne (1999) asserts design is a contemporary, ubiquitous force in our current culture and is uniquely positioned to take the lead in reflective, critical approaches to different forms and contexts of digital object. Craft practice and design are not neutral activities; they can reinforce the current status quo or be conducted critically. A reflective, responsible and optimistic approach is needed to offer new imaginative, emotionally rich possibilities for digital objects and our experiences of them.

The role of the contemporary jeweller is not to enhance the aesthetic of the technology, but to force fundamental questions as to motivations, relevancies, and forms of current digital appliances and interactions. The contemporary jeweller has a skill set and approach to the development of objects, which considers how objects may operate in a personally emotionally significant context. By extending the scope of contemporary jewellery to embrace digital technologies we enhance both domains.

My previous practice explored the nature of human communication and interaction. Using jewellery practice I explored the often intimate spaces created by human relationships and communication.

Fig. 77 Jayne Wallace 1999

Eyelashes

Silver, stainless steel

Fig. 78 Jayne Wallace 1999

Echo

Silver and stainless steel

Fig. 79 Jayne Wallace 1999

Touch

Silver

(also see figures 1 & 2 in Chapter 1 *Introduction*)

Figs. 77, 78 & 79 are from a group of five pieces based on an individual. The pieces are worn by one person and involve individual sensory experiences. The pieces focus on communication between the individual and their own body. These objects allow people to experience sensations of their own bodies, which may be overlooked in daily life. In wearing these gentle and theatrical forms a person chooses to diminish a sensory channel without invoking connotations of enforcement.

Eyelashes were made from silver and stainless steel. The weight of the eyelashes restricts a wearer from opening his/her eyes. Visually the pieces have an appearance of veiling the eyes. Comfort, when wearing the jewellery, was crucial. My goal was to create an environment for contemplation, a hush and a sense of space for the wearer. *Echo* is a piece in which the forms were partly cast from the ear cavity, and partly fabricated. The piece mutes external sound, but raises the wearer's awareness of noises originating from inside the body. The aesthetic is intended to echo forms of earphones to suggest that the wearer is not open for communication with others. The wearer is tuned into their own sound supply. *Touch* is a series of objects cast directly from fingertips and prevent wearers from feeling the objects they touch. In hiding the wearers fingerprints *Touch* serves to mask this aspect of a wearer's identity. When not worn the fingerprints are revealed and evoke a memory of a wearer's act of touching and a trace of the wearer.

Figs. 80, 81 & 82 Jayne Wallace 1999

Speak Up

Silver, steel, plastic coated electrical wire

(also see figures 3, 4 & 5 in Chapter 1 *Introduction*)

Figs. 80 - 82 show a collection of three pieces in the form of a series of small microphones, worn visibly as clips and toggles. As digital technologies become more ubiquitous, and miniaturised, the scope of surveillance widens. These pieces highlight the covert retrieval of information possible through the use of developing technologies and miniaturisation. The pieces were made with the aim of questioning motivations behind the production of wearable technology and acknowledging that there are ethics to be considered in their conception.

Fig. 83 Jayne Wallace 1999

Whisper

Silver, stainless steel

Whisper (Fig. 83) focuses on the private and shared aspects of whispering and what a whisper feels like. It is a soft and intimate piece both visually and physically. The first piece is a shield made from silver with a stainless steel clip, which attaches inside the cheek. It acts as a visual barrier creating privacy and echoing the hand gesture covering the mouth often used when whispering. The accompanying piece is worn by the second person inside the ear; a cast has been made of the hollow in silver. The pieces themselves are intimate to wear and echo both the privacy and the sense of engaging in the act of whispering.

Two aspects of my personal perspective have their origins in this past practice. Firstly, the treatment of jewellery as *mediating objects*, rather than adornment or sculpture. *Mediation* refers to the potential of jewellery to act as a metaphor, translator and facilitator of human communication; this is central to my thinking and making. *Mediating objects* act to comment on and enhance the intimate phenomena of human relationships. This stands in contrast to the conventional notion of contemporary jewellery as a comment on aesthetics, ergonomics, or cultural significance. Secondly, notions of technology are important references throughout the work. Through the jewellery I strived to understand the potential dangers of wearable technologies; dangers of the misuse of miniaturised information retrieval technologies and dangers of creating technology led gadgets.

4.4 Beauty, enchantment and empathy

Personal emotional significance can be shown to have a strong connection to personal criteria of beauty. This section aims to describe how beauty may be articulated as an emotional term and something central to the underlying philosophical aspects of craft practice and how beauty may be seen as a sensibility connected to enchantment and empathy. I have demonstrated that there is a significant gap in craft and design literature (see sections 4.2 & 4.3) clarifying, theorising or disseminating the practical and conceptual perspectives evident in craft practice, subsequently there is an opportunity and validity for an account of the role of craft practice within this practice-centred research. By examining the interconnection between these ideas, and their context within craft practice, a new perspective and interpretation of practice may be adopted. Thus, these sensibilities suggest craft practice as a unique vehicle for the exploration of personal emotional significance and objects.

In this section I detail the related notions of beauty, enchantment and empathy as guiding sensibilities within craft practice. This perspective reveals the unique value of craft as a process of innovation, and its implications for digital culture (Wallace & Press, 2004 [1 & 2], McCarthy, Wright, Wallace & Dearden, 2004 & 2006).

“...craft practice is highly relevant to design in a digital age. This relevance hinges largely on the concept of beauty that lies at the heart of craft, which is fundamentally at odds with the more superficial approach that is evident from much design literature. We have sought to demonstrate that far from being a skin-deep exercise in product styling, beauty is an experience of enchantment that arises from an intuitive non-reducible creative process centred on empathy and defined by a vision of relevance and “rightness”. We have argued that craft possesses those very qualities and provides the conditions to allow beauty to be experienced by maker and user. Craft, while it is rooted in the making of physical objects, provides the conceptual and empathetic means of addressing a far broader range of experiential issues that extend the relevance and value of emerging technologies.” (Wallace and Press, 2004)

Digital technology is increasingly prominent in everyday lives. As these technologies extend their reach, penetrating further into our personal lives, the power we have to change and expand our potential for engagement with them grows accordingly. There are new opportunities for captivation, enchantment and fascination (McCarthy et al, 2006, Coyne,

1999, Schneiderman, 2002) or frustration, distrust and apathy (Norman, 2004, Cooper, 1999, McCullough, 1996). To regard beauty within the design of digital objects and interactions as a stylistic after-thought is a flawed strategy and one that considers beauty in shallow terms.

4.4.1 Beauty

Beauty has been repeatedly championed throughout the history of design (Calkins, 1927, Yelavitch, 1999), as both a valuable concept and tool. These perspectives have arisen from many varied motivations and goals. Susan Yelavitch (1999), a curator and theorist, argues that beauty is a necessity, something we are drawn to explore. Yelavitch maintains beauty is:

“now re-emerging as a legitimate, even desirable, value among curators, designers, critics, city planners, even scientists and anthropologists... because they understand it as an experience... a gift and a tool through which they can impart their specialised knowledge of the world... sustaining their spirits and keeping their souls” (Yelavitch, 1999).

Other perspectives are less altruistic, pitching beauty as an essential tool for manufacture. Calkins (1927) argued the logical step for business after its mastery of efficiency was to engage with the *cult of beauty* as a means of driving mass demand and desire. Yelavitch and Calkins echo the two perspectives of beauty that are dominant in Western culture. One is an idea of beauty as the cornerstone of human values and as an eternally unfulfilled aspiration, while the other is an idealised object of desire that can be possessed and consumed. The design beauticians’ obsession with product styling and aesthetics attempts to move products away from ugliness, but as Kirwan argues:

“The true opposite of beauty is not ugliness – itself an identity of being and value – but rather the dissociation of being and value...” (Kirwan, 1999: 49).

While beauty plays a vital role in humanising technology and ensuring its cultural relevance, it cannot be *designed in* to those technologies and their associated gadgets. Aesthetic recipes can be employed to create a veneer of desire, seduction and utility, but these are misunderstandings of beauty. It is important not to confuse beauty with desire.

Armstrong (2004) offers a critique of historically proposed perspectives of beauty:

“There have been two great approaches to the discussion of beauty. First... attempts to describe the common, secret quality, which all beautiful things share... second... focused, instead, on the response of the beholder. To find something beautiful is to have a special kind of experience” (Armstrong, 2004: 146).

Beauty as a recipe has been characterised by, for example, Hogarth, Garrick and Pythagoras. Hogarth conducted the first scientific experiment on beauty in 1753. Founded on a formalist approach, Hogarth’s belief was that beauty depends on shape and graceful line (Hogarth, 1753). Pythagoras’ developed the perspective in the sixth century BC that beauty relates strongly to proportion, and Garrick claimed that the beauty of an object is dictated by its *fitness* to the function it performs (Armstrong 2004, Frohlich 2004, Kirwan 1999). Beauty as experience, relates to perspectives of philosophers such as Kant, who built on views of beauty from Aquinas, Spinoza, Hume and Montesquieu. Kant discussed beauty as the response of the beholder (Kant 1763 & 1790). Plotinus maintained beauty applies fully to both moral and perceptual objects (Plotinus AD 204 – 70 in MacKenna 2002), whilst Schiller offered an account of the impact beauty has on us through describing the holism of a beautiful object or experience and the reality of felt experience (Schiller, 2004). Stendhal also related beauty to visions of happiness (Stendahl, 2004). Almost inevitably, beauty escapes a definition based on specific qualities. Armstrong argues that in fact beauty is a holistic feature of objects. (Armstrong 2004) and its defiance of definition underpins its enduring nature.

Our experience of beauty centres on our quest for it, which is in most cases unsatisfied. According to Dewey (1934: 129) beauty is as far away as possible from an analytical term and consequently also from a means of reduction to a definitive explanation or classification, for him it is an emotional term, although one he claims denotes a characteristic emotion. Kirwan (1999) described beauty as something we strive to know, but which remains mysterious to us and gives us a sense of our relation to the world we experience. Kirwan focused on the dynamics of the experience and event of beauty in his perspectives

“not the objective qualities of the beautiful, but rather...the mental state which issues in the feeling that a thing is beautiful.” (Kirwan, 1999: 42).

Ruskin described beauty as a journey we take arising from sensual pleasure, which leads to joy and a deeper experience of love, but also what he described as:

“...the perception of kindness in a superior intelligence, then thankfulness and veneration towards that intelligence itself” (Ruskin cited in Kirwan, 1999: 79).

Ruskin’s perspectives related to the spiritual associations of beauty, but also to love, a notion that Armstrong (2004) expands upon. Armstrong relates the experience we enter in to when we encounter beauty to both love and yearning, and asserts that beauty meets a profound need to discover meaningful connections between ourselves and other people, objects and ideas. The connections we find in beautiful objects have a deep human significance, a reason why we can love, rather than like, beauty. As such, beauty is central to our life experiences, central to our relational connections to other people and a complex, fluid series of emotional exchanges, which stem from an unfulfilled and enduring yearning.

This research is concerned with beauty, but not an interpretation of jewellery as beautifying object or ornament. My conception of beauty is centred on experience rather than objectified possession. Reflection on my three studies (see Chapter 5) underpin my position that beauty is not *designed in* to an object or experience, but that it can be discovered through craft, in the fullest sense of the term. I reason through my research that one opportunity to realise beauty is in the making of it, through engagement with material and process and through craft’s sensibility and sensitivities. Craft finds beauty, and design puts that beauty to work. This process, which centres on the relationship between the creator and the handmade object, highlights why craft objects may possess qualities of intimacy, beauty and sensitivity. Often the craft maker is the only person who creates their object. This object arises from an intimate relationship between the maker and their material and, indeed, an attachment with it. So the maker feels attached to the object, knows that they and only they could create it, and thus *loves* the object of their labours. It is this love of labour, process, material and object that is distinctive and it is this, which discovers the qualities of beauty in the object.

4.4.2 Enchantment

Enchantment here relates to the mystery and wonder of beauty and how it may be harnessed through craft practice, offering a different approach to and consideration of digital objects and our experiences of them. Whilst beauty is acknowledged as a valuable concept for design, the characteristics of enchantment (and empathy, section 4.4.3) and its role in craft and relation to beauty are not discussed by commentators on design or craft. In my collaborations with McCarthy, Wright and Dearden (McCarthy, Wright, Wallace & Dearden, 2004 and 2006) we explored the phenomenon of enchantment and how it can be used to enhance our interactions with technology. We described enchantment as:

“...an experience of being caught up and carried away, in which, although we are disoriented, perception and attention are heightened. To the extent that it awakens us to wonder and to the wonder of life, it is enlivening” (McCarthy et al, 2004).

Enchantment does not only reside in the extraordinary, but can also be found in the prosaic; our everyday encounters offer possibilities for surprise. Enchantment may be what we miss in our ordinary lives; we simply neglect to look more closely at, or with more open perspectives on, the everyday situations in which enchantment can be found.

Craft practice offers an example of people engaging in an activity in which there is the opportunity to be attentive to the unique within each piece made. When something is made by hand it is unrepeatable and although the activity may have been repeated many times the particular nuances of change with each new piece have not. Craft practice as an activity is a fertile ground for enchantment experienced by the maker. By being open to the discovery of the new within our craft there are possibilities and opportunities to extend our experiences out to an audience. These possibilities and opportunities are perhaps stronger than ever when we consider digitally interactive craft objects, which have a wider scope of interaction and communication potential than a dormant craft object.

Digital media artist Golan Levin described immersivity in his own practice in terms suggestive of enchantment:

“...my objective was to make something that would ideally captivate the users’ attention enough to precipitate what Mihaly Csikszentmihalyi calls a ‘state of flow’...where one gets consumed by the medium and becomes sort of one with it...that it becomes an extension of the self.” (Levin, 2003)

Parallels may be drawn between Levin’s insights into his practice and many of Armstrong’s (2004) perspectives on beauty. Both described an experience of immersivity. Armstrong states that our first instinct when we encounter beauty is to give ourselves over to it, where beauty is a yearning that goes beyond the ideas of *keeping* or *owning*:

“... we want it to take possession of us.” (Armstrong, 2004: 84)

Levin and Armstrong’s perspectives relate strongly to my notion of enchantment. To illustrate how we may be conscious of enchantment or Levin’s perspective of captivation in the making or design process McCarthy et al (2004) suggested the sensibilities we can be aware of in the design process relating to enchantment. Such an awareness might include: the specific sensuousness of each particular thing; the whole person with desires, feelings, and anxieties; sense of being-in-play; paradox, openness, and ambiguity; and the transformational character of experience. Enchantment may therefore result from the specific sensuousness, playfulness and relationship to an audience as *individuals* within an experience; be that an event or an object. The possibility of continued enchantment is not only in the captivation and immersivity of beauty but also in the depth of paradoxes each experience embraces. The challenging question for digital technology and craft is the extent to which this union accomplishes the same enchanting depth.

As described in the contextual review (Chapter 2 section 2.2.2.2) a number of design groups are now considering the relationship between digital technologies and jewellery. Organisations such as IBM, Philips Design, and IDEO have presented concepts that seek to combine technology and jewellery, with mixed results from the perspective of enchantment. Some examples have the appearance of a focus increasing the functionality of pervasive devices, e.g. earrings, bracelets and rings that operate together as components of a mobile phone. Not surprisingly, the neglect of the emotional, sensual, and playful potential in jewellery has resulted in disenchanting commodities (McCarthy, Wright, Wallace & Dearden 2004).

By contrast, McCullough (1996) maintains that the approach of craft practice is often one of playful experimentation with ideas and processes. The process is often a source of satisfaction due to the development of sentient skill, something we enjoy, involving cognitive cues and affective intent. His claim is that our sentient activity differs from the production of a machine, because we are playful and a machine is not. We can experiment and we grow as we learn and explore. McCullough maintains that craft practice is individual, a situation in which a maker forms an intimate relation with contexts or tools. McCullough's description of the process of craft practice is closely related to my own perspective on beauty and enchantment. However, although sensibilities for designing for enchantment have been described, how someone may approach thinking and designing for these sensibilities remains an open question. A perspective of empathic engagement with issues, people, materials and process may offer a sympathetic approach to enable designing for enchantment.

4.4.3 Empathy

Stratton & Hayes (1988) characterise empathy as a feeling of emotional understanding and harmony with another person. The emotion felt by one person is to a degree felt by the other, who empathises with them. However, Wispé (1986) points out that empathy differs from other reactions to the emotional state of another person (such as sympathy). In the case of empathy one person attends to the feelings of the other, but in the case of sympathy one person attends to the suffering of the other or their situation, but maintains his or her own feelings. Chismar (1988) describes empathy as a largely creative process. Drawing from Husserl's perspectives, he maintains that empathy is far more than a conditioned response to another's evocation of feeling in that it involves a creative use of emotive and physical sensitivity in order to feel a sense of what it is like to stand in someone else's shoes. Chismar draws parallels and connections between characteristics, which are connected with creativity such as open-mindedness, flexibility, and tolerance for cognitive dissonance to characteristics of empathy. Chismar's observations of our empathic engagements with others suggest that to empathise we are required to immerse ourselves in the emotional and even physical states of others, in their stories, biographies and aspirations.

Empathy can offer a form of closure for the viewer of the piece, a way to gain a personal understanding of it. Theorist Brenda Laurel (1991) writing about our relationship to technology links empathy to the notion of catharsis in theatre. Catharsis and empathy are vehicles through which we can connect with an experience, i.e. a play, a piece of jewellery, or a piece of software in a personally significant emotional way. Catharsis allows us to identify with the experience and then to reinterpret it to fit it into and relate it to our own lives. Empathy is not about a reproduction of another's experience, but rather a personal emotional response coloured by the empathiser's own personality and elements from the specific interpersonal situation.

The fact that we are not reproducing the other's experience is an important element in empathy and the use of it in any design process, as the eventual detachment allows us to maintain and use our own perspectives with those gained from an empathic engagement; Fenichel (1945) described empathy in two stages the first being an identification with the other person, and the second being an awareness of one's own feelings after this identification, which enables an awareness of the *object's* feelings. Empathy is not something that we can achieve *at will*, but instead is something that we can be aware of and open to. We need to allow it to happen. Jenkins (1997) suggests the idea of empathic engagement as explorations of *possible selves*. Empathy is something we develop over time; it requires a development of openness and attunement to other people. As a fundamental process in interpersonal relationships, highlighting affective dialogue possibilities between people, it is a valuable experience in understanding notions of what is important for others, and an experience that finds a home within craft practice. The craftsman is attuned to the relationship between maker and material and in many examples to the situations, experiences and feelings of others (Astfalck et al 2004, Bartels and Lindmark Vrijmann 2002). Pye described the workman as "essentially an interpreter" (Pye, 1968: 33). The craft practitioner interprets how to work with a material by empathising, in the broadest sense, with the intrinsic worth and potential of it (Dormer 1994, Pye 1968).

"The truth is that what we want to do is not to express the properties of materials, but express their qualities. The properties of materials are objective and measurable. They are out there. The qualities on the other hand are subjective: they are in here: in our heads. (...) Material in the raw is nothing

much. (...) 'Good material' is a myth. (...) Some materials promise far more than others but only the workman can bring out what they promise". (Pye, 1968: 88)

The skills a crafts practitioner develops towards interpreting and responding with sensitivity to the materials, conceptual motivators and other people involved in the process often lead to a development of creative, flexible sensibilities, which the practitioner brings to bear on the work made. Craft practice as a development of sensitivities and sensibilities is a fertile environment for empathic engagement.

4.4.4 Beauty and craft practice

The sensitivities and sensibilities evident in craft practice are particularly salient to design in the digital age. This hinges largely on the concept of beauty that lies at the heart of craft, which is fundamentally at odds with the more superficial approach that is evident from much industrial design and design literature. By demonstrating that the concept of beauty extends far beyond notions such as product styling, beauty can be understood as an experience of enchantment that may arise from an empathic approach to people, issues, materials and processes. I argue that craft practice possesses those very qualities and provides the conditions to allow beauty to be experienced by maker and user. Craft, while it is rooted in the making of physical objects, provides the conceptual and empathetic means of addressing a far broader range of experiential issues that extend the relevance and value of emerging technologies.

Beauty is important, but is not a commodified recipe used to maintain consumer insecurities or ill advised social ideals, it is a personal experience that lies at the heart of all of our meaningful engagements and as such should be respected and nurtured. If we are conscious of beauty as an emotional and human-centred notion, connected to enchantment and empathy, then we open up opportunities in design and craft practice to consider emotionally significant aspects of our experiences. If we consider and embrace each of the characteristics presented here when in the roles of either designer/maker or audience we are open to the sensibilities each embodies. For both maker and audience it is a call away from passive engagement.

We are living in an age where technology has become a driving force in popular culture. Amongst all the gadgets and task orientated fad or novelty objects there is a unique place for digital jewellery as an extension of contemporary jewellery relating to human-relational communication and personal emotional significance. My proposal is that digital jewellery may be a form of digital object, which is situated in an emotionally personal place in modern computerised society. The context of jewellery objects historically offers a particular view of how objects have operated as emotionally significant objects for people and the current scope and approach of contemporary jewellery practice offers a particular platform and approach to the extension of emotional significance into the development of digital jewellery. This in turn may inform the related fields of HCI, Interaction Design, and Industrial Design.

5 Methodology 2: development and practical application of methods through exploratory studies

This chapter describes the main practical element to the research. It begins by describing my use of contemporary jewellery practice as something socially embedded, followed by the experience centred approach I adopted in order to explore personal criteria for emotional significance. The chapter continues by giving account of my engagement with a small number of individual participants through the following stages and dynamics of the interactions: selection of participants, description of individual methods, application of methods, participant responses to design probes and my design process. The pieces of digital jewellery that were designed for three individuals are then presented. The chapter concludes with my reflections on the particularities of these exploratory studies and design process.

5.1 Socially embedded practice

Through this research I have aimed to retain a constant connection to the human-relational aspects of jewellery and of human experience, which have been a constantly significant aspect of contemporary jewellery practice and context for me. Human communication had been a central focus to my past practice; the opportunities of digital technologies offered a shift in how the theme of human communication could be developed through my practice and how the actual process of my practice could also be extended.

Many models of current designer-maker practice are from the perspective of practitioner as observer commenting on a situation (i.e. Bakker, Künzli, Schobinger see Chapter 2 section 2.1.2.1), or connecting with a cultural or social dialogue, rather than engaging more directly as a participant in the situation. My goal was to engage in both research and practice as a direct social activity, and in doing so, explore digital jewellery in terms of personal emotional significance for both myself and other people. My notion of the designer-maker thus shifts the emphasis from personal expression and personal autonomy, to shared dialogue between the designer-maker and the participants in the process. Some jewellers have approached their practice in such a way (Astfalck, Bartels and Lindmark Vrijman, see Chapter 2 *Contextual review*), but these are atypical positions. I engaged in a dialogue with Bartels and Lindmark Vrijman in 2004, in which we discussed this notion of practice as a social activity. The following quotes all originate from our discussion (Bartels and Lindmarck Vrijmann, 2004).

Both jewellers expressed frustration with the existing conventions of exhibiting jewellery and limited contact with an audience:

“... I realized that even the so-called Art Jewellery world is quite limited and jewellery often reduced to being displayed in a galerie or in a catalogue... What I also found remarkable is that the wearer wasn't very much part of the process anymore, the body yes, but the personality of the wearer was of minor interest .” (Bartels)

This loss of the importance of the personality of the wearer was described by both jewellers as detrimental to the essence of what jewellery was for them:

“Something that acts with a person and comes to life when it is connected to a person.” (Lindmark Vrijmann)

Even though both jewellers had already been dealing with issues of personal emotional significance within their work they described feeling that this did not go far enough:

“there was something missing.” Ulrike Bartels *ibid*

“The feeling of not reaching all the way, that Ulrike also talks about, came for me out of that I somewhere along the way was too much creating an image, instead of creating something real.” (Lindmark Vrijmann)

For Bartels and Lindmark Vrijmann, the frustrations of this distance created between a maker, or the objects they make, and an audience negates much of the life and personality of the wearer. Working in such a way ignores opportunities of engagement more directly with an audience, something the jewellers referred to several times as more *real*. Both jewellers described working in direct social contact with other people, as part of the new process of their jewellery practice, to be a situation where the objects they made had a direct social relevance for the audience and the social context of this approach provided what each jeweller felt to be a *real encounter*. Bartels described the particular role of a jeweller and sensibilities she felt she had as a jeweller in terms of an ability to create expression and meaning on a small scale, an eye for detail, patience in the making process and also an ability to consider what someone feels to be emotionally precious to them.

She described herself as:

“...a kind of treasure-hunter...I’m looking for human treasures that I want to get connected to. Roaming dreams, pains, memories which I patiently and painstakingly uncover... and get shaped in my brain and in my hands... thus the wearer leaves himself open to be discovered and enter dialogue...” (Bartels)

For Bartels empathy played an important role in this process; she described it as part of her attitude as a human being and consequently a sensibility she extended into her practice as an artist. She asserted that an empathic connection to people involved in her practice did not mean that she agreed with all of the participants’ perspectives, but that this approach to her practice centred on learning aspects of someone else’s experiences and perspectives and on diversity; finding points of difference between people and, rather than harmonising them, seeking to show the richness of the differences and to make that diversity productive. Ulrike also asserted that empathy was significant in terms of giving the participants a

feeling of being respected and vital to an environment of trust and security within the dialogue and creative process.

For Lindmark Vrijmann the process enabled her to understand more about herself through her interactions and developing connections with other people. She described the resulting objects as *the bridge* between her and the participants. Bartels described the process as enabling her as a jeweller to directly reach a much wider and more diverse audience than ever would be possible through the existing confines of gallery exhibition. Both jewellers commented that the encounters they had with people through their projects had a significant impact on their way of working describing the process as:

“...making hidden things visible... about zooming into the personal and human side of a subject... its about touching people and getting in touch/touched...” (Bartels)

This approach offered a refreshing perspective for me, different from approaches to the design and conception of objects in HCI or Interaction Design, and also from the predominant approach to the production of objects in craft and design practice. Bartels’ and Lindmark-Vrijman’s approach had connections to approaches in participatory art practice and participatory design and felt open-ended, exploratory and directly social. For me such an approach offered a human-relational context for the exploration of possible forms of personal emotionally significant digital jewellery. By considering our experience of digital technologies and digital objects in this way I can consider digital jewellery as part of the dialogue between the researcher and a participant in this research.

5.2 Experience and personal emotional significance

Czicksentmihalyi & Rochberg Halton (1981) and McCarthy & Wright (2004, 2005), consider emotion as a discursive phenomenon residing in a social context. I have acknowledged that jewellery objects often operate in a social context as discursive objects that connect to an owner's sense of self (see Chapter 2, *Contextual review*). As such my explorations into possible forms of digital jewellery have extended this context to explore aspects of personal emotional significance for an individual, and develop an idea for digital jewellery that arises from shared stories and elements of personal history and biography. Within each of these facets of the particular approach adopted through this research the relevance of considering the *experience* of human interactions with jewellery objects, and consequently with digital jewellery objects, was paramount. Considerations of human experience were vital in understanding and exploring the social dynamic of jewellery and the possibilities available to extend these through the integration of digital technologies.

When designing interactive devices or environments, the role of human experience is crucial to the depth and sensitivity of that interaction. Increasing attention is being paid within the fields of HCI and Interaction Design to the importance of human experience (McCarthy & Wright 2004, Schneiderman 2002), both in understanding experience, and the application of experience-centred analyses in the development of interaction designs. McCarthy & Wright (2004) assert that some computer manufacturers aim to design computers as fully developed products, an aspect of which is the idea of a fully prescribed and pre-determined user experience. Whilst the consideration of the experience is laudable, the assumption that any particular experience can be designed is erroneous. McCarthy and Wright (2004) argue this point and propose that a historical perspective on people and computers reveals that HCI conceptions of *experience* are limited.

McCarthy and Wright seek to offer an approach to understanding human-computer interaction, which explores technology as experience in terms of the *felt life* of technology:

“...we should try to interpret the relationship between people and technology in terms of the felt life and the felt or emotional quality of action and interaction... For us, *felt* experience points to the emotional and sensual quality of experience” (McCarthy and Wright, 2004: 12-13)

In collaboration with McCarthy and Wright (McCarthy, Wright, Wallace & Dearden 2004, McCarthy, Wright, Wallace & Dearden 2006) I have contextualised these perspectives in relation to jewellery and digital jewellery. Experience is a complex and obscure term, and it is wrong to regard experience as a series of separate experiences. As McCarthy & Wright assert, experience is never ending and we can never step outside experience; it is impossible to detach from it. Similarly, we cannot *design an experience* in generic terms, but we may design environments ripe for certain differing aspects or flavours of experience. Their *framework for the analysis of experience* (Wright, McCarthy & Meekison 2003) offered me ways of viewing existing jewellery objects, digital objects and digital jewellery in terms of experience (Wallace & Dearden 2004) and also ways to consider my own particular experiences of these objects, enabling a certain critique of them and their interactive qualities. This in turn contributed to my developing reflective approach to the design of experientially rich digital jewellery.

Writing *the experience of enchantment in human-computer interaction* with McCarthy, Wright and Dearden (McCarthy et al. 2004 and McCarthy et al. 2006) enabled me to consider McCarthy and Wright’s frameworks and explorations of the notion of experience in terms of enchantment and digital jewellery. It also caused me to reflect on my own ideas concerning enchantment and craft practice and deepen my links between the two.

Becoming is a notion McCarthy and Wright (2004) introduce to describe experience as a multi-layered dynamic process of change, in which the elements of our experience are continuously reinterpreted. The ways we make sense of our experiences involves an active process of selection and structuring, which is influenced by our past experiences, our past histories, and mediated by habits, emotions and bodily responses. Over time our experience and the sense we make of it is enriched and reinterpreted by reflection. In this way it is a personal dialogue that is never ending, unfinalisable, unrepeatable and building on itself; something which is always *becoming*, rather than finished or complete. Experience as *becoming*, in terms of viewing and making objects, invites an open-ended approach rather than the use of prescribed assumptions of what a digital object should look like or function

as. These perspectives have filtered through my approach to the creation of digital jewellery and my analysis of what each participant felt about the pieces and films I made for each of them (see Chapter 6 *Participant responses...*).

Similarly, Bar describes objects (“things”) as stories (Bar, 1979), which exist as part of a story, a frame, and connected to our personal history and sense of self. We have a relationship with this story, and objects change for us because of this relationship. Bar also asserts that the whole story of these *frames* can never be told or *finished* as they are evolving and always changing. Our role as interpreter in this process of sense making, inevitably reveals ourselves; the story is interpreted by us and is about us in part; our biographies as people have led us to our interpretation. Crampton Smith (1999) articulates the importance of the relationships we have with the objects around us, in our formulation of our sense of self and also in our quality of life:

“Objects change not just how we see ourselves but, moreover, how we live life.” (Crampton Smith, 1999:6)

This understanding of experience, and how we make sense of experience, has implications for the context and process of craft practice itself. Personal biography has the potential to play a valuable role in experience-centred creative practice. Craft practice is frequently described as centred in self-experience and a developing sense of self (McCullough, 1996; Aicher, 1994). The experience we use within craft practice is gathered throughout our lives and is consequently as unique as each person is individual. McCullough asserts that:

“...the basic material every craftsman works with is him self” (McCullough, 1996: 222)

The similarities and connections between the perspectives discussed, concerning experience and craft practice, have enriched my understanding of the validity of my practice and the potential to use it in an extended capacity within this research. By acknowledging the importance of personal emotional significance to our sense making, sense of self and enriching experiences in life, my goal was to use this in an approach to digital jewellery which offered scope for personally enriching experiences of digital jewellery objects.

In order to make an object, which reflects someone's personal criteria for emotional significance it was important to explore how an object has meaning or becomes meaningful for an individual. Fig. 84 illustrates some of my own personal treasure. By reflecting on my own strong feelings about these objects, and how they are personally emotionally significant to me, I formulated ideas of how other people may form such attachments to other objects.

Fig. 84 Examples of objects that are emotionally significant to me

Like many people I know, I have collected or have been given several objects through my life, which function as treasure for me. These objects offer comfort, emotional resonance, and even intrigue, and connect me to the experiences, places and people I personally associate with them. Each object has a story and I feel they are part of me. I find each one of these objects beautiful, but not because of aesthetics, in fact in some cases my feelings are in spite of the aesthetics. I find them beautiful because of the strong levels of emotional significance they embody and represent for me, a point shared by Norman (2004)

“...in the realm of feelings, it is just as reasonable to become attached to and love things that are ugly as it is to dislike things that would be called attractive. Emotions reflect our personal experiences, associations, memories.” (Norman, 2004: 47)

Csikszentmihalyi and Rochberg Halton (1981) explored why people attributed meanings to their possessions. When they asked people to tell them about *special* objects, such objects were overwhelmingly ones that held special memories or associations for the owner. These objects were emotionally rich for the owner and notably the focus was seldom on the item itself, instead the story surrounding the object was the important thing. As Latour asserts:

“Consider things, and you will have humans. Consider humans, and you are by that very act interested in things.” (Latour, 2000: 20)

It is therefore possible to assert that one way people become attached to things is through significant personal value, association or symbolism. Such objects affirm the owner’s sense of self, their place in the world, and their connections to other people. Objects of personal emotional significance are tangible and enduring references to our personal histories and act to strengthen our feelings about ourselves. Abercrombie et al. (1986) state that we need such connections to our personal histories in order to assert our individuality and identity.

Contemporary jewellery practice is a unique and critical platform from which to explore the opportunities of emotionally significant digital jewellery. The methodology I have adopted is both creative and reflective, and stems from my past practice, philosophical undercurrents that guide and inform craft practice (see Chapter 4 section 4.4 *Beauty, enchantment and empathy*), as well as a critique of current digital objects (see Chapter 2 *Contextual review* and Chapter 3 *The gadget*). The role of the contemporary jeweller, in this respect, is as the poser of questions concerning the motivation, relevance, and form of current digital objects. The personal historical perspective on my practice clarifies the potential of digital technologies in the creation of *mediating objects*. Thus rather than ornament or sculpture, my approach has a persistent concern with the use of jewellery objects in a wider scope than adornment and aesthetics, to include jewellery as a tool for exploration and discussion.

From this perspective on craft practice and the potential of digital jewellery, I have embarked upon a number of exploratory studies (see next section). Each study involved engagement with an individual, through which I sought to discover aspects of personal emotional significance from the other person’s personal history, current life and future hopes. These were then used as inspirational starting points for digital jewellery designs. I focused on the particular dialogue I had with each participant and the stories and experiences they shared with me in order to design forms of digital jewellery. This approach contrasts methodologies where either the possibilities of digital technologies or existing forms and functionalities of current digital objects are the starting point. To clarify,

I sought to find a significant reason for integrating digital technologies with contemporary jewellery that reflected aspects of the participant's shared personal stories. Rather than prescribing meanings and functionality to the digital jewellery, my goal was to create open-ended pieces that offered the potential for interpretation by the participant and continued discovery. In this way I hoped to gain an understanding of the possible roles and values of my digital jewellery proposals within the participants' lives through their interpretations and appropriations of the pieces, which could in turn inform an iterative approach to the development of the digital objects themselves.

5.3 Exploratory Studies

“Unless the distinction vanishes in some cyborg future, people will always be more interesting than technology.” (McCullough 1996: preface)

This section describes a practical component of this research. Through the involvement of a small number of participants² I sought to find out inspirational information about each person concerning aspects of their personal biographies that were emotionally meaningful for them. The information that the participants shared with me inspired and informed a jewellery object and accompanying film for each person that echoed fragments of the participants’ responses. The jewellery and films acted together as propositions for digital jewellery.

My rationale for deciding to work with individuals centred on a desire to open up my practice to direct social dialogue with individuals. This approach enabled iterative dialogue stages through the project and a shift from a predominantly subjective form of art and design practice to one involving and inviting more inter-subjective responses and feedback. I sought to use my practice as an environment to explore the potential to make proposals for digital jewellery objects that offered emotionally rich forms of object and digital interaction and to open up a discussion with individuals concerning these issues.

² Initially six participants were involved in the project through the probe stage, then responses from three participants were taken forward into final jewellery and films.

5.4 Selection of participants

My principal concern in the recruitment of participants was the creation of opportunities for personal engagement with a participant and emotionally rich dialogues. Two of the participants were contemporary jewellers and two were researchers in human computer interaction. By engaging with participants with interests that intersected with my exploration of the nature of digital objects and personal emotional significance I was directly attempting to foster a dialogue with both personal and professional levels.

All participants are referred to by fictional names throughout this thesis. Emma and Mark are both contemporary jewellers, Faith and Ben both work within HCI and Interaction Design specialising in mobile and ubiquitous computing and Ana and Gene are close friends both working in art and design fields. To give great detail of the context of each person's work or in some cases my relationship with them would potentially undermine their anonymity, however in general terms Emma was approached because she had worked specifically around issues of personal emotional significance in jewellery, which appeared to reflect my own themes of interest; we were both asking similar questions. Mark is a contemporary jeweller who I had known for several years and who had an interest in the development or potential of digital jewellery and as such had an interest in the core theme of the research. I approached both Faith and Ben after meeting them during the course of the research and finding them both interested in the idea of digital jewellery and mobile digital objects and also both engaged in some capacity in art and design practice. I felt they were open-minded to the idea of digital jewellery and interested in being involved in the project. Gene and Ana have both been close friends of mine for many years and are both involved in fine art or jewellery practice in some capacity. Their involvement enabled a personal intimacy in the process, reflecting aspects of my past context of practice.

5.5 Description of individual methods

In my previous work my jewellery pieces have operated as mediating objects, as detailed in chapter 4 (*Methodology 1* section 4.3), to open up discussion and debate around certain issues. I felt it appropriate to continue this use of objects as mediating objects in the collection of inspirational data from each participant. I have detailed (Chapter 2 *Contextual* review section 2.1.2.4 and Chapter 4 *Methodology 1* section 4.2 & *Methodology 2* section 5.1) how I felt the particular use of contemporary jewellery practice by Bartels and Lindmark Vrijman and *probe* methods from Gaver et al to be valuable for this research. However, in each of these approaches the concerns were not with developments in digital jewellery and I developed my own set of object based stimuli influenced by both Gaver and Bartels & Lindmark that focused on jewellery-centric themes and personal emotional significance.

I called the objects *stimuli* to reflect a motivation of the methodology; to stimulate a response rather than to provoke or probe. The methods were not strictly *probes* as Gaver et al (1999) had designed, but a set of objects strongly influenced by them that also involved the use of vignettes and short reflective questionnaires. I found that *probes* centred on gaining short answers, sound-bites almost and I wanted to allow space for longer story telling through text based answers: as such vignettes (see Communication Fairytale stimulus below) and short questionnaires (see Lost Object and Jewellery + Play stimuli below) allowed me to do this. I appropriated the *probe* method for my own areas of interest and have introduced issues that have not been addressed in other uses of *probes* concerning jewellery centred issues such as body geography, personal stories and perceived meanings associated with jewellery, as well as issues more general such as pride, loss and personal emotional significance through the significance of objects. Being an object maker I was drawn to the potential for objects to silently ask questions over a period of time whilst they resided with a participant.

The set of ten individual stimuli are now detailed with figures 85 - 104:

Disposable Camera

An object that is precious to you	Something about you that you like
Something reflecting a quirk of your nature	A reminder of someone dear to you
Something beautiful	Something unusual
Something funny	Strength
Permanence	Fragility
Transience	A favourite view
Something boring	A favourite place
A favourite object (non jewellery)	A favourite communication device
A favourite piece of jewellery	A connection to someone you love
Happiness	An element of your routine
Anything - you choose	Anything - you choose

Fig. 85 Disposable camera stimulus

Fig. 86 Prompts attached to camera

The participants were asked to use the camera to take photographs in response to the prompts provided: a selection of terms relating to personal preciousness, human emotional connection, favourite things and aspects of the participant's personality. I hoped the resulting photographs would demonstrate how each participant had creatively interpreted each prompt. I also hoped to gain insights into aspects of his/her life that were personally emotionally significant to him/her. Although some prompts related directly to notions of personal emotional significance they were open enough for a participant to respond in a myriad of ways and I did not want to limit or tailor the prompts too closely to jewellery or even wider aspects of personal emotional significance. I wanted to use a camera as a way of glimpsing through the eyes of the participant: to literally see a snapshot or moment of the life of the participant. The true magnitude of meaning for the participant of each image captured could never fully be known, only interpreted by me, but this added to the dialogue taking place in this process of exchange, interpretation and empathy.

Body Map

Please tell me about when and where on the body you (would) wear jewellery.

Using the stickers provided show me where on the body you...

- Wear jewellery everyday (blue stickers)
- Would be happy to wear jewellery everyday (yellow stickers)
- Wear jewellery occasionally (green stickers)
- Would like to wear jewellery (red stickers)
- Would never wear jewellery (white stickers)

Fig. 87 *Body Map* stimulus

Fig. 88 Instructions with *Body Map* stimulus

This stimulus asked for a snapshot of elements of a participant's current behaviour, attitudes and body geography concerning jewellery. This information would enable some knowledge of how the participant regarded jewellery; how conventional or daring they were, the roles jewellery played for them, how significant wearing jewellery was to them in different contexts.

The body map did not require any explanations of the answers given and as such was anticipated by me to be a potential ice breaker; an easy task to begin with, or conversely something to complete if other stimuli were proving difficult.

Pot of Clay

Please use the clay inside this pot to make an impression or leave a trace of an object dear to you.

Fig. 89 *Pot of clay* stimulus

Fig. 90 Instructions accompanying stimulus

I have used similar methods of obtaining an impression or trace of an object within my jewellery practice when casting and wanted to transfer this type of activity to the stimuli. In other stimuli the participant was asked to reflect on the relevance and meaning of a

cherished object. I wanted to use this stimulus in conjunction with reflective questions as a direct form of sharing physical qualities of an object.

1st Prize

Please tell me what you would like to receive 1st prize for.

A proud moment of yours, a past achievement, a current goal yet to be achieved...

Fig. 91 Multiple examples of *1st Prize* stimulus

Fig. 92 Detail of *1st Prize* stimulus

Fig. 93 Accompanying instructions with stimulus

The rosette focused on elements of self-esteem, pride, self-worth and how someone would like to be perceived. Many stimuli offered the opportunity to reflect on aspects of significance for the participant, but without direct relation to what the participant valued about himself or herself. Consequently many stimuli could be interpreted in terms of what other people mean to them for example. In this stimulus the participant is asked directly about aspects of their own self worth and achievement.

Lost Object

Questions:

1. Have you ever lost an object that you treasured?
2. Please describe this object.
3. Could the item be replaced?
4. ...if it was replaced would it mean the same to you?
5. What is it that you remember about the object?
6. Why was it special to you?

Fig. 94 Multiple examples of *Lost Object* stimulus

Fig. 95 Text accompanying *Lost Object* stimulus

This stimulus explored the story behind a treasured, but lost object in terms of memories and personal emotional significance. I was interested in asking about objects that have

remained significant in some way without being owned any longer and my use of a short questionnaire enabled me to ask these questions directly. I anticipated that the answers might detail feelings and stories as well as specific qualities of the object.

Dream

Please keep this pillow by your bed or in your bag. Use the fold out piece of fabric to write on about a dream, a daydream or an aspiration.

Fig. 96 *Dream* stimulus

Fig. 97 Detail of stimulus with fabric unfolded

Fig. 98 Text accompanying stimulus

In focusing on a dream, a daydream or an aspiration, the pillow stimulus related to imagined scenarios, wishes, hopes and fantasies. I wanted to make space for the response in a way that reflected sharing something personal, like telling a secret; the fabric is unfolded and written on, but then hidden away again. Similar to the favourite sound and 1st prize stimuli a response is shared and then stored away again.

Communication Fairytale

Questions asked within story:

1. You decide to find Toved'. You pack a kit of 5 things that you always carry with you...
2. What is it that you miss about 'loved' when you are not with them?
3. How do you feel 'connected' to someone when they are not with you physically?
4. Please think of a good memory of you and 'loved'...what does it look like?
5. What kinds of human communication or modes of technological communication do you find precious?
6. If anything were possible, how would you like to communicate with 'loved'?

Fig. 99 *Communication Fairytale* stimulus

Fig. 100 Questions asked by stimulus

A communication fairytale vignette, placing the reader within a story along with someone they love of their own choosing, referred to as *loved*. The story takes the reader and *loved*

on a journey where they both lose one another and asks questions for the participant to answer relating to what it is about *loved* that the reader missed, how s/he felt connected to *loved* when s/he was not there physically, what a good memory of them both looks like, personally precious modes of human or technological communication and *if anything were possible* ways of communicating.

This stimulus was set within an imaginary environment to create a scenario where questions could be asked about a connection the participant shared with someone, who remains known only to them throughout the fairytale, without being confined to what is known to be possible within the *real* world. The communication fairytale and the pillow stimuli both related to fantasy. I felt it was important to offer ways of imagining potential scenarios not based in the limitations of what we know to be possible and to explore different aspects of personal emotional significance.

Favourite Sounds

Please tell me some of your favourite sounds.

v

Fig. 101 *Favourite sounds*
stimulus

Fig. 102 Detail of stimulus

Fig. 103 Instruction text
accompanying stimulus

This stimulus is a scroll within a seashell asking a participant to describe some favourite sounds. I could have made a stimulus that actually captured sounds, but reflected that not all sounds would be easy to capture; they may have been specific to past times and places for the participant and this may have limited the answers given, although there would have been a different richness to the recorded sounds. I felt that the scroll kept the activity simple and rather than just a piece of paper with a question on it there was an act of unrolling and sharing an answer, which was then stored away and hidden again.

Top Trumps

Included are 6 cards for you to make your own version of Top Trumps. The game is called OBJECT POWERS and relates to objects owned by you, which are personally precious to you. Please select 6 precious objects and fill in a card for each one.

Please write the name of the object in the top box, a description of the object in the yellow box and stick or draw an image of the object in the window in the centre.

Please then complete scores for the object in each of the strips at the bottom.

The first is the number of years you have owned the object, then score out of 100 for how personally significant it is to you, followed by scores for how much emotional content the object has for you, how unique you feel the object is and how personally evocative the object is for you.

Fig. 104 *Top Trump* stimulus

Fig. 105 Instruction text accompanying stimulus

This stimulus has been used to focus on objects currently within the participant's life, which have particular meaning for him/her. The values given for each object help to give clues of how the elements of time owned, personal significance, emotional content, uniqueness and personal evocation contribute to the significance the object has for the participant.

Jewellery + Play

1. Please think back to the first pieces of jewellery you owned and describe one of them
2. How did you acquire this piece of jewellery?
3. What role did these first pieces of jewellery play for you?
4. Do you still own any of these pieces?
5. Have you ever involved jewellery in play and games? Can you recall an example?
6. Do you still relate jewellery to play?
7. Thinking about the jewellery you own now, please tell me about any of these pieces that have a play element for you.
8. Please ring/highlight any of the following words, which relate to your perception of play.

Amuse	Challenge	Carefree	Perform	Sport
Motion	Fragile	Rough	Pleasure	Tactile
Fantasy	Kinetic	Emotional	Essential	Gentle
Compete	Trivial	Robust	Humour	Escape
Construction	Fun	Dreams	Puzzle	Unimportant

Are there other words you would use instead to describe 'play'?

Fig. 106 *Jewellery and play*
stimulus

Fig. 107 Text accompanying stimulus

This stimulus was used to concentrate on personal notions of the possible relationship between jewellery and play: if jewellery has ever been associated with play, if that relationship has changed and what words the participant related to his/her perception of play.

My aim through the use of these ten stimuli was to learn fragments of a participant's personal history and things that were emotionally meaningful to them.

5.5.1 Reflections on *stimuli* design

I designed the stimuli as a range of different types of activity, some action based, such as the *pot of clay* and *body map*, which potentially required little reflection and may have acted as ice-breakers or respite from more searching stimuli, and others that required more reflection such as the *loss*, *jewellery+play* or *communication fairytale* stimuli. For some questions the opportunity to tell a story seemed to be more appropriate than a gestural response, but in other cases I thought an action such as making an indentation of a personally precious object gave a different type of information.

Many questions posed by the stimuli could have been characterised as intrusively intimate, so to combat this I left the questions open to be interpreted as general questions, for example the *dream* stimulus asks the individual to share a dream, which could be interpreted as a personal wish, or conversely a dream experienced whilst sleeping. In each

case the individual could respond on an abstract level rather than giving intimate information about themselves.

My use of short questionnaires and vignettes enabled me to ask a participant to give more textual information with their answers and to tell me stories from their experiences. These forms of stimuli gave me a way to ask questions directly. The *Communication Fairytale* was designed as a vignette in order to give a participant a non-real world scenario in which to imagine his/herself and then to answer questions from within this scenario. The *Jewellery + Play* and *Lost Object* stimuli took the form of short questionnaires. They were designed as a place for someone to give a reflective textual response, rather than in other stimuli where an action may have been required (i.e. *disposable camera* and *pot of clay*) and where any reflection on the part of the participant was implicit in the response rather than made explicit to me. In such stimuli the numbers of questions were few for two main reasons: firstly I didn't want a stimulus to appear a chore and secondly I was hoping for qualitative anecdotal responses for which a small number of questions gave sufficient space and scope.

The stimuli were not designed as a way to capture everything a participant may feel about a certain theme; this would be impossible. I acknowledged that I would only be able to catch a *glimpse* of someone's feelings through his/her responses and only feelings at the particular time of responding. These factors could be described as limitations of this method, but this method enabled me to gain a multifaceted 'glimpse' into someone else's feelings, histories and perspectives. Moreover such insights were rich and varied and took the form of two dimensional images, text, stories, three-dimensional forms and were peppered with a participants' idiosyncratic ways of using each stimuli to respond.

I appreciated that this method was a way of asking questions through *giving something* in this initial interaction, rather than a way of taking or extracting information as is often the dynamic of other question asking processes such as questionnaires and some forms of interviews. I hoped that the level of care, creativity and effort that I had put into the stimuli would show the participant that I valued their responses and the stories they had to tell. I also hoped that a participant would respond in kind and that our process of interacting would become a reciprocal one. Furthermore I felt that there was a dynamic where the questions were being *asked by an object*, in the sense that although I had designed the

objects and questions, the participant was interacting with the objects rather than a person. To reflect on the notion of questions being posed by objects further I considered several key advantages to this method: firstly that it might be easier for someone to share private feelings by relaying them to an object, as one might do in a diary for example, rather than face-to-face with a person, secondly that this method gave someone time to consider an answer, unlike many methods, and thirdly that well designed probe-like objects offered a gentle way of asking questions where someone is given many varied means to reflect and respond in creative ways, where someone can gravitate towards the stimuli that they feel comfortable with and where the objects could populate the space of a participant's life in the duration they had to respond (i.e. his/her home, bag, workplace...). Crucially the openness to the questions I posed also allowed for an individual to interpret a question with a nuance, emphasis or context that felt right for them.

The stimuli process was not rigid and reductive, but open and exploratory (Chapter 4 *Methodology I* section 4.2). My aim was to get to know a participant a little through asking them to share their thoughts and feelings about a set of inter-related, but varied themes rather than focusing in on questions tightly related to digital jewellery. There was also a relationship between the stimuli and my practice, which can be seen directly through stimuli such as the *pot of clay* which mimics casting methods and the *body map* which asked the participant to consider the body and jewellery, but also in more indirect terms through the focus on the value of objects, our sense of self and more widely in the use of small objects to stimulate discussion and question.

5.5.2 The process of response

I ran a pilot study of the stimuli pack with a colleague in order to understand if there were any aspects of the stimuli or the process that were unclear or inappropriate, following which each participant was given an identical pack of stimuli for approximately one month. The participants were assured that they were free to respond to as many or as few of the stimuli as they wanted to and were reassured that the process was not about right or

³ Timescales depended on each participant's schedule, but were close to a month in each case.

wrong answers. There was no set order in which to respond and full or part responses were all valid. In almost all cases a participant requested additional time to complete a stimulus, but each person completed the full pack.

I had assumed that some stimuli would be responded to generally better than others, but in fact although each participant did find some stimuli easier to respond to than others these were different for each person. For example some people gave sparse answers to the fairytale stimulus, where others gave lengthy factual answers and others still gave creative fairytale like answers. I was surprised with the level of candour; each person had shared very intimate and personal stories. There was a great deal of creativity in many responses and a feeling through the images and stories shared, that the participants had invited me to some degree into their homes, relationships and personal histories.

5.5.3 My approaches to designing from the stimuli responses

I began working with the responses in the order they were returned to me, which happened to be: Emma, Faith, Ana, Ben, Gene, Mark. The in-depth nature of the process of interpreting the responses and developing digital jewellery concepts, objects and films to articulate the digital aspects of the objects was very time consuming and as a consequence I focused on half of the returns aiming to take these to their final proposal stages before embarking on further responses. Due to time restrictions on reaching this final stage with the first three studies I made the decision not to embark on the final three studies during this particular research. I acknowledge that the first three packs that were returned to me were all from women. It was not a deliberate intention to focus on one gender; my decision to develop the first three packs of responses was purely a pragmatic decision to enable me to manage the timescale of the project.

It is significant to note that the responses were a participant's answers at that moment of time, they could not be seen as definitive, but an indication of how each person viewed the themes and a facet of a participant's life and feelings. My intention was not to analyse the participant, but learn aspects of their lives that were significant to them and gain inspirational information on which to build ideas. Methods of immersion were important

starting points for me. I wanted to get to know the responses. I began by reading and re-reading them and I kept them at home in my study so I saw them daily and lived with them. I frequently thought about them and wrote a series of questions that I asked myself in regard to each of the packs:

Questions for myself

What are my initial feelings in response to stimuli packs?

Why is this?

Is it that there is an image seeming very obvious - something to go with intuitively?

Is it that there is a description that is very distinctive for me?

What seems to be the puzzle?

What are my initial perceptions of an enriching path to follow specific to this person?

Initial ideas...

I also took the separate approach of ignoring my written thoughts or how I verbalised my responses and instead gathered together a collection of images that seemed to relate to the responses. In this way I allowed for my tacit response (see Appendix B). The images all reflected an aspect of a visual vocabulary that was forming in relation to the responses (see Appendix B sections 1.2 2.2 & 3.2). My creative practice has predominantly followed the form of writing, making and collecting images, making models and collecting objects or materials that seemed appropriate and then developing the final piece in iterations of these processes (see Appendix B).

I found myself focusing in on a different set of responses when I designed for each different person. The mixture of different forms of response worked well for me in the design process. The mix of textual and pictorial responses worked to give a multi-layered picture of someone. Also in many cases a participant told me about the same object or experience through several different stimuli (see Appendix B). This was very interesting as it built up the story from different angles and in many cases the participants' used the disposable cameras to take photographs of what they had been telling me about in other stimuli.

In order to begin generating ideas I began to group the responses into collections that seemed to connect and relate to one another and I was inspired by aspects of the responses

that unavoidably resonated with my own criteria for beauty (see Appendix B). I began with abstract ideas; shapes, words, materials and abstract interaction ideas triggered by words, images and scenarios. Rather than considering the responses and the participant in terms of *needs or problems to solve* my engagement was more empathic. I never thought in terms of *what do I think this person needs?* and the participant was not directing me, as would be the case in many commission situations, to what they wanted me to make for them. Instead I considered the set of responses more in terms of a puzzle: a collection of bizarre stories, descriptions of objects, hopes, dreams and memories. I use the term puzzle not as something to solve, but rather something to enter into, a different pair of shoes to step into. I sought to make digital jewellery proposals for each person that respected her shared fragments of personal emotional significance and that might offer an enchanting environment for her to experience.

The studies were for me a conversation facilitated and introduced by objects and this also played out in the highly iterative nature of the process, where I revisited the responses many times through the design and making process. This iterative creative process became a constant use of the responses through my developing ideas. I developed the ideas of digital jewellery as I had done non-electronic jewellery, considering the digital interaction aspects of the pieces as I had other non-electronic interaction dynamics of pieces I had made in the past. For me the idea and concept has always been paramount. This research is not the result of a seduction by digital technologies or the idea of involving them within jewellery objects. I have regarded the integration of them with jewellery objects in a critical manner, using them when relevant to the idea, as a quality of interaction that strengthened and extended the concept.

My goal through this research was not the physical realisation of the electronic and digital aspects of the objects, but to develop a different approach to the development of digital objects. I thereby hoped to understand more about the potential roles and possible personally significant meanings such objects could have through a dialogue with the individual participants involved in the research. In order to begin to understand how my proposed ideas related to realisable electronic developments, I approached electronics specialists at the University of York to discuss the digital ideas I had for the pieces and if or how they were technologically achievable (see Appendix B sections 1.5, 2.5 & 3.5).

In order to articulate the digitally interactive qualities of the pieces I made short films (approx 3 minutes long) to accompany each object that created a context for the jewellery and illustrated the proposed digital aspects of the pieces (and accompanying DVD). I began the process of film making by listing objectives and points that I wanted the films to articulate and by drawing out storyboards (see Appendix B sections 1.4, 2.4 & 3.4). The films played important roles enabling a visualisation of the interaction potential for both myself and the viewer and a way for me to articulate my idea along with the participant's own quotes. The following sections describe the pieces made for each of the participants.

5.6 Piece made for Faith⁴

Sometimes our dreams and memories can visit us...

Figs 114-116

Jayne Wallace *Sometimes our dreams and memories can visit us* copper, enamel, synthetic silk

Figs. 108 —116 Details from accompanying film

Figs. 108 —110 show details of the neckpiece, Figs. 111 —116 show the neckpiece when worn and rare digital *visits* of film sequences playing on displays around a city as the wearer passes them

(See accompanying DVD for full version of film and Appendix B section 1 further detail of the development of this piece and the film that accompanies it)

The final piece centred on the notion of old, worn, well loved objects, something that echoed objects and associated stories shared with me by Faith, the fantasy elements of Faith's dream, her daughter's hair and the idea arising from Faith's descriptions of the role

⁴ Appendix B section 1 accompanies the development of this piece

played for her by the jumble sale; a source of bizarre and intriguing objects that *found her* (in addition see Appendix B section 1). The objects that Faith shared with me were predominantly all old, worn, organic and tatty in some cases and I wanted to be sensitive to this. I made an object that could fit with those she cherishes.

I made the piece as a dreamy space for reality and fantasy to overlap; to contribute to the potential of our interactions with jewellery objects and our wider environments encountered when wearing digital jewellery or ubiquitous computing. The piece used the traditional perceptions and conformities of the notion of a necklace as a backdrop for a jewellery object, which was in concept recognisable, not overtly challenging physically or sensually and which referred in part to traditional methods and materials of production. In contrast the digital potential of the jewellery was to trigger a small number of silent filmic sequences, of personal significance to Faith, on digital displays in the near radius to the necklace. The digital potential was future focused, where these sequences could occur in a personal or public environment on digital screens in the street, home or mobile device.

The digital occurrences facilitated by the piece were not intended to be frequent; they would only happen rarely and in randomised succession. The interaction idea arose from the notion of a jumble sale as a source of intriguing and bizarre objects that found Faith, this was an important dynamic, a way for things to *find her*. The jumble sale had acted as a source of surprising objects and in a similar way I made a piece that would enable objects and notions symbolic of her past memories, experiences and dreams to find Faith again; to pay her fleeting visits digitally. The jewellery was conceived to act in this way as a portable and wearable home for old lost objects and aspects of dreams that could travel with Faith and occasionally appear as filmic references to the original.

When these events would occur the result may be an environment where, for a few seconds, the locality is literally acknowledging something personally meaningful for Faith. The quietness of both the jewellery piece and these interactions would not interfere with the hustle and bustle of a location, only the imagery would draw attention to the event, indeed the *digital visit* may be missed entirely or glimpsed as it fades. The importance would not be an issue of control, but the surprise of objects visiting from time to time.

The imagery would have particular meanings for Faith, there is a connection to aspects of her personal history and as such a connection to her sense of self, but the imagery would not be identifiable to others as belonging to her. The films of a white horse in marshland and a pastry cutter making indentations in pastry are sufficiently ambiguous to leave the piece open for interactions, interpretations and meanings from other people who may see them. Faith could experience the *visits* without others knowing they were triggered by her neckpiece or that they connected to her personal history and similarly aspects of the *visits* and meanings could be kept private or shared by Faith.

When occurring in a public environment I imagined that these small moments or visits could operate in the same way as a talisman: something that travels with you and has personal symbolism. I imagined for example, the digital *visits* potentially changing a strange new city into somewhere that felt familiar if the *visits* occurred there.

The neckpiece had an ambiguity of function, with no buttons or no obvious ways of controlling the digital aspects of the piece and in extension to this the necklace remained visually dormant, using other digital devices and displays as vessels for the visual interactions. The digital *visits* would be examples of a disruption to the stability of what we expect to see on the digital displays we are used to interacting with. In encountering the digital *visits* our well-trodden paths or daily journeys may reveal a pleasantly unexpected gift, the experience may leave us feeling disoriented initially, but may also offer new, personal and unique ways of interacting with our environments.

I have given examples of my ideas of how the piece would operate and the relevance or significance it may have for the wearer or viewer, however these ideas were not passed on to the participant and in chapter 6 (*Participant responses...*) I give an account of Faith's response.

5.7 Piece made for Emma5

Traces

Figs. 124-126

Jayne Wallace *Traces* Porcelain and velvet
Figs. 117 - 126 Still images from accompanying film

Figs. 117 —119 Show a piece of velvet cut and etched in the shape of an open jewellery case, one of a group of porcelain clasps and a porcelain pearl

Figs. 120 & 121 show the pearl and a clasp being placed on the velvet. This act enables a sound recording to be made; placing the pearl on the velvet turns the piece *on* and placing a clasp down activates a recording

Figs. 122 & 123 show speech being recorded

Figs. 124 show the clasp being lifted off the velvet. This act ends a recording

Figs. 125 & 126 show the same clasp being placed back down on the velvet. This action causes the recorded sounds or voices associated with that particular clasp to be played

Each clasp can only be used in a recording once and not re-recorded or amended

(See accompanying DVD for full version of film and Appendix B section 2 for further detail of the

A key influence on my design of *Traces* was the fact that although Emma is a jeweller she stated that she does not wear jewellery. I did not want to force the piece to be wearable or for the study to be a challenge for me to make something that she would wear, these issues were not my interest. I did put small holes into the porcelain objects that could easily be used to adapt the objects into wearable forms, but then left this kind of appropriation open for Emma's interpretation. I felt it was more sensitive to make something that she would feel comfortable with and as I have discussed in chapter 2 (*Contextual review* section 2.1.2.5) wearability is a flexible issue in contemporary jewellery. My work has never been constrained by conventional notions of jewellery as a mundanely *worn* object. Instead the piece became *about jewellery* and how it operates as heirlooms, something to pass on from generation to generation. These perspectives of jewellery stemmed from Emma's conversations with me about what she values in her own perspective of jewellery.

The piece was made to describe components of a jewellery case in the form of a porcelain pearl, a series of porcelain clasps and a piece of velvet fabric. Each object was a physical *description* of the objects they represented. The velvet for example was laser cut and scorched to describe the inside of a traditional necklace case, showing the contours, folds and hinges as etched lines in the velvet.

The materials I used were of key importance. From Emma's comments about her daughter in the fairytale stimulus the touch of skin was something I wanted to respond to. Polished porcelain and velvet seemed to echo the tactility of flesh in different ways; velvet is soft and warms and the porcelain is firm, smooth and cool to the touch. There were also many references to fabric objects in Emma's responses and the use of fabric in the piece seemed to reflect the home-centred, comfort context of many of the stimuli responses.

Emma seemed to be someone who was keen to impart her knowledge, she was very vocal; the significance of words and voices were mentioned in her responses several times and as such I made the piece to reflect these aspects. I wanted the piece to be something largely empty for Emma to fill, something driven by her input, based around capturing voices. The idea of using fabric in part of the piece fed into my ideas of objects that were digitally

absorbent, able to capture elements of their surroundings or to somehow absorb pieces of passing events. Each porcelain piece was made individually by methods of impressing the porcelain into moulds or imprinting shapes into it. These methods each echoed the idea of the piece centring on impressions or traces of absorbed experience. Each clasp differed subtly from the rest, yet collectively they appeared to be anonymous; a quality that extended to the identification of each piece once recorded.

Emma also responded strongly through sharing with me aspects of her relationship with her young daughter. I chose to make a piece that fitted with Emma's own perspectives of jewellery as valuable within human emotional relationships, something that centred on capturing voices and sharing stories or knowledge and something for her and her daughter to share.

Traditional connotations of antique and conventional jewellery were used as a setting for a piece that acted to capture fragments of sound or specifically speech, echoing how heirloom objects capture aspects of their owners through the marks or wear and tear embedded within the object. The separate components of the piece acted together to make a recording possible.

Placing the pearl on the velvet turned the pieces *on*, then by placing a fresh clasp on the velvet the piece began to *record*. As speech or other sound is recorded it was registered by or associated to that particular clasp. When the clasp was removed from the velvet the *recording* was completed. If or when the same clasp was replaced on the velvet at any future point the piece would always *play* the recording associated with it. The *placement* of the pieces on the velvet as the activator of the recording or playing of the sounds was an important, gentle way of interacting similar to exploring heirlooms in a jewellery box.

Unlike most recording devices each clasp could only be used in a recording once and could not be re-recorded or amended. The concept was about capturing speech or sound rather than recording pre-planned perfect messages. The objects acted as blanks onto which to catch something fleeting.

I felt the piece could potentially be a way to capture the beauty in everyday experiences, traces of existence and to reflect Emma's wish to always "be there, in person if possible" for her daughter. The objects are ways of passing on thoughts and moments of experience. The idea is based on the notion of heirloom jewellery, as something that is passed on and that embeds aspects of someone's life, through markings and wear, but that is now digitally extended into something where audio can be passed on and shared (in addition see Appendix B section 2).

5.8 Piece made for Ana6

Blossom

Jayne Wallace *Blossom* Wood, glass, silver, vintage postage stamps, printed images

Figs. 127- 138 Still images from accompanying film

Figs. 127-129 show details of the hand-piece when worn and with closed *petals*

Fig. 130 represents the participant's family land in Cyprus

Figs. 131 & 132 signify rain falling on a rain sensor planted on Cypriot family land that triggers a signal to be sent to the jewellery piece back in the UK

Figs. 133 – 138 show the piece blossoming open in response to the received signal

(See accompanying DVD for full version of film and Appendix B section 3 for further detail of the development of this piece and the film that accompanies it)

Blossom was a handheld piece, made from wood, glass, silver and vintage postage stamps. The form and digital potential of the piece refer to Ana's love of nature, precious relationships with her Grandmothers, and connections to family and family land in Cyprus.

The piece was an unconventional form of jewellery in terms of mainstream *traditional* associations and limitations of jewellery objects, but one, which sits within contemporary and conceptual jewellery traditions. The piece was made to sit comfortably within the cupped hand, to be held. It is made to act essentially as a connection to human relationships and to place, a feature resembling the status of much jewellery traditional or otherwise; a feature that the digital aspect of the piece may strengthen and extend.

The jewellery object, residing with Ana in London, would be connected to a rain sensor, planted on Ana's family land in Cyprus. At the heart of the jewellery piece is a structure holding vintage Cypriot postage stamps. The stamps date from the years when Ana's Grandmothers lived in Cyprus and have been sent on letters from Cyprus to the UK. Printed on the reverse of the stamps is the photograph Ana took of her icon. The authenticity of the stamps was of great importance as a physical connection to both geographies; objects that had actually travelled the digital journey proposed by the piece and as fragments of a form of communication used in the past. The old Cypriot postage stamps were closed like the petals of a flower inside the glass dome, attached to a mechanism, waiting to receive a signal sent initially from the rain sensor. Once the rain sensor had registered a predetermined quantity of rain in Cyprus, which may take months or even years a signal would be sent to the jewellery object and the mechanism would be activated; slowly opening the postage stamp petals like a flower blossoming. The piece sustains the flower metaphor further by blossoming *only once*. The role of nature in the digital interaction was highly significant to reflect Ana's appreciation and value of nature and I hoped would give a feeling of an organic force within the piece rather than just man made and digital elements. Ana had described her attachments to her Grandmothers as nourishing and I wanted to extend this idea into the piece; the jewellery is nourished by

rainwater and blossoms in another geographic location because of rainfall on family land. It was also suggested to me that the piece could be powered by solar batteries, so the jewellery would be influenced by both rain and sun.

The glass dome was important ergonomically to protect the delicate paper forms and mechanisms inside, but was also used as a connection to ideas of a ship in a bottle and a message in a bottle. The construction of an object inside a glass dome reminded me of the idea of a ship in a bottle and the sort of communication of a message in a bottle seemed very similar to the kind of communication afforded by this jewellery piece; a message that may take years to arrive from one place to another, carried by water.

The object acts as a memory trigger through its form and materials to past relationships Ana has experienced and as a connection to a specific place as the events of nature in one geographical location influence the internal physical form of the jewellery object in another. Again the form and digital potential of the piece are sufficiently ambiguous to allow a personal interpretation and interaction for other people who see it.

The jewellery piece similar to *Sometimes...* involved a passive interaction and an ambiguity of function. The piece was about time, and emotional preciousness. It offers a way of viewing objects with digital capabilities in an atypical way, one that echoes and values the fleeting quality of many of our experiences and the lasting quality of many of our feelings for other people. It used digital technologies as a way to harness the ephemeral characteristics of a flower blossoming, rather than for the more common uses of digital technologies of repeatability and immediacy. The piece *occurs* only once and only after a considerable build up of rainfall over time. The digital connection to another place acts to contribute to a metaphor of feelings of closeness to another person and to another locality (in addition see Appendix B section 3).

5.9 Reflections on exploratory studies

I aimed to demonstrate that it is possible to utilise contemporary jewellery practice to develop the idea that digital objects could be conceived as personally meaningful objects; things that fit into people's relationships with one another and echo aspects of someone's personal biography. To achieve this my approach has been to learn elements of what is dear and emotionally significant to someone and to build an idea of digital jewellery that is sensitive to these shared fragments. This involved a new perspective through which the aim was to create firstly an environment of familiarity through the object; something that reflected a participant's shared criteria for meaning and beauty, and secondly a digital object that had no defined function. Any *function* was unprescribed and ambiguous. The aim was not to translate existing modes of digital object, into digital jewellery, but to create objects which enabled interactions that would be significant to the participant, and of interest to a wider audience, in a far less prescribed way than the common conventions of current digital objects allow (see Chapter 3 *The gadget* sections 3.1 & 3.3).

I have identified several qualities of contemporary jewellery practice and craft practice in general that facilitate such an approach (see Chapter 4 section 4.4 *Beauty, enchantment and empathy*). These exploratory studies have been a process of empathising with an individual, being sensitive to their criteria for beauty and an awareness of the potential for enchantment through the final pieces. The studies have not been an exercise in emulating someone's aesthetic taste; I know from consideration of my own belongings that in some cases I find them beautiful despite the aesthetics. Instead I love them because of the symbolism and meanings they represent for me personally. Rather, I have tried to gain a feel for someone through the shared stories and objects and to make something inspired by this information.

My choice to involve both jewellers and designers of mobile digital devices as participants was in the aim of escaping layperson conceptions of both jewellery (possible by working with contemporary jewellers) and digital devices (possible by working with designers of such objects and technologies). By surmounting the hurdles that a narrow conception of either jewellery or digital devices can bring I hoped to be able to have a quality of conversations with these *experts* that would be rich, building on their knowledge of the

developments of both kinds of objects (jewellery and digital devices). I acknowledge however that by engaging with *experts* they would already have opinions of the developments occurring in their fields and possibly also have agendas regarding this also.

It is important to discuss my influence on the participants at this stage and the responses they gave. I tried to give the same information to each participant and I purposefully sought to say as little as I could concerning what I was aiming to learn from each of them in an attempt to have as little influence as possible. At times throughout the stimuli process, and the process that followed where I gave the pieces to the participants, I did feel this to be an unnatural distance to have when engaging with someone, but it did enable me to gain their responses without my influence.

My idea to use film arose from the need to communicate the digital aspect of the pieces to the participant and wider audience. However, film soon became much more than this for me. It became my way of telling a story, fusing together elements of the cultural, technological and physical dynamics of the piece as well as creative ideas and fantasy. In illustrating the digital potential of the proposals I sought to present these dynamics clearly, whilst leaving the interpretation and personal appropriation open to the viewer. I was completely open to a participant wearing the objects in their own way and similarly finding a personal appropriation or interpretation of the pieces.

The objects and film in all three cases acted together as the whole pieces. The presence of the films meant that to a great degree the pieces did not need to work, the story and interaction potential were offered through film rather than in a practically realised sense. Film enabled me to illustrate my creative ideas of the interaction potential to a piece. Also in some cases the films facilitated a visualisation of the digital elements that would not have been easily achievable in reality or real time; for example the visualisation of rain falling in Cyprus while the jewellery piece blossomed open in the UK, or showing the blossoming of the piece to a wider audience if it only blossomed once. Similarly in other cases experiencing the interaction would take an indeterminate length of time, for example in *Sometimes...* where the digital interactions only occur rarely or the time it would have taken for the rain sensor to detect a certain amount of rainfall for *Blossom*.

The films were vehicles to tell these open-ended stories to the participants and also to a wider audience. Dunne (1999) detailed his opinions concerning the use of non-digitally realised objects acting as proposals for digital objects stating that

“They challenge the impossibility of the possible...Through use, or at least by modelling a scenario of use in the mind, the observer discovers new ways of conceptualising reality.” (Dunne, 1999: 56)

Dunne argued that when objects are imagined to have digital interaction potential rather than actually having these abilities the viewer has to imagine for his or herself the consequence, role and value of the proposed ideas and in doing this they extend the initial proposal through their own imagination, rather than viewing the objects as final ideas.

As Boorstin (1990) and McCarthy and Wright (2004) maintain, part of the conventions of watching films is to identify with characters or to imagine oneself in the different stories and scenarios playing out. I aimed to exploit this notion of perspective taking in the films I made to accompany the jewellery objects. The films also offered a richer context for the pieces and for an audience to view than would be possible in a conventional gallery setting. Dunne (1999) also argued that digital prototypes presented in a gallery rarely challenge viewer’s perceptions and assumptions about the role of objects in their lives. He cited a gallery based working-prototype exhibition of his own work *Monitor as Material*, 1996 as such a case. The audience firstly failed to reflect on the “fictive, social and aesthetic” (Dunne 1999: 69) aspects of the piece of work, which link it to everyday life, and viewed it instead as a dislocated gallery installation and spectacle. The second point to note here was that the dynamic of the gallery engendered a situation that invited an audience to “marvel at the ingenuity of the designer” (Dunne 1999: 69) and the electronic functioning of the object, rather than to consider possible the role of the pieces to a viewer personally. Film offered a different way to present jewellery in a more dynamic and contextualised manner than static image or gallery settings allow.

This chapter has detailed the practical component of this research involving individual participants. The rationale behind these individual exploratory studies centred on the use of contemporary jewellery practice as a direct social activity and means of developing proposals for digital jewellery. Engagement with individual participants was an intimate

dialogue between me and a participant that allowed for the consideration of digital jewellery as intimate, personally emotionally significant objects. In this context the studies have enabled me to open up my practice to engage directly with themes and experiences within personal biographies that were emotionally meaningful for someone. The resulting proposals of digital jewellery were not utopian propositions, but open-ended proposals that invited critical feedback, reflection and re-interpretation. My approach enabled direct feedback from the individuals to the proposals made, offering a level of inter-subjective response to the ideas I had developed, which in turn informed my own developing perspectives of the potential and value of digital jewellery. This aspect of the project is explored in the following chapter, which details the responses from Faith, Emma and Ana to the digital jewellery proposals.

6 The participants' responses to the digital jewellery proposals

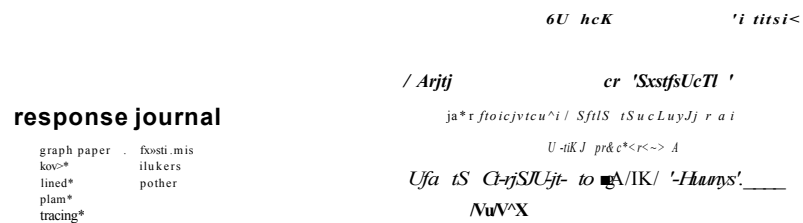
This chapter describes the process and detail of the participants' responses to the pieces followed by my analysis of and reflection on the responses. The chapter begins by detailing the various aspects and levels of the response process and describes the rationale for my approach. The chapter continues by focusing on my reflections on the diary, interview and discussion sessions of this process, covering the dynamics of such engagements and the methodological issues this gives rise to. A short synopsis of each participant's response is then given followed by focused description of two key themes emerging from the responses, namely *personal emotional significance* and *tensions around the idea of digital jewellery*. The chapter concludes with my reflections on the particularities of these responses as a prelude to a deeper reflection in chapter 7.

6.1 The response process

The relevant jewellery and films were given to each participant in order to gain a response from them of their perceptions of the pieces in terms of both object and concept. The feedback from each participant was a way of understanding if and how aspects of the proposals were regarded as valid by them. Each of the pieces operated in this way in the manner of a hypothesis that was *tested* on the participant. I use the term *hypothesis* metaphorically here; the pieces acted as propositions in the manner of a hypothesis, the existence of which begged testing in interaction with the particular people the pieces were

Each participant received the jewellery objects, a short (3.5 minutes approx) DVD film presenting the digital potential of the piece (Chapter 5 sections 5.6, 5.7 & 5.8, Appendix B and accompanying DVD), and a response pack comprising of a journal, a disposable camera and a camera film, which were given as suggested but not as obligatory methods for feedback.

Figs. 139 & 140 illustrate example pages from the journal, which contained sheets of lined, plain, tracing and graph paper, several pages with icons of thought bubbles, speech bubbles and picture frames printed on them, several postcards and stickers and also a paper pocket.



Figs 139 & 140 Front page of journal and an example journal page

Appendix C accompanies this chapter.

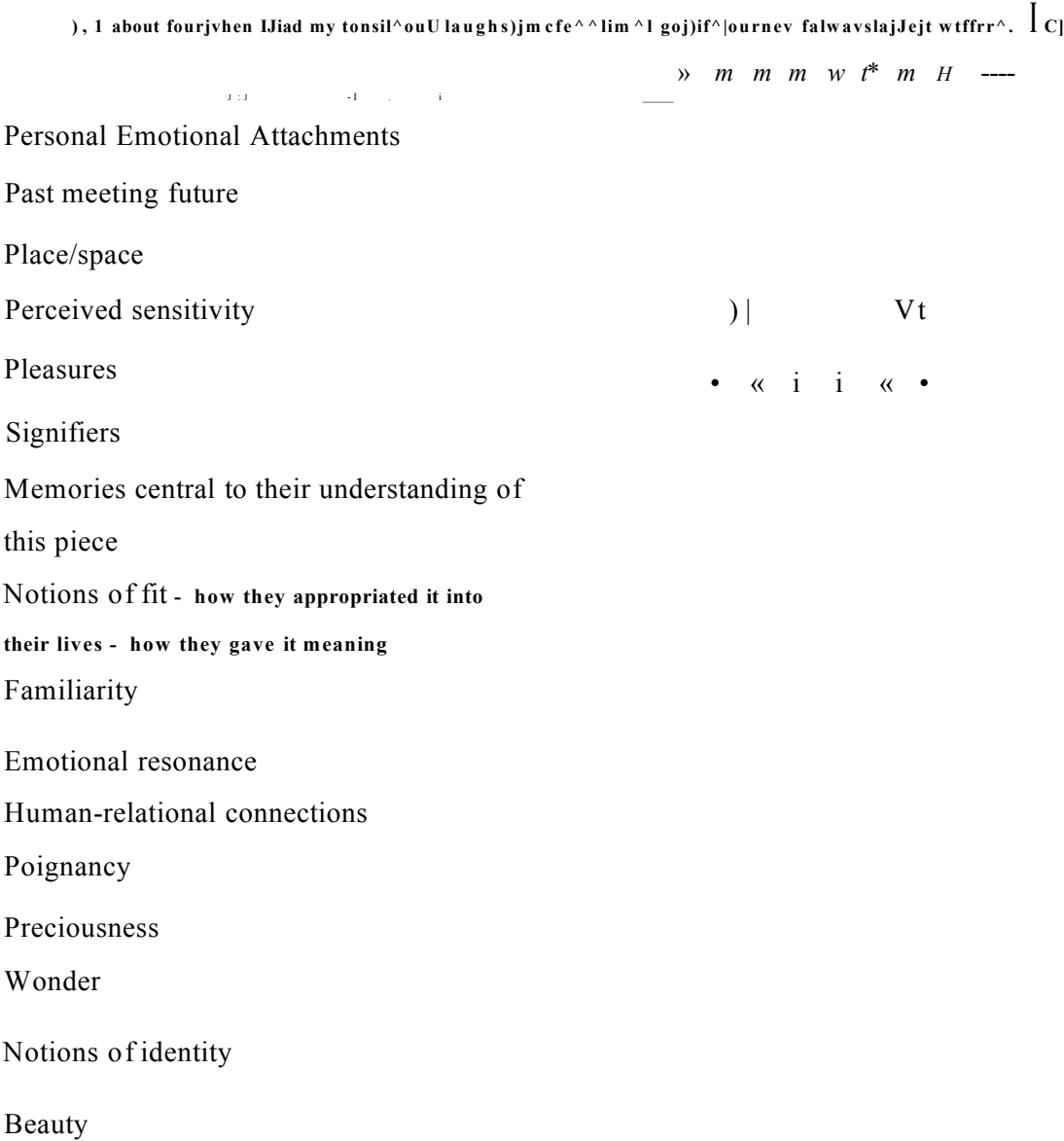
The journal, camera film and disposable camera were given as possible means for each participant to record a response to the digital jewellery proposals. The participants were each asked to respond in terms of their thoughts and feelings relating to the artefact and the ideas of digital potential presented (see Appendix C 1.1 for accompanying text sent). The participants then *lived* with the pieces, films and response packs for a period of approximately one month during which time they were free to interact with and respond to them in whichever ways they felt appropriate.

I completed the response process with an interview and discussion session with each participant (see Appendix C sections 4 for transcripts) where I used McCracken (1988) as a guide in the interview section of the response process. These sessions each followed the same format, but used the participants' individual responses in the journals and photographs as prompts in a semi-structured interview. Following this I felt it was appropriate to reveal to each participant my process of making, my interpretations of what they had initially shared with me, and my design decisions. Each person had communicated to me personal life stories and experiences within the initial probe process in the knowledge that I would interpret these to make a piece of jewellery with a digital potential specifically for them. Consequently, to reveal my focuses and the creative reasoning or rationale that led to the objects and digital concepts felt like a continuation of the dialogue between me and the participant and a natural thing to do. I did not do this before finding out the participants' initial responses to and feelings and thoughts about the pieces however, as I wanted these to be uninfluenced by my own descriptions. This second phase of the session is what I am referring to as the discussion section as it naturally led on to a more open discussion between the participants and me with a conversational quality.

A large body of qualitative data was collected from each participant during the response pack and interview/discussion phases, all of which was transcribed, coded and analysed. I had an initial coding scheme, based on my research questions that I took to the data, which evolved in interaction with the data (Appendix C section 3). The initial coding scheme related to the participants' feelings towards jewellery, digital devices and technologies and also digital jewellery. Within these categories I looked at how the participants responded in terms of expectations and assumptions, any changes in their relationships with the pieces

over time, perceptions of personal emotional significance, ideas concerning gadgets and the dynamics of how the participants interacted with the pieces.

Each code was allocated a colour pattern and the transcripts of response journals, additional texts and interviews were coded by hand (Appendix C section 3). Fig. 141 is an example of coded data and a break down of the codes given to it.



Beauty in prosaic (sense of joy)

Ownership

* * *

Fig. 141 Detail of coded data and codes given to it

In addition to the colour codes I also made notes on the data of ideas that occurred to me as I conducted the coding. The codes acted as sieves where I felt as though I was pouring all of the data through them and leaving the relevant data behind. This was a hugely time consuming process, but it did allow me to immerse myself in the data, living with it, reading, re-reading and cross-referencing responses. As the process developed new themes arose from the data, which became new codes to consider across the participants' responses.

Although the process was laborious it did have a creative quality. Each system of coding felt like reading the participants' responses as a story, but each time from a different perspective creating a slightly different story. It felt in part like finding keys to a puzzle from the responses. As the coding progressed I developed hunches; ideas and themes that emerged from what each person had said, which I was able to compare against the data to develop awareness to similarities between participant responses and shared perspectives. I used the data to test the hunches and I developed a particular analytical frame out of the context of the research.

The responses were complex and multi-layered. I acknowledge that even within my own set of codes there were more possible points and perspectives than I had the scope to articulate in this research. I focused on themes and issues close to my research questions. I have sought to give the essence of the participants' perspectives to the themes and to present a concentrated and balanced representation.

6.2 Observations concerning the interview/discussion sessions

There are a few points I would like to make concerning the dynamics of the response process. In order to gain the participants' responses to the objects and proposed digital qualities without, wherever possible, lead or influence from me concerning how to respond or feel about the piece I sent the objects and films without any explicit explanation of the rationale, which had led to the piece's production. [I acknowledge that there were emotive qualities to the pieces and films, which in their own right will have influenced the participants, but this is different to what I am describing here. These qualities are intrinsic to the pieces; they are part of the piece and implicit. As such they could still be interpreted in different ways. What I was seeking to avoid was any additional information concerning my design rationale that may have influenced the participants explicitly].

The nature of this dynamic of how the participants acquired the pieces accompanied by the fact that the participants knew that the pieces were my response to fragments of their lives that they had shared with me lead to a perception of the piece, in part, as a puzzle to be solved. There was a sense that there was a mystery to uncover.

Another point to make is that whenever I have presented the pieces I have given a commentary describing the background of the project as well as of the detail of each piece: what I was inspired by from the participant responses, what I hoped to achieve through the piece and nuanced dynamics of the possible functionalities of the pieces. Such commentary was absent when the participants received the pieces again to avoid lead or influence over the responses and feelings of the participants.

Each participant was initially somewhat guarded in the interview section of the session, possibly as a consequence of the dynamics of the response process, where they had not been let in on my design rationale and creative decision-making. One possible speculation is that in considering the piece as a mystery or puzzle they were perhaps trying to solve it or 'get it right'. Or perhaps the participants were contemplating other issues of the process for example what I had thought of them in order to make the pieces.

It is important to mention these points as each participant changed in how they responded once I had revealed my making process and ideas behind the pieces. In the discussion session they seemed to become more open and relaxed and they engaged with the ideas in a more playful manner. They were much more open to experimenting with their own thoughts and imagining scenarios connected to the pieces. Revealing the process seemed to assure each person that there was no 'correct' way of interpreting or responding to the piece or idea.

By giving the pieces and films to the participants without any additional commentary in some cases there arose misinterpretations, which could have been avoided. Ana for instance thought the piece also had a rain-sensor inside it and Faith didn't see the piece as a proposal for digital jewellery [although this was not solely due to the piece and film, she had also received the same documentation as the other participants detailing the project as an exploration into the integration of contemporary jewellery and digital technologies].

There is a difficult balance to strike between how much information to give, as this will undoubtedly influence the participant. I decided it was better to bare some potential misinterpretations as these could be worked through in the discussion session and by having the discussion session in effect I would enable both environments; one where I had had little influence and another where I had revealed my ideas and making process to describe the pieces in more nuanced ways.

Further discussion of the merits and limitations of this research can be found in the discussion/conclusion (Chapter 7).

6.3 Synopses of individual responses

All three participants received the packages at their work places and each of them chose to open them alone at home. This section presents a synopsis of each response drawing on journal, photograph and interview/discussion data.

6.3.1 Synopsis of Faith's response

Faith had showed the piece to her partner and children briefly, but otherwise kept it as a private object, her response related to the sensuality of the experience and physicality of the object, which took a considerable shift in direction during the period of response.

Initially she was shocked by the object and 'recoiled' from what she presumed to be real human hair. When she realised the material to be synthetic her interaction with the object became a very tactile and haptic one. She described spending time holding and playing with the form in her hands and described in detail nuances of the tactile and aesthetic qualities of the object. The piece became for her something that resonated with objects she already owned and as a 'bizarre' object likened to both an art object that struck a chord with her and a pebble on a beach that a person chooses because it resonated with them, although they don't know why. In each case she described her interaction with the object as a private one.

She had not realised that the piece was a digital jewellery proposition, although all participants had received the same information about the project, consequently her response initially was purely in terms of reacting to a piece of jewellery. She stated that the object didn't look digital and this was a reason for her not regarding it as such. She related to the process as an art project and saw the film as an extension of this, describing the film as the narrative of the idea connected to the jewellery. Once I had stated the digital proposition of

the piece Faith's response still focused predominantly on the physicality of the object, extending into an enthusiastic engagement with the revealed ideas, decisions, test pieces and models from the making process. This engagement and discussion of craft practice held connections for her with her own making experiences and those of her Mother. She stated she would like to show the piece to her Mother. During the course of the discussion around the making process Faith began to open up to the piece as a proposal for digital jewellery. She had pre-formulated opinions, arising from the context of her professional practice involving the development of mobile digital devices, and stated that she didn't like the idea of objects 'appropriating screens'. She stated several times how she had thought of the piece as an intriguing object in its own right, rather than something that 'does something' and she described how she wouldn't want to interact with the jewellery digitally on her own. Nevertheless she articulated several scenarios where she would interact with the digital aspects of the jewellery with a group of close friends and family members, particularly children. By the final stages of the discussion she stated how she didn't want digital objects to necessarily follow a particular assumed aesthetic and that it was interesting to her to think of an object that looks old, but that has a digital potential to do 'clever stuff. She thought that strange bizarre objects like the necklace were interesting as digital objects and she described an imaginary scenario of the necklace belonging to an alien civilisation more advanced than our own. The necklace was left on the earth when a space ship crashed and was found by a Mongolian herdsman, who strapped it to his saddle unaware of its digital potential. She described the piece as strange and not quite fitting with assumptions we have of digital objects, but this was something she stated was good about it.

6.3.2 Synopsis of Emma's response

Emma felt the piece to be about her and her three year old daughter. She stated that she was emotionally moved by the film and surprised by the pieces. She decided to involve her daughter in the response to the piece. She asked her daughter how they should respond and

when *(daughter) wanted to play a game with the piece Emma recorded in writing and photographs what was happening and being said as they played. Emma also attached a piece of string to one clasp, pinned this to her clothing and wore the piece for one day after which she hung it from a wall at home. Her responses did not focus on this second appropriation however and instead her responses and considerations centred chiefly on the 'game' played with her daughter or her personal feelings about the objects and digital proposal.

Emma's additional responses focused on the *idea* of digital jewellery, which she had presumed to be dominated by the context of existing digital devices where such devices would be made to be wearable, rather than a more contemporary jewellery based context of object with emotional resonance. She had expected a single small metal object similar to a memory stick and for this to be wearable. She stated in the interview that the objects had greatly surprised her and that she felt her assumptions and expectations to be narrow minded on reflection.

Although she appreciated physical qualities of the jewellery objects, her initial views of a union between jewellery and digital technologies were negative, her responses centred on her ideas and ideals of jewellery and how non-electronic jewellery often already operated as a form of communication device.

In addition Emma felt the objects were very her, that she could see herself using them as something other than jewellery and that she could imagine herself buying them. She stated several times that there was something about them that connected to her, although she couldn't pin point this specifically. She stated she felt the objects resonated with her. Playing the 'game' with her daughter was in part a form of mimicking the proposed digital interaction of the pieces as shown on the film; to attribute something individual and specific to each clasp. In the film this related to recorded sound. In the 'game' this related to speech recorded in writing in the journal and as a coloured squiggle drawn on the surface of a clasp. Emma stated that until playing this 'game' the digital potential of the piece had held little meaning for her, but that by playing the 'game' with her daughter she had begun to change her perceptions of the potential role of jewellery with digital qualities. She began to describe the pieces as something she could use to capture everyday speech and noises and

she imagined the piece as a family object; something that could be used to record different family member's voices, like a family album. She described the objects as something that lived in her home now and described the process of interacting with the objects as ritualistic in part, suggesting something considered and connected to family tradition.

She articulated tensions she felt around the notion of bringing jewellery objects and digital objects together, such as jewellery objects relating to permanence and digital objects relating to transience, but also stated that she understood the approach I was taking to this. She stated that it was necessary to consider the relevance and potential role of developing digital jewellery rather than being lead by the technological opportunities.

At the end of the discussion she stated that she didn't want to give the objects back to me as she felt them to be hers now and that they had a role in her life and meaning for her.

6.3.3 Synopsis of Ana's response

Ana had expected a piece based on spy gadgetry; something like a secret camera. She stated that the piece was poignant and more 'deeply sensitive' than she had expected it to be. Ana accepted the idea of digital jewellery; she acknowledged that jewellery, as a type of object can be very open, describing it as something similar to sculpture. Her focus was on the metaphor that the piece represented for her based on the ephemeral quality of life, family closeness, emotional roots to both place and family and emotional preciousness.

Her response concentrated on her own personal biography and on extending the idea of the piece and brainstorming new, but related ideas. The piece acted as a stimulus for new ideas of ways the piece could be used to bring family members together. Ana described enjoying the process as a form of stimulation of her creativity in a different way to her professional commercial design responsibilities and as a thought provoking experience.

She stated that she appreciated the materials I had used and that the blossoming of the piece was very similar to an actual flower blossoming. She stated that she could see direct connections in the piece to her own life and aspects of this that she had shared with me. The fact that the piece only blossomed once was initially upsetting to her, but then she described that she felt this quality to be necessary to the metaphor of life as a fleeting experience and necessary to the poignancy of the piece.

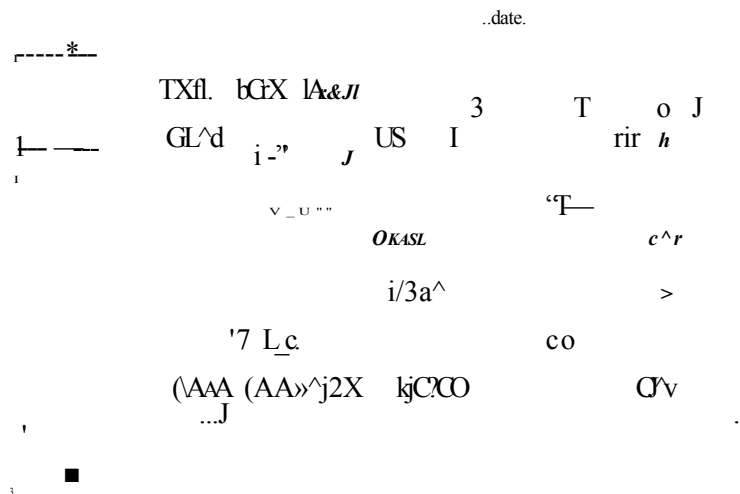
She described the metaphor of the piece to be something that had touched on something personally deep for her related to a personal longing for permanence and family rooting. She described her love of nature, relationships with her grandmothers and aspects of the piece as 'nourishing'. She described a purpose of the piece to be to remind her to appreciate aspects of life, what she referred to as the "small things".

6.4 Personal emotional significance

One of my primary aims was to explore if and how each digital jewellery proposal was perceived to be poignant or to have elements of personal meaning in an emotional sense for each participant. This theme will now be presented through three dominant ways that the participants demonstrated their feelings towards the digital jewellery proposals in relation to personal emotional significance.

6.4.1 Personal responses - relationships and criteria of beauty

In Faith's responses (figs. 142 & 143) to the arrival of the jewellery her feelings of excitement and anticipation were heightened because the piece was inside a wooden box, something that had personal resonance for her and that she felt to be beautiful and exciting.



Figs. 142 & 143 Faith's responses

In this case her perception of beauty was connected to her Mother's "love of wooden objects", which Faith considered to have been "passed on" to her. She detailed how the qualities of "simple forms, boxes, containers that hold promise" were beautiful to her. Her comments imply that there was an aspect of aesthetic judgement, taste and material appreciation within her criteria of something being beautiful, but also that the human-relational connection she had with these objects, as categories of objects that her Mother *loved*, engendered a feeling of attachment to and significance of the object for her. Faith made two additional similar observations within the interview about her attachment to objects because of such human-relational connections:

"...the peacock feathers... I don't know whether I like them because I like them or I like them because my Mum used to like them... it's like always liking the chocolates that have the nuts in because that's the one she always used to take..." (Faith interview transcript lines 644 & 648)

Faith's comments suggest that she shared a process of developing criteria of beauty stemming from human-relational attachments to objects. She stated that she was not sure whether she *actually* liked peacock feathers or whether she had absorbed, to a small extent, her Mother's criteria of beauty and liked them because her Mother did. There is a sense that she wanted to share pleasures with her Mother and perhaps wanted to echo her behaviour and to identify with her.

Ana expressed similar feelings when talking about the connections between a flower blossoming, her Grandmother and her love of plants.

"...I suppose my love of plants didn't really come out until after she'd sort of passed away... I've realised that I think that's where I get it from, or maybe I'd like to think that's where I get it from (laughs)..." (Ana interview transcript lines 408 - 412)

These insights into Faith and Ana's perceived resonance of aspects of the pieces made for them revealed that they had formed attachments, personal criteria of beauty and *love of* certain experiences, in this case objects, in part because of the direct significance within their inter-personal relationships. Significant aspects of the participants' personal histories, biographies and relationships with other people were brought to bear on their perceptions of the digital jewellery proposals. Rather than being limited to the actual objects from past

experiences there are examples of *categories of objects* that have a personal resonance. The qualities of the pieces that connected to these inter-personal relationships were seen to be personally emotionally significant to Faith and Ana and added to their attachment to them.

6.4.2 Fit and resonance

The term *fit* is used here to describe how each participant felt the pieces matched or harmonised with them and their lives. The following examples illustrate how each participant felt the objects fit with them and how this was deepened by their personal appropriation of the pieces.

Faith's first response on returning home with the jewellery was to photograph a plait of her daughter's hair (figs. 144 - 148) that she had kept in a box that seemed very similar to her to the jewellery object.

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Figs. 147 & 148 Faith's photographs of a keepsake of her daughter's hair

Faith's keepsake of a length of her daughter's hair, which acted as an evocative object that reminded Faith of her daughter, had similar physical qualities to the jewellery piece and she described the jewellery object in terms of how *it fit* with her personal belongings.

"...it sort of fits with the sort of things I would have sort of within my own private space." (Faith interview transcript lines 1345 & 1346)

This comment was significant in that it indicated that she felt the jewellery object resonated with Faith and *fit* with objects that she had in her private space and that it was similar to the keepsake of hair, which she again described as something that she would not show to other people. The jewellery was interpreted as an addition to her collection of personal objects and her following interactions with the jewellery were of a personal and private nature rooted in tactile and haptic experiences. The majority of her responses (figs. 149 - 154) described detailed tactile observations of the object. She described how she spent time with the jewellery indicating that she felt comfortable with the piece, wanting to spend time interacting with it, even within her relaxation time at home. She used the words *smoothing*, *aligning*, *wrapping*, *unwrapping*, to describe her engagement with the jewellery, which indicate pleasurable, caring and intentional ways of exploring the object and she described a private, contemplative way of behaving towards the jewellery. She described the jewellery as similar to *worry beads*, regarding it as a reflective object, something to hold and play with whilst allowing her thoughts to wander.

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Fig. 149 Faith's response

Fig. 150 - 152 Faith's photographs as responses

“...I felt as though it was something that I just sat there and played with... which is what I tried to take the photographs of... I was trying to get across those feelings of playing with it...” (Faith interview transcript lines 155 & 164)

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Figs. 153 & 154 Faith's responses

During our final meeting I talked to Faith about the making process and how the final piece had developed. I showed her models and test pieces that I had made. She enjoyed discovering the making process and referred to her own experience of making. When commenting on the unfinished models and test pieces she became more playful in her discussions of how they resonated with her and of ways they could be used.

“...makes me want to have some of the bits that go with it as well (...) sort of like these bits which would mean nothing to anybody else, but I think of as object are interesting objects...” (Faith interview transcript lines 1235 - 1237)

“...I would probably keep it in its box but the box open somewhere where I could pick it up and I could pick the bits out and then put them back in again and I would know they were there...” (Faith interview transcript lines 1256 - 1258)

“...it’s a bit like picking up shells on the beach or stones that have a resonance in the way they look... bizarre and peculiar objects... as an art piece, if you like, this thing of them being sort of little strange and unexplained objects, bit like a Louise Bourgeois type sculpture where there’s something that resonates with you but you don’t really know why and they sort of have echoes of other things that you’ve come across...” (Faith interview transcript lines 1242 - 1248)

As unfinished objects Faith easily imagined ways in which they could fit into her life and how she would use them, which in turn impacted on how she thought of the necklace. She became playful in her responses imagining the objects as a sculpture and a collection of bizarre objects that meant nothing to anyone else, but that did mean something to her. She felt a resonance with the necklace and the series of objects that I had made. For Faith a major value of the piece was in how she could invent and imagine different interpretations and contexts for the objects as art objects and as intensely personal objects that would only have meaning for her.

Emma’s engagement with the piece focused greatly on questioning *the idea* of digital jewellery (discussed in sections 6.5.1, 6.5.2, 6.5.3), but in terms of *fit* and resonance, beyond her comments about what she liked about the objects, she stated that she had been moved by the film because she had recognised the quote used from her initial stimuli responses, which had referred to her daughter and as such felt the piece to be about them both. Furthermore she described feelings of resonance with the objects that she could not attribute to any specific factors, stating that the pieces did connect with her, that she could imagine herself using them, in some context, or buying

them and that they felt to be *part of* her. She stated she thought that there was definitely a way in which the objects had been made for her, but that this was not directly attributable to anything specifically.

“...watched the film and it was the quote at the end...about * (daughter)...this made it directly connected to her and yeah, I cried! But it was, um, the whole feel of the film... I hadn't expected what you were going to make to be like that. I thought it was very beautiful.” (Emma interview transcript lines 48 - 55)

“... I like the kind of little decorative bits, and I like the scale and I love the materials, so there's obviously a lot there that, that does connect to me or connect to the things that I said” (Emma interview transcript lines 884 - 886)

“ ... I can completely see myself as using them as something else... and them being part of me...I could have completely have imagined buying them, so there's definitely a way in which these have been made for me even though I can't quite see directly how...” (Emma interview transcript lines 295 - 299)

Emma's feelings of a connection to the objects had deepened over the month that she had lived with them. As we completed our final meeting she stated that she did not want to return the pieces to me, and that over time she had increasingly felt they were hers and that they *played a role* for her and fit within her life in some way.

“...I don't want to give them back to you (laughs)...I suppose the longer I've had them the more I feel like they're mine...that they play a role...So when you've had enough of them, then you can send them back if you want to, ok (laughs)” (Emma interview transcript lines 912 - 918)

Although Emma expressed feeling a connection to the objects and film she stated that did not feel any resonance initially to the proposed digital functionality of the objects. To address this she chose to interact with the objects with her daughter (figs. 155 & 156). They played a game with the objects, attributing characters to each clasp by drawing different patterns on their surfaces. Although this activity did not involve the digital concept directly it did echo it in that Emma and her daughter interacted together and attributed a separate pattern or marking to each clasp (fig. 157). Subsequently each clasp then bore a trace of a unique experience and echoed the image of traces on each clasp that I had made in the film (fig. 158). Emma commented on this (figs. 159 & 160) stating that because of the activity she now felt that the pieces symbolised a connection to her daughter.

Figs. 155 & 156 Emma's photographs as responses

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Fig. 157 Porcelain clasps altered by Emma and her Daughter

Fig. 158 Still from *Traces* film that I had sent to Emma as part of the piece

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Figs. 159 & 160 Emma's responses

However, more than demonstrating that non-electronic objects may symbolise a connection to someone Emma's interventions also led her to fresh understandings and to be open to the potential of the proposed digital functionality of the piece.

“...the point of doing this with * (daughter) was a point where I didn't think as digital objects that, that these things had any kind of meaning or relevance to me it's only since doing this and thinking about them differently ... that I've started to think well actually I can see how this might work... I can't imagine it being about planned, being planned or structured, but if it was about capturing something...to take a snippet of her doing what she does and being her...”(Emma interview transcript lines 198-208)

The activity enabled a stronger bond to form between Emma and the pieces, not purely because the pieces were now part of a memory of the game she played with her daughter, or that the pieces showed evidence of this experience and were personalised, but that the activity also acted as a similar form of interaction to the one I had proposed and gave her space to consider using the objects in such a way. Her comment that the piece could be about capturing snippets of life suggests that this may reflect an aspect of parenthood and family life in that the moments someone would like to capture may often occur in unplanned moments. Emma's actions of playing the game with her daughter were a personal interaction between her, her daughter and the objects. Emma's actions suggest that a key point to draw from this is that there is an assumption of an intensely personal relationship to any object that is called jewellery. Jewellery objects bring with them an assumption of an intensely personal relationship.

For Ana the piece fitted directly into her idea of planting a family tree, it acted to reflect this pre-existing idea strongly for her. She perceived personal emotional significance in the materials and commented on her love of nature and how this was reflected in my use of natural materials. Beyond this literal connection Ana's engagement with the piece was rooted in the meanings she attributed to it. Her main attribution of significance was how these physical qualities and the single blossoming of the piece contributed to a metaphor of the fleeting nature of life and the emotional *rooting* of family land.

“...I just thought it was very poignant and yeah it was just life affirming in that it was about the sort of preciousness of life for me...” (Ana interview transcript lines 223 - 224)

“...when it blossomed, it kind of upset me that it was only the once, and I thought ‘oh my god!’ (laughs) but ...if it wasn’t only once then that would defeat the object, of your piece I think... for me anyway... I mean that was a kind of crucial point for me, when I started blubbing (laughs) when it said it ‘only blossoms once’ and I was just like ‘oh!’, ‘yeah!’ and it, I sort of *got it*, that it was sort of, represented life really and that, erm, you only live it once...” (Ana interview transcript lines 155 - 161)

“I think you’ve touched on something, (laughs) quite, yeah, big really... ‘planted on family land’... a kind of permanence to it and a rooting for me...which links to strong emotional family ties...” (Ana interview transcript lines 207 - 213)

“...my longing really to have somewhere that I can call home and I guess when my house, our old house in *(Cyprus) got sold I felt very uprooted and very insecure in a way... I think that’s kind of what my Mum’s house in Cyprus represents now because it’s like on family land... a kind of rooting ... and a kind of permanence...stability...” (Ana interview transcript lines 316 - 329)

Ana felt the piece to hold personal significances, relating to her longing for permanence and ideas of emotional preciousness. She easily accepted and interpreted the concept of the piece into her personal biography and history and also easily accepted the idea of digital jewellery. She reacted to the single blossoming of the jewellery object in an emotional way and found the transience of the digital functionality to be poignant and necessary.

She stated that contemplating the piece stimulated her own creativity and she brainstormed ideas, which both placed and extended the piece within the context of her interpretation of it as a family orientated object.

“...but I think your idea sort of stimulated a lot of thoughts...my own creativity, so I was just like, ooh, you could have this! And ...” (Ana interview transcript lines 377 & 378)

“...when it went dark it could have a little just a really soft glow, somewhere in the piece... so you could see it even at night and know it was there...when visiting Grandma’s house in Cyprus after she passed away I’d always take a flower and I’d light a candle” (Ana interview transcript 3 lines 387 - 393)

“...as a concept...it’s the sort of piece where you’re really thinking, concentrating on people’s emotions, human emotions... ...I thought it could be a piece that could maybe bring people together ... or remind you of, um, just to enjoy your life and being with people that matter to you and enjoy that time that you’ve got...” (Ana interview transcript 3 lines 148 - 154)

There was a sense of shared creativity in Ana’s responses. She offered ways in which the jewellery could be used and she developed the idea to extend the potential digital

functionalities. Ana's response was not centred on an evaluation of the jewellery, but rather a development of new ideas based on the original. The jewellery did not close down her ideas, but kick started creative brainstorming and a form of dialogue of ideas between us based on how such objects could work within an emotional context in family life.

Significantly, in each case there is a sense in which the participants altered and added to the pieces. Faith did this verbally by describing the piece and the series of test pieces as an art piece, describing how it would be displayed and how she would interact with it. Emma and Ana did this through more active physical interventions; Emma through the game she played with her daughter and Ana through her brainstorming of drawings and writing extending the design. In general the ways the participants perceived the jewellery to *fit* and resonate with them suggested that a resonance was initially perceived where the piece echoed a participant's own pre-existing ideas and sensibilities. Each participant used a reflection or echo of the jewellery piece within her response, perhaps in part as a way to acknowledge common ground; something shared. Perhaps also as a way to begin to negotiate how the piece had a resonance for them.

For Faith the object shared physical and aesthetic similarities with a keepsake of her daughter's hair and seemed to *fit* with her collection of personal objects. Emma stated she felt the piece to be about her and her daughter and that the objects connected with her. She stated she could imagine buying the objects and "them being part of me", although she could not attribute this to any specific qualities of the objects. For Ana the piece echoed a desire to remain connected to family and family land. She stated that the piece had touched on something "big" by which she meant a personal "longing" of hers for "a kind of permanence". In each case there was a strong connection between perceived resonance in the jewellery and a participant's own personal history and biography.

Each participant then interacted with the objects in a way appropriate to the resonance they had perceived. Faith felt the object to echo other objects that she kept as hers alone and in turn interacted with it as a personal object, Emma perceived the object to be about her and her daughter and played a game with her daughter involving the objects and Ana felt the piece to echo her desire for family connections and a permanence within this and developed ideas of how the piece could fit in different ways into family life. The resonance of the

objects for each person was deepened by these interpretations and appropriations, which acted to subvert or *fit* the objects and concepts more personally into each of their lives.

6.4.3 Personal becomes shared

Each person found aspects of the pieces, which fit for her, but then extended, subverted or personalised the piece to fit to a stronger degree. Interesting shifts occurred in how the participants responded or referred to the piece depending on whether they were responding or regarding it as a piece of electronic or non-electronic jewellery.

As non-electronic jewellery the participants' experiences were described overwhelmingly in terms of their individual interactions with the object, for example: tactile pleasures and observations, echoes of their own personal criteria for beauty, what the piece signified to them, what it seemed to be similar to from their experiences etc. The piece was described as a private object by each participant, Ana referred to her piece as something to help her stop and take stock of her priorities, Faith described her piece as a secret pebble to hold or keep hidden in her pocket and although Emma used the piece with her Daughter, which suggests a shared interaction, this was for her an intimate experience between the two of them intimating the digital concept and driven by her perception of the piece to have been about them both, otherwise she described her feelings for the piece as something made just for her.

These descriptions altered, however, when the piece was regarded and referred to as a digital object, where each participant described the piece in terms of a *shared* rather than private experience. The digital aspect of the pieces transported the personal object into a shared experience.

Faith saw the piece as a very private object, but when regarding it as an object that interacted with digital displays she described shared experiences with people close to her.

“...I think if you were walking up to it with a whole group of other people and you wanted to use it as a, something for you all to look at... I think I'd find it hard to sort of, urn, do it as an individual...”
(Faith interview transcript lines 210-212)

“...it’s more fun to do that sort of thing if you’ve got a group of people ...for me that would be the sort of thing you’d do with family or, or very, very close friends or... I would probably see it as something you would do for children...” (Faith interview transcript lines 1285 1301)

Emma imagined the piece as a family piece, like a family album of voices

“...as a family... thing, a way of recording people and then being able to play them back and being able to pass that on...you might not know who you were about to listen to, it would be really interesting in the same way that you go through a photo album and you point out to people ‘ooh that’s your great aunt such and such’ you could take one of these put it down and hear her voice er and somebody in the room would know who it was and other people might not and that ... would be really quite interesting and you might start to kind of because they’re slightly different you might start to connect certain ones and you would vaguely know who you were getting with each one but not necessarily definitely...” (Emma interview transcript lines 470 - 478)

Ana proposed that once the piece had finally blossomed it could act as a catalyst to bring people together for a family meal.

“...I guess I thought it could be a piece that could maybe bring people together...” (Ana interview transcript lines 150 - 151)

“...although it blossoms only once that maybe it would remain open for a little while just so say if your family aren’t all together that they’ve got time to come together and it just could be get people together for a meal... but it’s like a little indicator to say come on everybody come over...” (Ana interview transcript lines 296 - 300)

That the participants regarded the objects as *private* when considering them as non-electronic, but *shared* when considering them as electronic, suggests a shift in perspective of electronic and non-electronic objects that is worthy of further investigation; the potential of digital jewellery objects to span the context of both personal and shared experience. It is important to acknowledge also that although the participants wanted to share the electronic experiences of the pieces they only suggest doing so with an intimate circle of people, not just anybody, perhaps because the objects were still jewellery objects and were still perceived as personal.

6.5 Digital jewellery tensions

Mismatches in the participants' perspectives of both jewellery objects and digital devices impacted on their assumptions of digital jewellery with regard to function, personal emotional significance, material and status of object. This section demonstrates the differences between what the participants felt and assumed concerning jewellery and how this was very different to their feelings and assumptions of digital technologies and digital objects.

6.5.1 Expectations and assumptions

Each participant had expectations of what the piece of digital jewellery would be in terms of material, aesthetics and functionality. A key point to make concerning these expectations is that they were based predominantly on what each participant expected a digital object, rather than a jewellery object, to be. Faith only realised the jewellery and film were a proposal for a piece of digital jewellery when we met to discuss her initial responses. She attributed this in part to the materials I had used to make the piece; they did not fit with her expectations of digital objects.

“I don't think I made the connection between it working digitally and the DVD (pause) I wasn't thinking of it as a technical, technological object because of the nature of the materials... I was definitely seeing it as an object in its own right, rather than an object that would access, something else, but thinking back on it that could explain why you had moving images moving on billboards (laughs) hmmmummm (gestures to her head, as if 'silly of me') (laughs a lot) (...) which is very clever of me isn't it!? (...) I think it's because it's a ceramic object...” (Faith interview transcript lines 173 - 187)

“...it's because it doesn't look electronic I think, that's the thing, it really doesn't look electronic...” (Faith interview transcript lines 477 & 478)

Similarly Emma and Ana's expectations were rooted in their knowledge of existing digital devices. Emma had expected a small metal object similar to a memory stick and Ana a secret camera. Emma stated after receiving the objects that she felt her assumptions to be narrow-minded and that she had been surprised by the objects and also by her expectations.

“I don’t really know why, but...I was expecting a small metal memory stick type object... I had presumed it would be metal, which now seems really, um, narrow-minded. I was actually very surprised ...by the objects...by my expectations... I mean I know jewellery can be more than this so why I was expecting it to be small and metal I don’t know...” (Emma interview transcript lines 8-15)

Both Ana and Emma had imagined receiving objects that were predominantly recognisable as existing forms of digital devices that would be altered by me to become wearable objects. Emma had presumed the digital jewellery to be a small, data holding device, which suggested a memory stick to her and Ana had imagined spy type devices, which had suggested a secret camera to her. Such assumptions and expectations limited each participant’s visualisation and to some extent acceptance of what digital jewellery could be to pre-determined qualities and forms of existing digital devices.

In addition the views held by the participants of what constituted a digital device were at odds with their perspectives of jewellery. Faith’s shared perspective of jewellery, as a non-jeweller, centred largely on the notion of jewellery as accessories; where jewellery functions to adorn, as complimentary objects to clothing, but not to draw attention to her. Her assessment of the piece in terms of these criteria was based largely on how wearable it was.

“...I do have a strange relationship with necklaces...(laughs) ... if I have a V neck collar or a straight neck collar then that will effect if I wear a necklace...I suppose it’s sort of not drawing attention to yourself too much as well ...” (Faith interview transcript lines 373 - 381)

“I might wear it out for sort of a special occasion if I had something very, very simple with it...” (Faith interview transcript line 334 - 335)

The piece did not fit easily as an accessory for Faith, it would only be worn under specific circumstances, instead she described it more readily as an art object, kept open in its box at home and if used as a mobile object she referred to it as a private, hidden object; like a magic stone in her pocket or something with talisman like qualities.

Emma's perspective of jewellery was based on her practice as a contemporary jeweller and centred essentially on the idea of jewellery as objects that connect us to other people.

"...through non-verbal, intangible, embedded qualities that trigger memories." (Emma response text)

For Emma the key qualities of jewellery were their ability to symbolise connections between people, as such her initial views of the notion of digital jewellery were predominantly negative, regarding such objects as unnecessary and literal forms of communication device (discussed further in sections 6.5.2 & 6.5.3).

All three participants, in different ways, shared the assumption that digital jewellery would be a wearable form of an existing digital device. These assumptions served to inform their ideas of what digital jewellery would look like, function as and also of what would be the motivation to create it. These suppositions were greatly at odds with their notions of the same ideals of jewellery objects. In each of these examples the *digital* aspect and all that implied as a category for the participants, in the equation of digital jewellery, was the dominant aspect and served to limit their perceptions of jewellery.

6.5.2 Object status

Not only did the term digital jewellery suggest a wearable form of an existing digital device for the participants, but also by association to something digital the status of the jewellery object diminished. Faith repeatedly described viewing the jewellery piece *in its own right* rather than as a digital object.

"I wasn't thinking of it in terms of, of a technical piece, I was thinking of it in terms of, of an object in its own right..." (Faith interview transcript lines 466 & 467)

"...seeing it as an object in its own right, rather than an object that does something, so it's quite intriguing just as a stand alone piece." (Faith interview transcript lines 499 & 500)

"...those are beautiful objects in their own right as well aren't they" (Faith interview transcript line 850)

“...as an object in its own right I think it’s a really intriguing thing...” (Faith interview transcript line 1238 & 1239)

Faith’s comments suggest that when a jewellery object “does something” there is a change in status. As a non-electronic object she interpreted it as an art object or talisman, she described the piece as beautiful and intriguing, but she was reticent to view it as a technological object. This implied that in doing so some of the qualities she found appealing may be lost and that perhaps, for her, existing digital objects were neither intriguing nor beautiful. There is a clear suggestion that she perceives a hierarchy of objects, where art objects and jewellery objects have a higher position than objects that *do something*.

Similarly Ana when talking about *Blossom*, began to describe its “function” and then stated that “function” was not the right term, as it related to a household appliance, which was something very different to the jewellery piece for her.

“...function isn’t quite the right word because it makes it sound a bit, dunno... well it’s not like a household appliance (laughs) in the sense that it helps you clean the dishes or anything like that...I suppose its purpose to me is that it reminds you of the smaller things in life and erm, it’s like it could help you to just take stock and stop and look at things...” (Ana interview transcript lines 279 - 286)

Ana’s description suggests that digital devices implied a function based on task and utility for her, rather than something with emotional resonance. She used the phrase “smaller things in life” to denote those that were personally meaningful. She also made the point that if the jewellery had been a camera this would have been more superficial than the actual proposed functionality of the jewellery, which she went on to describe as “life affirming” and “personal”. The suggestion was that current digital devices lack intimacy and positive emotional significance and that there was a perceived poignancy in the digital jewellery piece, something that she did not associate with existing digital devices.

As already detailed Emma had expected to receive a device similar to a memory stick. She went on to describe such objects as “ugly”, but appropriately so.

“...it’s like trying to take a memory stick, which we carry around with us everywhere... but is a big ugly piece of plastic and trying to design it to be more interesting and nicer or into a piece of jewellery...I don’t think that’s the right way round... I think it’s appropriate that it’s a big piece of plastic... attached to your key ring and I don’t think it’s appropriate that it’s jewellery...” (Emma interview transcript lines 757 - 763)

For Emma a digital device could not and should not share the same emotional ground as a piece of jewellery. As a contemporary jeweller she held strong opinions of the potential and ability of jewellery to act as a symbolic connection between people and the concept of digital jewellery represented to her a merger of jewellery object and existing digital device; the implication for her was, as previously detailed, an object dominated by existing digital functionalities which were then translated into a wearable jewellery form. She was opposed to such a notion.

Emma’s descriptions of jewellery as objects possessing “intangible, embedded qualities that trigger memories” suggest that for Emma jewellery objects have elusive and mysterious properties. These were at odds with her perspective of digital devices that perform “literal” tasks. This suggests that, to her, jewellery offered more scope for captivating experiences within the human aspects of communication than digital devices. *Literal* was therefore not only perceived to be an antonym to mystery, but also a more shallow quality of a digital object.

Similarly comments made by Faith that she had not expected the jewellery object to *do something* suggested that she also perceived this as being a *literal* quality. There is the implication that if an object reveals its secrets or what it can *do* in some respect, then curiosity is satisfied and the object loses status.

The intriguing or mystical qualities of an artefact were felt by Faith to be even further removed from a digital object. She stated that the ambiguity of the jewellery piece and the test pieces that belong to it fascinated her and she repeatedly gave her interpretations of them, guessing possible meanings of them. She described how the objects were a collection of strange, ambiguous, art like objects, which had no *use* for her, but which resonated and interested her, yet she did not feel this same sort of resonance for the digital proposition of

the piece presented through the film. She did not want to draw attention to herself in public and felt that the large scale of the images on billboards and the potential for other people to associate her with the occurrence of such displays would highlight her presence, but more than this she felt a different level of resonance between the digital images and the artefacts.

“...I did like the idea that there could be something inside so the idea of having something that opened up and you have these little tiny objects...but they weren't necessarily things that would then connect me to technological screen or it was just, it would be, would connect me to those sort of images but in my head rather than someone else's version of the images outside my head.” (Faith interview transcript lines 1252 - 1262)

Faith was comfortable with an interpretation of her shared *stimuli* responses being in the form of jewellery or artefacts, but not as digital images. She stated a desire to “have” the objects and described their roles as triggers to “those sort of images but in my head rather than someone else's version of the images outside my head”. This suggested that as objects the horse and pastry cutter did not diminish her own associated memories, but as film images appearing on digital screens they were “someone else's versions” and took away from her personal mental images.

There appears to be a shift from an object, which was seen as something owned, acting as a connection to other experiences and conversely a digital image, which was seen as something not owned and “someone else's”. In reality both the artefacts and filmic images were partly “someone else's”, namely my interpretations of Faith's shared “stimuli” stories and memories, but the artefacts were not regarded in this way.

When experiencing the artefacts Faith engaged with them as an open ended experience, where she could interpret and give her own meanings to the pieces; there was a sense of belonging and ownership as she described them as intriguing private objects, whether kept in her room as art like objects, or carried in a pocket like a magic stone, but this was not echoed in her engagement with the digital aspects of the piece. This may have been because for a long period of time she had not realised the piece was a proposal for a digital object and she had formed attachments and connections with the piece purely as an artefact, or that the partly public nature of the piece threatened her sense of privacy. The suggestion could also be that our experience of artefacts relates to our sense of ownership more readily than digital experiences do. Digital experiences are not material and often operate as a

shared experience, as such the physical objects presented to Faith were interpreted by her into private and intimate experiences which did not extend or translate easily for her into a public, digital and therefore intangible and shared context.

The implications of the tensions in object status articulated by the participants between jewellery objects and digital objects are that there is a fundamental challenge to the concept and design of objects that have digital potential. Each participant asserted the view that digital objects related to notions of *technofunction* (Schiffer 1992 see chapter 3 *The gadget* section 3.2 *Function*) and the performance of utilitarian tasks, where as jewellery objects related to something more intriguing and personally meaningful. Faith implied that when an object “does something” the status of that object diminished, Emma felt that digital devices were appropriately ugly and Ana felt that digital devices related to household functions such as cleaning dishes rather than life affirming, emotional contexts. Both Faith and Emma were reluctant and resistant to classing the jewellery proposals as digital objects because of this. The participants commented that the digital abilities of many devices were literal qualities and implied that these were shallow qualities of objects.

6.5.3 Permanent v transient

Another tension within the participants’ contemplation of the notion of digital jewellery was the friction between the perceived permanence of jewellery objects and the perceived transience of digital technologies and the uses of digital devices. Each participant spoke of jewellery or artefacts in her initial *stimuli* responses or in her final responses to the jewellery pieces as objects that hold a lasting meaning for them. Such objects were symbolic of some form of permanence, often human-relational, connected to generations of family members, or to past experiences. Jewellery in this way acted as a connection to family, a sense of selfhood and a sense of belonging or place in a personal and family history. It is a common phenomenon to regard such objects as triggers to memories and to associate artefacts with a notion of permanence, yet existing forms of digital experiences or devices do not hold the same connotations. This dichotomy was brought into question by the participants’ consideration of the digital jewellery proposals made for them.

The qualities of permanence of personally emotionally significant objects are not reliant on the object being fashionable or unbroken; they transcend such criteria. A notion of permanence instead arises from someone perceiving the object in terms of a lasting association to other people or experiences. Persistently the currency of jewellery objects echoes this facet of permanence. Conversely a digital device is judged by cutting edge qualities and abilities and often last until these are usurped by another digital device that can *do* more or until it breaks. Emma expressed a concern arising from these issues.

“...I suppose I worry about ... the kind of difference between a jewellery object and a technological object in terms of turnover, in terms of speed...you can have um a brooch which is lovely and you love it and you’re always going to love it where as you’ve got um, a memory stick which in five years time will be obsolete...” (Emma interview transcript lines 256 - 260)

Emma described jewellery as something “you love” and “you’re always going to love”, suggesting a lasting relationship and association. Conversely she described digital objects as short-lived objects that become incompatible with new generations of computers. There was a change in vocabulary, emotional regard and perceived role between descriptions of both kinds of object and a presumption that digital jewellery will be a form of merging the two together.

In addition to a notion of permanence related to longevity, the tension between jewellery objects and digital devices also extends into the temporal context of the two different categories of object. Fundamentally jewellery objects are always connected to a history of jewellery objects, centrally related to symbolism related to social status and human relationships. Many of the purposes of jewellery have always been to signify continuity, of family and human connection. Digital devices are the products of a much more recent history of objects, largely driven by technological advancement and progression. Jewellery as a category of object, however progressive and challenging relates to notions of continuity of relationship, to sustained connections to memories, to the past, yet digital devices relate to the *new*, to swift progression, to the *next*. However many crossovers there undoubtedly are between these categories one is predominantly connected to the past, the other chiefly future focused.

Digital jewellery in these terms presents a dichotomy, an object, which is potentially both concerned with permanence and transience. Ana had not resisted the idea of digital jewellery, but Faith and Emma had. However towards the end of the interviews both Faith and Emma's opinions towards the ideas of digital jewellery had shifted significantly to acknowledge the positive potential of an integration of contemporary jewellery and digital technologies.

Faith commented:

“... it's almost like this sort of not science fiction, but science fantasy thing of you know has it come from a previous civilisation? ...it looks old but it does all this clever stuff, that's almost like, it has a futuristic ability... but then it looks as though it's come from some sort of previous thing because it doesn't quite fit with how we see things...I don't want things to necessarily look like they've fallen out of the pages of T3 magazine... so things that have strangely, sort of a fairly strange feel, which it definitely has I think (laughs)...I can imagine it slung from the saddle of some Mongolian herdsman and you have no idea what it's function was and then it turns out it's got this hidden and secret function that you would never have thought about and the Mongolian herdsman might never have known he just picked it up from some crashed space ship I don't know, it's just that whole, weird sort of erm, not quite fitting thing...but I think that's good.” (Faith interview transcript lines 1432 - 1451)

Emma commented:

“...the more I thought about it the more I, the more I can see...a really interesting way of interacting with objects... the way that this might operate as a collection of things that's stored in a particular place and it's maybe a nice event where you get them out um, I can kind of see all that, which I couldn't see at the very beginning, (laughs)” (Emma interview transcript lines 771 - 777)

“...what I think is interesting and it's kind of a nice challenge, is to see ...where the miss match is between those two things and what happens when you bring them together, whether you kind of try and extend the lifespan of a technological thing or whether you reduce the lifespan of a jewellery thing, you know it's kind of both ways...” (Emma interview transcript lines 1007 - 1011)

Although at this stage in her response Emma still regarded digital jewellery as a simple mixture of digital devices and jewellery, her perspective was no longer resistant to the idea of digital jewellery. She saw the positive potential of a “challenge” to explore the possible change in lifespan of such objects and also stated that:

“...it's about trying to retain those things about jewellery... they're not the obvious things that everybody thinks of, which ironically is what I thought of when I imagined getting this which is that it would be metal and one small thing...it is the fact that it can connect you with out, with out having to physically connect you, so it's about retaining all the best things about that and why that works... it's

quite hard to explain but I do, I kind of do understand exactly what you're trying to do and the way in which you're trying to look at it" (Emma interview transcript lines 751 – 765)

Jewellery objects were described by the participants as objects that people form lasting attachments to. Conversely, digital devices were described as objects that had fleeting worth based on state-of-the-art functionality. One implication was that both objects have a different context of speed of consumption. Jewellery objects may endure for lifetimes as meaningful objects, but digital devices are short-lived and easily replaceable objects. By the final stages of the interviews, however, the participants had acknowledged that there were interesting challenges and possibilities in integrating both types of object and even embraced the implications of such integration.

6.6 Reflections on findings

I have concentrated on two predominant themes in the responses: the participants' perceptions of personal emotional significance in the pieces; and the participants' perspectives of tensions around the idea of digital jewellery. The theme of personal emotional significance gave insights into how the participants felt the pieces were personally valid for them and how they fitted into their lives. The tensions around the notion of digital jewellery connected to the critique I had developed through my review of current digital objects and my exploration of the notion of the gadget (see Chapter 2 *Contextual review* and Chapter 3 *The gadget*).

In summary, the findings demonstrated that there was a strong connection between the participants' inter-personal human relationships and their personal criteria for beauty. Also, significant aspects of the participants' personal histories and relationships with other people were shown to have considerable influence on their perceptions of the digital jewellery proposals. Each participant perceived the jewellery objects to be intensely personal, as evidenced through the ways they described the pieces, the roles they attributed to them, and how they interacted with them. The resonance of the objects for each person was deepened by the ways they appropriated them into their own lives.

Another significant finding was that when considering the proposals as non-electronic jewellery objects the participants interacted with them in private and personal ways; the pieces were for them alone. However, when considering the proposals as *digital jewellery* objects the participants' descriptions shifted to centre on a shared context with people who were emotionally close to them. The pieces remained in an intimate context, but were now shared with other people. This shift suggests the potential for further investigation into this finding and the possibility for digital jewellery to be a personally and emotionally significant form of digital object operating in both private and shared contexts.

The responses showed tensions in the participants' consideration of an object that was both a jewellery object and a digital object. *Digital jewellery* was something that the participants associated with conflicting expectations and assumptions. These conflicts impacted on

assumptions of the materials, aesthetics, functionality, status of object and lifespan of a piece of digital jewellery. Notably the *digital* aspect (and all that this implies) was dominant. Following these assumptions of what digital jewellery would be there was a significant shift for the participants when they reflected on the pieces presented to them. They acknowledged that there were interesting challenges and possibilities in integrating both types of object and embraced the implications of such integration. Each participant imagined a positive and personally emotionally significant scenario of interaction and role for the pieces in their lives.

These explorations into the potential of digital jewellery enabled a small group of people to consider the possibilities of this new form of object. By contemplating the potential of digital objects through firstly engaging with feelings regarding *non-electronic* jewellery objects the participants were able to consider the value of digital jewellery in a similar context to non-electronic jewellery. The responses showed this to relate strongly to human relationships and the role of objects within intimate human relationships. This particular context of jewellery aided a shift from assumptions based on what *digital* meant to the participants and initial assumptions and expectations were challenged and altered. The value and consequences of these findings is reflected upon in the following chapter.

7 Discussion, conclusions and future directions

This chapter serves to articulate personal reflections on both this research process as a whole and the findings that arose from the participant responses. The thesis is presented in summarised form initially to condense the theoretical, conceptual and practical path that the work has taken. The outcomes of the piece of research are then discussed in terms of a rethinking of digital objects and digital jewellery as a new form of object. The chapter continues by revisiting the research objectives and by presenting them in relation to the context of what has been achieved. Finally the contributions to knowledge arising through this research are presented and the scope for future research is indicated.

7.1 Thesis summary

The body has been shown to be perceived by non-jewellers as an opportunistic location for mobile digital objects; where as perceptions of the body in contemporary jewellery were shown to centre on ideas of a sense of self, where the body was more a symbolic location for jewellery objects that connect to an individual's experiences and human relationships. Wearability was shown to be a central factor in the design of body centric digital objects from non-jewellers. Conversely wearability was evidenced to be a shifting consideration in contemporary jewellery and not a defining quality of a jewellery object. A physical and conceptual relationship between a jewellery object and the body was posited to be a more significant factor in contemporary jewellery. This thesis demonstrated that there was a low level of interpretation of what a jewellery object may be in terms of form and functionality from non-contemporary jewellers. Non-jeweller interpretations were evidenced to be based largely on mainstream commercial or high-street forms of jewellery. The emerging digital jewellery proposals from contemporary jewellers were shown to offer a wider scope of form, functionality and context of use than is evident from non-jewellers.

Beyond these factors the thesis evidenced that jewellery objects commonly function as objects that hold personal emotional significance for their owners (and makers) as a connection to people, places and experiences and also that this phenomenon is commonly explored by contemporary jewellers through their practice. I have shown that approaches from non-jewellers however, have been led chiefly by developments of functionalities, usability and ubiquity rather than the consideration of emotionally enriching experiences or personal emotional significance. The thesis also indicated that jewellery objects commonly have a particular quality, separate from many other kinds of object, in relation to intimacy. Jewellery objects may be *intimate* both in terms of physical intimacy through a connection with the body, but also in terms of emotional and human-relational contexts. These contexts were evidenced to have a connection to emotional preciousness and personal biographies and were posited to be areas that are under-explored by non-jewellers in the design and concept of body centric digital objects. This research highlighted that here remains a lack of consideration of emotion as a discursive and social aspect in interactions involving digital jewellery.

The thesis demonstrated that in some cases there is an overlap in terms of context, functionality and lifespan between digital objects and gadgets; however contemporary jewellery objects and gadgets were evidenced to be very different from one another in regard to these same considerations. Gadgets were evidenced to be objects that usually have a limited purpose, often centred on novelty. They consequently usually have a short lifespan as the novelty abates and as the significance of the object is transferred from one object to the next replacement. Commercial gadgets and digital objects were shown to often exist as incremental developments of a category of object, where in our current digital culture the cycle of production and consumption is at a fast pace. The thesis highlighted that in many cases digital objects have become synonymous with gadgets and consequently are associated with the same assumptions and expectations. These assumptions and expectations were detailed to be far removed from those usually associated with jewellery or contemporary jewellery however and as such were detrimental to perceptions of jewellery objects that embed digital electronics.

The research posited that contemporary jewellery commonly centres on an enduring relationship between person and object, where the jewellery object carries a personally significant meaning for the owner often relating to human relationships and personal emotional significance. However the gadget is predominantly a fad object based on novelty, newness and consequent transience.

These reviews and critiques established by the research highlighted the many ways current digital products limit our experiences as well as our expectations and assumptions of digital objects. The relevance and value of jewellery objects as perceived by non-jewellers in the design of digital objects has been shown to miss many of the human-relational and emotional contexts that jewellery has the potential to enrich and relate to. One consequent challenge for this research was how to make pieces of digital jewellery, which were extensions of contemporary jewellery, that harnessed new interactive potential enabled by digital technologies, but that were not gadgets. The gadget critique developed in this research served as a set of anti-objectives for this research.

The positions formulated in the contextual review and gadget chapters enabled me to develop a perspective that drew attention to the conceptual tensions that existed concerning the extension of contemporary jewellery into digital jewellery based on the associated expectations and assumptions of digital objects.

The thesis methodology chapters established this research as hybrid and interdisciplinary. Stemming from contemporary jewellery as a form of craft practice seated in an intersection between the fields of art and design this research was also articulated to draw on the disciplines of HCI and Interaction Design.

With personal emotional significance as a chief focus within this research the thesis drew attention to the neglect of emotional qualities of experience in HCI (McCarthy and Wright 2004) and also evidenced a similar situation in Interaction Design and Industrial Design, with few exceptions (Gaver 1999, Dunne 1999, Dunne and Raby 2001, Anderson et al 2003). The context of craft, as an intellectual form of making (Press and Cusworth 1998) was evidenced, positioning it as a valid form of creative and intellectual exploration but the scarcity of literature positioning craft within academic research or as an intellectual form of making and exploration was emphasised. In addition the lack of attempts to explore the role and relevance of craft for design during a period of rapid technological change was highlighted.

The thesis described how I sought to establish a jewellery methodology, which was both creative and reflexive, stemming from my past practice and the philosophical undercurrents that guide and inform craft practice as well as a critique of current digital objects. The qualitative approach that was undertaken in this research was described as open, exploratory and evolving. I have described my use of contemporary jewellery practice as a particular, critical platform from which I was able to explore the opportunities of emotionally significant digital jewellery. The value of considering *experience* in human interactions with digital objects was also detailed, drawing on the work of McCarthy and Wright (2004), who highlighted that there are current limitations in the understanding of *user experience* in HCI and call for a new perspective on this issue that focuses on the *felt life* of technology, which embraces emotional and sensual qualities of experience.

In detailing the methodology of this research the use of contemporary jewellery practice as a direct social activity was presented as one way that jewellery practice was used in this research. As such the development of this research was described as a series of explorations in which I engaged with individuals and made digital jewellery propositions for each person. The importance of personal histories and biographies to the emotional meanings people attribute to objects was emphasised and personal emotional significance was described as having strong connections to an individual's personal criteria of beauty.

Beauty was used as a way to explain philosophical undercurrents evident in craft practice that were informing this research. Beauty was described as an emotional term connected to enchantment and empathy. These descriptions were presented to serve as a fresh perspective on the value of craft practice to explorations focusing on emotion and personal emotional significance. As such craft practice was presented as an innovative process that had significant value when seeking to design digital objects that existed in an emotional context in people's lives; a way of attending to the *felt life* of our experiences of technologies as called for by McCarthy and Wright (2004). Craft practice was posited to offer a new approach to the design and concept of emotionally significant and enriching digital experiences. Viewing craft practice as such was also detailed to be necessary for the continued relevance of craft practice in a digital age.

The exploratory studies set out my engagement with a set of individuals, along with my individual methods, my process of making proposals for digital jewellery objects for three of the individuals and the final objects and films that acted together as the proposals. The thesis detailed that I sought to find out inspirational information about each individual participant concerning aspects of their lives and personal biographies that were personally and emotionally meaningful for them. I then sought to echo fragments of this information in a piece of digital jewellery made for each person.

I described how I developed and innovated my own approach and individual methods (stimuli) influenced by both Bartels and Lindmark Vrijman (2002) and Gaver et al (1999). The thesis highlighted significant dynamics of this process of asking questions in a non-face-to-face way. I explained the value for me in using objects to ask questions; how this allowed for varied ways to ask questions about differing themes with differing levels of

intimacy. My aim had been to create a dynamic where I was *giving* something to the participant in the form of a pack of objects that demonstrated my commitment to the participants' thoughts and feelings. The thesis detailed how the questions were open enough for interpretation by a participant on various levels of intimacy allowing them to be as revealing and intimate about their lives as they wished. Successes of the *stimuli* methods were discussed detailing how the participants' had been chiefly very candid and creative in their responses.

The thesis detailed my engagement with the *stimuli* responses, this engagement was detailed to be often empathic and I regarded the responses as a collection of bizarre stories and experiences that I sought to immerse myself in and to make pieces of digital jewellery that would fit within them. My aims to create open-ended pieces that operated within personally emotionally significant contexts were articulated along with my aim to offer the potential for interpretation by the participant and continued discovery, rather than rigid ways of wearing, using or interacting with the pieces. The value of the films I made to support each piece was also reflected upon and discussed in terms of their value to communicate ideas, but also as part of the piece itself.

By conducting the research in this way I engaged with an individual's personal biography and aspects of their experiences that were personally emotionally significant to them. In turn I offered digital jewellery propositions that related to these areas of their lives and that were meant to fit in with them. By doing this I created a situation where an individual could consider firstly jewellery as digital jewellery and secondly digital jewellery as a form of digital object within a personally emotionally significant context. These situations differed from the majority of contexts of current digital objects. Using my contemporary jewellery practice in this manner enabled me to develop aesthetic and critical possibilities of digital jewellery without constraints of a commercial context. The resulting proposals of digital jewellery were not utopian propositions, but open-ended proposals that invited critical feedback, reflection and re-interpretation. The resulting pieces were described in the thesis with details of how they were designed specifically for each individual and in relation to the responses each individual had shared with me.

The stimuli methods worked well; each participant returned all of the responses and the level of candour, creativity and detail in the responses was high. If I was able to conduct the research again I would still use the stimuli methods, but in addition I would spend more time talking through the stimuli responses with each individual before beginning the design of the digital jewellery. When I did talk to the individuals in the final discussion session after making the digital jewellery they wanted to talk through the stimuli responses and tell me more details about the stories and experiences and I realised that the stimuli had acted as ice-breakers and conversation starters. The stimuli in this way could facilitate more data from each participant.

The thesis has shown how the feedback from each participant was a way of understanding if and how aspects of the proposals were regarded as valid by each participant. The responses also enabled direct feedback from the individuals and a level of objective response to the ideas I had developed, which in turn informed my own developing perspectives of the potential and value of digital jewellery. In this way the development of digital jewellery has been an iterative process.

The thesis detailed the manner in which each participant responded and the way the large body of qualitative data was coded and analysed. From this the two areas of focus in the analysis were articulated; firstly key issues arising from the participants' perceptions of personal emotional significance with regard to the digital jewellery proposals and secondly the participants' perspectives of tensions around the idea of digital jewellery.

The participants' responses chapter showed a strong connection between the participants' inter-personal human relationships and their personal criteria for beauty. In turn significant aspects of the participants' personal histories and relationships with other people were shown to have had significant influence on their perceptions of the digital jewellery proposals. Jewellery objects were shown to be perceived to be intensely personal types of objects and the thesis demonstrated that interesting shifts occurred in how the participants responded or referred to the pieces depending on whether they regarded it as a piece of electronic or non-electronic jewellery. When non-electronic the objects were described as private objects, but when electronic they were regarded as something to share with an emotionally intimate group of people.

The second focus of responses demonstrated how the participants felt there to be a tension between an object that was both a jewellery object and a digital object. The assumptions and expectations the participants had of jewellery were evidenced to be in conflict with their ideas of digital objects. A key point was that the *digital* aspect and all that implied as a category for the participants was the dominant aspect. This impacted on the participants' expectations of the materials, aesthetics, functionalities, status of object and lifespan of a piece of digital jewellery.

However the thesis demonstrated that *after* articulating their expectations and assumptions of what digital jewellery would be and then considered the pieces presented to them the participants' feelings changed towards the idea of digital jewellery. Each participant imagined a positive and personally emotionally significant scenario of use and role for the pieces in their lives and within their families.

By focusing the research project on *jewellery* specific kinds of considerations of digital objects were facilitated; as jewellery often operates as an emotionally intimate form of object, often within human relationships this kind of context was in turn considered by the participants for *digital* jewellery. As such the participants were able to consider digital objects that may have a personal and emotional significance for them, which was quite separate from how they had previously considered digital objects.

7.2 Reflections on my process

Reflecting on the research as a whole my approach has been to attempt to balance design considerations between sensitivity to human emotions or emotionally significant experiences and an appropriate and creative use of technologies to fit with these. Although I have been aware of many electronic and technological possibilities the research and designs were not driven by these. I chose to focus on the experiences that were personally emotionally significant for each participant and then sought to explore technological possibilities that would echo and enrich these experiences. The various technological functionalities that I proposed through the pieces only became meaningful in the research when woven into the context of the personal emotional experiences they related to.

My process has been in part about the subjectivity of my practice; however a level of objective input and feedback was possible through the involvement of the participants and more widely through feedback to publications and presentations disseminating the work. I explored personal emotional significance through dialogue with the participants; this dialogue has been a crucial part of the process and has pushed my practice as a contemporary jeweller into a more directly social form. The jewellery pieces were stimulated by this dialogue and arose from it and this was a vital dynamic of the process; the pieces were partly about me and partly about the other person.

This research process has emphasised that the *sense* of making is important; the sensitivities within craft are more than the physical sense of making; the empathic and emotional sensibilities in craft practice enable it to be a significant form of practice when designing and making objects that have the potential to operate in an emotionally significant way for individuals. I have found parallels and connections between craft practice and what McCarthy and Wright (2004) call the *felt life of experience* and similarly between craft and the phenomenon of enchantment. In addition I have detailed my own collaborative efforts to describe the sensibilities of craft practice in terms of beauty, empathy and enchantment. These perspectives contribute to the articulation of the value of craft practice to design in a digital age.

By moving out of my usual context of contemporary jewellery practice into a more hybrid one I experienced disciplinary challenges. My approach has been about developing my practice and working in the craft idiom through exploring new ways to infuse my practice with methods and approaches from other disciplines in a natural and integrated way. My methods have been inspired by approaches from interaction design (Gaver et al 1999) along with atypical forms of contemporary jewellery practice (Bartels and Lindmark Vrijman 2002) and theoretical perspectives have been inspired by perspectives in HCI (McCarthy and Wright 2004). I have formed my own approach to the design of personally emotionally significant digital jewellery in response to these. My approach adds to these methods and perspectives, rather than merely imitating them. The pieces I have made serve as propositions of the potential for digital jewellery to act as an extension of contemporary jewellery and as emotionally meaningful, poignant objects and interactions within a personally emotional context. The digital jewellery propositions are tangible, meaningful outcomes that illustrate and justify the use of the approach and method outlined in this thesis.

It is important to reiterate that the small sample of participants involved in the project were all artistically creative people, they were involved in either contemporary jewellery or interaction design practice and had backgrounds in art and design. They were not a random selection of people, but experts in either contemporary jewellery or interaction design and were selected because they would be able to respond to the pieces made for them in ways that drew on their specialist knowledge. This was a decision I made for practical reasons to enable a discussion based firstly on contemporary jewellery, rather than layperson assumptions of jewellery, and secondly on interaction design and current uses of digital technologies within wearable ubiquitous computing. My selection enabled a level of discussion around possible forms of contemporary jewellery with people who are actually shaping the way contemporary jewellery and interaction design develop. I acknowledge the consequences of selecting participants from these backgrounds; the responses were not from a non-specialist perspective.

Working with the participants enabled a level of inter-subjective feedback to the pieces proposed. I was not seeking praise from the participants, but insights into how the participants felt the pieces fit in their lives or how this could be achieved. By offering

proposals of digital jewellery to the participants I avoided the participants judging them as fully finished objects, which may have led to closing down considerations (Dunne 1999) and an assessment of how the object performed digitally. Instead their responses centred on suggestions and extensions of how the objects could possibly function and how they could have a personal relevance for each person. The responses added depth to my understanding of the objects and their perceived place and possible appropriation within the participants' lives.

In addition the research has demonstrated a role specific to jewellery in investigations of person-object relationships and person-person relationships. By enabling a focus on jewellery objects specific kinds of considerations of emotional meaning and human relationships were facilitated; as jewellery often operates as an emotionally intimate form of object, often within human relationships this kind of context was in turn considered by the participants for *digital* jewellery.

7.3 Rethinking digital objects

Whilst other existing examples of wearable digital objects, that echo the functionalities of existing mainstream digital devices, may offer more functions than those proposed in my three digital jewellery proposals, the contextual review (Chapter 2) demonstrated that they chiefly also lack considerations of the potential for objects embedded with digital technology to enrich personally emotionally significant experience. The pieces created in this research deliver fewer functions than current forms of wearable digital objects, but conversely exist within personally emotionally significant contexts and offer interactions that have more relevance emotionally, in terms of emotion as a key factor in human relationships, and personal meaning stemming from a personal history.

My approach was to address a climate of mass-produced gadgets and digital objects that carry with them expectations and assumptions of objects with little emotional meaning, short lifespans, transferable significance and limited aesthetics and functionalities. The digital jewellery proposed has been created to exist for the participants as reminders of the people, events and places that they described as personally significant for them; this role is a common one for many jewellery objects. But the pieces are proposed as more than reminders. I have aimed to use digital technologies to extend this context of jewellery objects to afford new functionalities that non-electronic jewellery can only allude to.

Although the short lifespan of digital objects I have referred to above relates to the current fast consumption cycle of digital objects, in physical terms digital technologies do ultimately have a lifespan; components break and wear out. Rather than seeking to develop ways to extend the physical reliability of the electronic components and so extend the physical lifespan of digital objects, or to make objects that were defined by how well they continued to function digitally I chose to value and champion the ephemeral qualities of digital technologies.

In each of my three digital jewellery proposals the technological functionality is something that is fleeting, rare or momentary. Instead of this dynamic being a negative attribute of digital technologies I chose to use it as a poignancy of the interactions and functionalities of

the digital jewellery proposals. This decision sits centrally in my vision of the development of digital jewellery and our future use of digital technologies. The three digital jewellery proposals challenge many of the current assumptions associated with digital technologies and digital objects. The common expectation of digital objects is that a user has a high degree of control in their use.

In contrast my digital jewellery proposals offer situations where a wearer does not know when the digital interaction will occur, or s/he is not able to re-record, or s/he is not able to repeat the functionality. Such dynamics call for different relationships with digital objects and different expectations of levels of control and interaction with them. The interaction dynamics proposed through the digital jewellery in this research call for patience and relinquishment of control regarding digital objects. There is a place for digital objects that have a high level of user control, but this research has articulated that this is not the only possibility for our engagement with digital objects. In the vein of the *ideas competition*, which Crampton Smith (1999) speaks of, this research has sought to challenge the current assumptions and expectations concerning digital objects and offer new perspectives and alternatives.

The participants' responses (Chapter 6) also offered insights into person-object relationships. There were strong links between what an individual felt to be emotionally meaningful or significant and what they felt to be beautiful and in many cases these feelings stemmed from their personal biographies and were manifest in objects that they owned. In addition this personal criteria of what *felt* beautiful linked strongly to personal relationships and personal experiences centring on these relationships. Jewellery objects were perceived to be intensely personal types of object. Interesting shifts occurred in how the participants referred to the pieces depending on whether they regarded them as a piece of electronic or non-electronic jewellery. When non-electronic the objects were described as private objects, but when electronic they were regarded as something to share with an emotionally intimate group of people. Each of these findings suggests the value of making digital objects that reflect what is emotionally meaningful to an individual. By doing this the scope and potential for future engagement with digital objects and technologies shifts dramatically from current perspectives. Within our culture we need to develop a conception of the design of digital objects that do not impoverish our experiences, but enhance and

enrich our relationships to other people, our daily experiences and our developing sense of selves.

7.4 Digital jewellery: a new category of object

In continuation from section 7.2 my central thesis is that digital jewellery can be considered as a new category of object. As an extension of contemporary jewellery it is very different from current digital objects and developments of wearable digital objects from non-jewellers. As detailed (Chapter 2 *Contextual review*, Chapter 6 *Participant responses...*) jewellery is a form of object that commonly has a strong position within human relationships and in personal biographies. Therefore, as an extension of this position, digital jewellery may to extend this context to offer new possibilities of personal meaning, interaction and display in relation to human experiences and relationships.

This new category led to a degree of confusion on the part of the participants as to how to consider digital jewellery; neither jewellery nor digital devices as they had known them before. I have detailed a series of tensions between assumptions and expectations of jewellery objects and conversely of digital objects (Chapter 2 *Contextual review*, Chapter 3 *The gadget* & Chapter 6 *Participant responses...*), which are a series of opposites all vying for attention and all sitting within one category of object. One challenge was to find a balance between these tensions and to offer propositions of what digital jewellery could be and how it could be defined. The participants' initial assumptions and expectations of digital objects were very strong and impacted somewhat negatively on their presumptions of what digital jewellery objects would be. The significant change in the participants' considerations of the digital jewellery proposals made for them is an indication that their initial expectations and assumptions were challenged and altered.

In addition, the tensions articulated by the participants in their initial considerations of the idea of digital jewellery could be viewed in a positive way. Jewellery objects, for the participants, related largely to qualities of personal emotional significance, lasting attachment, and connections to other people. As a consequence it was difficult for them to let such connections give way to ones that they related to the characteristics of *digital* as qualities with little or no emotional significance to them. These conflicting perceptions of digital devices and jewellery imply that jewellery objects offer a context of object that relates strongly to emotional attachment and human relationships and as such is a unique

vehicle for developments of emotionally significant digital objects. These tensions indicate that there is a balance needed in the design of emotionally significant digital objects, such as digital jewellery, in order to address the frictions between qualities associated with non-electronic objects and digital objects that will co-exist in one object.

My digital jewellery proposals have addressed a broad range of themes and issues connected to the participants' personal histories; memories of lost objects, significant dreams and aspirations, sentimental objects, absence of a loved one, connection to place, the shared criteria of beauty between people, the value of family, capturing audio snapshots of family life and the mother and child relationship. They are offered as a new way of looking at digital objects. Digital jewellery may be centred in human-relational dynamics and personal biographies and have the potential to expand the social and communicative capacity of non-electronic jewellery objects in poetic and personally emotionally significant ways.

The idea of digital jewellery is a new one, it is something that is *becoming*, not a predetermined category and this thesis argues that we need to acknowledge responsibilities in its development allowing ideas to ripen. One consequence of this research is to offer new ways of thinking about the new category of object of digital jewellery and to argue for more emotionally meaningful forms of interaction and functionality.

7.5 Objectives revisited

The contextual review (Chapter 2) highlighted approaches towards and design of body centric digital objects from both jewellers and non-jewellers; detailing key differences in type of object, motivation and perspective (**objective 1**). This critique was continued through my analysis of the nature of the gadget (Chapter 3) and beauty (Chapter 4), identifying significant differences between contemporary jewellery and digital objects (**objectives 2 & 3**). Differences exist in relation to the perception of the body, wearability, aesthetics, the relationship (both physical and conceptual) between person and jewellery object, and the scope of what a jewellery object may function as. Many differences centre on the lack of consideration that digital objects may operate within our personally emotionally significant experience with particular relevance to the social and discursive aspects of emotion (Chapter 4 *Methodology 1*).

The existing expectations of digital jewellery (**objective 4**) were shown to centre on assumptions as to materials, aesthetics, functionalities, status of object and lifespan of a piece of digital jewellery (Chapters 3 & 6). For the participants, the qualities they attributed to digital objects dominated those they associated with jewellery objects. By drawing attention to the conceptual tensions that exist concerning the extension of contemporary jewellery into digital jewellery I was able to assert that these limited expectations and assumptions of digital objects restrict not only our experiences of digital objects but also their design.

A research methodology was developed (**objectives 5 & 6**) that centred in craft practice and drew influence from methods in Human-Computer Interaction and design following a critique of existing methods in these fields. My *stimuli* methods that were created to facilitate finding out information from each participant have innovated on Gaver et al's (1999) *probe* methods. Unlike *probes* the *stimuli* are jewellery-centric and are sensitive to how a contemporary jeweller approaches making objects concentrating on personal emotional significance, personal biographies and personal criteria for beauty. Rather than seeking to adopt the *probe* method I developed my own creative, iterative method that was integrated in my practice in a creative and natural way allowing this development to enrich

my practice and the research process in connection with empathic engagement with participants and through my sensibilities as a maker.

Rather than being driven by technological possibilities and constraints, the research was centred in contemporary jewellery practice as a form of craft practice and was driven by creative, empathic engagement with participants, integrating technologies and digital interaction only where appropriate (**objectives 5 & 6**). This approach to the design of digital objects that could exist in a personal and emotionally significant context is innovative. The research has demonstrated that the current developments of digital objects may be questioned and challenged by a perspective centred in contemporary jewellery and that the questions asked and the challenges made are not matched by current approaches and perspectives from other disciplines.

Contemporary craft practice has been presented as a research vehicle and creative strategy in the development of digital jewellery and our experiences within digital culture (**objective 6**). The research has developed an inventive form of contemporary jewellery practice as a combination of direct social activity, research tool and vehicle for sense making and meaning making concerning digital technologies and personal emotional significance. The critically reflective view of craft practice presented in this research through the Beauty thesis (Chapter 4) and the practice-centred studies (Chapter 5) has acted as a means of informing a craft process with a structured understanding of meaning or significance. The research has articulated the role that contemporary jewellery practice can play in the developments of digital objects and has demonstrated and widely disseminated the value of craft practice in a digital age.

I have produced a body of work, both conceptual and physical (**objective 7**) that explores and represents design propositions that integrate digital technologies with contemporary jewellery in relation to personal emotional significance. The series of three jewellery objects and films act together as proposals for personal emotionally significant digital jewellery for participants involved in the research. The digital jewellery proposals were developed as part of a dialogue around an individual's personal history and emotionally significant experience. The pieces and the participants' responses have demonstrated the

value of personal emotional significance in digital jewellery, which has wider implications for other digital objects and our experiences in a digital culture.

The thesis proposed and demonstrated that the emergent category of object of *digital jewellery* may be an extension of contemporary jewellery. As such a digital jewellery object may combine the human-relational contexts that jewellery has upheld historically with the expanded exploratory and questioning roles afforded by contemporary jewellery practice and moreover it may extend these perspectives through the possibilities achievable by an integration of digital technologies to enrich personal emotionally significant experience.

7.6 Contributions to knowledge

The research process has culminated in a body of work, both physical and conceptual that has relevance for both design and theory. The key contributions to knowledge are claimed in 7 main areas:

1. The investigation is novel in that it not only explored an integration of contemporary jewellery and digital technologies, but also the relevancies and appropriateness of digital jewellery for personally and emotionally significant experience.
2. Through a review of current approaches to body centric digital objects the research revealed that existing approaches and objects limit our experiences as well as our expectations and assumptions of what *digital* can be. The highly prescriptive and limited nature of our collective assumptions as to the aesthetics and functionality of digital objects was shown to be exemplified in the gadget. Key differences were specified between contemporary jewellery objects and digital objects. A set of anti-objectives to the development of an emotionally meaningful digital object was established centring on the notion of the gadget.
3. The contribution to knowledge relating to contemporary jewellery is threefold.
 - i. Firstly jewellery was characterised as a particular form of object that has a strong role within our developing sense of self and within meaningful and personal human relationships.
 - ii. Secondly jewellery objects were identified and demonstrated to be unique and intimate forms of object, through which to explore the potential for digital objects to have a meaningful and personally significant role in our lives.
 - iii. Finally the research has extended contemporary jewellery practice. This has been achieved in three ways: through its use as an approach to the development of an emotionally significant form of digital object: through creating a characterisation of contemporary jewellery practice as a process

centred on emotion as social, discursive and human-relational: and through a hybrid methodology, where jewellery and craft processes integrated methods from HCI.

4. A new characterisation of craft practice has been made centring on craft as an innovative, empathic creative strategy relating strongly to beauty. The characterisation and the use of craft practice in this research identified the value of craft practice to a digital culture.
5. A hybrid contribution has been made to methods in craft and HCI practice through the integration of methods from both fields. The *stimuli* objects developed here offered a jewellery centric bias to previous contexts of Gaver et al's *probes* and were successfully integrated in contemporary craft practice.
6. A series of physical jewellery objects that represented digital jewellery propositions were made. The contributions they yield are fourfold.
 - i. Firstly the pieces are both physical and conceptual propositions of digital jewellery. They act as challenges and alternatives to current assumptions of digital qualities and demonstrate that digital jewellery may be personally meaningful and have a different pace and texture to current digital objects.
 - ii. Secondly each individual piece is a different class of object: In *Sometimes...* the physical object is dormant but connects to a digital event in the environment, outside of the jewellery, *Traces* is an example of a physical jewellery object that controls the digital and *Blossom* exemplifies a physical object that is the vehicle and locus for a digital event.
 - iii. The jewellery objects are tangible alternatives to the assumed aesthetics and functionalities of current body centric digital objects.
 - iv. Digital jewellery has been characterised and demonstrated to be a different form of object to other digital objects and jewellery objects: a new form of object.

7. Key insights were made arising from the responses given by the participants. These related to three main areas:
- i. Strong connections between inter-personal relationships and a personal criteria for beauty.
 - ii. Shifts in their perceptions of jewellery from personal (non-digital) to shared with an intimate group of people (digital).
 - iii. Complex tensions around the *idea* of digital jewellery that related to assumptions of materials, aesthetics, functionality, status of object and lifespan.

7.7 Extending the exploration of digital jewellery

The breadth of this project did not allow me to investigate in detail all the issues surrounding the notion of personal emotional significance in digital jewellery, or other aspects that emerged as a result of the research. There is therefore the potential to expand the research into further explorations. The following are potential areas for future investigation.

To realise digitally the three pieces proposed within the research. This has been achieved for the piece *Sometimes...* during 2006/7 in my role as artist in residence in Culture Lab, Newcastle University. I have Patrick Olivier and Daniel Jackson to thank for this development and collaboration. I am also currently making new pieces using the development and digital realisation of *Sometimes...* in collaboration with the University of Münster and Newcastle University. The digital realisation of *Sometimes...* has, as anticipated, raised new categories of questions and areas for consideration concerning the practical and physical marriage of jewellery and digital technologies as well as further scope and relevance for the digital interactions proposed through the piece. I anticipate that the same would occur if *Traces* and *Blossom* were digitally realised also.

Currently digital jewellery is something that a small number of jewellers are exploring, predominantly through research. There is consequently a need to contextualise digital jewellery within the field of contemporary jewellery. This is achievable by disseminating the research further and by the inclusion of digital jewellery within contemporary jewellery education, exhibitions and texts. The scope of involving digital technologies within contemporary jewellery practice is vast and offers ways to extend the strengths already evident in our experiences of jewellery objects in new and emotionally valuable ways.

The shift in the participants' perspectives (Chapter 6) from personal non-electronic object to shared digital object opens the potential for further investigation into this finding and suggests the potential for digital jewellery to be a personally and emotionally significant form of digital object operating in both private and shared contexts. This ability to relate to

both private and shared contexts is potentially a distinct quality of jewellery objects and deserves further investigation.

The potential for digital objects to be enchanting has been considered in this research (Chapters 4 and 5) and explorations of this phenomenon through further developments of digital jewellery would enrich our understandings of the value and potential of digital objects and our experiences of them. In addition, the relationship between the notions of enchantment and uncanny hold huge potential to characterising and developing digital culture.

The social and emotional possibilities of our experiences of digital jewellery that were highlighted and suggested in the research (Chapters 5 & 6) are potentially an un-mined source of information. If digital objects are developed that have a more varied and emotionally significant role in people's lives then the implications for how people fit them into their relationships is vast.

Leading on from the last point, there is great scope for digital jewellery as objects that have an emotionally significant and continued context through generations of a family. In the same way that non-digital jewellery operates as valuable objects within inter-generational relationships so the possibilities for digital jewellery exist in this context, but also as objects that have new roles and potential for interaction and meaning. To this end I have been involved in developing digital jewellery for a mother and daughter during 2007 in collaboration with Patrick Olivier, Daniel Jackson and Cas Ladha (Culture Lab Newcastle University), Andrew Monk and Mark Blythe (University of York) and Peter Wright (Sheffield Hallam University). The **Intergeneration** project was funded by the University of York and the development of digital jewellery has been conducted by me, using the methods and approach adopted in this thesis, with software development by Daniel Jackson and electronics development by Cas Ladha.

The jewellery pieces focus on the concept and design of shared digital jewellery objects for two family members, from different generations. This aspect has set this project apart from my previous pieces. We have worked with a mother of 75 and her daughter of 45 and have focused on meaningful personal experiences from the participants' lives. As with the

doctoral pieces we have aimed to echo fragments of personal emotional significance for both people through the forms and interaction possibilities of the pieces. In brief the resulting neckpieces (*Journeys between ourselves*) are made from porcelain, paper, felt, light sensors, motors, motes, accelerometers and batteries and are responsive to touch; the touch of one form causes the second to tremble gently. The pieces are being given to the family members in order to discover what meaning they give to the objects and interactions.

As I have found through my collaborations there is huge scope for further work to explore the dynamics of interdisciplinary collaboration, and in addition the role of a craft-practitioner or jeweller in this mix. In the realisation of digital jewellery I have found the perspectives I developed through the doctoral work to be invaluable: firstly as a package to bring to the group that presents different ways of viewing what digital objects may be, secondly as a way to bring craft centred methods, that enable particular kinds of sensitivities (Chapters 4 & 5) within the research process and thirdly as a way of describing the value of jewellery in the development of digital objects. The intimate, human-relational and body-centric context of jewellery has proved separate from existing contexts of object available to the people I've collaborated with.

References

Abercrombie et al. (1986) Abercrombie, N., Hill, S. and Turner, B. **The Sovereign Individual** Allen and Unwin, London cited in Lury, C (1997) **Prosthetic Culture: Photography, Memory and Identity** (International Library of Sociology) Routledge

Aicher, O (1994) **Analogous and digital** Ernst & Sohn

Anderson et al., (2003) **Playing games in the emotional space** in M. Blythe, A. Monk, C. Overbeeke and P.C. Wright. (Eds.) *Funology: From usability to enjoyment*. Kluwer pp. 151 - 163

Applied Digital Solutions (2003) **Digital Angel** in Gossett, S (2003) **GPS implant makes debut Company field-tests prototype used to track movements of human host** May 14 © 2003 WorldNetDaily.com http://www.worldnetdaily.com/news/article.asp?ARTICLE_ID=32572 last accessed July 2007

Armstrong, J (2004) **The secret power of beauty** Allen Lane

Astfalck, J (2005) in Astfalck, J & Derrez, P (2005) **New directions in jewellery** Black dog publishing

Astfalck, J (2003) **Jewellery is Life**, review, *Crafts*. No. 180 pg 58

Astfalck, J, Paxman, K & Horn A. (2004) **Who's jewellery is it anyway** ChallengingCraft International conference 2004

<http://www2.rgu.ac.uk/challengingcraft/ChallengingCraft/papers/jivanastfalck/aphabstract.htm>

Baker, L (1978) **100 years of collectible jewelry, 1850-1950** Collector Books

Bar, E (1979) **Things are stories: A manifesto for reflexive semiotics** *Semiotica* 25 3/4 1979

Barry, B (2000) **StoryBeads**

<http://ic.media.mit.edu/icSite/icpublications/Conference/EverybodyWearable.html> last accessed July 2007

Bartels, U and Lindmark Vrijman, M (2004) Personal communication during 2004

Bartels, U & Lindmark Vrijman, M (2002) **KPZ-02** <http://www.projects2realate.net/> last accessed June 2005

Baudrillard, J (1996) translated by Benedict, J **The system of objects** Verso

Bender, G and Druckrey, T (1994) **Culture in the brink : ideologies of technology** Bay Press

Bennett, O (2003) **Set in emotion: functionality is not enough for today's consumers. They want to be seduced by tactile, intuitive products that also make a personal statement** Design Week, 11 December 2003 also available at http://www.accessmylibrary.com/coms2/summary_0286-19966629_ITM last accessed July 2007

Boorstin, J. (1990) **Making movies work: Thinking like a filmmaker** LA: Salman-James Press

Braga, C (2005) Celio Braga website detailing his jewellery work <http://www.celiobraga.com> last accessed July 2007

Breazeal (2000) Details of MIT sociable humanoid robot project <http://www.ai.mit.edu/projects/sociable/overview.html> last accessed January 2003

Broadhead, C (2005) **A part/Apart** in Grant, C ed. **New Directions in Jewellery** Black Dog Publishing

Bunnell, K (1998) **The integration of new technology into designer/maker practice** Bunnell doctoral thesis

Calkins, E (1927) **Beauty: The New Business Tool** published by The Atlantic Monthly, August 1927 Vol 140

Carley, M.A (1997) **The pleaseures of excess** Metalsmith, Summer 97. pg 22

Cheung, L (2001) in **Marzee Gallery** catalogue 8th April – 30th May 2001

Chismar, D (1988) **Empathy and sympathy: the important difference** Journal of value enquiry 22 pp. 257 - 266

Clynes, M & Kline, N, S (1960) **Cyborgs and Space** in Hables, Gray et al. eds. (1995) **The Cyborg Handbook**. New York: Routledge, 1995. pp. 29-33.

Cochrane, P (1998[1]) **Soulcatcher** in Fixmer, R (1998) **The Melding of Mind With Machine May Be the Next Phase of Evolution** Personal Computing August 11, 1998; NYT <http://www.cochrane.org.uk/opinion/archive/interviews/11-08-1998.php> last accessed july 2007

Cochrane, P (1998[2]) **Soulcatcher** in Grossman, W (1998) **Peter Cochrane Will Microprocess Your Soul** Wired magazine Issue 6.11 | Nov 1998
<http://www.wired.com/wired/archive/6.11/wired25.html?pg=17> last accessed July 2007

Collins English Dictionary (2000) definition of **Gadget** pg.484

Cooper, A (1999) **The inmates are running the asylum** Indianapolis, Ind.: Sams

Coyne, R (1999) **Technoromanticism : digital narrative, holism, and the romance of the real** MIT Press

Craftspace (2004) touring exhibition **Self** <http://www.craftspace-touring.co.uk/self.htm> last accessed July 2007

Crampton Smith (1999) in Dunne, A (1999) Lane, G ed. **Hertzian Tales: Electronic products, aesthetic experience and critical design** RCA computer related design research

Crowley, D (2002) Article by Crowley describing Moi Sompit Fusakul's **Interactive ornaments** Culture Lab-uk online magazine of style, culture and technology August 08, 2002 <http://www.culturelab-uk.com> last accessed Dec 2005

Csikszentmihalyi, M and Rochberg - Halton (1981) **The meaning of things: Domestic symbols and the self**, Cambridge University Press

Robert Cummings (1975) in Graves-Brown, ed. (2000) **Matter, materiality and modern culture** Routledge

Dahm, J (1989) **Light kiss** brass, black chromium plates, film, bulb & battery www.schmuckmuseum.at/gruendung.shtml last accessed July 2007

de Waal, E (2000) **On writing + crafts** Maker's news December 2000

Dekoli, M (2002) **Electro-Jewels** <http://web.media.mit.edu/~margo/Electro-Jewels.htm> last accessed July 2007

Desmet, P.M.A (2003) **Measuring emotion: development and application of an instrument to measure emotional responses to products** In Blythe, MA, Overbeeke, K, Monk, AF & Wright, PC (Ed.), **Funology: from usability to enjoyment**. (Human-computer interaction series, 3, pp. 111-123). Dordrecht: Kluwer

Desmet, P.M.A. (2000) **Emotion through expression; designing mobile telephones with an emotional fit**. Report of Modelling the Evaluation Structure of KANSEI, 3, 103-110. Tsukuba: University of Tsukuba

Desmet, P.M.A., Hekkert, P., and Jacobs, J.J. (2000) **When a car makes you smile: Development and application of an instrument to measure product emotions** in Stephen J. Hoch and Robert J. Meyer (eds.), *Advances in Consumer Research*, vol. 27

Downs, J and Wallace, J. (2002) **Making Sense, Using an Experimental Tool to Explore the Communication of Jewellery** in Design and Emotion published by The Design and Emotion Society and The Design Research Society.

Derez, P (2005) **Jewellery? What kind of jewellery are we actually talking about?** in Grant, C ed. **New Directions in Jewellery** Black Dog Publishing

Dewey, J (1934) **Art as experience** reprinted (1980) Perigree

Dormer, P (1997) **The culture of craft** Manchester University Press

Dormer, P (1994) **The art of the maker** Thames and Hudson

Dormer, P and English, H W D (1995) **Jewellery of our time: art, ornament and obsession** Thames and Hudson

Dormer, P and Turner, R (1985, revised ed. 1994) **The new jewellery: trends and traditions** Thames and Hudson

Du Pont corporate website featuring 1935 slogan *Better things for better living through chemistry* <http://heritage.dupont.com> last accessed July 2007

Dunne, A and Raby, F (2001) website detailing their perspectives
<http://www.crd.rca.ac.uk/dunne-raby/index.html>

Dunne, A and Raby, F (2001) **Design Noir: The secret life of electronic objects** August/Birkhauser

Dunne, A (1999) Lane, G ed. **Hertzian Tales: Electronic products, aesthetic experience and critical design** RCA computer related design research

Eisermann (2003) in **Set in emotion** Design week Dec 11th 2003 web article in which Eisermann, director of design and innovation at the Design Council UK describes the *sensorial quality assessment method*

<http://www.mad.co.uk/Main/News/Disciplines/Design/Articles/51887a42aed8451d9263dd200f667607/Set-in-emotion.html> last accessed July 2007

Falk, J & Bjork, S (1999) **The Bubblebadge: A wearable Public Display** CHI 1999 also available at <http://www.viktoria.se/fal/publications/play/1999/bubblebadge.pdf> last accessed July 2007

Fenichel, O (1945) **The psychoanalytic theory of neurosis** New York: W. W. Norton

Filmer, N (1995) **Ear to mouth piece** Cast silver in Gilhooley, D & Costin, S (1997) **Unclasped contemporary british jewellery** Black dog publishing pg. 41

Forest, J.C (1962) **Barbarella** first created for V magazine

Frohlich, D (2004) **Beauty as a Design Prize** Human-Computer Interaction, 2004, Vol. 19, No. 4, pp. 359-36

Fusakul, Sompit Moi (2005) **Interactive jewellery: an example of SciArt collaboration** http://www.mtec.or.th/th/course_seminar/detail/matforum/Abtrc_Dr_sompit.html last accessed July 2006

Fusakul Sompit M, (2002) **Interactive Ornaments: Emotions in Motions** Doctoral thesis: Royal College of Art

Gadget Wikipedia entries describing cartoon character inspector gadget

http://en.wikipedia.org/wiki/Inspector_Gadget last accessed July 2007

Gaspar, M. (2003) guest presentation Ars Omata International Contemporary Jewellery Convention, Zurich, Switzerland 2003

Gaver, W, Hooker, B & Dunne, A (2001) **The Presence Project** RCA CRD Projects series RCA Research Publications

Gaver, W, Dunne, A and Pacenti, E (1999) **Design: Cultural probes** in New visions of human-computer interaction. ACM Inc. Danvers: MA

Gaver, W Boucher, A Pennington, S & Walker, B (2004) **Cultural probes and the value of uncertainty** Interactions: New visions of human-computer interaction Volume XI.5 September & October 2004 pp. 53 - 56

Gratiot, D (2004) Description of Nicole Gratiot Stober's work with accompanying images, private communication 2004

Govers, P & Mugge, R (2004) **I love my jeep, because it's tough like me : the effect of product-personality congruence on product attachment** Fourth International Conference on Design and Emotion. Ankara, Turkey, 12-14 July 2004

Govers, P (2004) **Product personality** Dissertation, Delft University of Technology

Govers P, Hekkert P & Schoormans J P L (2003) **Happy, cute and tough: Can designers create a product personality consumers understand?** In McDonagh D, Hekkert P, van Erp J & Gyi, D eds. (2003) **Design and emotion : The experience of everyday things** London: Taylor and Francis

Gilhooley, D and Costin, S (1997) **Unclasped contemporary british jewellery** Black Dog

Gray, C & Malins, J (2004) **Visualising research - A guide to the research process in art and design** Ashgate

Greenhalgh, P (2002) **The persistence of craft** A and C Black

Grossman, W (1998) **Peter Cochrane Will Microprocess Your Soul** Wired magazine Iss. 6.11 Nov 1998 <http://www.wired.com/wired/archive/6.11/wired25.html?pg=17> last accessed July 2007

Guba E.G. (ed) (1990) **The Paradigm Dialog** Sage Newbury Park et al

Harris, J (1999) **Preparing a medium for the next millenium: The crafting of computer graphics: A textile maker's perspective** European academy of design conference, Sheffield

Hogarth, W (1753) **The analysis of beauty** Printed by J. Reeves for the author

Hewett (2003) ACM SIGCHI **Curricula for Human-Computer Interaction** by Hewett, Baecker, Card, Carey, Gasen, Mantei, Perlman, Strong and Verplank
<http://sigchi.org/cdg/cdg2.html> last accessed July 2003

Hogg, D (2004) in Belsher, H. & Turrell, J. eds. (2004) **Jewellery Unlimited** Association for Contemporary Jewellery (ACJ)

IBM[1] digital Jewellery article from zdnet
<http://www.zdnet.co.uk/storv/0..t269-s2080513.00html> last accessed January 2003

IBM[2] digital Jewellery article from German gz journal
http://www.gz-journal.de/en/translations/Translation_May2001_Viewpoint.cfm last accessed July 2007

IDEO [1] Myerson, J (2001) **IDEO: Masters of innovation** Lawrence King

IDEO [2] 2000 corporate website <http://www.ideo.com/ideo.htm> last accessed December 2003

Innovations 2007 magazine online
<http://www.innovations-e.com/bin/procesa.asp?opcion=cambiopais&idpais=46&cidp=1> last accessed july 2007

Jenkins, A. H (1997) **The empathic context in psychotherapy with people of color** in Bohart, A. C & Greenberg, L. S eds. **Empathy reconsidered: New directions in psychotherapy** Washington DC: American psychological association

Jones, T (2002) **Short Cuts article detailing the work of Kevin Warwick** London review of books Vol. 24 No. 18 dated 19 September 2002

http://www.lrb.co.uk/v24/n18/print/jone01_.html last accessed July 2007

Juriens, S (1997) **Bijoux peau cible** jewellery made from shadows

Kant, I (1763) **Observations on the Feeling of the Beautiful and Sublime** (New Ed edition University of California Press (1991)

Kant, I (1790) **Critique of Judgment** (In —The Cambridge Edition of the Works of Immanuel Kant in Translation Guyer, P (Author), Matthews, E (Translator) Cambridge University Press; New Ed edition 2001)

Kettley, S (2004) in Belsher, H. & Turrell, J. eds. (2004) **Jewellery Unlimited** Association for Contemporary Jewellery (ACJ)

Kettley (2005) **Crafting the Wearable Computer** Napier University, Edinburgh, Scotland

Kettley, S (2002) **Conference report: International symposium of wearable computers 2002** University of Washington in **Interfaces** No. 53 Winter 2002. British HCI group

Kirwan, J. (1999) **Beauty** Manchester University Press

Lang, F (1927) **Metropolis** Director Fritz Lang, Writer (novel) Thea Van Harbou (script) Fritz Lang

Latour, B (1993) **The Berlin Key** in Graves-Brown, ed. (2000) **Matter, Materiality and Modern Culture** Routledge

Laurel, B (1991) **Computers as theatre** Addison Wesley Publishing Company

Levin, G (2003) presentation at **user mode = emotion + intuition in art + design** Tate Modern 2002 http://www.tate.org.uk/onlineevents/archive/user_mode/#golan last accessed July 2007

Lupton, D (1998) **The emotional self: A sociocultural exploration** Sage Ltd

McCarthy, J, Wright, P, Wallace, J., Dearden, A. (2006) **The experience of enchantment in human-computer interaction** Personal and Ubiquitous Computing Journal, Vol. 10, Number 6. pp. 369-378

McCarthy, J. Wright, P., Wallace, J. and Dearden, A. (2004[1]) **The experience of enchantment in human-computer interaction** CHIFringe'2004, The ACM conference on human factors in computing systems. ACM Press.

McCarthy, J. Wright, P. Wallace, J. and Dearden, A. (2004[2]) **The experience of enchantment in human-computer interaction** DIS (designing interactive systems) conference US August 2004

McCarthy, J.C. and Wright, P.C. (2004) **Technology as experience** Cambridge, Mass: MIT Press

McCracken, G (1988) **The long interview** Sage Publications inc

McCullough, M (1996) **Abstracting craft: The practiced digital hand** MIT Press

MeWilliam, I (2002) Keynote address at usermode Tate Modem 2002

Malins, J and Gray, C. (1995). **Artists Designers and Craftspersons: Research as a Learning process**, Centre for Research in Art and Design, Grays School of Art, Faculty of Design, Robert Gordon University, Aberdeen

<http://www2.rgu.ac.uk/criad/cgpapers/cc/cc.htm> last accessed Jan 2004

Mann, S (1998) Wearable Computer Definition taken from Steve Mann's keynote address **Wearable computing as a means for personal empowerment** presented at the 1998 International Conference on Wearable Computing ICWC-98 Fairfax VA, US May 1998

Mann, S (2001) **Cyborg: Digital destiny and human possibility in the age of the wearable computer** Random House inc.

Metcalf, B (1993) **Metalsmith** Vol 13 No 1 pg. 23

Metcalf, B (1996) **Recent Sightings: The Wearability Issue**, **Metalsmith** Winter 1996 Vol 16 No 1

Ruth Millikan (1984, 1993) in Graves-Brown, ed. (2000) **Matter, Materiality and Modern Culture** Routledge

MIT (2000) wearables group website <http://www.media.mit.edu/wearables/> last accessed July 2007

Miner, C (2003) cited on Infoworld website article detailing IBM's development of digital jewellery proposals <http://archive.infoworld.com/articles/op/xml/00/08/07/000807opwireless.xml> last accessed March 2003

Myerson, J (2001) **IDEO: Masters of innovation** Lawrence King

Nakanishi, A (2002) Welcome address **Design and Emotion International conference**, Loughborough

Nike [1] corporate website http://www.nikebiz.com/media/n_techlab.shtml last accessed November 2004

Nokia [1] corporate website featuring Nokia's digital jewellery projects (2000) <http://www.nokia.co.uk/nokia/0,8764,70871,00.html> last accessed Dec 2004

Norman, D A. (1998) **The invisible computer: why good products can fail, the personal computer is so complex, and information appliances are the solution** MIT Press

Norman, D. A. (2004) **Emotional design: Why we love (or hate) everyday things** New York: Basic Books

Noten, T (1996) **Chip-Ring** Transistor chip, gold, resin in Watkins, D (2002) **Design sourcebook Jewellery** New Holland pg. 114

Oberlack, U (2004) in Belsher, H. & Turrell, J. eds. (2004) **Jewellery Unlimited** Association for Contemporary Jewellery (ACJ)

Ossevoort, S. (2002). **Wearable Dreams**. Research project and thesis developed for the Interaction Design Institute Ivrea, Italy October 2001 - June 2002

Partington, M (2004) in Belsher, H. & Turrell, J. eds. (2004) **Jewellery Unlimited** Association for Contemporary Jewellery (ACJ)

Paz, O, and the world arts council. (1974) **Use and Contemplation in: In praise of hands** Greenwich, CT: New York Graphic Society

Peacock, J (2002) **20th century jewelry: the complete sourcebook** Thames and Hudson

Philips Electronics [1] (2000) **New nomads: An exploration of wearable electronics by Philips**, 010 Publishers

Philips Electronics [2] corporate website detailing research at Philips

<http://www.philips.ca/About/company/local/Partsofthewhole/competencies/design/Index.html> last accessed July 2007

Poston, D (1994) **What is jewellery?** Crafts Council

Preece, J., Rogers, Y. and Sharp, H. (2002) **Interaction design: Beyond human computer interaction** Wiley

Press, M and Cusworth, A (1998) **New lives in the making: The value of craft education in the information age** Crafts Council, Sheffield Hallam University, Art and Design Research Centre

Press, M (1997) Design Journal vol.1 issue2 1997

Press, M (1995) **It's Research Jim...** European Academy of Design, Design Interfaces Conference

Press, M (2003) Lecture on digital culture Sheffield Hallam University

Preston, B (2000) **The Functions of Things: A Philosophical Perspective on Material Culture** in Graves-Brown, ed. (2000) **Matter, Materiality and Modern Culture** Routledge

Priimagi, L (1997) in **Millennium 11 : international jewellery art exhibition**
Published Catalogue of an exhibition organised by the Estonian Academy of Arts

Pye, D (1968) **The nature and art of workmanship** Cambridge University Press

Pythagoras (6BC) cited in Norman, D (2004a) **Human Computer Interaction Journal, Special edition on Beauty, Goodness and Usability** Vol. 19, No. 4, pp. 311-318

Plotinus in MacKenna, S (2002) **On beauty: critical essay** Daedalus, American academy of arts and sciences. Vol 131 Issue 4 pg. 27

Rheingold, H (2002) **Smart Mobs, The next social revolution** Basic Books

Riklin - Schelbert, A (1999) **20th Century Swiss art jewellery** VGS Verlagsgemeinschaft St. Gallen

Rosolowski, T (2002) **The Virtues of Unwearability** Metalsmith Spring 2002 pg. 21 - 27

Rhodes, B (1997) **The wearable remembrance agent: A system for augmented memory**
Personal technologies journal special issue on Wearable Computing 1997, 1, 4, 218-224

Sandino, L (2002) in Greenhalgh, P (2002) **The persistence of craft** A and C Black

Shackel, B (1990) **Human factors and usability** in Preece, J & Keller, L eds. **HUMAN
Computer Interaction** Prentice-Hall

Schiller, F (Author) Snell, R (Translator) (2004) **On the Aesthetic education of man**
Dover Books on Western Philosophy

Skubic, P (1975) **Jewellery under the skin** in Ellen Maurer-Zilioli (2005) **Golden Ring of
Honour of the Association for Goldsmiths' Art** for Peter Skubic from Vienna
http://www.gfg-hanau.de/unterseiten/veranstaltung_skubic_eng.htm last accessed July 07

Stamer, T (2001) **Situation Aware Computing with Wearable Computers** in Barfield, W
& Caudell, T eds. **Fundamentals of Wearable Computers and Augmented Reality**
Lawrence Erlbaum

Stendahl (2004) in Armstrong, J (2004) **The secret power of beauty** Allen Lane

Michael Schiffer (1992) in Preston, B (2000) **The Functions of Things: A Philosophical
Perspective on Material Culture** in Graves-Brown, ed. (2000) **Matter, Materiality and
Modern Culture** Routledge

Schon, D, A (1983 & 1991) **The reflective practitioner: how professionals think in
action** Avebury

Schouwenberg, L. (1998) **The Secret language of a jewel: 'Nieuw werk'** Galerie Louise
Smit, Amsterdam

Shields, J (1988) **All that glitters : the glory of costume jewelry** Rizzoli

Schneiderman, B. (2002) **Leonardo's laptop** Cambridge, MA, MIT Press

Stotland, E (1978) **Empathy, fantasy, and helping** Sage Publications

Steadman, P (1979) **The evolution of designs** in Frayling, C & Snowdon, H (1982) **Crafts: with or without arts** Crafts, March - April 1982

Stratton & Hayes (1988) **A Student's Dictionary of Psychology** Edward Arnold (Hodder & Stoughton) London

Trend, D ed. (2001) **Reading Digital Culture** Malden, Mass : Blackwell Publishers

Terragni, (2002) in Arad, R, Cappellini, G, Guilfoyle, U, Hodge, B, Houseley, L, Hansjerg, M, Niimi, R, Ubeda, R, Ytterbom & White, L eds. **Spoon** Phaidon, London

Topham, S (2003) **Where's my space age?** Prestel

Poutasuo Tuula (1997) **Janna Syvanoja: The aesthetics and symbolism of jewellery as spatial art**, Form, Function, Finland #66/2

Turner, R (1976) **Contemporary jewellery; a critical assessment 1945 - 75** Macmillan

Turner, R (1996) **Jewellery in Europe and America: New times, new thinking** Thames and Hudson

Wall, M (2006) **Let rip with techno rage** The Sunday Times Jan 8 2006

http://technology.timesonline.co.uk/tol/news/tech_and_web/article786157.ece last accessed July 2007

Wright,P, Wallace, J, and McCarthy, J. (in press) **Aesthetics and experience centred design** ToCHI 08 (Transactions on Computer Human Interaction)

Wallace, J, Jackson, D, Ladha, C, Olivier, P, Monk, M, Blythe, M & Wright, P 2007 **Digital jewellery and family relationships** Workshop on the family and communication technologies, Northumbria University

Wallace, J, Dearden, A, Fisher, T. (In press) **The significant other** AI and Society

McCarthy, J, Wright, P, Wallace, J & Dearden, A. (2006) **The experience of enchantment in human-computer interaction** Personal and Ubiquitous Computing Journal Volume 10, Number 6

Wallace, J. **Emotionally Charged** (2006) Proceedings of Blue Skies and Singing Rings AHRC funded guest seminar, Royal College of Art, London

Wallace, J, Dearden, A and Fisher, T. (2005) **The Significant Other** Proceedings of 'Wearable Futures - Hybrid Culture in the Design and Development of Soft Technology' University of Wales, Newport

Wallace, J. (2004) **Jewellery, Technologies and Significance** Proceedings of ChallengingCraft, International Conference, Gray's School of Art, Aberdeen

Wallace, J. and Press, M. (2004) **All this useless beauty** The Design Journal Volume 7 Issue 2

Wallace, J. and Press, M. (2004) **All this useless beauty: Finding beauty through craft in digital technology** Proceedings of PixelRaiders2 Conference, Sheffield Hallam University

Wallace, J. and Dearden, A. (2004) **Digital Jewellery as Experience** in *Future Interaction Design* edited by Pirhonen, A, Isomaaki, H, Roast, C and Saariluoma, P. published by Springer Verlag

Wallace, J. (2003) **A Practice Based Investigation into the Integration of Digital Technologies within Contemporary Jewellery** Proceedings of HCI2003: Designing for Society, Bath. British HCI Group

Wallace, J. and Press, M. (2003) **Craft knowledge for the digital age: How the jeweller can contribute to designing wearable digital communication devices** Proceedings of Sixth Asian Design Conference, Japan

Warwick, K (2002) **What happens when a man is merged with a computer?** Prof. Kevin Warwick's webpage university of reading <http://www.kevinwarwick.com/Cyborg1.htm> last accessed July 2007

Watkins, D (2002) **Jewellery Design Sourcebook** New Holland Publishers Ltd

Weiser, M (1993) **Some computer science issues in ubiquitous computing** Communication of the ACM July 1993 New York : ACM

Westin, A (1993) **Torun: Conversation with Vivianna Torun Bulow-Hube** Carlssons

White, H (1995) **Permanent Fixture** ring screwed into bone of finger, details of piece courtesy of artist

White, R (1989) **Towards a contextual understanding of the earliest body ornaments in the emergence of modern humans: bioculture adaptations in the later Pleistocene** Cambridge University Press

White, R (2002[1]) Institute of Ice Age Studies, website detailing White, R on early social systems signified by evidence and production of jewellery

<http://www.insticeagestudies.com/library/ivory/ivory5.html> last accessed July 05

White, R (2002[2]) BBC corporate website, science strand detailing White, R on palaeontology research concerning jewellery

http://www.bbc.co.uk/science/apeman/dig_deeper/article_2.shtml last accessed July 2002

Wilson, S (2005) **Evoke: Out of the showcase**

<http://www.vrc.dundee.ac.uk/centrespace/2004/evoke.html> last accessed July 2007

Wispe, L (1986) **The distinction between sympathy and empathy: to call forth a concept, a word is needed** Journal of personality and social psychology, 50 pp. 314-321

Wright, P.C., McCarthy, J.C., and Meekison, L. (2003). **Making sense of experience** In M. Blythe, A. Monk, C. Overbeeke and P.C. Wright. (Eds.) Funology: From usability to enjoyment. Kluwer. pp. 43 - 53

Wright, P.C. and McCarthy, J. (2005) **The value of the novel in designing for experience.** In Pirhonen, A., Isomaki, H., Roast, C. and Saariluoma, P. (Eds.) Future Interaction Design. Springer, pp. 9-30.

Yelavich, S (1999) **Beauty's back in town or design gets a hickey** High Ground Design Conference <http://www.highgrounddesign.com/design/dcessay997.htm> last accessed Nov 2005

Zellweger, C (2003[1]) Professorial lecture 24th March 2003 Sheffield Hallam University, UK

Zellweger, C (2003 [2]) Personal communication with Christoph Zellweger January 2003

Zellweger, C (1999) **Christoph Zellweger** Sheffield Hallam University, Yorkshire and Humberside Arts

List of illustrations

Figure	Description	Image source
1	Jayne Wallace 1999 <i>Echo</i> Silver and stainless steel	My own images
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3	Jayne Wallace 1999 <i>Speak Up</i> Silver, steel, plastic coated wire	
4	Jayne Wallace 1999 <i>Speak Up</i> Silver, steel, plastic coated wire	
5	Jayne Wallace 1999 <i>Speak Up</i> Silver, steel, plastic coated wire	
6	Bakker, G 1967 <i>Shoulder Piece</i> Blue Anodised Aluminium 60cm Holland	Dormer, P and Turner, R (1994) The New Jewellery: trends and traditions , Thames & Hudson pg.10
7	Van Leersum, E 1968 <i>Necklace – object to wear</i>	den Besten, L (2003) After the revolution, jewellery without boundaries Jewellery in The Netherlands since 1990 http://www.klimt02.net/uploaded_images/2674.jpg&imgrefurl=http://www.klimt02.net/forum/index.php%3Fclassification%3D47&h=147&w=130&sz=9&hl=en&start=4&tbnid=rCTRS_3X1SJWmM:&tbnh=95&tbnw=84&prev=/images%3Fq%3Demmy%2Bvan%2Bleersum%26gbv%3D2%26svnum%3D10%26hl%3Den%26sa%3DG
8	Otto Künzli 1980 <i>Gold Makes Blind</i> Armband. Rubber, and gold	Image courtesy of private collector
9	Bernhard Schobinger 1990 <i>Holiday in Cambodia</i> Embossed silver	Turner, R (1996) Jewelry in europe and america, new times, new thinking Thames and Hudson pg. 121
10 (group)	Joachim Baur 1976 <i>Schmuckrahmen/Jewellery-frame</i> Wood, gold	www.schmuckmuseum.at/gruendung.shtml last accessed July 2007
11	Mah Rana 2001/02 <i>Lost but loved</i> Gold (antique locket) Hair, and antique jewellery boxes	Rana, M. (2002 Jewellery is life) pp. 40 - 43 Fabrica
12	Célio Braga 2002-3 <i>Rubros</i> (in	www.celiobraga.com last accessed July 2007

- progress) Felt, cotton and red glass beads
- 13 Hiroko Ozeki 2001 *Tear Collector* Image courtesy of the artist
Silver
- 14 Lin Cheung 1999 *Memoria* Ear Pins, Image courtesy of artist
silver, gold
- 15 Iris Eichenberg 1998 *Brooch* Wool Image courtesy of Rob Koudijs, Galerie Louise Smit,
and silver Amsterdam
Photographer Ron Zijlstra
- 16 Cathy Chotard and Fabrice Schaeffer <http://www.galerie-helene-poree.fr> last accessed July 2007
2003 *Correspondences* 10 rings by
each maker, mixed media
- 17 Astfalck, Paxman and Horn 2004 http://www2.rgu.ac.uk/challengingcraft/ChallengingCraft/papers/ji_vanastfalck/aph05.htm# last accessed July 2007
The meeting of hands and hearts
Mixed media
- 18 Ulrike Bartels & Malin Lindmark www.projects2realate.net/Interface.swf last accessed Dec
Vrijman 2002 *KPZ-02* 2005
Dress Gold chain and jewellery box Further images available at:
- 19 Ulrike Bartels & Malin Lindmark <http://www.malinlindmarkvrijman.com/kpz%20-%202002.htm>
Vrijman 2002 *KPZ-02*
Handle Chain goldplated aluminium
- 20 Anna Rikkinen 2002 *Angel* Print on Marzee Gallery Catalogue August 2002 Page 22
glass
- 21 Bernhard Fink 1995 Fink, B (1996) *Through what jewellery*
Mirror Ring Galerie V & V Wien
Glass mirror
- 22 Hazel White 1995 Image courtesy of the artist
Defence mechanism #4
Steel and surgical glue
- 23 Fritz Lang 1926 still from film Director Fritz Lang,
Metropolis Writer (novel) Thea Van Harbou (script) Fritz Lang
- 24 Kit Pedler 1966 (original) http://www.bbc.co.uk/doctorwho/classic/gallery/images/1024/6t_1_o.html last accessed Jan 2004
Cyberman from TV series *Dr Who*
- 25 Bjork 2001 *All is full of love* Still from the Bjork Video *All is Love* featured in
26 music video directed by Chris publication Bjork (2001) *Little i Ltd* (no page
Cunningham numbers used in publication)
- 27 Cynthia Breazeal 2000 *Kismet* an http://www.samogden.com/Kismet_Photo.html
Last accessed July 2007

	experiment in social robotics	
28	Isao Shimoyama 1997 <i>Robo-roach</i>	The Face Sept 1997
29	Isao Shimoyama 1997 <i>Robo-roach</i>	www.intercorr.com/roach.htm last accessed July 2007
30	Wearables group MIT circa 1997 wearables version 1.0	http://www.media.mit.edu/wearables/history.html last accessed July 2007
31 (group)	Steve Mann examples of his explorations into <i>wearables</i>	http://www.justatopic.com/2007/07/steve-mann-cyborg.html last accessed July 2007
32	Steve Mann circa 2005 <i>Eyeta</i> p wearable computing	http://www.eyetap.org/about_us/hilab/index.html last accessed July 2007
33	Jennica Falk & Staffan Björk 1999	CHI1999 also available at
34	<i>The Bubblebadge: A wearable Public Display</i>	http://www.viktoria.se/fal/publications/play/1999/bubblebadge.pdf last accessed July 2007
35	Fukumoto Masaaki & Tonomura Yoshinobu 1997 <i>Body Coupled FingeRing: Wireless Wearable Keyboard</i>	Proceedings of the SIGCHI conference on Human factors in computing systems 1997 http://portal.acm.org/citation.cfm?id=258636&dl=ACM&coll=GUIDE last accessed July 2007
36	Barbara Barry <i>StoryBeads</i> Plastic,	http://ic.media.mit.edu/icSite/icpublications/Conference/EverybodyWearable.html last accessed July 2007
37	electronic components	
38		
39	Margarita Dekoli 2002 <i>ElectroJewels</i>	http://web.media.mit.edu/~margo/Electro-Jewels.htm last accessed July 2007
40	Mixed media and electronic	
41	components	
42	Stijn Ossevoort 2002 <i>WearableDreams</i> Designs	http://projects.interactionivrea.it/endofyear/en/research/wearabledreams.asp last accessed Dec 2006
43	Stijn Ossevoort 2002 <i>WearableDreams</i> Prototype	http://projects.interactionivrea.it/endofyear/en/research/wearabledreams.asp last accessed Dec 2006
44	IBM Research 2000 <i>digital jewellery</i>	http://electronics.howstuffworks.com/digital-jewelry2.htm last accessed July 2007 http://www.gzjournal.de/en/translations/Translation_May2001_Viewpoint.cfm last accessed Jan 2003 http://www.gzjournal.de/en/translations/Translation_May2001_Viewpoint.cfm last accessed Jan 2003
45	prototypes and concepts	
46		
47	Philips <i>Buttonhole phone earpieces</i>	Philips (2000) New nomads : an exploration of wearable electronics by Philips Published by 010 pg. 31
48	from New Nomads concepts	
49		
50	Philips <i>piercings</i> from New Nomads	Philips (2000) New nomads : an exploration of wearable electronics by Philips Published by 010 Pg.142 and 144
51	concepts	

52	IDEO 2001 <i>Cellphone Rings</i> technojewelry concepts	Myerson, J (2001) IDEO: Masters of Innovation Lawrence King pg.145
53	IDEO 2001 <i>GPS Toes</i> technojewelry concepts	Myerson, J (2001) IDEO: Masters of Innovation Lawrence King pg.24
54	Jozeph Forakis 2001 <i>Others Eyes</i> Digital jewellery concept	Arad, R et al (2002) Spoon Phaidon Press Ltd Pg.151
55	Sherman, I. 1995. 'The Arbitrator' mixed media, electronic components.	Turner, R (1996) Jewellery in Europe and America: New Times, New Thinking Thames and Hudson Pg.77
56	Nicole Gratiot Stöber 1994 <i>For Two Rings</i> Magnets, stainless steel, Perspex, LEDs with electronic components	Nicole Gratiot Stöber © 1994 all rights reserved. Photographer Christoph Grünig. Images courtesy Daniel Gratiot.
57	Nicole Gratiot Stöber 1994 <i>Light Brooches</i> Stainless steel, plastic, LEDs, electronic components	
58	Christoph Zellweger, Peter Russell Clark & Scintillate 2000 <i>digital jewellery</i> Precious metals, crystal, electronic components	Images courtesy of artist.
59		
60		
61		
62		
63	Moi Sompit Fusakul 2002 <i>Aliform</i> NiTiNol shape memory alloy, radiant colour mirror film, vactan plastic film & electronic components	http://www.mee.tcd.ie/~moriwaki/personaldebris/index.php?m=200404 last accessed July 2007
64	Fig. 64 Moi Sompit Fusakul 2002 <i>Vein2</i> Sideglow, pvc, vac formed plastic, rose gold plated base metal, iridescent glass beads & electronic components	
65	Ulrike Oberlack 2004 <i>light as body</i>	Belsher, H. & Turrell, J. eds. (2004) Jewellery Unlimited Association for Contemporary Jewellery (ACJ), London Pg. 91
66	<i>adornment</i>	
67	Mixed media, LEDs and electronic components	
68	Sarah Kettley 2004/5 brooch with ProspeckII	http://www.dcs.napier.ac.uk/~cs179/sarah_kettley/jewellery1.htm last accessed July 2007

	perspex, formica, gold leaf	
69	Sarah Kettley 2004/5 Detail of pendant with ProspeckII perspex, formica, gold leaf	
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71	Hazel White & Ewan Steel 2005 Prototype modular jewellery Silver chain	Images courtesy of artists
72	Hazel White & Ewan Steel 2005 Details from swarm screen based visual element of the work	
73	Paco Rabanne 1967 – 68 <i>Aluminium mini dress</i>	Topham, S (2003) <i>Where's my space age?</i> Prestel Pg. 61
74	Pierre Cardin 1967 <i>Cosmocorps</i>	Topham, S (2003) <i>Where's my space age?</i> Prestel Pg. 79
75	Nolan Bushnell for Nutting and associates 1971 <i>Computerspace</i>	Topham, S (2003) <i>Where's my space age?</i> Prestel Pg. 70
76	Sanyo Electric Corporation 1970 <i>Living capsule</i>	Topham, S (2003) <i>Where's my space age?</i> Prestel Pg. 73
77	Jayne Wallace 1999 <i>Eyelashes</i> Silver and stainless steel	My own images
78	Jayne Wallace 1999 <i>Echo</i> Silver and stainless steel	
79	Jayne Wallace 1999 <i>Touch</i> Silver	
80	Jayne Wallace 1999 <i>Speak Up</i> Silver, steel and plastic coated electrical wire	
81	Jayne Wallace 1999 <i>Speak Up</i> Silver, steel and plastic coated electrical wire	
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105	Instruction text accompanying stimulus	
106	<i>Jewellery and play</i> stimulus	
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111		
112		
113		
114		

115		
116		
117	Jayne Wallace 2005	My own images
118	Still images from film accompanying	
119	<i>Traces</i>	
120		
121		
122		
123		
124		
125		
126		
127	Jayne Wallace 2005	My own images
128	Still images from film accompanying	
129	<i>Blossom</i>	
130		
131		
132		
133		
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136		
137		
138		
139	Front page of journal and an example	My own images
140	journal page	
141	Detail of coded data and codes given to it	My own images
142 - 160	Images from participant responses – captions included with text	Source for all images: participants' responses in text or interview formats. For full details of all responses see Appendix C.

**Emotionally charged:
A practice-centred enquiry of digital jewellery and
personal emotional significance**

Appendices

Jayne Wallace

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

July 2007

Appendices

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Appendix A: examples of Christoph Zellweger's contemporary jewellery

Zellweger, C April 2007 **Foreign Bodies** ACTAR

Images sourced from :

http://www.actard.com/index.php?option=com_dbquery&task=ExecuteQuery&qid=1&idllibre=3778&lang=en

Concorso 2000

image sourced from :

http://www.kultur-schweiz.admin.ch/kunst/image/wett_design02/zellweger.jpg

B o d y p a r t y j j j 9 9 7

Expanded polystyrene and

chrome

Image courtesy of artist

Collection of work featuring stainless steel and expanded polystyrene pieces

Image sourced from : http://before.studio-dust.com/work_display.php?id=25

Appendix B: materials and processes from the three exploratory studies

This Appendix provides additional material supporting the exploratory studies in Chapter 5 of the main thesis. In support of the creative process and piece made for each person the three sections of this appendix are focused on each participant showing individual participant stimuli responses and my creative process relating to the making of a piece for each person broken down into my initial approaches, development of ideas, creation of final pieces, development of films to support each piece and discussions with Graham Long (York Electronics) & Peter Wright (York University) relating to the technological reality of the pieces.

1 For Faith

1.1 Faith's stimuli returns

Disposable Camera

An object that is precious to you

Something reflecting a quirk of
your nature

Something beautiful

Something funny

Permanence

Transience

i B t e i p- ff

T O * .

Something boring

A favourite object (non jewellery)

A favourite piece of jewellery

Happiness

Anything - you choose

Something about you that you
like

**A reminder of someone dear to
you**

Something unusual

Strength

Fragility

A favourite view

A favourite place

**A favourite communication
device**

**A connection to someone you
love**

An element of your routine

Anything - you choose

Anything - you choose

Body Map

BODYMAPPING

FRONT

Wear jewellery everyday (blue stickers)

Would be happy to wear jewellery everyday (yellow stickers)

Wear jewellery occasionally (green stickers)

Would like to wear jewellery (red stickers)

Would never wear jewellery (white stickers)

Pot of Clay

Is' Prize

frid
3
nvi bit

frid

“For being mother to 5 fantastic children who seem to be surviving me

I aspire to patience and calm with outbursts of confident fun

I would like to be able to sing and dance and use my body”

Lost Object

2 What is it? 1
« UmaJvh fixiby ivMif, maMctf ivuh u, piiiaily
ui de*sjbr fcl. *, ICAUMteuW
I k C ^ 0 fixmfru Sain twu vwt***
htipuy b <*pJyvuf (■ u

3 What is it? 2
Kt-tjoilu/ y'Uj / XitÆ iiaUJi&letr

4 What is it? 3
j. What is it that you remember about the object?
SnwJJ, siL^tr, fuitij, nAXm ^ CZZZCJ
ptwcu dLs'cos g afpflcasC
Th Txc<XS~7 ^StudZi &t wB&itiSi, fo
Mw-v^ Gt>M tjlil ■

6 Why was it special to you?
Kt ilim
IjnbeWU if Mvwt qdCZ j Gt^ hca*
A tvt*y*U4cg ICC>M,,
Ijts W* 0 V*TM,, SAto

1. Have you ever lost an object that you treasured?

“Yes, although it was something I hadn’t had long”

2. Please describe this object.

“A miniature pastry cutter, made of metal, probably smaller in diameter than a ring, I can’t remember.”

3. Could the item be replaced?

“No, it went down the sink when I didn’t clean up after a pastry session and left the mess for my mum.”

4. ...if it was replaced would it mean the same to you?

“Not really, although I love small perfect objects.”

5. What is it that you remember about the object?

“Small, silver, fluted mine (drawing of the cutter) possible diameter of a 5p piece. It’s hard. Because I was small & it was small, to remember relative sizes.”

6. Why was it special to you?

“see above

I pretended it would make jam tarts for miniature people I was less than 10 yrs old. Between 5 & 10.”

Dream

“I am in my studio, a large white airy space with
favourite things around me
Materials to work with And not far away on the other
side of my beautiful garden I have a large kitchen table
for anyone to drop by, eat + talk
My house is in the Comargue I think, because I can ride
across the marsh on white horses, so I know it is a dream,
as I have yet to learn to ride.”

Communication Fairytale

“ ffo u h a c / c a - J d t l
S f e n p i t A a y o u J
n w e u i c a r w i t M f i I

1. You decide to find ‘loved’. You pack a kit of 5 things that you always carry with you...

“Money, phone, tissues, watch, pen, keys, mini leatherman tool”

/ l t M z / e * a (h a / y o u m

h n u j w i t
p i u a

2. What is it that you miss about 'loved' when you are not with them?

“Their smell

Their presence at night”

*Gppcut, do you & e/ connected 'to jomett-ne w /ten tie y <***
no r:W/A VO# AhykccU/y?*

W aff&oag tkin A o /h goodntemc&yo fyog- and/ovectone...
yOAtube*it/oooh/oe?*

*dhj^ck kkuj
ML,
g p s u(CEx) IMZ,
sb&A-tA*

*fpAA&fy^ i*e#*fvcryp^ kj2.0-d^*-y
b^c&L-to oux Wzu/
VtMj x r<zJsd, &UU
Qj&y:f COOJAMjMt&h<nA*

3. How do you feel 'connected' to someone when they are not with you physically?

“through objects they have given me.

Through being in spaces we have shared”

4. Please think of a good memory of you and 'loved'...what does it look like?

**“Walking hand in hand along a spanish seafont (in sitges) before heading back to our hotel... very x
rated, but about communication as well as desire.”**

*VGtæ
o fhuman commdmication or model of
^tecAnohatccUoommgnication do you tin d jirectoui ?
Stið
,4A4L*0)kuJr-
I CiAn (K x&esu*

Q) / any/deny toeve how utou/dyou /ic to
nmuncate miM loed?
cU a cU^fC* / / ,vice\Çi
HAJ G^Cvj
£s (A^UJ cj I d4A^G irvut
‡ Us'Djiti LA^Z tt t-xaJ j
JDSLSR
iX y^0J' lS~
UrA-fjd JXQ*

5. What kinds of human communication or modes of technological communication do you find precious?

“speech
eyecontact - although that can be scary”

6. If anything were possible, how would you like to communicate with 'loved'?

“at a deeper level; mind meld?”

But only occasionally, & only if I were sure I would like what I found i.e. that he loved me”

Favourite Sounds

Please tell me some of your favourite sounds
• ■. U&Hc&iS <Khuc.<e> kfi&d r>iw 6<*&
0*. VilgUC^J Hv&(h -fkbttic*

d e w j cSU ^ 'l /tx U 'Jto.
u/t t .1* t<^>*& y t:y''ur
n b b c n f!/<d>*/

“bird song - dawn chorus. Chuckling small children/babies gurgling. Hot air balloons going overhead in the evening, & calling the children to see it pass. Dressmaking scissors cutting through fabric. Scissors curling ribbon and paper. Walking on new snow. Leaves rustling

Top Trumps

faoJCoSJZ* I 0,Qyut
b(5Y
(K WU^Ui q<5Wbd)c
WAGj>α huns a
fdw s >PQX(ji+rvohofjch
α \r>&ix”
^ cMAjj^UZjnJL ljUZJbh, I
ft p6l fwAA WAJJC
foyyitnu CkxJd^

	r V		
This owned by w In years	2 .5	Time owned Oyou to y a r t 7?	Time owned fey you in years apb zo?
Perianal significance		Personal ugnificance S ST	Personal sipificance 35
Emotional content	& 0	Emotional content %A	Emotional content 5 s
Unique	i ° o	Unique 9 S	Unique /fft>
Personally evecattra	T *5	PBrsnaly evocative 90	Personally evocative
K		VS	
Chest of drawers		Limoges box	Childrens Teeth
Small (Georgian?) wooden chest of drawers that I took when I left home		A small white + gold box marked Limoges, contains a tooth + a spoon (just noticed it says Jerusalem on back of spoon belonged to a dead friend	A pot full of milk teeth from my children

IWxjioJcn OrnhoAj? d6l\ f i SWXU btVW^btO-T l"jL f-<g6GL£sho uSIL*
b W M ftyw ui £7 ^ j c k j kfb \ t-c heaur oojo^eduy tp<r^tK p&azcfftX/hifxwfc*
(ju£ AQ (Jmx foj" U&dja kQj-a-o-Our rea iues UOCAU."
Utiko^ (ij 006 : 6n O^fnp #2%a bcs ■ M/gV-i; loOjdtf <Czu- (U&uJ CkAxd £ M s Ò M

4 || ; - >

UmiwJ feyyaik yurt 3b	Theownedtryyaotayears 3 5	TtMiwied feyy n k years ±
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IMPS /TO	EnothralNtant ^ho	Emtknl ceitiRt 60
ftrsany mcattae M ? V	Unique toO	100
	Peronaly evocative	Par m ly ivecatlve f0

Motheaten costume doll	Small brown bear 4" long	Featherhouse
Bought for me by my dad (one of the few presents he chose) when he was on a trip in the 60s	A plaster bear covered in real fur - used to have a pair + very worn baby, but I had to throw them away because they got mouldy.	From a piece of artwork "featherhouse" etched glass 'shadows' of swan feathers

Jewellery + Play

1. Please think back to the first pieces of jewellery you owned and describe one of them
 "A necklace from the 'big girl' next door - blue 'glass' beads of various sizes, not round.

I broke mine, my older sister had a red one which lasted longer and I wanted it. The blue was magical - not dark or light."

2. How did you acquire this piece of jewellery?

"I must have admired it so much in her jewellery box that she gave it to me. I was about 3 years old, she must have been in her teens. I think her name was think she had a jewellery box with a turning round ballerina, that I loved to look at. Someone did. We didn't have things like that in our house."

3. What role did these first pieces of jewellery play for you?

"It was beautiful and it was mine"

4. Do you still own any of these pieces?

"No broke years ago"

5. Have you ever involved jewellery in play and games? Can you recall an example?

"When I was a child my mother used to help organise jumble sales. I used to go through and choose all the jewellery for dressing up - clip on earrings were best, screw on ones more painful. I still have a box of costume jewellery I acquired then in the 60s"

6. Do you still relate jewellery to play?
“Pretending to be grown up and glamorous!”

7. Thinking about the jewellery you own now, please tell me about any of these pieces that have a play element for you.

“big ring with turquoise stone, that feels heavy on my finger, but makes a statement, look at these hands. I used to have lots of big 80s earrings but then went minimal, partly because my ears kept getting infected. Also having babies who grab earrings & a ‘proper’ job where I try and have discreet or less cluttered shapes, so people don’t stare at your ears when you talk! I did have a huge load of fun earrings”

8. Please ring/highlight any of the following words, which relate to your perception of play.

Amuse Challenge Carefree Perform Sport Motion Fragile Rough Pleasure Tactile Fantasy Kinetic
Emotional Essential Gentle Compete Trivial Robust Humour Escape Construction Fun Dreams
Puzzle Unimportant

Are there other words you would use instead to describe ‘play’?

“I feel that play is for other people - not sure if its because I feel old or just don’t have time. I have a suspicion I am not a playful person”

1.2 My initial thoughts

These are the notes of my initial thoughts and feelings towards the stimuli responses Faith had given to me.

A really sensitive person. Lots of beautiful descriptions, and connections to people. Lack of time. Belief that she doesn't have a sense of playfulness - yet I found the responses to be highly imaginative, adventurous and fun. Maternal. Most of the objects relate to people dear to Faith

Top Trumps:

Many of these objects are old now and worn - the images they conjure up are white ethereal objects - glass houses and feathers, milk teeth, a small white box, shadows - as well as aged beauty - a moth eaten doll, a shabby bear with real fur and an old wooden chest of drawers.

Each of these objects has a story attached to it

- the children's teeth are all about the growing up of Faith's children - the teeth are a small part of this process that has stopped - captured time - a still of them as children.
- the Limoges box is a strange mix of a tooth and a spoon that belonged to a dear dead friend.
- Feather house - makes me think of the house maybe for all of these objects - a place where they could find home - the shadows of the past events each object relates to portrayed on the surface
- the moth eaten doll is a rare prize from her Father - something he chose for her on a journey in the 60s
- the chest of drawers is a rite of passage object - a piece of furniture Faith took when she left home - a piece of the past carried into the future - growing up
- the worn bear, now alone as his partner and baby became too mouldy to keep and were thrown away.

Pot of clay: A beautiful impression of her daughter's curls

The Pillow and the 'jewellery and loss' stimuli were some of the most evocative and awakening responses for me - I really feel I have to respond to these pieces.

The dream is so rich descriptively - the sentence *"a large white, airy space with favourite things around me"* echoes the feelings I got from the top trumps pack -

a small white and gold box... contains a tooth and a spoon

'shadows' of swan feathers

A pot full of milk teeth from my children

These descriptions conjure up ideas of white spaces, ephemeral and ethereal. Gentle forms and interactions. Serenity and calm.

The 'loss' stimulus:

Faith describes a miniature pastry cutter, found at a jumble sale - which she describes as *a regular*

source of precious objects she also states she has a love of small perfect objects. The idea of a jumble sale is intriguing - as a treasure trove of odd, lost objects - things that find you perhaps.

I would like to make a piece where the pastry cutter visits Faith again - it could leave digital cutting marks in the piece I make for her - as if it has gone on to have another life and is just letting her know what it is up to in a way - by visiting her occasionally.

Several times she describes the importance of an object or what she remembers of an object in terms of 'it was *mine*' - with all her busy life I think it would be nice to make something that was perhaps just for Faith - or in part just for her - but could also be shared with other people or her children if she wanted it to be - but rather than focusing on this I want to focus on something for her.

Jewellery and Play Stimulus:

"I feel that play is for other people - not sure if its because I feel old or just don't have time. I have a suspicion I am not a playful person."

I feel Faith to be playful and would like to make room for this in the interaction of the piece.

Photographs:

The images make me think of two different sides to life for F. There is chaos, clutter, speed, frenzy, fun & laughter. Then there is serenity, calm, white openness, delicacy, love, nurturing

What seems to be the puzzle?

Creating a space for herself- a way of bringing all the important memories together in a place that echoes them all - a hush

What are my initial perceptions of an enriching path to follow specific to this person?

Cloudlike - white - natural white - soft cocoons surrounding images of objects precious to F - something that shows age - something reminiscent of past times - lace - delicateness and layers of cloth, maybe felt. The piece would act to offer this airy space for F and will connect to digital environments like her laptop or her ipod, etc - to very occasionally trigger one of the objects to visit her

Ghosts of the objects mentioned

An airy space - home to objects dreamed, lost or past.

The form = Calming, settling, beautiful and familiar - like an old friend - an amulet

The behaviour = Surprising, occasional and significant

Hot air balloon - White horse - White feathers - Milk teeth - Pastry cutter - Spoon - Daughter's curls - Ballerina from a jewellery box - Worn doll

"a large white airy space with favourite things around me"

These images are things that I gathered or photographs that I specifically took in a gut response to the Faith's stimuli responses. They were my initial way into thinking, beyond text, of imagery, texture, gesture and form that felt relevant to the responses. Gathering images was a way for me to form a visual vocabulary, an activity similar to drawing for me, a way of visualising and articulating ideas.

**Worn, layered, well used,
well loved, revealing a
history - like the layered
skirts of the costume doll**

**White, lace, sound of
scissors curling ribbon, the
dream of a kitchen table
where people can drop by
and eat and chat**

**Dreams, feathers, layers of
clothing and lace**

**A dream of white horses,
small perfect objects**

**Domestic objects, a large
kitchen table where people
can drop by and chat**

**Small miniature pastry
cutter
'mine'**

**White, calm, maternal,
Belly - permanence after
having children
Glass, porcelain, enamel**

**A space for yourself, calm,
serenity

space**

**White feathers,
'featherhouse' artwork**

Calm, serene, sanctuary

**White feathers, pink walled
garden**

**Horses in the marshes,
feathers**

1.3 Development of idea

Initial ideas as text and gathered images

Grouping of responses that seemed to connect for me

A focus of imagery - influenced the developing forms

**Experiments - models and materials
- Felt and antique lace cocoons**

Models - miniature silver horses, pastry cutters, spoon

Experiments - copper etched like lace and white enamel - like glass

**Development of forms -
Etched copper cocoons and refinement of enamel work**

Refinement of idea and materials and development of aesthetics - synthetic silk strands - like hair - laser cut felt —glasslike white enamel - lace and metal etched like

Detail of etched and enamelled metal

Detail of etched metal cocoons

Detail of experiments

Lacemaking, laser cut felt and etched metal

**Development of forms influenced by
worn costume doll**

Refinement of form

Silk like Daughter's hair

**Development of enamelling to
appear worn, old, used - from a
different era**

Detail

Final piece

1.4 Development of film

Storyboard

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The film was driven by the idea of something dream like. The colour white had been a dominant feature of many of the responses from Faith and I used white backgrounds and fades to echo this. I sought to give a feeling through the imagery and music of the dreamlike quality of the jewellery concept. The sequences showing the jewellery object were slow and used gentle gestures to hold the piece and show it from different angles. The fades between sequences were important to echo the dream like feel - I wanted them to be similar to someone blinking - the image fades to white, then back up again to a new sequence of images - slow white cross fades from one sequence to the next.

The text used in the film, although minimal, was crucial. I wanted to give some indication of controlled aspects of the piece - i.e. firstly that the films related to dreams and memories, secondly that such things may visit us (which I presumed would indicate digital visits to the participant or other audience, as in all cases the viewer would know the piece is a digital jewellery proposal) thirdly that the 'visits' would only happen rarely and fourthly to illustrate a quote from the participant that would indicate to them part of my inspiration from what they had shared and to any other audience a quote that reflected aspects of the idea more generally.

The film demonstrated digital 'visits' in both public and private settings and illustrated that the scale of image would vary depending on the size of screen it was interacting with. I could have used more screens, i.e. mobile phones.

I wanted to show one way that the piece could be worn - perhaps I should have shown more ways to limit closing the potential for the participant to experiment down - I didn't show the wearer's face in close up as I felt it was important for the participant to see the piece as belonging to her, rather than about the person in the film. I sought to offer a scenario where the wearer in the film did not appear to respond emotionally to any of the 'visits' and in one case the wearer continued to walk on past the 'visit'. I wanted the participant to imagine herself in these situations and respond in her own way to the potential of the proposal. The ambiguity of the consequence or appropriation of the proposed object and digital interaction potential was important to maintain to allow a personal appropriation from the participant.

Stills from DVD

SOMETMES

Presents the piece -
close up enough to see
detail

Shows the piece in scale
with the body

Shows different angles
of the piece as it is
moved around in the
hands

Text setting the story

OUR DREAMS AND MEMORIES
CAN VISIT US

NOT EVERYDAY

The two pieces of film representing Faith's dream
of white horses and memories of a lost miniature
pastry cutter

Text detailing a key
dynamic of the piece

ONLY RARELY

This only occurs rarely

A public place.
Blue wall like in Faith's
garden
Film shows the piece
and one way it could be
worn

Illustrates how the
digital aspect of the
piece could occur - as
the wearer approaches a
digital display one of
the films is triggered

The horse cantors from
one screen to the next -
moving around the
building

In a different location
the screen begins to
change as the wearer
walks by

The pastry cutter appears and makes an indentation
as the wearer passes by

A private place.
The horse appears again
this time on the Mac

A LARGE WHITE
ART SPACE
WITH FA/ORUE THINGS
AROUND ME

**The piece is shown
again curled on a pillow
- a home for the dreams
and memories**

**Faith's quote used to
signify one influence on
the final idea**

1.5 Technological reality

Notes from discussion between Jayne Wallace, Graham Long (York Electronics) & Peter Wright (York University).

“Sometimes...”

Jewellery
object

\ /
Ubiquitous digital display/screen
based in public and/or in home

Inside the piece of jewellery is a small transmitter - if one that is powered by a battery then it could be about 5mm or so in diameter.

/
Receiver programmed with the film of the horse or pastry cutter

It turns on for 5 milliseconds every 10 seconds - comparable with a digital watch using a watch size battery and a small transmitter

Induction type
charging - like a
toothbrush

Our discussion:

The electronics can be very small & if it's a transmitter that's powered by a battery then it could be about 5mm or so in diameter. Graham had an example of a small transmitter as part of an animal tag In this example one wire acts as an antennae and both wires go to the battery.

Graham commented that the difficulty is trying to decide what size battery to use. This is dependent on whether you want to keep the thing alive at all times in case it happens to go to a certain place and therefore it has to activate the piece. The alternative which is used for RFID where (for example garments which have electronic tags on them in a shop) you walk into an electromagnetic field, the field detects the presence of the circuit

and provides enough energy for the circuit to become 'alive' and respond with the unique number of the specific RFID tag. We may not need a unique number in this case it may just need to be present and then that triggers off whatever reaction is programmed into the receiver, be it a garment going out of a shop that hasn't been paid for or a film of a horse playing on a screen - as far as the engineering is concerned they're just the same.

The difficulty becomes trying to define the environment in which we want this to work.

Q - If there were two extremes to consider: if you wanted 'always on' functionality for the device which we agree is going to be the size of the neckpiece and is going to have those kind of power requirements, what kind of battery would do that - one like in a mobile phone, so quite big? Or would it be like a watch battery?

A - Ideally you want to keep it in snooze mode which is very low power and then come alive for a fraction of a second every few seconds, so it is actually on and transmitting maybe for only one millionth of the time, but the problem then is if it turns on once every ten seconds for example that may not be frequent enough to trigger off the events that you want, when you pass one of the digital displays, so perhaps once every second is better to allow things to happen in the artistic display and then suddenly you need a much bigger battery.

Pete commented that this was interesting because given the way I've conceived the pieces the film doesn't 'happen' every time you pass one of these displays so there is an interesting relationship then between the number of displays there are and the amount of time the piece has to be on. So if there were three of these displays in York City centre then the chances are it would have to be on all the time for that to work even on rare occasions where as if they were fairly ubiquitous these displays, if the piece was coming on for something like ten minutes three times a day or whatever, two seconds every four hours or something the chances are you would get a response every now and again which would be a truly random kind of element.

Graham - so it's that sort of power budget that you would need to do in order to work out how large or small the battery would be and then you could decide well is this something where the battery is encapsulated inside by the jeweller and you never touch it again or are you willing to go a jewellers shop and get a battery replacement as you

would a watch every two years or something or like a tooth brush you put it in a holder and it charges it up.

Peter – the toothbrush, induction type charging would be really interesting. To come back to the actual piece that we've got – I can see that there's an issue here of size – we could have made a different piece with more space – but if we had that to use now we could clearly get the small transmitter in it and probably a small power cell in it as well – so constraining it by the size of the piece – what kind of performance could we get out of it? Imagining that the displays are the ubiquitous kind. Say if it turned on for 5 milliseconds every 10 seconds it is comparable with a digital watch using a watch size battery and a small transmitter then...

It could be a transponder as well but you are rather limited to the range over which they work – you've got to be about a meter or so – if more than 2 metres you need a battery to make it work.

Jayne – I think it needs to be around 3 metres

Graham – then you are struggling as normally you have coils on both sides and you have a defined aperture like a doorway to walk through.

Peter – but if we did go down the battery route with a digital watch type battery we could get a couple of years if we didn't make it pulse too often. Say once every 20 seconds.

Graham – batteries are much better at giving an occasional pulse than being on continuously as the chemistry has time to recover.

2 For Emma

2.1 Emma's stimuli returns

Disposable Camera

Some prompts were not responded to by Emma, partly because she had difficulty getting the flash to work on the camera - she bought two additional cameras to overcome this, but they too let her down.

An object that is precious to you

Something reflecting a quirk of
your nature

Something beautiful

Something funny

Permanence

Transience

Something boring

A favourite object (non jewellery)

A favourite piece of jewellery

B i l r ↙■

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Happiness

Anything - you choose

Something about you that you like

A reminder of someone dear to
you

Something unusual

Strength

Fragility

A favourite view

A favourite place

T f
v- i\

A favourite communication device + A connection to someone you love

An element of your routine

Anything - you choose

Anything - you choose

Body Map

BODYMAPPIPG

tw iqqjjftY cioa

M3A8

BACK

- Wear jewellery everyday (blue stickers)
- Would be happy to wear jewellery everyday (yellow stickers)
 - Wear jewellery occasionally (green stickers)
 - Would like to wear jewellery (red stickers)
 - Would never wear jewellery (white stickers)

Pot of Clay

1st Prize

“Being as good a parent as I can possibly be, despite making mistakes.”

Lost Object

1. Have you ever lost an object that you treasured?

“Yes”

2. Please describe this object.

“A large chunky silver ring. It was carved from blue wax, then cast using waste silver from my (then) partner’s silversmithing projects at college.”

3. Could the item be replaced?

“It seems not.”

4. ...if it was replaced would it mean the same to you?

“He made a replacement, but I didn’t wear it constantly as I had done the original”

5. What is it that you remember about the object?

“How heavy it was, and how often people commented on its size/weight/proportion - I have quite small hands.”

6. Why was it special to you?

At the time, it was a kind of wedding ring.”

Dream

“Dream

(Recurring theme of naked torso).

In this dream I was in a college, possibly ***, And my upper body was naked. I knew, but nobody else paid any attention to me. As if they didn’t notice. Then at some point, a student (known to me) indicates that he knows my tits are out. Like he’s the only one who can see me. As soon as he touches a nipple, I wake up. I have now dreamt this exact dream 3 times.**

Communication Fairytale

became

xmz any- nut.

1. You decide to find 'loved'. You pack a kit of 5 things that you always carry with you...

"Keys, money, sketchbook, pen, cigarettes"

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2. What is it that you miss about 'loved' when you are not with them?

"Everything. The touch of their hands, feet and face. The sound of them calling me. The sound of them talking to themselves. The routine and responsibility of them. That they are so perfect and innocent, and happy to be with me."

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3. How do you feel 'connected' to someone when they are not with you physically?

I think about things we have done together. I remember things they said/say. I see things that belong to

them. I feel ways in which I am different because I know I have known them.”

4. Please think of a good memory of you and ‘loved’...what does it look like?

It’s orange. It looks light and airy. It looks sunny and clean. It feels pure, and unconnected to any bad times, ‘loved’ said something which made me laugh out loud for the first time in months.”

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5. What kinds of human communication or modes of technological communication do you find precious?

“Touch, laughter, giving and sharing. Sometimes pain and upset are precious too. I don’t think it’s the technology itself that’s precious; it’s what’s being said/done and when, so I can’t really answer.”

6. If anything were possible, how would you like to communicate with ‘loved’?

“By them knowing that I am always thinking of them, and if they ever need me I will be there for them; in person if possible.”

Favourite Sounds

M Please tell me some of your favourite sounds

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“My daughter’s breathing while she sleeps, rain, popping the foil on top of a jar of instant coffee (with my finger).”

Top Trumps

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Photograph Of Me + Dad

Sketchbook

Homer (Blue Blanket)

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Nan's Old Watch

Hair From (Daughter's) 1st Cut

Mum + Dad's Wedding Photos

Jewellery + Play

1. Please think back to the first pieces of jewellery you owned and describe one of them

"To be honest, I have very poor memory of my childhood. I probably had tons of jewellery, but don't remember it! I do remember being given 6 'silver' coloured bangles by my friend whose Dad worked in Saudi Arabia. I was about 8."

2. How did you acquire this piece of jewellery?

"Sorry - as above"

3. What role did these first pieces of jewellery play for you?

“I felt really important and grown up. They were decorative (4 narrow ones + 2 thicker ones) and I thought they might be valuable.”

4. Do you still own any of these pieces?

“They might be in Mum’s roofspace.”

5. Have you ever involved jewellery in play and games? Can you recall an example?

“No - I really never have!”

6. Do you still relate jewellery to play?

“I do now, but not because I used to. Because I now consider it important.”

7. Thinking about the jewellery you own now, please tell me about any of these pieces that have a play element for you.

“None of them (sorry)”

8. Please ring/highlight any of the following words, which relate to your perception of play.

**Amuse Challenge Carefree Perform Sport Motion Fragile Rough Pleasure Tactile Fantasy Kinetic
Emotional Essential Gentle Compete Trivial Robust Humour Escape Construction Fun Dreams
Puzzle Unimportant**

Are there other words you would use instead to describe ‘play’?

“Natural, sexual, educational, strategic, trivialised, power.”

2.2 My Initial thoughts

These are the notes of my initial thoughts and feelings towards the stimuli responses Emma had given to me.

Very candid responses

Very parent/child orientated responses

Emma & her Dad

Emma & her daughter

Relationships, nurturing, protection

Memories + future

Fragility but strength, vulnerability yet open

Fairytale - Quotes about always being there for this person. - most poignant response for me - about lasting relationship, and always being there for her daughter, in person if possible

Rosette - Being as good a parent as possible

Top Trumps - photo of her and her Dad

Photos - Photo of her and her Dad, photo of her daughter - red shoes

Parent Daughter relationship

She mentioned to me (and showed on the body map) that she doesn't wear jewellery everyday - hasn't owned something that means enough - once wore a chunky silver ring made by an ex-partner - kind of wedding ring - this had a strong meaning so she wore it, but lost it & no other jewellery has meant enough to her since to wear it.

In our conversation she mentioned her keen interest in jewellery many times - not just contemporary jewellery, but traditional and historical contexts of jewellery - the meanings and human connections portrayed through it. Term she used "getting to the bottom of what you want to know"

A quirk of her nature is to make lists - She likes to talk and share her views - words are important to her - very vocal - likes to impart her knowledge

She said she found the 1st Prize stimulus very enjoyable and the fairytale stimulus very painful to respond to. She used both stimuli to reflect on her relationship with her daughter - the 1st prize to state she aimed to be a good parent and the fairytale to reflect on how she would feel if she was ever separated from her daughter.

The following quotes from the fairytale stimulus were very poignant for me and influenced my design decisions strongly:

"Everything. The touch of their hands, feet and face. The sound of them calling me. The sound of them talking to themselves... I remember things they said/say... 'loved' said something which made me laugh out loud for the first time in months...Touch, laughter, giving and sharing. Sometimes pain and

upset are precious too... By them knowing that I am always thinking of them, and if they ever need me I will be there for them; in person if possible.”

Ideas:

Something for her to fill based around voices, a digital absorbency.

Something about jewellery without necessarily being jewellery - the importance of jewellery we don't wear - value of traditional forms of jewellery - deconstruction of forms of traditional jewellery -

something to pass on - akin to heirlooms. - Digital as something to grow with - something to last.

Pearls of wisdom - Information is one core element - each 'pearl' could be about a different form of wisdom.

A different way of imparting and sharing information, thoughts, conversations

Tactility important - blanket, daughter's toys - "touch of hands feet and face"

Piece that incorporates fabric, stitching

Something for Emma to play with her daughter

Use of traditional form of jewellery - pearls of wisdom - pearls are formed through pain to the oyster - connects to Emma saying "sometimes pain and upset are precious too" - her fairytale responses were she said painful for her to convey and the idea of not being there for her daughter are also difficult to contemplate -

A trace of their existence

Pearls similar to her favourite jewellery object - a string of wooden beads

A jewellery case - about jewellery and the value of jewellery not worn - refers to our conversations

Maybe a series of tags to attach to own forms of jewellery - to go with the box - you decide what story to tell

As in the process for the other two pieces the following images are things that I gathered or photographs that I specifically took in a gut response to the Emma's stimuli responses. They were my initial way into thinking, beyond text, of imagery, texture, gesture and form that felt relevant to the responses and my way of trying to get a grasp on what the responses were sparking off for me in my imagination.

Fragility and strength

Open but vulnerable

**Like fabric - like cloth -
something that has
qualities of cloth**



**Many responses involved
fabric**

Both soft and loud

**Comfort blanket - softness
of some materials**

**Comfort, reassurance
satin, velvet, silk**

**Open - for her to fill —an
abstract for her to make
sense of**

**Deconstruction of worn
objects**

Descriptions of
**recognisable objects rather
than the objects themselves**

**Traditional forms of
jewellery - the meanings
jewellery has**

**The deconstruction of
something familiar**

Daughter's shoes

**'touch of her hands, feet
and face'**

Feel of skin

A

**A trace - an imprint - an
impression**

2.3 Development of idea

Fragility but strength

Scrunched fabric

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Many of Emma's responses featured fabrics - blankets, clothes, daughter's fabric toys - 1 focused on softness of materials and stitching

Something to represent Emma's daughter - shoes like those in the photo of her

Experiments - combining stitching with metal

Indentations of the stitch marks on metal

Development of idea - traditional forms of jewellery - lockets combining the stitch marks of the shoes

Ideas of protection

Capturing something

Importance of the colour red

- the tactility inside the eggshells - hard,
but very smooth - porcelain?

Development of idea - use of porcelain —reflecting Emma’s comments of the feel of her daughter’s flesh
Also ideas of jewellery for a jeweller who says she doesn’t wear jewellery - pearls of wisdom - for someone who is
keen to pass on knowledge, is very vocal and who mentioned the significance of her daughter talking to herself and
making up songs etc —a piece based on the idea of a pearl necklace

t

Development of porcelain pearls

Jewellery about jewellery
The importance of jewellery we don’t
wear - the vocabulary of jewellery -
vintage jewellery case

Jewellery case for a necklace of
pearls

Models developing the aesthetics,
scale, materials, forms

Form of jewellery case translated from computer image, to paper model to laser
cut and scorched object. By experimenting with the laser cutter I was able to
reduce the strength of the laser to just scorch the pile of the velvet away,
leaving the base fabric intact - like drawing on the velvet —fine lines like traces
themselves of the different components of the jewellery case.

The aesthetics of a clasp -
interpreted into my physical
description of a clasp

The use of fabric - velvet - as with porcelain similar qualities to the feel of
skin.

Laser cut and scorched in the shape of the interior of a jewellery case with all the details of the hinges, folds of fabric etc - a *description* of the jewellery case

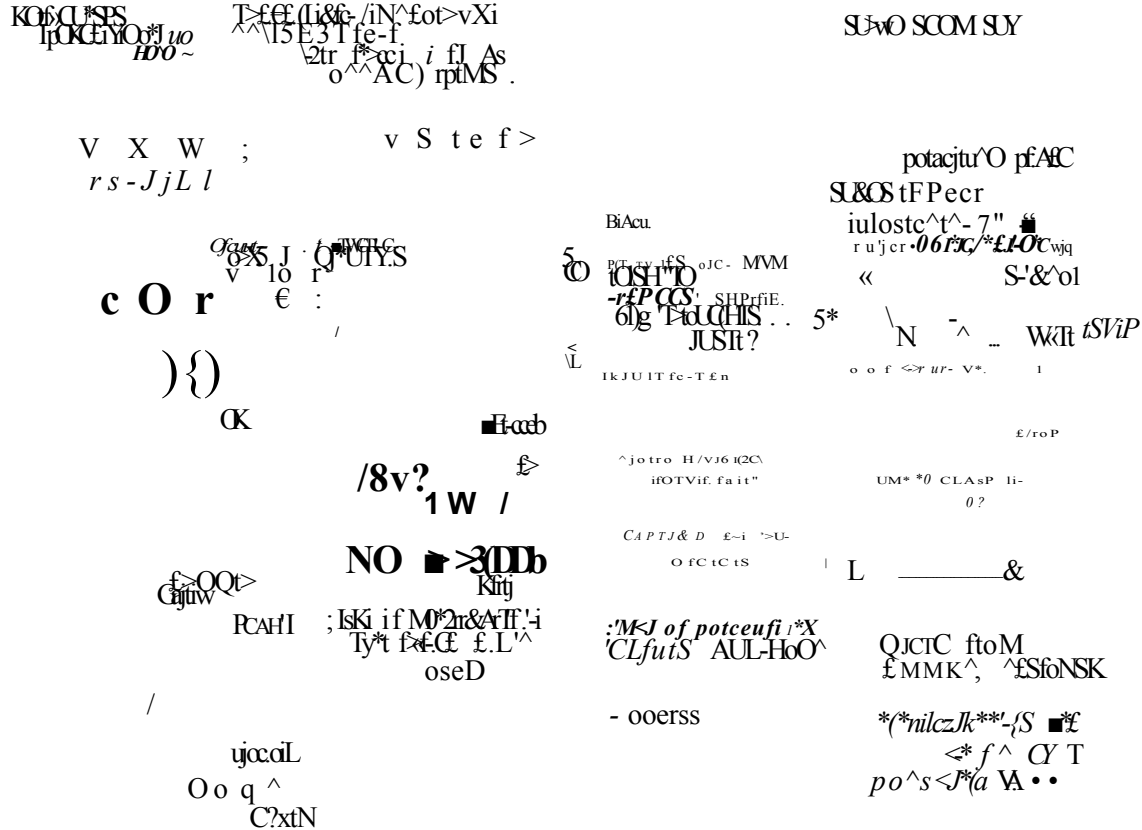
Like a dress making pattern - something for Emma to *finish* by filling the piece with voices and experiences

Clasps - both how a case is *opened* and how the piece is digitally *opened*- the clasps act as keys to the piece - they house the recordings and each one is the key to a separate recording or voice. I started by interpreting a brass clasp into something that resembles it, but that has aesthetics of more traditional, Victorian objects. The Victorian era was central to our understandings of the role of jewellery objects as heirlooms and fits with the idea of this object acting digitally to capture aspects of human experience.

I drew the clasp in the computer, which allowed me to make easy changes to scale and proportion and then used the printouts as templates for a physical description of a jewellery case clasp in porcelain - I made a series of these in different but similar scales and used techniques of imprinting and impressing three-dimensional detail onto the porcelain to achieve a Victorian aesthetic and also as a reflection of the function of the object - to house traces, impressions and imprints of people's voices- rather than replicate an actual clasp, the objects were *about* a clasp.

2.4 Development of film

Storyboard



Text, words and forms of knowledge had all been key factors in Emma's Stimuli responses and something I wanted to echo in the film. I began by describing and introducing the forms. The porcelain pieces were shown on a light-box to illustrate how translucent they were and to show them as 'empty' to begin with - then 'filled' with voices and recordings by the end of the film. The porcelain clasps were shown held in the hand to show scale and suggest through handling the tactile qualities of the objects. By showing all the porcelain pieces together the fact that each one is unique could be observed.

The film illustrated how the objects acted together to make a sound recording possible, firstly in close up and then by showing a person using the objects. I used the symbols Q O D > to symbolise vD 'on', O 'record', □ 'stop' and > 'play'. These symbols are similar to ones used on electrical devices to signify the same modes of operation. When 'on' or 'playing' the appropriate symbol turned green, when recording it turned red and when stopped it turned white.

I used this way of illustrating the digital potential of the objects as a more poetic form of illustration than simply describing the function as for example would be evident in an instruction manual for an electronic device. The set of objects were to me different from a high street digital device and although a mode of use needed to be illustrated I didn't want to use the conventions of existing digital devices to describe them.

It was important to articulate that there was only one chance to make a recording per clasp. The piece was not about perfected, re-recorded phrases, but something more human, more fallible and potentially something more real because of this. I considered the piece from Emma's position and also from her daughter's. Emma expressed a wish to always 'be there' for her daughter, 'in person if possible'; the piece could facilitate this in one way by being a set of objects that hold Emma's voice and that has been something Emma and her daughter interact with together. Considering it from her daughter's perspective, if I had an object that held recordings of my parent's voice I thought I would appreciate a 'warts and all' kind of recording much more than a rehearsed and perfected one. Something that held all the real ways of speaking, the ums, ers, coughs, unfinished sentences and changes of thread more than a 'telephone voice' approach to the recordings. With this in mind I designed the concept around one off recordings.

As a recording was shown to be made the film showed words appearing and unfurling across the screen and gathering onto the clasp. The importance of the use of words meandering across the screen was not in what the words said as much as the recognition that they were words and denoted speech.

Each clasp was made individually and differs from all the rest, although en masse they it may be difficult to differentiate between them. As mentioned I viewed them in part as something empty for Emma to fill and I imagined her finding different ways to mark them out individually once recorded. The small holes in the clasps may have leant themselves to being strung or tied with ribbon, the white surface may have leant itself to being written on etc. This again was something I wanted to leave up to Emma and her daughter.

At the end of the film the porcelain clasps are shown once more on the light-box, but this time with curled up bundles of words inside them, like something precious caught

inside - the clasps like small receptacles of the recordings, which I showed as moving bundles of words to suggest the clasps although appearing dormant actually have something life-like within them. The final quote is Emma's from her fairytale stimulus response to suggest an influence on the central idea of the piece.

Stills from DVD



Porcelain objects on a light-box to illustrate the translucent properties - as if you can see what is inside them (links to similar shot at end of film)

As the light is switched off an interesting change of light through the pieces occurs

Descriptions of the pieces individually

Red velvet jewellery case

Porcelain pearl

A way of leaving traces of ourselves through our words

to share our thoughts, observations
individuality

Porcelain clasp

Shown in relation to the body - shows scale and tactility

Text setting idea

Illustration of piece being used. Use of symbols to denote 'on', 'record', 'stop' and

Pearl is placed on the velvet and by proximity of the technologies in the velvet and pearl the system is turned un

When a clasp is introduced into the close proximity the pieces start to record sound

Text appearing in the air, meandering and unfurling indicate someone is speaking and their voice is being recorded

When the clasp is

The next time that clasp

Words unfurl from the

removed from the close
proximity the recording
stops

is placed in close
proximity it doesn't
record again, but play
and will do so each
future time

clasp to signify the
voice recording is
playing

iV o i!

1 Some of the phrases
have coughing or um
and ers - the piece is not
about perfect recordings
- that can be remade if
desired - but one chance
recordings - if coughs
or mistakes occur - it's
ok - it's about a human
aspect of the digital
recordings - of the
functionality

Demonstration of the
piece being used

Image of all clasps on
light box as at the start
of the film - the
translucency is like
seeing inside the objects
- in this case the clasps
ail house some
recordings though - that
can be seen as curled up
utterances

1 Emma's quote from
fairytale stimulus

2.5 Technological reality

The digital potential of all of the jewellery pieces in general was not *driven* by using emergent technologies, or by newness in these terms. In this piece the digital concept refers to sound recording technologies that are not new. The aim was rather to propose pieces with digital concepts that were sensitive to and appropriate for the sensibilities shared by the participants through the project. In this case capturing voices seemed relevant and existing technologies would enable the idea to be realised.

“Traces”

Notes from discussion between Jayne Wallace, Graham Long (York Electronics) & Peter Wright (York University).

Velvet - stationary
object in the home

Series of porcelain objects

Store the verbal messages in a larger system integrated into the fabric or beneath it.

Also houses an aerial that picks up and energises the transponder - hoops that provide a magnetic field that energises the circuit, basically it detects the transponder and gets it working and to transmit its information in

RFID rewrite transponder with 8k of memory adhered to the surface of each porcelain piece- the RFID tag is tiny - the coil antennae could be adapted into a spiral that complimented the form of the porcelain - in silver ink

Pearl turns the system ‘on’

the brief time that you've got.		
---------------------------------	--	--

Our discussion:

Peter – we were thinking about power supplies for – “traces”

Graham – an RFID transponder would do that – a rewrite transponder would allow you to store some information, you can either store a number and then you store a verbal message in a larger system, or you could put more memory into the transponder. These transponders are like those on credit cards – the gold coloured sections – they have a chip inside which is essentially a memory and a small processor – and you can get wireless communication versions of the same used for bus passes etc.

Jayne Q – so can these be adhered to a surface like porcelain?

Graham – yes – they're tiny

Jayne – I've read about antennae that you can find made from silver ink and I don't know how you would apply it but maybe that could be applied to the surface in a coil but because it will be visible in a different more appropriate form of a coil than the standard type. Perhaps following some of the contours.

Graham showed us examples of a tiny RFID chip and loop antennae – very thin and flexible to bend around a bottle and be covered by the label for example and others postage stamp size.

The examples were rectangular but this is not the important aspect – the antennae needs to be a coil – oval, rectangular, circular etc – with the required amount of loops. The spiral quality is important and both ends need to be connected – it needs to be continuous.

Peter – how much memory or how much data can you get on one of those?

Graham – depends on what you want to pay, but I expect 8k something like that. Most will be designed with 128bytes, that will give you a unique number, but if you're trying to store more information you can go up to quite a large amount of memory without a significant increase in size, but there will be an increase in cost as they become more bespoke.

Peter – so the idea there with that kind of capability would be to keep the unique identifier information on that piece of porcelain and keep the recorded data centrally.

Graham – yes – because you're going to have to have an aerial that picks up and energises the transponder – hoops that provide a magnetic field that energises the circuit and then it detects a loss of power because of that and resonant frequencies, basically it detects the transponder and gets it working and to transmit its information in the brief time that you've got.

Peter – how is the information put onto the chip in the first instance?

Graham – programmed in. You can buy read only devices, which will only tell you their number – and you can buy read write devices, which allow you to add data. I don't see any research required in that area provided you could get a suitable receiving aerial and equipment needed adjacent to where you want that event to occur and it seems to me that could be a problem, because the person dealing with it doesn't want to deal with technology and doesn't want to have obvious electronics to use or even visually when they want to use the piece

Jayne – yes my idea is that it would be quite concealed; the velvet is quite sizable and I imagined that that could conceal or hold the electronics.

Q – stitching – integrated into the fabric? The velvet would be a static object, kept in a particular place, even part of a piece of furniture.

Graham – yes, then it definitely needs to be a transponder so there isn't a time issue.

3 For Ana

3.1 Ana's stimuli returns

Disposable Camera

Ana unlike any other participant provided a text to accompany the photographs she had taken, her comments are detailed beneath each photograph below.

An object that is precious to you

Something reflecting a quirk of
your nature

Something beautiful

"Icon (from Gran ***** Cyprus)

"my love - kooky shoes"

"Pink berries tree"

Something funny

Permanence

Transience

'squash'

Something boring

A favourite object (non jewellery)

A favourite piece of jewellery

"Bustop + Scrap pavement shot"

^tspot from ^ ^^

"necklace"

Happiness

Anything - you choose

Something about you that you like

blue sky"

'Autumnal ferns'

'My hands'

**A reminder of someone dear to
you**

Something unusual

Strength

'Love of plants & flowers (Gran

'rare lichen"

'big oak + tree roots'

Fragility

A favourite view

A favourite place

"cobweb"

**'Exmoor hills, although not
regularly visited"**

'regularly visited park - sanctuary"

A favourite communication device

A connection to someone you love

An element of your routine

'phone - mobile'

**'Tao of Pooh book given to be by
our *****^ v**

'My skin brush"

**attitude to life (Pooh). Found this
one difficult so many things &
didn't want to leave anybody out!!**

Sounds daft I know"

Anything - you choose

Anything - you choose

'Autumnal Tree'

"Gran's (♦***♦)s) handbag.
Probably never use, yet I can't
bear to give it away without some
memory of it - may want this
photo for myself."**

Body Map

BODYMAPPIIG

dwiqqjdHnraofl

FRONT

BACK

- **Wear jewellery everyday (blue stickers)**
- Would be happy to wear jewellery everyday (yellow stickers)**
- **Wear jewellery occasionally (green stickers)**
 - **Would like to wear jewellery (red stickers)**
 - **Would never wear jewellery (white stickers)**

Pot of Clay

Is' Prize

7/10/11
M

“ would like to be rewarded fro a future goal creating something unique but beautiful, possibly a jewellery related object. On the other hand I would like to be rewarded for helping someone/people through some sort of holistic approach. I have found this exercise quite difficult! Says a lot I know!”

Lost Object

1. Have you ever lost an object that you treasured?

“Yes”

2. Please describe this object.

“My Gran’s ‘maternity’ ring that was given to me when she passed away. It was white metal and was like an Eternity ring. That had grain set rubies and diamonds all the way around.”

3. Could the item be replaced?

“No”

4. ...if it was replaced would it mean the same to you?

“No”

5. What is it that you remember about the object?

“It was sweet, simple, but had detail and seemed to ‘blend’ in with other rings.”

6. Why was it special to you?

“Because it was my gran’s, and she wore it constantly”

Dream

“To learn to love myself as I am, with all my heart. To grow in strength as my self love grows.”

Communication Fairytale

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1. You decide to find ‘loved’. You pack a kit of 5 things that you always carry with you...

“Mobile phone, notebook, ‘feel the fear’ book, water, torch/magilite”

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tid den?

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2. What is it that you miss about ‘loved’ when you are not with them?

“Their lust for life and joy. Knows how to have fun. His strength and calm in stressful situations. Humour.

Touching them. Seeing them”

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3. How do you feel ‘connected’ to someone when they are not with you physically?
“Hearing their voice. Receiving a text message from them. Seeing their picture. Having a possession of theirs with me.”

4. Please think of a good memory of you and ‘loved’...what does it look like?
“On holiday in Cyprus. Swimming in the sea, looking at fishes. It’s warm, fun, and exciting. The sea is a beautiful colour and calm.”

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5. What kinds of human communication or modes of technological communication do you find precious?
“Phones. Email but especially phones (hearing their voice).”

6. If anything were possible, how would you like to communicate with ‘loved’?
“To hear from them + let me know they are ok and even a moving image of them.”

Favourite Sounds

fkase tell me some of your favourite sounds ■ \$ c u n j < h, kjondc rcdW /, L-jJd. A rffbuGti -ftdTWS-v

Sound of the wind rustling through the trees. Water lapping at the beach edge.

Top Trumps

X o o r ^ _____

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Photo

Icon

Dressing Gown

Photo of me as child and
Grandma/Grandad

Icona given to me by Mum's
Mum to protect me, when had
tonsils out 5 yrs old

Scarlet, fluffy, Dressing Gown
Comforting, bought for me by ***,
it's very me

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Crinkle scarf

Scarlet coloured

Star Sapphire Ring

H.made using stone from birthday

Fossils/Amonites

Jewellery + Play

1. Please think back to the first pieces of jewellery you owned and describe one of them
“I didn't own it, it was my Mum's, but it was an important piece to me. It was a glass fancy necklace with a pear shaped drop in the middle. It was made out of faceted glass or crystal beads. One side of each bead was coated with an 'oil slick' colour, so it contained many colours. I remember being mesmerised by all the colours, and how the light played on all the facets, especially in sunlight. The sunlight would also cast

mini prisms across the room.

2. How did you acquire this piece of jewellery?

“from my mum, well not then. I would sneak into her jewellery box, when she wasn’t around and play with it!”

3. What role did these first pieces of jewellery play for you?

“I think they inspired or triggered my creativity, and hands on exploration of materials. An appreciation of colour and detail in things.”

4. Do you still own any of these pieces?

“Yes I did acquire it a few years ago!”

5. Have you ever involved jewellery in play and games? Can you recall an example?

“Well I guess I played with that necklace how it would reflect light. But I can’t remember an example of play like this in adult life, which seems a bit sad.”

6. Do you still relate jewellery to play?

“In my head I probably do in the sense of exploration of materials, texture and ‘hidden’ details/secrets, but sadly in practice I probably don’t. As I have realised doing these projects for you! I feel as though my mind/creative mind that is, has become very suppressed as I have to think COMMERCIAL constantly.

7. Thinking about the jewellery you own now, please tell me about any of these pieces that have a play element for you.

“Well I think my star sapphire ring has an element of play, as the 6 rayed star only reveals itself in bright sunlight or strong artificial light/beam. So it’s like a little hidden detail/secret, which I really like, I feel that’s very me in a strange sort of way.

8. Please ring/highlight any of the following words, which relate to your perception of play.

**Amuse Challenge Carefree Perform Sport Motion Fragile Rough Pleasure Tactile Fantasy
Kinetic Emotional Essential Gentle Compete Trivial Robust Humour Escape Construction Fun
Dreams Puzzle Unimportant**

Are there other words you would use instead to describe ‘play’?

“innerchild?”

3.2 My Initial thoughts

These are the notes of my initial thoughts and feelings towards the stimuli responses Ana had given to me.

A 'noticer'

Ana's descriptions of past events give great attention to small details - she notices things - she seems to see interesting qualities in things that other people are not open to - that other people miss.

"I remember being mesmerised by all the colours, and how the light played on all the facets, especially in sunlight. The sunlight would also cast mini prisms across the room... An appreciation of colour and detail in things."

a little hidden detail / secret, which I really like, I feel that's very me in a strange sort of way."

Beautiful photographs - finding beauty in the prosaic and predominantly in nature. Ana treated the camera stimulus as a creative activity/opportunity saying "I really wanted to achieve the essence of every photo" there's a real attention to detail.

The picture of a handbag as an extra picture is very evocative. I would like to use and develop this image. I can imagine a digital piece that uses the handbag as a 'device' in a theatre or literary nature - a trigger of memory but also a symbol of a place where things are kept inside - a private place inside which other forms could be eluded to or played with. Inside/Outside

The bag is worn, the comers are no longer crisp and the handles are bent into slightly twisting organic shapes through use. The bag seems to be like an old friend to me. The phenomenon of the bag - handbag is a potentially interesting one - how similar it is to jewellery in the ways we bond with it - it often physically becomes an extension of our bodies and of ourselves - how we often only notice it when it is missing or we need to use it - interestingly we replace bags as we do clothes yet I would elevate it's status from that of gadget to something more meaningful.

The inside /outside nature of the bag reflects the quote that Ana makes "So it's like a little hidden detail / secret, which I really like, I feel that's very me in a strange sort of way." Certain parts of the bag could be used - the clasp - the handles - the inside pocket etc.

Other photos that I am drawn to are:

The skin brush depicting an element of routine - I found it so interesting that Ana chose this piece - other people may choose part of the journey to work or a work related activity - Ana has selected a grooming device/tool.

The photos of nature and this photo seem to reflect a respect for living things - taking care of yourself and appreciating plants and nature environments. The skin bmsb as part of the routine seems to reflect

that Ana is fastidious and again to me reflects an attention to detail - thoroughness - a 'noticer'.
'My hands' representing 'something about me that I like'. This makes me think of the Malcolm McCullough chapter the importance of hands

Water

Ana always carries water with her - could do something about hydration - the piece could attach to her water bottle and inflate or deflate according to time or a message etc.

A good memory - connection to water again where the sea is described as ... "a beautiful colour and calm"

Comfort

Dressing gown - "Scarlet, fluffy dressing gown" "Comforting, bought for me by ***** it's very me"

Icon "Icona, given to me by my Mum's Mum to protect me when had tonsils out 5yrs old. - "Object precious to me"

What are my initial perceptions of an enriching path to follow specific to this person?

Many responses relate to Ana's Grandmothers

an icon of the Madonna and Christ child represented 'An object precious to me - from Gran *****)

Cyprus' The icon is a direct reference to an amulet - something to protect Ana. It is referenced again in the top trumps game - a safe zone

In this way I am attracted to focusing on the elements of comfort. Icon, love of plants and flowers from second Grandmother. It would be interesting to use the digital element to create a growth within the piece - can something grow digitally? Crystals that can grow digitally? A form that blossoms open? There could be hidden personal features of the piece - reflecting Ana's comments of hidden details that are very her and there could also be more public, open, gestural qualities of the piece - the blossoming as a visual metaphor for growth - an external aspect of the form.

Photos - feelings of nurturing, support and comfort. Links to both grandmothers

Icon from one, love of plants and flowers from the other.

Fairytale and my friendship with Ana - always carries water around with her - something that uses water within the piece would be really exciting - using nature to breath life into the piece

GrandMother and GrandDaughter relationship

This piece as something that reflects the positive influences both grandmothers had on Ana's life - directly in times past and now currently embracing them and her. -her potential - their support and comfort.

Something comforting

Something self affirming

Detailed - intriguing - interactive - sensitive - responsive

Related to the elements - water and air

Something evocative of both grandmothers - icon and plants and flowers

Something that reflects nature - a blossoming - a trembling - a growing

To make a piece about both grandmothers' love and strength - something that grows, or blossoms - something organic and something hidden.

Again, as in the creative process with the other two pieces these images are things that I gathered or photographs that I specifically took in a gut response to the Emma's stimuli responses. They were my initial way into thinking, beyond text, of imagery, texture, gesture and form that felt relevant to the responses and my way of trying to get a grasp on what the responses were sparking off for me in my imagination. This is my way of sketching initially and usually goes hand in hand with the gathering of materials and three-dimensional forms, scraps of materials and making three-dimensional sketches.

Love of shoes	Nature - natural materials, influence of nature on the piece?	Scarlet, fluffy - like the dressing gown she described as comforting and 'very me'.	Red flowers worn on the body
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Deep reds, use of natural materials	Influence of both Grandmothers	Forces of nature - having a consequence on the interaction of the jewellery	Trees were mentioned/shown repeatedly in Ana's responses
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A connection to another place - 2 homes - different	A connection across geographies and across
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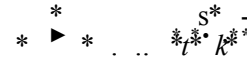
place - 2 homes - different geographies and across
 geographies - connected time?
 somehow

3.3 Development of idea

^ V » * ,

Sketchbook work exploring natural, organic forms and colours

I took a lot of photographs of plants and flowers seeking inspiration for abstractions of forms and to develop ideas relevant to Ana



Reds, branches, blossom

Ideas of parts of a form 'trembling' when a digital signal is received

Ideas of part of the form scattering and dispersing when a digital signal is received

Forms bursting open when digitally triggered

Form bursting into colour when digital signal is received

Abstractions of flower forms into something more geometric

Icon

Parts of the form blossoming open

Experiments with devices

Ways to enable a blossoming

**Structures - lightweight, but strong
- flower-like**

**The Icon Ana photographed in her
Stimuli responses**

**The Icon - colours changed and
inverted**

printed onto the reverse of stamps

**Development of idea - what is
revealed when the piece blossoms
open**

**Authenticity - Cyprus stamps that
have been posted on letters from
Cyprus to Uk in the years when Ana's
Grandmothers were alive and living in
Cyprus - the stamps have already
physically made the journey that the
piece now takes digitally**

Overlapping and uncurling

experiments with using the stamps as petals - how the object may open

% i

Side view of form blossoming open

Models developing and refining form. Ideas of a dome form to protect the stamps

Use of real twigs - authenticity - mix of representation and authenticity - authentic stamps and twigs - abstract form of a flower

Developing silver forms that echoes an organic quality

© —

Designs for glass dome to house the stamp petals

Models of how piece would sit in the hand

Glass dome - made by lampworker to my design and dimensions

Components of piece

Final piece with curled 'closed' petals

Side view of final piece

Glass dome - like a ship in a bottle - or a message in a bottle - a way of sending a message

May take years to receive the message

- if at all

Uncurling, trembling, opening,

blossoming

Plants as:

Connection to others

Growth metaphor

**Final piece once blossomed
revealing icon images within.**

Reveal secret or hidden detail as

opens

Gesture

Blossom of potential

Sanctuary

Strength along with fragility

3.4 Development of film

Storyboard



My chief aims were to convey the connection between the object and Cyprus, the relevance and role of nature (rain) in the digital triggering of the piece, the slow and gestural quality of the blossoming, the fact that the blossoming occurred only once and finally the relevance of Ana’s feelings towards her Grandmothers.

As with the other two films I began by visually describing the jewellery object. It is quite a complex object visually so I showed it from several angles and how it could be held in the hand. The connection to nature as a key aspect of the piece was reflected visually by using a green background that echoed colours of the sequences of scenery in Cyprus that followed.

I wanted the film to feel like a connection between the object and the separate geography of Cyprus. This was the connection that the piece would enable digitally and it was very important to give a feeling of this through the film. The first text directly described the piece as a connection to place and the film then slowly zooms in on Cyprus on an inflatable globe. The soft colours of the inflatable globe seemed to fit with the gentleness of the idea I was trying to convey. The film then used text again through three screens describing how a rain-sensor would gather rainfall over time and trigger the piece to blossom. The use of the term 'family land' was key; I wanted to convey a connection to roots, to family and to place. I knew from talking to Ana that in Cyprus families owned land, not just the houses built on it, but the actual land and that her Grandmothers have left land to Ana and her siblings. I hoped that by using this term she would feel a connection to her family land and in turn family members. The next text stated that the blossoming would only occur once. I wanted this point to be noticed and gave the words space; a longer pause before the words appeared than in the other screens of text and just three words to the screen: 'but only once'. The scenario now set the film visually acts out the scenario.

I filmed sequences of scenery and plants whilst on holiday in Cyprus when I had first begun to develop the idea almost a year before completing the film. The opportunity for me to use authentic landscapes was very important to making the imagery and connection to another geography believable. It is important to state that even if the jewellery was fully realised digitally I would have still described the concept through film for several reasons. Firstly through film I was able to show the separate geography of Cyprus, secondly the piece is meant to blossom only once and to be a piece for Ana, if I was able to demonstrate the piece to her and a wider audience then it would blossom many times and the poignancy would be lost and thirdly by watching the film Ana could understand the concept and connection visually to Cyprus which would stay with her when the piece does work digitally in the future.

In the film the different sequences of Cyprus scenery fade into close ups of plants on the ground and rain falling on them, signifying the idea of rain falling on a rain-sensor on family land. The next sequence shows a line of dots moving from Cyprus to UK tracking the digital signal sent from the rain sensor unit following which several sequences show the postage stamp flower blossoming open from several angles. The

fully opened jewellery is then shown held in the hand once more and the film ends on two screens of quotes from Ana of the importance of both Grandmothers to her and how little hidden details are very her.

Stills from DVD

			a connection to a place
Introducing the jewellery object	Different views	Hand held object	Text describing a facet of the piece - to connect to Cyprus
		sensitive to rainfall gathered over time	
Use of an inflatable globe - colourful aesthetics. Slow zoom in on Cyprus	Text detailing the use of a rain-sensor planted on family land - critical term	Text details that the piece is not about immediate change - but something responsive to a part of nature over time	Description of the digital, gestural aspect of the jewellery
but only once	ÿr I 		
Critical text - the piece will only have one blossom	Now the story is set the film illustrates it - film of Cyprus countryside	Close up of earth and plants - begins to rain	A dotted line represents a digital trigger sent from Cyprus to UK

The jewellery blossoming open from different angles

(lot of ffa ij C ttu -b
QJJPGMjt
~Ojji /VWUj

**Piece held in hand again, but
now open - hidden images are
now visible**

**Ana's quotes detailing the
precious reminders of both
grandmothers**

**Ana's quote detailing how
hidden secrets are 'very her'**

3.5 Technological reality

Notes from discussion between Jayne Wallace, Graham Long (York Electronics) & Peter Wright (York University).

“Blossom”

Jewellery object	Receiver in the home	Sensor in Cyprus
The jewellery piece is in a determined location - the house	This box receives the call from the rain sensor and then the next time the flower gets within range of the home box it blossoms. 30m range - low power radio system - like cordless phone technology it would keep pulsing and trying until the signal was received by the jewellery	A rainsensor in Cyprus - when gathered enough rainfall it dials up a telephone system = another box in your home

Our discussion:

Issue - where the flower is when it blossoms - if totally portable then v difficult - but is I a determined location - i.e within a house or a specific room then manageable.

Need a receiver in it to pick up a signal

Need 3 bits - A rainsensor in Cyprus that dials up a telephone system another box in your home and that receives the call and then the next time the flower gets within range of the home box it blossoms.

Graham - how essential is it that the flower blossoms as soon as the rain sensor sends its signal?

Jayne – an hour is ok – if more like a day then it loses the poignancy of it

Graham – so we have to make sure your flower is in range of the box, or can't guarantee this.

Need a requirement spec

30m is achievable in a house – low power radio systems – like cordless phone technology

Set up = box in Cyprus - box in house - and you've got to be within the house say or not further than the garden for it to work - or if want to carry jewellery everywhere then incorporate mobile technology in the piece and do away with the hose box so the Cyprus box talks to the mobile phone via transmitters in UK.

The 2 boxes Cyprus and home can communicate via a variety of means – voice over internet protocol – or mobile phones or land lines or satellite communications or all manner of different modern communication systems.

Pete - And there would be sufficient flexibility for the box to keep trying to contact the flower if it isn't there at first

Graham – yes it would keep pulsing and trying until the signal was received

Pete – yes then it would be up to the person to make sure the flower was in the home (30m range)

The major challenge from our point of view – is the range critical – or if its within a few metres is that ok?

The complexity of the electronics goes up with more reliability and consistency and that starts getting quite interesting from our point of view to go down the research route – a variety of means to estimate the range and therefore say yes that's signal is valid...

Possibilities offered by a range sensitive communications object, I think in terms of the potential of what you could do with it both in terms of functionality and also of the terms of the more artistic jewellery things there will be more potential of the idea that if we are in x metres then something will happen will be the more interesting way to go.

Appendix C: materials and processes for the participant responses

This appendix supplies materials and detail of the process by which the participants responded to the pieces made for them, and detail of my analysis process of these responses.

1 Documentation given to participants in the response process

1.1 Text accompanying the jewellery and film

Dear.....

This piece of jewellery has a digital concept (illustrated through the DVD enclosed) and has been made uniquely for you. Please view both the form and digital possibilities of it as intimately connected aspects of the piece.

I am interested in your thoughts and feelings about the about the digital jewellery, both in terms of the jewellery object and the digital possibilities of the piece.

Enclosed are a disposable camera and book to be used as a sketchbook, scrapbook, notebook and/or journal. Please feel free to use any or all of these in any way, which may include writing, drawing, making collages and photography. If you find things which you feel are related please put them into the pocket at the back of the book.

Although I have made the jewellery, I now have a detached attitude to it as part of the research. Please feel free to comment in any way about the piece.

Thank you again for your involvement in this research; your contribution is greatly appreciated.

1.2 Ethics protocol

The following texts were given to each participant.

1.2.1 Rights to confidentiality.

Dear.....

Parts of your responses will be made use of in the thesis, which is a document that will enter the public domain. Nothing about an individual will be attributed to that named individual and a copy of the research will be available to you on completion. If there are any parts of your responses you particularly wish to remain confidential, please let me know and that will be respected.

1.2.2 Pre-interview ethics text

Research conducted by Jayne Wallace, for PhD practice based research exploring the integration of digital technologies and contemporary jewellery at Sheffield Hallam University. Sponsored by a Digital Technologies Research Studentship from Sheffield Hallam University.

Dr Tom Fisher is the Director of Studies of this doctoral research and may be contacted on 0114 225 ****.

Thank you for your willingness to participate in this research project, it is very much appreciated.

Just before we start this interview, I would like to reassure you that as a participant in this

project you have several very definite rights.

First your participation in this interview is entirely voluntary.

You are free to refuse to answer any question at any time.

You are free to withdraw from the interview at any time.

This interview will be kept strictly confidential and will be available only to members of the doctoral supervisory team and examiner.

Your involvement during earlier stages of this research project (probe responses and initial responses to jewellery object) will also carry the same assurance of confidentiality.

Excerpts of this interview and earlier responses will be used in part of the final doctoral thesis; a document which will enter the public domain, and within exhibitions/academic papers/ presentations, but under no circumstances will your name or identifying characteristics be included in this report. In the case of drawings or photographs any identifying aspects will be blurred or not included. If there are any parts of your responses you particularly wish to remain confidential, please let me know and that will be respected.

I would be grateful if you would sign this form to show that you have read its contents.

_____ (signed)

_____ (printed)

_____ (dated)

2 Participants' initial responses

The following sections document the complete responses from Faith, Emma and Ana. All journal texts are shown with accompanying transcript (Appendix C section 4).

2.1 Faith response journal

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The box was exciting - the packaging and opening it. I wanted to take it away somewhere private where no one could see or measure my reactions.

The wooden box is beautiful

My Mother has passed on her love of wooden objects - especially simple forms, boxes, containers

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that hold promise.

My first thought on opening the box was one of disappointment that the object was not made of metal/silver. And hair! I was loathe to touch it in case it was real people lying dead in there. I suppose that hair without its owner has many

.....date.....

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connotations.

Even as an inveterate keeper of baby hair myself I can see that, I've taken a photo of plait, complete with baby curls at the end. I gave in and cut it off one bathtime as she so hates combing and brushing. Now it sits in a box, in my room where only a few people see it, so not all visitors

...date.

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to the house think I am morbid.

Back to your piece. Once I had realised it was not real hair I played with it. I put it on as a necklace before I had seen the dvd. In two ways, once is as you display it on the dvd, + once putting the weight through the strands. I must admit I spent more time holding it, + twirling the hair through

my hands than wearing it.

There was always a slight fear of strangulation! I loved the feel of the 'weight' the porcelain piece, and that my thumb could fit in it. The slight rattle made me want to try and open it to see if there were further hidden chambers. The sound reminds me of childhood Christmas ornaments that were like small muffled

bells.

Other thoughts: you notice how rough the skin on your hands is where the hair catches.

The pattern on the porcelain (?) I didn't notice at first. Then thought of lace or doilies.

I did think the colour of the two parts porcelain & hair didn't quite 'match' as the porcelain has a chillier blue tint.

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Smoothing the hair is very soothing
 Almost like worry beads.
 Focusing on aligning the threads
 Wrapping and unwrapping around fingers
 Testing the edge of the porcelain against my fingers
 The porcelain becomes warm in my hand

date
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I watched the dvd again.

The first time I thought, why horses? I could only think of horses hair being long enough to make the tail/thread for this piece. I saw the blue wall and felt echoes of my garden and the photos I sent. The pastry cutter I thought signified the domestic, feeding so many over the years. But then, watching the

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DVD before returning all to you I remembered the story of the tiny pastry cutter that was this big or so it seemed. I had forgotten.

I still like to stroke this, although I have to confess, not everyday.
 I have not worn it out, but I have caressed it, and then forget to think about what I am thinking

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..date.

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I would like to show it to my Mother.

I suppose I don't really see it as a wearable, more a holdable.

I've just realised, I didn't let the children anywhere near it!

I kept it quite private at home.

I like the way you have packaged this. I am more moved to words than drawing but I did run upstairs + photograph the plait in the box when I got home after first opening this.

Here I would send you piece of real baby hair (or even teeth!) but I want to keep them all for myself.

2.2 Faith Response Photographs

2.3 Emma Response Journal

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23rd December 04

I know what we could do with it!

We can put this one in the middle,
 then put every single of those
 around it. And then that's it!

Then we put it in my bedroom.

Look Mummy, it's beautiful isn't
 it?

This is a quite difficult game.

I like the ball.

23rd December 04

The pink one is mine and the
 green one is yours.

These are flowers. They're
 pretend flowers.

I think we should colour in the
 ball too.

This is a lady ball. She can do
 tricks.

Those are the sisters, and those
 are the brothers.

Lets colour the brothers in
 otherwise they won't talk.

23rd December 04

You have to put these on there,
 and then stand them up and then
 they'll talk.

I don't know what they'll say.

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23rd Jan 05

I have lots of thoughts. Will tell you them when we meet. Next pages go with pictures of me + my daughter.

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2.4 Emma Response Photographs

m

2.5 Emma additional text

Own written response given to me following interview 31st January 2004

“Digital Jewellery

Initially I was confused about how to engage with the pieces. There was an implied function, but as objects they were not usable in the way suggested. My first thought was to respond and interact with them as they are, and use them to make some connection with a person.

Although as objects I like them (the scale, form, material, tactile qualities) I did not recognise myself in them. The only thing that seemed familiar was the quote at the end of the film piece. This was directly related to my daughter, therefore it seemed the natural thing to involve her in my response. They have jewellery qualities, but in form and fitting give no direct way to wear them – although I can see ways to adapt them for this purpose. After showing them to * (daughter), and playing a kind of game with her, she decided to make them into people by colouring them in with crayons. There was a strange similarity between the act of her applying coloured squiggles to the surface, and the representation of the digital ‘trace’ shown in the film. She was giving an individual character to each piece.

I was confused by the functional role played by the velvet. Although I could see how the ball related to the decorative element, I found it hard to integrate the fabric and its linear pattern. Would this form some kind of circuit?

For me the main question is whether an object which can literally record a message, is anymore successful as a communication device than one which simply holds an association. The ways in which jewellery items ‘connect’ us to others are through non-verbal, intangible, embedded qualities that trigger memories.

That is not to say that communicative devices should not embrace some of the features intrinsic to jewellery, but there is a difference between something that allows you to stay ‘in touch’ and something which makes you feel ‘close’. For me, closeness does not come from a recorded message, but may be encapsulated in a thing that has played a part in an event (your life!!).

Looking at the pieces now, all scribbled on and messy, I feel connected to my daughter. They work as they are, without technology, because they carry the evidence of time we spent together.

I can imagine using them in a more documentary – style process, using them to catch snippets of conversation in the same way that I use digital cameras today. In this way they would capture moments, and allow me to re-play them (but I am not sure if I could listen to them whilst wearing them, or if I'd need the pearl and velvet too!). Being able to carry a small item with me, which could re-play my daughter's singing or laughter, would certainly be something I would cherish.

I think from this point of view there is a great deal of potential, but it would be about me gathering information from others so that I could retain their voices in each piece. The thing is, this would only work for some people (ie; those whose voices are strongly connected to my mental picture of them). There are people that this would not work for.”

2.6 Ana Response Journal

PTO

13.1.05

1st response after viewing

(UjerM-

Strong
emotional
family ties

Planted on family
land represents a
permanence to it
& a rooting.

Preciousness
of life

Deep
Sensitivity,

Only
live it

Single
blossom,
slight
sadness

Very
poignant
piece

Life
affirming

Also
sadness
double
sided

Like cactus
plants that
only
blossom

16.1.05

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Finding response pack little bit intimidating, like what I do/write will not be the best of me, and the blank pages a bit scary.

Feel like writing down thoughts and feelings quite therapeutic though and an appropriate way of responding. I have not had the time to use the camera yet but will and look forward to it. I am always seeing moments of delight and beauty

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16.1.05

17.1.05

when I think 'oh how beautiful' I wish I could capture that moment in a photo. I find these moments or 'snapshots' very poignant, soul touching, as they remind me of how precious and beautiful life is and just to enjoy 'things', simple things.

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18.1.05

Ideas stimulated by your piece

*reminds me of an idea I had about having a tree planted on family land. Land that had 'roots' and a permanence to it. So tree could grow and be observed over time & progressive family members.

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*Perhaps every family generation is given a rain sensor to be planted on family land. Even though it is 'short lived' as it were ->>

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once it has blossomed, it could remain there as a piece of sculpture.

*Thinking how your piece could enhance people's lives, and it would be on an emotional level, but well this may be an impractical idea, but once device, sensor has blossomed maybe although blossoming is only once it could last few days 'open' giving the family enough time and a

..dale

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/rJtlynH to A?>db^JA a ^eM^tct jerMIMIU
fa ib oAwayS Hus-c foryou., un cfsufeher^jt Ioisl
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yuW { ~~AWMI~~ *3 UC* y^< ^ ^ T*
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oj r*Jt79r < rt M-exduri */ Hu n*v f iOunc* 7

Stt HuuyiU JWMF P> %><c*

stimulus or opportunity to have everybody round say for a meal or get together, so it is used to bring people together.

*perhaps the piece could remain open 'forever' after blossoming but maybe this takes away its poignancy.

*or perhaps after the piece has blossomed and then 'fell away' there would be a beautiful delicate almost skeletal form remaining just as a little reminder. Perhaps this 'skeleton' could gently glow at night, a constant.

Drawing of similar piece — twig, glass bubble and round petals within

*perhaps you could have a snow sensor for colder climates

*perhaps all these ideas are crap & irrelevant! & maybe I'm going off on a tangent! Sorry!

20.1.05

Realised doing this, actually realised before too, but this has emphasised these feelings & a recent visit from my Mother, that family is very integral to me, it has a permanence to it, always there for you, unconditional love that is guaranteed, or is it?

[24.1.05

Actually it isn't that's why you need to let people know what they mean to you in the time that you have together!]

Actually I have a question for you, was it the info that I gave you that prompted you to make this piece in the way that you have, or what you know of me? Or is it mixture of the two sources?

See thought (white)bubble for more on 20.1.05

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^ 'T " 0 5 ...

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22.1.05

Went to Exhib at Natural History Museum for wildlife photographer of the year. Very disappointed in selection of postcards, but got this, which was my favourite picture of a birch tree, the snow along its branches gave it a very surreal look, like it was frozen & bit magical this wee picture doesn't really do it justice. These photos were mainly achieved by purpose but some were by 'chance' which I think is much more fascinating.

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> j i y IK Jt-A'piz Jit&LAJSt-i

24.1.05

These are the sort of images I feel celebrate life & joy in simple pleasures.

M/ ob

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Cl'pA- -tt'

24.1.05

*idea. Perhaps a piece could age over time & change like we do?

a * safe. !'P6 20.1.05

i? jt ijō, "
A a />#1 *ww f
v-Y J a d*#/ kUa' m'ua J
cf sm-om Mūhtjaf jkm
Vj fms.Wcy Vjto&trje..J
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ly

This idea may be irrelevant, again may be going off on a tangent!

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3 Coding and analysis process

3.1 Initial coding scheme

The following grid details the initial codes taken to the data.

Feelings about jewellery

Personal experience of jewellery	—
Personal notions of jewellery	— - - .
Social notions of jewellery	
Expectations & assumptions of jewellery	tSSSSi
Personal use of jewellery	
Notions of identity related to jewellery	
Human-relational qualities of jewellery	S5SS
Lifespan of jewellery	
Memories related to jewellery	

Feelings about digital devices and technologies

Personal experience of digital devices/technologies	
Social notions of digital devices/technologies	
Expectations & assumptions of digital devices/technologies	
Personal use of digital devices/technologies	
Gadget	< w v ^ .
Notions of identity related to digital devices/technologies	MMiiHlfcii
Human-relational qualities of digital devices/technologies	
Lifespan of digital devices/technologies	
Memories related to digital devices/technologies	
Roles of digital devices/technologies	

Feelings specific to Digital Jewellery

Expectations & assumptions of digital jewellery

u *» *

Lifespan of digital jewellery

* • • • m •

Imagined experience of digital jewellery

M * *

Subverted use of digital jewellery

Memories central to their understanding of this piece

Notions of fit - how they appropriated it into their lives - how they gave it meaning

fit fit fit fit

Surprises/unexpected

* * *

Change in their relationship with the piece over time

* * *

General - Personal Significance

Familiarity

—

Preciousness

Pleasures

• I I I * *

Perceived sensitivity

* i t « *

Emotional resonance

» » » w

Human-relational connections

« » » H

Notions of identity

COO

Metaphors

• * * *

Personal Emotional Attachments

— — -

3.2 Emergent coding scheme

The following list details additional codes that arose from the data.

Feelings about jewellery

Personal wearing story

— — — —

General - Personal Significance

Beauty

Beauty in prosaic (sense of joy)

— —

Enchantment

—

Uncanny

= = = = =

Signifiers

■ -

Wonder

Magic

■ -

Objects having a journey

■

Practicalities

o o o o

Discomfort

X * * *

Private/public

" " "

Permanence/transience

WO WB

Place/space

Tactility

Expectation

i * » » \

Exciting

% » % « V \

Play

Intrigue

1 • • I

Control

Ownership

* * *

Poignancy

06 0

Notion of memories as objects

Past meeting future

Merging jewellery and digital devices

a

3.3 Examples of Coding

Response pack

Page 1 - 13thJan 05

1st response after viewing

Strong
emotional
family ties
UH *

Planted on family
land represents a
permanence to it
& a rooting
*

Preciousness
of life
ys K * y

Deep
Sensitivity,

blossom

Very
poignant
piece
x V

O o o o

Only
live it
once

Life
affirms
* *
Xx y x.

Also
sadness
double
sided
X X y

ike caJuis
plants that
onl>
blossom
once

t e c C t
0 0 o o

» · J
X

OJJ [i r r]

krmJL & ' (t ^ t l l) i r .

O o © © O •

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p o i c j A R / & u £ j L ,
aynM cW ij

G X J L ^ i O C C u / S C f n 0 1 ' j p £ C (J 3 c U 2 A £ ^

jS^y6yv£>|L^| 03nj\£cJ^S.

Ana transcript of response journal

1 I - and you've just sort of said what your initial perceptions of the piece were and the fact that you
 ^0 thought it might be a camera, but erm, what were your initial thoughts about the materials that I'd used? J, : L
 3*" P - I really liked them, erm, I really love this twig (laughs! Uthink jtis a really beautiful twig (laughs) ^ ^
 and I thought it was so perfect that for a minute I didn't think it was quite real (laughs) I thought you d
 cast it into somef3ng*,1but erm^ye **anu i** TTy'HWW gflass piece I think it's a
 Of* . really lovgjy,shape and the metalwork around here, I think it's really lovely, and I like the way it opens
 r £ r up, umm
 I I - right
 9 P - yeah
 10 I - erm. so what were your thoughts about the form? You've just mentioned about the twig form, but in *_ 4-
 general about the form and the look of it? £ 0
 it's really, what's the word? £ reallyjnicg use of materials, urn, the fact that the actual petals, £
 neyje l&e petals, in that they're really fragile because paper is so fragile, but you've got -9
 14" them encased insome ;that's ^/ell relativeI^strouge scrthe^'re protected, erm, yealf PTC*
 I - and what did you think about the use of the stamps? 0
 16 P - I thought it was really clever, and the inside of it, the little images on the inside 0
 I - I haven't got the picture out of the box have I. I'll just get the picture of what the stamps look like.

I - and what did you think about um, how different It maybe appearec iange vom
 23 perceptions of it when you watched the film?
 24 P - what do you mean?
 25 I - um, the way that maybe
 26 P - the movement?
 27 I - things like that
 28 P - yeah I mean, the movement has a lot to do with it, I think I would like to have, I actually thought it
 29 actually moved, but I suppose it could do — to siyvca J - iwjrv<-
 30 I - yes
 31 P - that's what you're trying to say
 32 I - yes

11/i1. " I think you've emphasised it really sensitive erm, and I think erm, the fact that you've emphasised that

though my family are actually quite disjuncted erm, and though, given having almost like roots somewhere
as opposed to, well, land or a house that erm, you know is yours or belongs to a family member, um, am
like you know that that's always there for you that sort of been quite important and I think you've
picked up on that well, in the fact that this is something that you play on fairly land like you were
saying and the other thing I guess is the um, the aspect of a connection to nature as well and my love of
plants

I - when I've asked you quite a lot of questions then I'll start telling you the things that I've based it on

11 P - yeah, yeah

12 Q1 - So do you feel or think that the piece fits with you and in your life?

13 (P - yeah definitely, erm, I mean I guess this is just what I was saying back a while because when, if it was

vephbfocopied the response pack can we talk through this?

19 P - yes

20 I - this chart that was your immediate response can you talk me through that?

21 P - yeah I mean that's when I watched it I kind of had a pen and paper ready just to kind of get it all out

22 first hand and because Simon was in the house as well, I wanted, I did that on my own and then I

23 thought I want to get my thoughts down and everything like that before he saw it

24 I - right

25 P - and before he sort of made any comments on it, I actually asked him not to comment so (laughs) I

26 wouldn't be influenced by anything

I

27 I - right

%

28 - so these are all my, um, initial thoughts really, um, yeah I guess it starts with sensitivity in that

29 think you've touched on something, (laughs) quite, yeah, big really um, not, I wouldn't say it's a raw

30 nerve because this is terrible, it's horrible, but if you know what I mean. (Looking at her

>

*written responses)

h

manence

label then that's fine

*1

*5

fit* -

I - arc the^thingsjhatjjrejdirec^ ^ or because of the niece are von having general reflections about other things in life?

P - I think it's a bit of both really. I mean, I always notice things and you know I might just be on my way to workjar something and that's when I think oh I wish I had a camera or something just, you know iunight just be thejperfect light or something and then it's^one, but that moment um, voujust wish voi could have capturedit. buU guess^you have captured ^because it's in your mind, your memory, but uS

JTt"iKe visual sort of memories of things, but um. but

'more of that sort of type of thinking um, in a sense that I just sort of think, ah you know, just stop worrying about bull shit and enjoy life really, but we all do it you know, but you just have to sort of remind yourself that, you know. Tha^you should just enjoy life really and not worry about little things ^ and get stressed out about little thm ^that donTT^HlyTiaiSr bjfiuM l insure they t5&D>£ SbrtdFour--

JygrCtummm-^A..J^5LjL*

***>> * _

Lets look at what was next, right (looking at next pages in response book); I think that's some ideas that have been stimulated by the piece

16 P - yes

17 I - can you tell me more about these?

P - Well I've always wanted to plant a tree and I really want to plant a tree one day, somewhere, but erm, I mean you can always plant it in a pot and take it with you, but its not quite, I dunno*ou could do %

20 tfiat, buiJUjute.liiii£ the.jkkaJBgit.you have*, a tfee pfanteTon family land and Tt's afway* there ancyolJIP Ad cSn watch ifgrow over lime and then oftier people fan \flhtclfit£ro^ especially if i^S a tree that lastL %

).23^ I^-yes *■• u ssi/w«A j c J ~ ^ . - Jo Ue c A u ^ t j ^ c c ^ ifia ^ onj t S f f £ o (A

24^ P - erm, I just quite like that idea - 4o AuaJcfi. u L J U J I I- yes. and what was the next one (referring to the response book)

3 6 ^ P - yes, and then I was thinking pg-f^ps^rt^ ^ jei^ en eta t u y i o ^ h e ^ n i l ^ d s g j ^ e n l j k e a r a i r ^ j e n s t j j *

7 ^ Ug?laqt on theirjargifc: lgyd e@}, soeven thoughJhe £iece itselfitjyort offunctiojj ayt £

8 ^ qnly jjlos^ms^nce^thafs guit^hflrt lived, ea j i, i d u r j p o, j o y e y s ^ l l (^ e j y t a n d j i k ^ i t r e m a p s J j i e j t *

9*v I^pe a_mijji scijptqre and vo^ cafloBservejj thgn. J? .2* _ 2? m*., *

0 J I - can I just pick up on the word function, what, whatTlo you feel t^at^lie^unction of this piece is? tae<\ ^ H E

1 P - well maybejfunction isn't quite the right word because it makes it sound a bit, dunno, like <cccw> "

f 1- that's alright, thinking about it in those terms what would you say the function was?

d k u k ^ e o P *

A c f W ^ V C O _ p ^ C W v j j i l > L y V O j V . h _ A f t j . e C . f u E . c c) L o u ^ J c ^ i s p f C r e ^ e o j L ^ d - cw<r\£/slwp> — cJJ&JaorexjMAA. 1 ^XOM A£T Jr ^ ^ a ^ i s p

SLa UJtA? vuj-oueJ iwEuw4v\£4? _ ^uk) U>w£ tru* m ft. e^cv>ejW . uicfi . r-e_oJ . C c ^ p A ^ . !%Urvt

.SLC

^X^M^v^o^k^ , Uv.J'

P - well it's not like a household appliance (laughs) in the sense that it helps you clean the dishes or

P - but, erm, I suppose its purpose! to me is that it

mciauing my&f,15ut^o

like something that

m m
#p

; on on your way ro wont son 01 inmg, but it's these little things that I kind of think, <--* ^

fi

'o lP (^ s a ^ ^ ^ l ^ ^ a k J U a i 0 ^ l £ J ^ y Jo work, o^you know just li^jsihinp like thqj and > J(

^ S t T w S s ^ ^ O t e ^ ^ m ^ ^ l i k e e e i m . i f l f . c : x

I - right " " ~ ~ -

J

P - erm. to say when it has blossomed, I think lftienti^ned ^m ew herethlf (in response book) although

it blossoms only^incTthat maybe it would remain open for a little while just so say if your family aren^

rw riWV/liiV
>ple together for a meai

T^y?c +> j < » A « . ***** 3 * * " * * * * » * » £ * * 2 T * £ t * u * w

it's like a little indicator to say come on everybody come over and at ^ ^
n j » * i * * * m . * * * l |

*

P - do you know what I mean? That

^ 20 '0 I - I think you mentioned on one of them about how there would be some part of it that could drop away *

^ ^ 21. - and would leave a skeleton form

d J22 y l1 - yeah, yeah, erm, ^suppose^it's^because youi^don't want hall to fade away, erm, HneanJ know this

Q i 23 r^would remain (twig) and the glass piece, but urtaj'oukind of want, ^suppose that's ^yyvftU ha^f tomir

c ^24 ^ stones isn't it because it's something that is although they*redone, ymi fiave*some^ung*fia*t rem'q'dsy^"

,Y)25' ythat you go and you talk to the tomb stone, even though it's not them r

? * yes " x t »

* £ut itV that same sort of thinj; that^ilthopgh tljg res^f itJjps fa^pd away, thi_s little skeleton

gfeletal sort of formjnside_sort of stays there, there's ajittlesculphire —x^ =

I - Yes. You've mentioned the word permanence quite aTot (in the response book) rocf ' #/ , q
psg CX

01
fscrpla k>cjell?/
ptfic&2 eyu_w-J2je) ^ cO
- pCVZV3^x^J ij' (jV\

LjxsZ- 5
.rT y rfeiaiW
- ~a

4 Transcripts of interview/discussion sessions

The following three sections are transcripts of each interview/discussion session with Faith, Emma and Ana. Lines are numbered and correspond with the quotes used in the main body of the thesis (chiefly Chapter 6 *Participant responses...*). If you are viewing this document in electronic format the transcripts are in separate attached documents.

1 **4.1 Transcript of interview with Faith**

2

3

4 I = Interviewer

5 P = Participant

6

7 I - I'll show you the photos that you took in response

8 P - Oh right. I should have taken a picture of * (daughter) with it, did I take a picture of her
9 with it?

10 I - I don't think so, there's a hand with the pastry cutters,

11 P - Oh no that's mine, oh yes that's her hand. She caught me doing it, she said 'what are
12 you doing?' so she immediately had to be in there, helping with it. [Picks up the necklace
13 and plays with the hair strands - through most of the interview until I provided other visual
14 stimuli to talk about] But I've showed it to her and I said 'what is it?' she said 'it's a
15 necklace' and I thought, see I should have asked her first, first of all, yeah I mean the thing
16 with taking the picture of her hair was the first thing I did, that sort of immediate response
17 to it.

18 I - and what kind of connection did you feel that they had?

19 P - Well it's just this, when I first opened it I sort of went, euwww, (laugh) and I was really
20 sort of like, 'oh my god it's hair' (laugh) and it's you know, just this whole thing of
21 working out that it wasn't really, that it wasn't real hair and then it was ok, but when I
22 thought it, and then I thought that's really strange because I've kept this, I mean I've got
23 bits of babies hair going back, well my eldest daughter's twenty six, so I've got -
24 somewhere I've got envelopes with wisps of her hair in, which have probably got, sort of I
25 don't know all sorts of bugs and things by now, so I, it's almost like you can touch real hair
26 if you know who's hair it was

27 I - OK

28 P - but if you don't know whose hair it was it gives you a totally different feeling about it.
29 You know I suppose the immediate thing is that people talk about Auschwitz and places like
30 that where they collected all the human hair, but I mean I don't think that's quite it for me,
31 it's more this thing of you don't know where it's been, or you know that thing of stranger's
32 hair, not anyone you know's hair

33 I - so was it quite shocking, when you first saw it?

34 P - Well I just sort of, sort of [gestures opening box and peeped inside] not put my hand in
35 when I, er shocking... yeah, I sort of recoiled, I think, so wasn't really shocked it was more
36 sort of like 'what's that?' (laugh) ewwww, it's hair! But I got someone to you know, I sort
37 of said, I think it's extension hair you know and I sort of showed it to someone and said do
38 you think this, and as soon as I realised this wasn't natural fibre or real, then it was ok
39 I - so did you open it on your own?

40 P - Erm, well it arrived here and it was actually on a day when the office was quite busy so
41 there were quite a few people around so I was like 'ohh look what I've got, eummm (lots of
42 laughter)' so I started to open it here, then I thought well, partly I shouldn't be opening it
43 here because I'm meant to be working, I knew I'd get too, sort of intrigued by it, and then I
44 did have this little peak and saw the hair thing and thought well maybe I need to investigate
45 that, and I was quite surprised with my own response to it as well, the fact that I did look at
46 it and sort of go ewwww, you know, and I thought of, erm, I thought of people like nuns
47 selling their hair when they go in, you know the old thing of they used to cut long hair and
48 sell it, you know and I suppose the other thing from that is Jo in Little Women where she
49 cuts her hair to make money, so they can send someone, so I know that people *do* have their
50 hair cut and sell it, so I, I, you know, you never know when you're with artists, working
51 with artists (laughs) whether they might actually have done the real thing and got some real
52 hair from somewhere (laughs), but it's definitely something to play with, one of those
53 things you just sort of sit there and fiddle with, sort of a fiddling object, sort of sticking
54 your finger in the end like that and, and then just, it's this thing of just sort of feeling it
55 against sort of (rubs her thumb against the edge of the metal form), scratching yourself with
56 it almost sort of, because you feel it against those sort of nerves in your thumb and you're
57 just sitting there sort of doing that with it (plays with the metal edge against thumb and
58 fingers of her left hand)

59 I - so... are you saying you found that quite pleasant?

60 P - Yeah, yeah, sort of that thing of, sort of, like you know getting sort of, it's almost like
61 doing little acupressure things on. One thing I've found, like at the moment, where my, my
62 fingers are a bit rough on the ends because I ate something that disagreed with me, so
63 they've gone rough, and when that happens your fingers catch on it (the hair like strands),
64 it's a bit like when you're trying to put tights on.

65 I - um, I found that when I was making it because my fingers become rough when I'm I'm
66 making things

67 P - Yeah, yes, so there's that sort of thing of catching, which doesn't happen with real hair,
68 I don't think. I don't think real hair catches in the same way on your thumb as, as, artificial
69 stuff does, which is quite weird. But this other thing (touches inside the metal form) at first
70 I thought that this would open, but I was, I was really sort of thinking ooh I wonder
71 whether that (- tries to open it with her nail), so that was quite intriguing and then I sort of
72 thought, ooh no it's not meant to it's just me sort of being (laugh) I didn't want to break it,
73 but I was quite intrigued as to the possibility of having that as a place where you hide
74 things..., so

75 I - what were your expectations?

76 P - erm - well I don't know, I suppose the only stuff that I'd seen that you've done was
77 metal, so part of me was expecting something more futuristic if you like, so something that
78 would be more erm, smooth or metallic or some bizarre piece of, object that you actually
79 wore on the body in a more, I don't know, clipped over your ear or, caught over a piece of
80 your body, where as this seemed almost organic, or, or retro if you like in the fact that it, it
81 hung with a really sort of, on a piece of fibre that wasn't a piece of modernistic fibre, -
82 although I know it is because it's hair extensions, but it, it didn't seem sort of like a
83 futuristic thing... I think it's that thing you had with the, the erm, something that kept your
84 eyes closed

85 I - the eyelashes

86 P - yeah, yeah! I remember, because that's sort of, that's the sort of image I had of the sort
87 of work you do, was something that would actually sort of, impose on the body, where as
88 this doesn't really impose on it, although, there is, it has this other slight tendency to try
89 and throttle you (laughs)

90 I - (laughs) right yes

91 P - (still laughing) when you put it on and it slides up, (laughs) but it, if you wear it, if you
92 wear it sort of put through the loop then it can close itself on you, which I thought was, was
93 quite intriguing, but if you put your head through the long bit

94 I - yes

95 P - then it doesn't,

96 I - yes

97 P - it just sort of hangs, so there's the two ways of wearing it

98 I - erm, so what were your initial thoughts about the materials that I had used, apart from
99 the hair?

100 P – erm, it seems very, well at first I thought it would be very fragile, but then it seemed
101 quite strong so, I assumed it was porcelain, um (playing with the metal form) yeah I
102 suppose it's the same thing, I wasn't expecting a non metal, well I was expecting something
103 metallic, or, or erm, whatever. And it does sort of have this definite, I dunno sort of vic, not
104 victori, yeah almost, almost a Victorian sort of feel to it, because of the sort of, the lace type
105 stuff etched on it, although I didn't spot that it was a pattern at first, it just seemed random
106 until I sort of sat and stared at it, so it definitely had sort of, that, that sort of feeling of
107 connecting with natural materials, like it's the same colour or reminds me of birds shells, or
108 I – yeah

109 P – bird shells? Egg shells – bird's egg shells. So like you know, when I was a kid and we
110 used to sort of find little bits of birds eggs on the ground, it's that sort of, erm chalky bluish
111 sort of colour to it.

112 I – erm, what do you think, erm, it's in response to - from the things that you've told me
113 about yourself?

114 P – erm, (pause) I couldn't work that bit out, (laughs) until I watched the video and saw the
115 bit with the pastry cutter, but you know, as I said that really didn't connect until just when I
116 was wrapping it up to send back and I had this (gasps – inhales) ahhhhh!!! (laughs) I'm
117 very dense. Apart from the hair thing and I was trying to remember whether I had sort of,
118 sort of sent you any hair or sort of photographed hair, but then I think, cos I think I put, I
119 was trying to get the end of * (daughter)'s curl into the little pot of stuff, so like the sort of
120 the ringlet nature of it, so erm, the hair thing sort of made sense, this idea of keeping hair,
121 which is a weird thing that people do, isn't it, this whole, you know I've got a friend who's
122 daughter died when she was twelve and she sort of got a plait made out of, cos she had sort
123 of waist length blond hair and she sort of got all these bits of hair that she sort of plaited
124 into a piece, which is a very Victorian sort of approach to erm,

125 I – yeah – mourning jewellery and things like that

126 P – yeah – a watch chain made out of hair and things like that, so that was quite weird, I
127 mean I'm trying to work out what the lace pattern was, and I really couldn't think, because
128 it sort of reminded me of a doily or a piece of antique lace and I couldn't remember
129 whether I had said anything about anything like that.

130 I – and, erm, the horse, as well

131 P – the horse, really, although thinking about it I may have said something about liking the
132 white horse when I go past on the train, but I can't remember (laughs)

133 I – I'll reveal everything later

134 P – yes (laughs), ummmmm, (referring to the reason for the horse) *I don't know* (said in a
135 playful way) I mean the only thing is sort of is that um, the last – in January I went horse
136 riding for the first time as an adult, I think I sat on a horse once at a church fete, so I didn't
137 know whether I'd said something about that, um, (pause) yes (pause), it also made me think
138 of, ohhh I don't know, unless I did, unless I told you about when I was a kid and I wanted
139 to have a pair of palomino ponies, and, or was it palominos or lip asana, I can't remember,
140 and then a pair of white Pyrenean mountain dogs and a pair of white Persian cats and I had,
141 sort of, huge ideas of what I was going to have when I grew up. (laughs)

142 I – (laughs)

143 P – Because we used to watch 'run white horses' and 'Belle and Sebastian' and all those
144 things, always thinking white animals being very magical

145 I – um, you mention that, you thought I was going to make some jewellery that was, um,
146 that attached to the body in a different, in different ways, um, do you think that this is a
147 recognisable piece of jewellery?

148 P – Well * (daughter) definitely looked at it and said it was a necklace, so it must be fairly
149 recognisable if a five year old does that (laughs), and I sort of worked out how I would
150 wear it, but erm, I didn't actually wear, I mean I didn't physically wear it, partly because as
151 a piece I'd be scared of it breaking or knocking against something and breaking, really, and
152 also I didn't know whether I was allowed to because it, it wasn't really mine, because I
153 knew it was going back, so I didn't want to trash it,

154 I – right

155 P – as it's part of your research, you know, and also I felt as though it was something that I
156 just sat there and played with, rather than wore, so it was more of a, sort of a, tactile object
157 so it's like sitting with it, which is what I tried to take the photographs of, I thought that's
158 actually how I

159 I – (placing the photos on the table) yes, there are some here, like the one with your thumb
160 inside it

161 P – yeah, yeah, and putting the finger in (mimics these gestures – * participant has been
162 holding, playing with, twirling the hair-like part of the piece through her fingers and being
163 quite rough with the piece – not afraid to touch it at all – all through the interview), sort of
164 all those, those sorts of things, I was trying to get across those feelings of playing with it,
165 rather than wearing it (pause) erm, so yes, so I worked out that you could wear it as a

166 necklace and I worked out that you could fit it through that loop to hang it round the neck,
167 and that was sort of before I looked at the DVD, so
168 I – and what, erm, first impressions did you have of the DVD? And the way that it would
169 work digitally?
170 P – (long pause) in the way that what would work digitally? The, this? (holding up the
171 neckpiece)
172 I – the necklace, yeah
173 P – errrm, ummmm, I don't think I made the connection between it working digitally and
174 the DVD (pause) I wasn't thinking of it as a technical -, technological object because of the
175 nature of the materials that you've used. I was definitely seeing it as an object in its own
176 right, rather than an object that would access, something else, but thinking back on it that
177 could explain why you had moving images moving on billboards (laughs) hmmmummm
178 (gestures to her head, as if 'silly of me') (laughs a lot)
179 I – (laughs)
180 P – (laughs) which is very clever of me isn't it!? (examines the metal form of the piece,
181 using her nail to try to open the lid inside) Yeah, so I hadn't actually twigged the idea that it
182 could be a token and it would generate – make images move and, as you walk past
183 I – yes
184 P – sort of, I ought to know that really seeing as that's one of the things we do in our
185 research, (laughs a lot)
186 I – I mean, do you think that's because the object...
187 P – I think it's because it's a ceramic object, if I knew that it's a ceramic object but inside it
188 had hidden a, you know an RFID pinger
189 I – yes
190 P - oh, or whatever, or, something that would sort of signal your presence or something or
191 would generate things then I would have thought of that
192 I – yes
193 P - but I, you know, (pause) which is weird because I was thinking about it in terms of
194 something being hidden inside
195 I – yes
196 P – and if I'd have, sort of, made that connection (pause – still looking at the inside of the
197 piece)
198 I – yes

199 P – hmmm – hadn't thought of that
200 I – so now that's kind of, a bit clearer, does that - what do you think of that? – the way that
201 could work in the environment? How would you feel if you were walking along and
202 P – and appropriating screens
203 I – yes
204 P – um, (pause) I don't know, I don't know how I feel about that, that, that sort of thing of
205 where you sort of walk past something and suddenly it sort of it's, it's on display for all to
206 see
207 I – ummmm
208 P – something that is personal to you
209 I – yes
210 P – so, I mean I'm very sort of um, I think if you were walking up to it with a whole group
211 of other people and you wanted to use it as a, something for you all to look at... I think I'd
212 find it hard to sort of, um, do it as an individual
213 I – um
214 P – erm, (pause) because other people would stop and look
215 I – yes
216 P – and you'd be thinking, ermmhmmm, this is really embarrassing, so erm,
217 I – do you think if they were, the kind of erm, images that I've used then it would be
218 anonymous enough for...
219 P – Yeah, that, yeah the images, well of the horse and of the pastry cutter, yeah, I mean
220 those sorts of images, people could think they had just been randomly generated
221 I – yes
222 P – they wouldn't necessarily know they were connected to you
223 I – no - but you'd know
224 P – yes, but you'd know, (pause) yeah (long pause) ummmm, yeah
225 I – So is there, I think as well the way that you responded to the object – it has all been
226 about the private and about the
227 P – ummm (in agreement)
228 I – holding and caressing
229 P – ummm, ummm
230 I – and um, that then being a public object
231 P – yes

232 I – is there possibly a tension in that?

233 P – yeah, yeah, I think I'm an, I think so definitely, I mean I'm an, I sort of try (pause) you
234 know, although there are certain sorts of things that I do, I do sort of keep private if you
235 like, so

236 I – yes

237 P – or you sort of talk to them about some people who you don't think it's appropriate to
238 talk about to some people, so I think if the images are ambiguous then that would be ok, but
239 the fact that you were standing near the screen and watching them

240 I – um

241 P – would be enough for people to be alerted to the fact that it was connected to you
242 somehow and then they might want to know what the connection was, so, so I don't know,
243 if it was something that was more hidden, so it generated something, er I don't know how
244 that would work, if it generated something that you could hear that no body else could hear,
245 or, or you could see it but then they wouldn't be any point having it sort of talking to a
246 screen I suppose, if it was something for only you. (pause) emmmm I don't know, yeah I'm
247 not, I suppose so keen on, on the idea of, of public displays, talking just to me, if other
248 people could then see what's on there as well

249 I – um, (reading pre prepared questions to ask) ok, so – yeah as I said it was quite –
250 something you kept quite private at home, you say that you didn't let the children anywhere
251 near it

252 P – well – in case they might break it, (laugh)

253 I – (laugh) yes

254 P - or just sort of steal it and fiddle with it till it fell apart, so that's partly to do with
255 perceiving it as being fairly fragile and also this thing of roughness making the hair part go
256 fluffy so I didn't want to sort of spoil it, really...it's got that sort of shape of sort of like a
257 small (pause) I suppose it's the Norse chessman shape as well isn't it?

258 I – OK

259 P – you know those?

260 I – yes,

261 P –the ones, yeah, from the isle of where ever, the noggin the nog look, so it could be a
262 little sort of (plays with it, moving it across the table like a human character) (laughs) but
263 it's only when you hold it that way up, so I haven't really sort of looked at that. I thought it

264 was an interesting pattern as well because it's sort of regular, but not, if you see what I
265 mean
266 I – yes
267 P – you can sort of make out that it's, that it could be a regular pattern (pause) um
268 I – so did your relationship with it change, over the period of time that you had it?
269 P - Well I think so because when I first got it, it was like ewwww, that, that sort of feeling
270 of not being quite sure about the hair, but then actually finding it a quite nice thing to sit
271 there and, and stroke
272 I – yes
273 P – so I think (pause, stroking the hair) yeah, and sort of looking into it and just feeling it
274 more, erm as an object, and not being sort of worried about playing with it, apart from, see
275 look, tangling it
276 I – (laugh) it's ok
277 P – and things like that (laughs)– trying to untangle it. I tried really hard to make it nice and
278 smooth before I sent it back
279 I – it was
280 P – so it didn't look too messed about with. So yeah, I, I think so. I didn't really sort of get
281 it out; I didn't get it out and show it to people, erm (pause)
282 I – why do you think that was?
283 P – well I don't, I don't know, I suppose partly there's the thing of 'oh look what I've got,
284 It's been done personally for me' which is not always done or, or whether the people you
285 know, whether, there haven't really been, anyone who's come round to the house, who
286 would have been interested in that sort of thing, you know, so (pause) it's sort of like, how
287 do you bring it in to the conversation, where as if any of my sort of more arty friends had
288 been round I might have been more inclined to say 'look at this, what do you think?', but
289 during the period of time I had it that just didn't really happen, so...
290 I – so did you show it to anyone else?
291 P – oh I, I showed it to my partner, and he's not really arty at all, so, because I was sort of
292 sitting there and playing with it while we were attaching TV, so I sort of briefly explained
293 what it was, but then he's quite sort of like 'oh, oh ok' (laughs)
294 I – (laughs)
295 P – another of those weird things that you're doing, (laughs) and I showed it to the kids
296 who were sort of quite intrigued, but because I didn't want them to... I let * (daughter) put

297 it on I think briefly, but I didn't (pause), or did I? I can't actually remember whether I did,
298 just before I was sort of sending it back. I think I might have shown my daughters, or told
299 them about it, I don't know, but no I didn't let anyone sort of hold it and play with it for
300 any length of time at all.

301 I – so what did other people think of it?

302 P – (pause) erm, I don't think I let any body see it long enough to actually have an opinion
303 (laughs)

304 I – (laughs) ok

305 P – (laughs) not really, no, I can't think of anything off the top of my head

306 I – But you mention that you would like to show it to your Mum

307 P – Yeah because she's always interested in, in sort of weird and wonderful things, and
308 because erm, partly because she likes wooden, wood and wooden objects and boxes and
309 partly because she erm, worked in ceramics, so she's done ceramics when she went to
310 college as a mature student and so I know she did some work with erm, bits of porcelain,
311 some stuff with porcelain, small amounts, but I just thought she's be quite intrigues by the
312 idea of it really and sort of abstracting things from ideas, so, but at the moment she's really
313 into embroidery so she's been doing that for the last ten years or so, so just working in
314 embroidery and trying, but she doesn't tend to make things abstract very easily, she still
315 likes to have a bit of something that's representational there so. So she's always intrigued
316 by the strange things I've been doing as well. (pause) so, I don't think any of my other
317 brothers and sisters would be that way inclined really

318 I – um, and you mention that you found it more a 'hold able' than a wearable

319 P – Ummm

320 I – Is that because of the hair or...

321 P – Well I never really tried it out for a long period of time, so I sort of tried it briefly, but I
322 said I sort of was worried about breaking it and worried about, or worried about it, either
323 the thing slipping around your neck or

324 I – umhmm

325 P – so that, or, it sort of, you know, when you wear things they sort of fall forward and
326 smack on to stuff

327 I – OK

328 P – so I didn't want to risk sort of breaking it, um, where as when you're holding
329 something you're sort of, you know you feel as though it's a lot safer

330 I – um

331 P – really

332 I – so if I was to leave it with you and it was yours would you think it would be something

333 that you would wear?

334 P – I might wear it out for sort of a special occasion if I had something very, very simple

335 with it, but the other thing would be the colour of the hair on that going with the colour of

336 my hair, it sort of, because it wouldn't be

337 I – right

338 P – so like on the video I think which was I assumed was a video of you yourself with your

339 fantastic suntan and all this sort of stuff

340 I – (laughs) that was ***** on that bit

341 P – oh was it (laughs)

342 I – So *****'s fantastic suntan (laughs)

343 P – ok (laughs) well if I *had a fantastic suntan, you know...* (laughs)

344 I – (laughs) yes

345 P - Where as it sort of, so it's like working on the colours of it as to how it would go

346 I – right

347 P – because it's almost like you feel you have to be good enough to wear something that's,

348 that's individual like that

349 I – ok

350 P – do you know what I mean, it's er, it's er, um, (pause) yeah, so if I had sort of like a

351 black outfit that has nothing else to it and then wearing that, um (pause) yeah, I'd wear it

352 somewhere where I knew I wasn't going to lean forward and smack it on a bar or, (laugh)

353 I – (laughs) yes

354 P – and if I could make it so it didn't slowly close on me

355 I – yes

356 P – that would be, that would be the other thing

357 I – I made it that length so that it could be something that you could see as you wore it

358 P – right

359 I – rather than um, jewellery that - you can't actually see it yourself

360 P – umm

361 I – but other people can and I wanted it to be something that you could see

362 P - yes, it would probably be a temptation to hold it as well while you're wearing it, bit like
363 you were leading yourself around (laughs)
364 I - (laughs) but um, I hadn't taken into account the feeling that you mentioned (gestures to
365 the throat) when you wear it, so, (laughs) I'm sorry about that (laughs)
366 P - well no, that's just, that's, I mean that's, that's one of the interesting things about it as
367 well, the sort of thing of whether it, when, when you're wearing something, when it
368 suddenly starts to constrain you, because it doesn't to start with or you have to readjust it to
369 stop it, but then, I mean it's not like it's going to garrotte you or anything because it's quite
370 soft, but it's just, just that thing of f... and also how it looks, how it looks visually when it
371 turns that shape, so does it look like a collar with a thing on
372 I - right
373 P - you know, and I do have a strange relationship with necklaces anyway, (laughs)
374 I - do you?
375 P - because I have (laughs) er, the length, the length that they are, compared with what
376 you're wearing, so like I'll have, if I have a 'v' neck collar or a straight neck collar then that
377 will effect if I wear a necklace with it and some things I won't wear a necklace with,
378 because I have earrings and I feel it is too much, so for me to wear a necklace and earrings
379 it has to be, really careful, carefully thought out to make sure it doesn't clash with clothes as
380 well, not that I'm the most sort of immaculately well groomed sort of person, but I do... I
381 suppose it's sort of not drawing attention to yourself too much as well (pause)
382 I - so that would feed in to the images appearing as well
383 P - umm, umm, yeah, it's the not drawing attention unless you want to do it yourself, so it's
384 not inadvertently or by accidentally drawing attention to yourself
385 I - um, I think you mentioned that in the pack as well with earrings
386 P - umm
387 I - so that people aren't
388 P - oh, the thing about not distracting them, someone told me that when you're doing a
389 presentation, always wear earrings that don't dangle, otherwise people just stare at your
390 earrings and they ignore what you say, which I thought was really quite interesting as I
391 hadn't thought of that before
392 I - um
393 P - though I think that's more noticeable if you've got short hair

394 I - yeah, I think it can make you feel quite uncomfortable if people are staring around your
395 face as well can't it

396 P - Yeah, well at least they're staring at your face, when you work in computers you never
397 know (laughs)

398 I - (laughs) I think erm, I think it would be good to have a look at the DVD and start telling
399 you what I made my decisions based on actually and then to get your feedback on that

400 P - ummhmm, ok

401

402 Watching DVD

403

404 I - did you see the words ok?

405 P - I can't remember

406 I - they're not for a while yet

407 P - yes you see that's quite interesting as well (looking at the piece being twirled around
408 fingers in the DVD) I saw this after I you know got it out and played with it, it's the way
409 that it wraps around the finger, before sort of picking it up. Here's the suntan (laughs)

410 I - there's *****'s suntan (laughs)

411 P - Yes, (laughs) yes, strappy white vest it's not very er, I can't really do that one

412 I - ok can you see the text there?

413 P - no

414 I - some computers are ok with it, others are set too bright for it, it says 'Sometimes, our
415 dreams and memories can visit us'

416 P - I did see that text somewhere, so maybe I have, maybe it did show one time

417 I - ok

418 P - I can see that (relating to next bit of text)

419 I - 'only rarely' so that's to suggest that only very rarely in a year will these thing appear on
420 billboards, or on your mobile phone, or your computer, or...

421 P - oh right, I see. You see I was just thinking of them appearing in your head

422 I - yes, rather than it being something that was repeatable or something that you could get
423 used to

424 P - um hmm, I have to say it did actually play better (as is sticking now a bit) last time, I
425 think it's my laptop. You see I hadn't made that connection of that being billboard that was
426 responding to presence

427 I - right
428 P - it was me thinking of,
429 I - do you think that was,
430 P - it was more like a dreamlike thing
431 I - do you think that was something... how could I have got that across to you do you think
432 in a better way?
433 P - (pause) erm, I don't know, (pause) I think maybe because the billboards didn't have a
434 screen, like they didn't have a moving screen on already (DVD stops mid play)
435 I - no
436 P - they look like paper
437 I - yes
438 P - billboards
439 I - ok
440 P - yeah I think if it was someone walking, or if you had it walking past a moving screen
441 I - yes, I had it on past the erm, computer screen
442 P - ummm
443 I - to try and...
444 P - yeah, I just got the, it just gave me this feeling of someone being haunted
445 I - right
446 P - by things appearing anywhere, rather than me thinking it was a deliberate triggering
447 I - right
448 P - so it was more like your dreams and memories visit you when you're least expecting it
449 (laughs)
450 I - right
451
452 Watching DVD from start again
453
454 P - yeah, because the piece is hanging so low down the knot becomes quite important in the
455 visual aspect of it
456 I - right
457 P - (watching the DVD - part where the horse and pastry cutter first appear) it's that thing
458 of suddenly making the connection and sort of realising just how many pastry cutters I've
459 got now (laughs)

460 I - (laughs)

461 P - (referring to the photo she took of the pastry cutters in her home) but I don't think that's
462 the entire collection, I think there's a few more in the drawer as well

463 P - (referring to the horse's first 'visit' on the billboards) yeah because this looks like a
464 collection of posters really

465 I - do you think it would have helped if I had provided some text with it? to explain the...

466 P - I dunno, I think it's more that I was thinking of it, I wasn't thinking of it in terms of, of a
467 technical piece, I was thinking of it in terms of, of an object in it's own right - rather than an
468 object that was allowing me to access other things.

469 P - like as a short film piece, it, it is *definitely* gives the impression of someone being
470 haunted by this image - that you don't really know, why, or, or what, because she, because
471 the image appears before she moves towards it, where as if she came up and moved
472 towards the screen and then the image appeared that would be a different thing, then that
473 would show it was responding to her proximity I suppose

474 I - right

475 P - (DVD sticks again) I definitely need to clean my laptop up (laughs)

476 I - it's getting there anyway

477 P - I mean, yeah, you don't really want to have anything so sort of erm, it's because it
478 doesn't look electronic I think, that's the thing, it really doesn't look electronic, which is
479 could be the plus point to it, you know so it could be (then the DVD falters again and we
480 spend time closing applications etc.)

481 I - so from a personal perspective then

482 P - umhmm

483 I - if it doesn't look like erm, would it be different if it was an ipod that erm, that the person
484 was carrying or a pda or something that looked more recognisably technological

485 P - I think it, it could be a small object, but I think it's because it's a small ceramic object

486 I - right

487 P - so I don't think it's the hair attached it's just something being porcelain on the end of it
488 that you don't normally connect with being something that could be electronically
489 connected

490 I - ok, and do you think that...

491 P - but I don't think that's a sort of negative thing, it's just that, I mean because if you were
492 to go out and buy something that was an object like this which did have that capability

493 you'd know it, it's just that I didn't make that connection because I was seeing it as sort of
494 something that didn't do that sort of thing
495 I - yes
496 P - (laughs) which considering I work in mobile and wearable computing is a bit dense
497 really in some ways,
498 I - not necessarily, it might be that I've not communicated it to you
499 P - yeah, although I suppose, and it's seeing it as an object in it's own right, rather than an
500 object that does something, so it's quite intriguing just as a stand alone piece
501 I - yes, so do you think if it, if it could access things in the environment and things could
502 come and visit you that
503 P —um
504 I - that were meaningful images to you but abstract ones that weren't like your holiday
505 snaps
506 P —umhmm
507 I - it's not that (holiday snaps) that I was after
508 P —yes
509 I - it was something very um, personal, but also something that other people, that were
510 quite ambiguous so that other people wouldn't
511 P —I think me personally, I'd only like it to happen if I was in a place where there wasn't
512 anybody else around who I didn't want to be around, so if I could sort of walk through
513 somewhere that was very remote and then have these things sort of appearing
514 I - maybe at night or be in your home
515 P —yes but it would have to be somewhere where there weren't other people around,
516 unless they were people I'd said look come with me and we'll walk up this hill and we'll
517 see this
518 I - ummm
519 P —you know, this idea of things appearing in tree trunks or
520 I - so is it, an element of control over it rather than it being something that would occur and
521 you didn't know when or where
522 P —yeah, I suppose so, yes, it's probably to do with control, and it's also possibly to do
523 with the fact that I get so distracted easily from, from things I'm meant to be doing that to
524 have something else that distracted me, would mean (laughs) I'd never do anything, you

525 know what I'm paid to do I suppose, so, you know because you'd just go off into this
526 reverie about a certain thing
527 I – umm
528 P – but then I suppose if a certain thing popped quite regularly then it would no longer be
529 something that you went off into a, a reverie about because it's like you sort of reawakened
530 it and dealt with it and then it
531 I – it changes
532 P – yes it changes, or it's integrated more
533 I – I was thinking of it as something that happened rarely, so
534 P – ummm
535 I – erm, I was imagining how it could potentially change a space into a place
536 P – ummhmm
537 I – how you could feel, if you were somewhere new. If I'd come here to visit you today and
538 I was wearing something and then something appeared somewhere
539 P – so something that made the place seem, a place seem familiar
540 I – in a way
541 P – yeah
542 I – erm, and how the environment would just for a few seconds maybe be paying attention
543 to you
544 P – ummm yeah
545 I – so that's the kind of thing I had in my mind
546 P – yes, so if you were walking through an unfamiliar space and you see something that,
547 that is recognisably connecting you to you
548 I – umm
549 P – then you might feel sort of comforted or calm or, bit like having your own familiar...
550 I – yes, I'm thinking of it also as a playful thing because you'd have to wear it or have it
551 with you
552 P – umm
553 I – for any of these things to happen,
554 P – ummm
555 I - so you are kind of putting yourself out there and
556 P – ummm
557 I – and it maybe won't for months

558 P —umm
559 I - but the fact that you're open to it
560 P —yeahsss
561 I - by wearing it
562 P —oh, well I think I might be far too much of a control person, controlling person to do
563 that sort of thing
564 I - o k
565 P —(pause) yeahsss too much of a control freak.
566
567 Looking through the pack of probe responses
568
569 Changing tape over and re recording with ipod
570
571 I - ok we're in business
572 P - cool
573
574 The pillow
575
576 P —this, this dream, is almost like a daydream, but not quite because it came out of
577 something I did about nineteen years ago, where I did a sort of a um, erm a relatively, a
578 fairly new age type therapy weekend session thing and I can't remember if it's the one I did
579 which is a women's only one or, a mixed one, but one of the things you had to do, no I
580 think it was on the women only one, which was like a two or three day workshop up in
581 London, and you had to do this sort of meditation and then you had to sort of write down
582 what you would do if you were going to... I think it was based on the idea that you had six
583 months to live and where would you be, what would you do, and for mine I just had this
584 thing of ok I would put my kids into a camper van, because at the time I had three children,
585 it was before I was with my present partner, so I'd put my kids into a camper van and I
586 would drive round Europe and then when I got to the south of France I had this, I was
587 trying to visualise going further and it didn't, it was like this weird thing of not going any
588 further than the south of France and just living sort of there and that sort of connected to
589 this sort of idea of, of having you know a house and a studio and, and actually sort of space,
590 where there is space for family, but there's also sort of space for personal creative work

591 I- yes

592 P —you know, which if I, if I was organised and chucked out half my crap I've got a huge
593 garage attached to our house which I could convert into a studio, but (laughs) we've only
594 been living there for ten years and I haven't got round to it (laughs) yet!

595 I- (laughs)

596 P —oh no, nine years, you know, so... but that's what that whole dream is about that
597 whole, well it's not a dream, it's sort of more a daydream that came out of nowhere
598

599 Participant breaks off interview to answer her phone
600

601 P —(talking through photographs) The doll I've mentioned in one of these cards

602 I- yes

603 P —yeah, so I think he (her Father) bought me the doll, I can't, I must have been five or six
604 because I remember my sister and my cousin fighting over it, which is why it ended up
605 with a wobbly head and it used to have things like pins in the hair and it was you know, this
606 was white rather than sort of stained where it's been, it's got damp at some point and it's
607 colours have run and it's got moth eaten around the skirt, so that was significant because he
608 didn't used to buy any of our presents, my Mum used to organise all the present buying, but
609 he brought these back from a cruise he'd gone on and the other one he bought me a couple
610 of years later isn't, it's not such a pretty doll, I think it's smaller and it's not quite so
611 unusually nice, so I've probably had it for quite a long time really, thirty seven years, so it's
612 lasted fairly well

613 I- ummm

614 P —erm, yes and that one, that's the embarrassing one (photo of her tummy) - 'permanent'
615 just because, you know, ever time I've had a baby I've been thinking oh I'll get a flat
616 stomach this time and I never have, so the one of the mobile phone is because I use it, er, a
617 lot of the ways I keep in touch with my older kids is by texting them,

618 I- yes

619 P —because they don't live at home and so we'll send each other texts and with my partner
620 as well I sort of text him, although I also see him so I suppose it's not such a big thing, and
621 errrr, 'my favourite communication device' is the laptop because I use it a lot for email, to
622 friends and family and as well as work and that's the thing of having sort of all my rings
623 littered next to it (in photo) it goes with all the other shots you've got in here of my room

624 looking such a mess, and er, the 'precious object' is the chest of drawers, which I've got in
625 there, yeah, I think it was my Grandmother's I don't know, but it's something I always,
626 even as a small child I've sort of coveted antique things that weren't mine, because we also
627 had this family book of common prayer, which was one of these sort of small ones with an
628 gold clasp on it and inside it had beautiful copper plate writing of somebody, I can't
629 remember, I think it was my Grandfather, or my great Grandfather and in biro it's got my
630 writing in capital letters from when I'm about five, (laughs)

631 I - (laughs)

632 P —where I've written my name underneath. I just remember my Mother looking at it and
633 trying to work out how she could get it out, but because it was biro it wasn't even ink so
634 they couldn't bleach it, it was like indelible, I'd made my mark on it (laughs)

635 I - claimed it (laughs)

636 P —I'd claimed it as something, it was all this thing of trying to connect yourself to your
637 family, because the only heirloom things were a silver stopwatch which was my
638 Granddad's and a carriage clock, which they all thought was really old, but wasn't really
639 that old and they went to my Brothers, so there wasn't really any sort of, you know I
640 wanted an heirloom of some sort or something old, but had been used by previous
641 generations, so I sort of swiped the chest of drawers when I left home, having used it a lot
642 when I was a kid and well and my Sister's had as well because it was slightly more trashed,
643 I ought to get it fixed, and these ones (photos) of my bedroom, the 'transience' ones
644 because it's always in a state of not quite being tidy and the feathers I think I said about the
645 peacock feathers is that you know I don't know whether I like them because I like them or I
646 like them because my Mum used to like them, so there's this thing of you know, it's like
647 always liking the chocolates that have the nuts in because that's the one she always used to
648 take, so and that number 3 one I think it was just the pictures of the leaves, I don't think it
649 was anything else there that I was photographing apart from leaves, oak leaves, big, and er,
650 'the favourite views one' is bridge valley road', it's just always a nice thing to look across
651 at as you're driving in Autumn, the colours go fantastic, the 'happiness one' is my children
652 on the floor at Tate Modern, looking at themselves in the ceiling and the 'element of
653 routine' is breakfast, and then I've got another one the 'quirk of my nature' is the fact that
654 everyone's always telling me how messy I am, I live in fear of the life laundry people
655 turning up on my doorstep (laughs)

656 I - (laughs) they're very frightening programmes aren't they

657 P —they are, ‘own choice’ birthday party, that’s one of the birthday parties along with the
658 one of something funny, (description of the food she made) I think birthday parties, because
659 the one thing my Mum was good at were birthday parties, the rest of it she was fairly shite
660 (laughs), she wasn’t really designed to have lots of children, but she was good at birthday
661 parties, she always made a big effort, and the earrings, um

662 I - so did you come from a big family as well?

663 P —I has two brothers and two sisters, yeah, so and my Dad came from a family of five
664 and his Mum was from a family of eight, my Mum had one older Sister, who was about
665 twelve years older, so erm she never really sort of had grown up in that big family thing

666 I - yes

667 P —but she’d always liked the idea of it, so I think she was quite a lonely child, it’s just the
668 reality of, of looking after

669 I - kind of different to what you imagine maybe

670 P —yeah and also in those days she could do all the sort of cooking and cleaning and
671 keeping us fed, but all the sort of emotional stuff was just sort of wasn’t really part of her
672 awareness, although I get on very well with her now, and um, the ‘favourite piece of
673 jewellery’ is stuff that my daughter, the middle one she gave those to me for a birthday a
674 few years ago and I wear them quite a lot, partly because I like the colour, but also they’re
675 just a very simple straightforward shape so I either wear those ones or the ones I’ve got on
676 now, which are fairly, they’re not entirely plain, but they’re sort of subtle enough to not
677 draw people’s attention too much, also there’s that feeling when you get older if you’re
678 earlobes, erm, I know too many old hippy friends who’ve got split earlobes where they’ve
679 worn huge earrings,

680 I - oh, wow

681 P —where’s they’ve slowly done things to them, this one the ‘unusual’ one number seven,
682 that is the thing I made at college which is an IUD which I personally removed and used, I
683 was really pissed off, because it got thrown away by the cleaners or someone swiped it off
684 my studio space, I should have looked after it more carefully, so it was erm. well this one
685 sort of erm, I did a, I also did some etchings of it, where I use it, because if you look at the
686 shape of it it’s like a trilobite, so I did an etching where I used this shape and then a bit of
687 crab shell and it looked like some bizarre pre-historic animal, so this one’s just pressed into
688 clay and that’s hanging up in my room as well with all these other bizarre objects, so like

689 the feather house which is in the window, which was actually a piece I did for an exhibition
690 and it had a video running in the bottom of swans
691 I - ohhh
692 C- so those are real feathers that I stuck on it and then sprayed it with etching that was
693 when I was
694 I - I really like that
695 P - yeah, I mean I quite like it as well, so, when I was pregnant with * (daughter) I did that
696 because I was always a bit worried that the spray etch, might affect her (laughs), but she
697 I - she's turned out alright (laughs)
698 P - yeah (laughs) the 'boring' one's the housework thing because, I don't find it totally
699 boring, I just don't like it when I have to do it
700 I - yeah
701 P - if I get into the mood to do it, that's different, but also it's because you're having to
702 clean up after other people, and if you're going to do it properly, you may as well do it
703 properly, so... I just really don't have time and the 'ammonite' is something I bought for
704 the back garden because I was trying to make it into a magical space for the kids and
705 although it's concrete and it's from B&Q I just thought it was great, I've also got
706 I - it doesn't look like concrete does it, with it looking a bit dirty,
707 P - no, no, I know, but it is huge, it's sort of about a foot, over a foot across, it's quite
708 heavy sort of thing and also near that I've got two or three fake tree rings, you know, those
709 sort of
710 I - oh, yes
711 P - concrete versions of wood and I've got three of those in there as well as stepping stones
712 in this pathetically tiny garden, which I've painted pink and blue, although that photo's not
713 there
714 I - ooh, it's around somewhere... there
715 P - oh there it is, oh right those two, yeah, so that was the back garden, just because it's a
716 tiny space I wanted to make it huge
717 I - um, you see I tried to echo this
718 P - ummmm
719 I - when I found that wall, I thought, hmmm
720 P - yeah I looked at it and I thought, oh blue, not quite the right blue though
721 I - oh, sorry (laughs)

722 P -Bermuda sky
723 I - (laughs) oh, ok, huh, me in the street painting the walls!
724 P —(laughs) no, and I can't remember what the pink is called, we paid someone to paint it
725 for us, he was colour blind so he didn't mind
726 I - (laughs)
727 P -so this is just sort of like the back yard which is just seven foot by eleven, or is it
728 seventeen by ten? It's very, very small, so it's blue up to the top and then pink below, sort
729 of, and then you've got the garage here which is just red brick still, we didn't bother
730 painting that, and, but the rest of the house, the public side of the house is cream (talks
731 through the grape vine they have) my Mum's just given me an embroidery she's done of
732 my back garden
733 I - really?
734 P —which is all pink and blue with the grape vines on it as well, which is quite weird
735 I - so that's the private and public thing again
736 P —yeah, I suppose so yeah, well it seems a bit, sort of we didn't want to inflict it on the
737 neighbours, having to stare at a bright pink wall when they look out, but it's lovely in
738 winter because you look out of the bathroom window and all you see is blue
739 I - umm
740 P -(laughs) and then you see the real sky next to it, erm, and that one of the front garden, is
741 sort of plants trying to keep going despite all
742 I - yes
743 P - (describes garden further - inc) a bit of ceramic, was something that I'd made a long
744 time ago
745 P - (continuing with photographs) that one was, again it's the little chest of drawers, but on
746 top of it, it's a snow globe that I got when I was living with my previous partner he got
747 given it because he used to work in air freight and it's actually a statue of Liberty with an
748 Iran airlines um, jumbo jet
749 I - ohhhh!
750 P - in a snow globe and I remember a friend of mine, quite politicised, saying that's quite
751 novel because she knew we, the juxtaposition of Iran Air and the Statue of Liberty, so I've
752 kept it as a sort of novel sort of token of (laughs)
753 I - yes (laughs)

754 P – mmm, so I've kept that even though it leaks occasionally and that's one of my
755 drawings, which I think is based on, I think was based on erm, a picture of my Mum, I can't
756 remember, I've got quite a few similar
757 I – yes
758 P - those sort of partly self portraits, partly other people and partly based on this sort of
759 erm, Greek god images, and this one is the kids playing at the American museum, so
760
761 *In the next section I explained my making process, looking through the photos I've taken of*
762 *Faith's probe responses and then my early making ideas followed by the models themselves*
763
764 I - so from here I wanted to focus in on things that I thought were really poignant
765 P - umhmmm
766 I - um, a kind of strength, but fragility
767 P - umhmmm
768 I - and aged beauty, and a lot of things that felt very white
769 P - umhmm
770 I - * (daughter)'s curls, I was thinking for quite a while of using that kind of, etching that in
771 something that was flat maybe and the shape of this (referring to the metal form) actually
772 comes from the, these kind of (looking through the photos), I think the one image that's the
773 most - is this one here, I've tried to - this one of the doll
774 P - umhmm
775 I - and the feathers, I wanted to try to echo the doll's form
776 P - oh yes
777 I - I've used the um, I've used a quote as well from the, from the dream 'a large white airy
778 space with favourite things around me' that's what the DVD ends on
779 P - umm
780 I - so I used your quote there and I wanted to try to make a - something that was a space, a
781 personal space for you
782 P - umhmm
783 I - so, something that is a container, that could be a kind of home, like the, like the house
784 (referring to the feather house) for all these things that you have, so I've kind of picked up
785 on how you have all of these objects, that you've had for a long time and I wanted to make
786 a kind of home for the *idea* of them

787 P - umhmm, yeah

788 I - and I actually started making these kind of cocoon kind of shapes (showing the three d
789 models and ideas)

790 P - so what've you made these, made out of felt?

791 I - yes, so I started all of these and started to put more lace on

792 P - you see I never took a picture of all the bits of sheep's wool I've got hidden in the
793 cupboard (laugh)

794 I - (laugh)

795 P - no because I used to teach spinning and weaving

796 I - did you?

797 P - yeah, so we did felt making workshops as well and paper making which is quite similar
798 of course

799 I - so these kind of qualities here (showing the photos and next stage of felt and lace models
800 together)

801 P - oooh, I seee

802 I - trying to sort of echo

803 P - yess

804 I - the feelings,

805 P - yes

806 I - if not literally and the look of the dress

807 P - yes

808 I - and that kind of, um, how something's been well loved

809 P - ummm

810 I - is something that I wanted to try and get across

811 P - ummm

812 I - so erm, the painting (starting to show the copper forms through the stages of painting on
813 resist, then etching to different levels and cutting the edge away) it is actually metal

814 P - (long pause) *is it?*

815 I - yes

816 P - *really?*

817 I - yes

818 P - my god

819 I - which I've enamelled, because, I wanted to get that kind of enamelled, like glass

820 P - yes

821 I - so that's the sort of porcelain, ceramics feel

822 P - ahhh haaa

823 I - but it's actually enamel,

824 P - ahh right, because I was looking at it there, I hadn't actually noticed that it's quite shiny,

825 the (holding the metal form and looking inside it), but that's the enamel, so is the brown

826 actually metal then?

827 I - yes, which I've tried to make it...

828 P - goodness me because I was sitting there thinking it was a piece of ceramic where you'd

829 put the lace on and left the lace on and the lace had burnt off in the kiln and made it

830 I - yeah, I painted, there're all painted (showing samples in metal and initial models in

831 metal)

832 P - aaahhhh,

833 I - I'll show you

834 P - my Mum used to do enamelling

835 I - I think I've brought one, (showing more metal pieces) so I made the cones and then I

836 painted the resist on, that's one showing you

837 P - ahhhhhh, oh, right

838 I - and then etched it

839 P - oh right so you put it in to

840 I - in to an acid, and I thought that kind of

841 P - see if I'd have known that I'd have rubbed it much harder with my thumb (laughs)

842 I - (laughs) so I started doing tests, like this (showing some of the flat enamelling tests on

843 etched copper)

844 P - ooooh wow, aren't they fantastic!

845 I - um, to try and get that kind of aged

846 P - yes

847 I - feel to something and the kind of frailty but also it being a robust object

848 P - yeah

849 I - that was strong enough to be a digital object

850 P - you see those are beautiful objects in their own right as well aren't they

851 I - and then testing with, I've got some pictures I could open (showing images on the

852 laptop) I'll just open... can I open the other folder because that's got

853 P — shall I close these ones
854 I — yeah, I think so, yeah
855 P — there wasn't anything else there
856 I — well, it just sort of shows you the things, the last one kind of shows you things I've
857 really focused on
858 P — umhmm
859 I — so there's the curls, and the doll, and the pastry cutter
860 P — yes, right
861 I — the one, the next one here, those were really important in the kind of look of it; the
862 wooden box
863 P — yes
864 I — and
865 P — (laughs) I've got lots of things that really need renovating
866 I — I think the fact that there're like that is part of their beauty though, part of their charm
867 though isn't it, I think
868 P — it's funny because it's one of the, one of the things I have with my partner, because he
869 hates antiques, he absolutely hates them
870 I — does he?
871 P —(talking while looking at the pictures on the laptop) he doesn't like old things, where as
872 I like old things because I always feel that (then looking at laptop again) do you want me to
873 open up all these
874 I — yes, I've numbered them so they come up in order, then you can see the process
875 P -the thing I like about old things is that they belong to someone
876 I — yes
877 P — there's this whole thing, (referring to laptop next -) that should work, something's
878 opening I'm just not sure what
879 I — something's happening isn't it
880 P — one of those moments where you think I wish preview would work better
881 I — would they work in IPhoto?
882 P — it's hiding it now, oh I'm sorry
883 I — that's ok
884 P — too many for it to cope with
885 I — can we open a few

886 P - yeah

887 I - (turning to the models of the physical piece) I bought a lot of these (small toy horses)

888 P - ah you see I remember all these, because my brother used to have the little tiny um, you

889 know the little tiny um, sets for like war, war game ones

890 I - oh yes

891 P - and I used to steal their, when they had the American civil war sets, I used to steal the

892 covered wagons with all the ladies in crinoline (laughs)

893 I - (laughs)

894 P - and the horses that sat, that stuck onto the covered wagons, he used to get very cross

895 with me

896 I - I cast a couple in silver

897 P - oh, aren't they sweet

898 I - and I with those also started to make you another tiny little pastry cutter

899 P - aaaah, yeah that's about the right size, that's how I remember it, but I remember it as

900 having less.... Oooh look at that (referring to the tiny silver spoon I made)

901 I - because you said that you loved um,

902 P - little things

903 I - you had a love of perfect little objects

904 P - yes

905 I - so I started to make those and I wondered if I was being far too literal

906 P - yes

907 I - so um,

908 P - but they're good fun though

909 I - yes, well I was going to make a piece that had more than one of these (the cocoon like

910 form) and they (the tiny objects) were inside, so they were hidden

911 P - right

912 I - so you could lower them and have a look at them

913 P - oh right and then winch them back up

914 I - yes

915 P - oh that's a nice idea

916 I - so that was something I was going to do

917 P - because then they could still be very secret

918 I - exactly, but I was concerned that they'd become quite bell like with the metal sound

919 P – umhmm, yeah, but that was one of the things I said they reminded me of
920 I – yes
921 P – that’s why it might sound like a bell then, (laughs) because it’s metal, doohh, how
922 funny, I just assumed it was this really sort of um, (referring to the laptop again) right I
923 think the tiffs aren’t going to open
924 I – oh, ok, well they’re not so important, I was also thinking of erm, making something
925 where you had, where I’d put the indentations of where the pastry cutter had been
926 P – umm
927 I – in the object, it would look like it had been, not had something fully removed, but had
928 an indentation of it
929 P – ummm
930 I – so all of these things are things that I have experimented with, erm, but something that
931 was quite erm, I suppose quite nurturing in nature, a cocoon, or something that would be a
932 container for these ideas
933 P – umm
934 I – because I think it’s the thing that it’s all kind of generated from
935 P – yes these are very cocoon like aren’t they?
936 I – yes, so it was
937 P – yes because I came across some spider’s webs like this underneath something the other
938 day, I was in the garden I think or outdoors somewhere, it wasn’t actually in the house
939 (laughs)
940 I – (laughs)
941 P – it was all right but they looked like they’d been imbedded in something by someone,
942 that’s quite weird as well the one that’s with the three stuck together
943 I – yes. So that’s how these metal forms developed
944 P – I’ll see if I can open a few at a time (pictures on laptop)
945 I – ok, yes
946 P – maybe they’re just very big
947 I – I was going to bring my laptop, but it weighs such a ton
948 P – oh I know
949 I – but you have one here
950 P – yeah, but it’s misbehaving for some horrible reason
951 I – they are quite big actually, aren’t they, a meg and a half each

952 P – yeah but even so it should be able to cope with them, it's just a preview – I have got a
953 PC, but I don't know if it's got, oh, I don't think it's got...

954 I – have you got Photoshop on here?

955 P – yeah let me find it

956 I – and open them up through there

957 P – yeah, applications... what happens if I dump the whole folder on to Photoshop?

958 I – if it can handle it, um, I open quite a few together, but I don't know about that many

959 P – ok, I'll take the first few

960

961 *Opening pictures*

962

963 I – ok so ideas of how these things could come and visit, so whether it's a physical thing

964 where the indentation would be in the object or

965 P – umhmm

966 I – or whether it would be something that could come and visit you from time to time as if

967 it was having it's own life somewhere and it wasn't really lost and

968 P – umhmm

969 I – or just down the drain, never to be seen again

970 P – (laughs) yes

971 I – um,

972 P – yeah because I think a lot of the stuff that I keep is about this idea of, of forgetting, I

973 forget things and then so I'll go ooh yes I remember that so it's that whole thing of the

974 whole idea of memories as objects, because I'm scared that I'll forget things

975 I – yes

976 P – you know and part of me wonders whether that's why I amass piles of, piles of stuff,

977 you know bus tickets, well I'm not quite that bad anymore but you know that whole thing

978 of keeping train tickets to remind you that you did actually go somewhere

979 I – yes

980 P – because how much can you remember and how much do you need to forget in order to

981 be able to have other stuff come in

982 I – yes

983 P – yes (laughs)

984 I – um, yeah, I found it interesting when you told me that you'd kept it to yourself, because
985 it was a very private object that I wanted
986 P – umm
987 I – to make for you
988 P – umhmm
989 I – erm, I kind of, something that was a space just for you
990 P – umhmm,
991
992 *Looking at the pictures*
993
994 P - you look at those and you think what hatched out of those? (referring to the felt
995 cocoons) (laughs) something scuttling around the bedroom, you know
996 I – and the thing about having something that has a digital potential
997 P – umm
998 I – I think erm, it needs, it has certain kinds of needs, that a normal piece of jewellery
999 doesn't have,
1000 P – umm
1001 I - like it can't, it may need, you know the electronics won't be able to get wet necessarily
1002 P – umhmm
1003 I – so felt wasn't really the thing that would protect it
1004 P – um
1005 I – so I started working in metal
1006 P – umhmm
1007 I – something that was stronger, but I wanted it to have a, an enamel like feel, a glass like
1008 feel to it
1009 P – umhmm
1010 I – and I initially started thinking of making something completely white and
1011 P – quite like this sort of (referring to the pictures)
1012 I – yes but I just sort of sprayed that. that's not stove enamel
1013 P - oh right
1014 I - um, but then working with the enamel in the kiln and building these different layers
1015 P - ummm
1016 I - it seemed like it really fitted

1017 P - ummm

1018 I - it's got that kind of aged

1019 P - yes, sort of worn away through someone's fingers, or (pause)

1020 I - yes, that's what I tried to get with some of these areas that are kind of, they look a bit

1021 worn

1022 P - yes, yeah, and that gives it sort of different colours as well so it's not a uniform colour

1023 which I quite, one of the things I quite liked about it, so like, so like with some white

1024 things, so like with these (refers to the enamel samples and the felt forms) although they're

1025 white they're not just, there is more depth to them because there are different colours over

1026 them

1027 I - that was interesting when you mentioned that these colours don't quite fit (referring to

1028 comment in the response journal - where the hair-like strands and the enamel piece are

1029 different colourings)

1030 P - ummm, do you see what I mean?

1031 I - I do

1032 P - it's like this is definitely more blue (enamelled piece)

1033 I - yes

1034 P - and this is definitely more, I don't know

1035 I - I think it's actually becoming bluer, from the copper

1036 P - ah, right

1037 I - coming through the

1038 P - one of my favourite things is doing raku firing, which is using copper and making it go

1039 sort of blues and golds, when we were kids, when we were kids actually we used to live

1040 near Windsor great park and one of the places we used to go and walk to was the copper

1041 horse

1042 I - oh right

1043 P - which is just this huge statue of a horse made out of copper, so it's got a bluey green feel

1044 to it (pause while looking through more pictures) it's almost like a weird flower isn't it

1045 I - mmm, so these are some of the

1046 P - they look like a beautiful collection of objects in their own, I mean even, saying they're

1047 only test pieces but you know...

1048 I - mmm that's the circle that I cut out

1049 P - yes

1050 I - for the inside part

1051 P - yeah, there's that whole thing of sort of like is it cloisonné? type enamel

1052 I - yeah, enamelling inside the small spaces

1053 P -mmm, I think it's the idea of small objects as well you know, that makes them, just really

1054 sort of special

1055 I - mmm and I did a lot of experimenting, quite

1056 P - oh there's a pink one there

1057 I - yes, painting with a tiny paintbrush, painting it on and then doing them to different

1058 depths

1059 P - so you actually painted this on?

1060 I - yeah, they're all hand painted

1061 P - ooh right, I was trying to work out because it was almost regular like a piece of fabric,

1062 but then it wasn't so when I was thinking it was a piece of fabric that had been burnt off by

1063 a kiln

1064 I - yes

1065 P - rather than you painting something on, (pause) that's interesting

1066 I - I think that kind of

1067 P -(looking at the early metal pieces) almost looks like a bullet doesn't it?

1068 I - it does actually, this kind of quality in the photo (referring to one of * participant's

1069 photos of objects on her bedroom mantle piece - the doll from her father, a feather tree, a

1070 small glass pot with veining on it)

1071 P - oh yeah that's a glass, um, pot from the isle of white

1072 I - these are all sort of things that filtered through

1073 P - mmm

1074 I - into the, the pattern

1075 P - make fantastic thimbles wouldn't they (laugh)

1076 I - yes

1077 P – but they'd catch on things. So yeah one thing that I didn't take a photograph of was this

1078 big piece of plaster work that my friend sold me for a fiver, because her ex-husband was

1079 erm, (distracted by another picture) oh that's interesting what's that?

1080 I – that's actually, I was, it's a teacup, the inside of a teacup with some of these forms

1081 P – balanced on the edge

1082 I – balanced on the edge

1083 P – oooh right
1084 I – I was thinking of, I was actually thinking of the kind of, the nurturing thing again
1085 P – mmhmm
1086 I – and the photo of the tummy
1087 P – yeah (looking at more similar pictures) they’re nice images. In some ways they work
1088 better on smaller ones though because you can see the, yes shadows, I quite like the
1089 shadows. One of the things I like about the glass house is the way the shadows
1090 I – yes
1091 P – go through
1092 I – and I thought that was such a beautiful photograph of the doll anyway
1093 P – and this, this is a photograph (on the mantle piece behind the doll in her bedroom)
1094 woodland
1095 I – woods
1096 P – oh wow, looks like a collection of them (pictures of my metal and felt models)
1097 I – so this is why it’s taken a long time, I’ve spent a long time making them
1098 P – that’s really weird the mixture of the metal ones and the felt ones, isn’t it
1099 I – mmm
1100 P – sort of the shift between them
1101 I – yeah it’s always quite strange what happens when you translate from one material to
1102 another
1103 P – mmmm - they’re all so sweet. No I was looking at some of these (small models of
1104 animals) the other day in some um, hobby shop was closing down and I was looking at all
1105 the little you know Napoleonic wars... is that a horse or a cow?
1106 I – well they should all be horses
1107 P – no it is
1108 I – yes (laughs)
1109 P –These are fantastic (the small models) when we used to go and see Queen Mary’s,
1110 (looking at more pictures) oh wow!, Queen Mary’s doll’s house at Windsor Castle, which
1111 is just the most stunning thing to go and see when you’re a kid
1112 I – is it?
1113 P – it’s just this huge doll’s house, it’s about the size of this cubicle and all the doors are
1114 open and then it’s got all these other things and everyone used to give presents to the royal
1115 family, to the princesses, so you got little tiny versions of books which are this big and you

1116 know whole limogues porcelain dinner sets, really realistic things from the people who
1117 used to make them, but they're in miniature, it's just absolutely stunning. I haven't been
1118 there for about thirty years but, what's this piece of wood here?
1119 I- that's just
1120 P- that's just your bench (laughs)
1121 I- yeah the jewellery bench
1122 P- you see that's the sort of thing I like (laughs) a jeweller's bench
1123 I- yes (laughs)
1124 P- that's really pretty as well, (one of my enamelling samples) another sort of um, oh
1125 what's the word? Moulin Rouge feel to it doesn't it
1126 I- mmm
1127 P- you must have spent ages and ages working on all of this stuff
1128 I- mmm
1129 P- see that one looks much more delicate, than that one there
1130 I- yes, that's further on I think
1131 P- sort of trying to get the... something to do with the thickness of the metal, it doesn't
1132 look so thick on that
1133 I- I think, no, when it's filled in with the enamel as well, it evens the thickness out
1134 P- that's nice image, what are those there (my sketchbook)
1135 I- that's a piece of work that I really like, I can't remember her name of hand, but she
1136 makes necklaces made from porcelain plates with ribbon and I think they're very lovely
1137 images, this is the enamelling (pictures of the enamelling process)
1138 P- yeah my Mum did an enamelling course when I was a kid and she had one of those
1139 little block kilns
1140 I- oh nice, I'm going to try and invest in one of those actually
1141 P- about this big
1142 I- yes
1143 P- and sort of it's another thing I lost when, in about 1984, my ex-partner must have
1144 thrown it out because it was in the shed when I left
1145 I- I think that's the last one, yes
1146 P- yes I remember all these sort of things (enamelling equipment) and these trivet things
1147 and just being totally fascinated, I actually got to make you know she had a kind of
1148 miniature version of that

1149 I- yes

1150 P- she must have done it in about 1968, I think it's because we went to visit my cousin and

1151 she was making jewellery so she gave us each a copper blank and we sort of had to polish it

1152 and polish it and polish it and then we stuck things to it with araldite and I made a Lion,

1153 which I've still got somewhere in... I love these though (enamelling tests with wire to hang

1154 then in the kiln attached) with all the hanging, with all those on them

1155 I-right

1156 P- now with all the left over bits you're making mobiles (laugh)

1157 I- (laugh)

1158 P- lets see if it (laptop) will do all those (open all those pictures) or if that will freak it out,

1159 I do have problems with preview

1160 It looks like a landscape doesn't it

1161 I- yes, that one's got the oxidised layer on

1162 P- umm

1163 I- and then these are getting into a 3D form

1164 P- oh that's pretty

1165 I- that's it (the finished piece) that's the one before I'd oxidised it

1166 P- oh that's before, oh I see

1167 I- which I actually really liked the colours of

1168 P- yeah they're beautiful colours, so is that before it's gone into the kiln?

1169 I- that's, it's been in the kiln I think, I kept putting layers on, I was putting really thin

1170 layers on because it's a really, there's not a deep recess

1171 P- umhmm

1172 I- to go in, I just did it really gradually

1173 P- ummhmm

1174 I- so building it up and then taking it back filing it back

1175 P- so why does the colour change from that to that?

1176 I- I've oxidised it, so um, it goes darker, it's a chemical reaction, and I've also

1177 P- see I've got scraps of lace like this laying around my house (big laugh) you see you

1178 don't even know the half of the crap I've got in my house

1179 I- I made these, I laser cut these from felt

1180 P- oh that's clever, oh what your initial idea for the

1181 I- yeah, for the way that it would be worn around the neck

1182 P-um hm m
1183 I- they'd need to be reinforced because you can just pull them apart
1184 P - right
1185 I- but I think it kind of competed, think it was a bit too fussy
1186 P - yeah, yeah
1187 I- but those kind of qualities and then I actually laser scorched, and tatting
1188 P- oh tatting, I had a go at that once
1189 I- here these bits I was thinking of making some thing like this to go around your neck
1190 P - umhmm, it's a very long-winded process tatting isn't it?
1191 I- yes
1192 P- which is why Victorian ladies used to spend their evenings doing it, I love it when it's
1193 just like a bundle like that though
1194 I- yeah, I think the piece would be a success as well if it had, if it was like a brooch with
1195 some of this around
1196 P - yes, mmmm
1197 I- and here felting a length
1198 P - right
1199 I- and then I was thinking about the dream qualities of it and um I was laser cutting and
1200 scorching hairs onto a pillow as a way to present it to you
1201 P - oh right
1202 I- and that's when I was actually thinking of the hair like qualities of a way to actually
1203 wear it and it was the doll's hair, synthetic hair
1204 P - mmm
1205 I- that gave me the idea as well as * (daughter)'s curls, so I used synthetic silk which just
1206 felt so smooth
1207 P - m m m
1208 I- and so lovely it was that kind of comforting and calming kind of feel to it
1209 P- silky blanket (laughs) I never had one of those but my sister had that she always had her
1210 silky blanket
1211 I- that I wanted to create for you
1212 P - yes, oh that gives it a very different quality like that doesn't it (referring to the picture
1213 of the un-enamelled piece with the laser cut felt) with the felt thing and the copper
1214 I-yes

1215 P – it looks like a flower
1216 I – yes
1217 P – on a stem... So you sort of took one of those and took them apart
1218 I – yes I took it apart and it was all very curly and I ironed it (the synthetic silk) that (the
1219 next picture) is laser cutting laser scorching, (pause) so I think I was focusing very much on
1220 the doll and the hair-like strands
1221 P – mmm that’s a nice image, yeah, because it looks much whiter there doesn’t it for some
1222 reason
1223 I – yes
1224 P that feel of um, I was trying to work it out it was the warmth of it and I tried to work out
1225 because that would make sense if it’s metal the fact that it warmed up in your hand
1226 I – yes
1227 P – where as I was thinking oh porcelain must warm up in your hands, but I was assuming
1228 it was porcelain and so the difference between this (the synthetic silk) feeling quite cold
1229 and this (metal form) feeling quite warm after a while that’s quite, that was one of the other
1230 things I noticed about it
1231 I – yes, so now you’ve kind of seen more of the process and
1232 P – Mmmm
1233 I – and where the ideas came from does it make you see it in a different way?
1234 P – (pause) er, coorrrr, I don’t know whether it makes me *see it* in a different way, erm, just
1235 makes me want to have some of the bits that go with it as well do you know what I mean,
1236 sort of like these bits which would mean nothing to anybody else but I think of as object are
1237 interesting objects, but also the fact that they’re part of your thought process I think, well, I
1238 don’t know whether that makes it more interesting or that, you know, as an object in it’s
1239 own right I think it’s a really intriguing thing of no apparent use what so ever to me but
1240 something that you’d just sit there and look at and think ‘oh that’s interesting’ because it’s
1241 in it’s self it’s ambiguous, but that’s not part of what you’re project is about that’s just me
1242 having, it’s a bit like picking up shells on the beach or stones that have a resonance in the
1243 way they look, sort of it’s these things of you know these bizarre and peculiar objects that I
1244 mean I can imagine sort of having all these in a little box (laughs) and just like you know as
1245 an art piece if you like this thing of them being sort of little strange and unexplained objects
1246 bit like a Louise Bourgeois type sculpture where there’s something that resonates with you
1247 but you don’t really know why and they sort of have echoes of other things that you’ve

1248 come across, so whether it makes me see the piece any differently I don't know because I ,
1249 I sort of did quite like it anyway as an object erm, I think the only thing is you know I
1250 would have quite liked the idea of, because I did sort of actually pick at it and then I
1251 thought oh no I'm going to break it so I'd better not (laughs) once I went to (gestures to try
1252 to prize it open) but I did like the idea that there could be something inside so the idea of
1253 having something that opened up and you have these little tiny object it's almost like the
1254 borrowers you know finding something that the borrowers have left and it's inside there,
1255 but then again I would then also be scared of wearing it outside in case they fell out, so
1256 again it would be something that I only, you know I would probably keep it in its box but
1257 the box open somewhere where I could pick it up and I could pick the bits out and then put
1258 them back in again and I would know they were there, so I think that's the difference, but in
1259 a way I sort of felt there should be thing in side it anyway yes but they weren't necessarily
1260 things that would then connect me to technological screen or it was just, it would be, would
1261 connect me to those sort of images but in my head rather than someone else's version of the
1262 images outside my head

1263 I- yes, so if we kind of split the two aspects of it,

1264 P - ummhmm

1265 I - one being the object itself and the other being the digital potential of it, if we split

1266 P - right

1267 I - I feel that (pause) there's a, one seems more successful than the other

1268 P - yeah, I mean as an object, yeah, I think that's fair to say but that could just be because

1269 I'm not really interested in that part of digital connection

1270 I - right

1271 P - really, um, that idea of connecting to screens using an artefact unless it was for

1272 something fairly utilitarian

1273 I - right

1274 P - you know, but then I wouldn't want to connect to a big screen, it's almost like sort of

1275 going in and sort of blasting yourself 'here I am!!!' you know I might do if I was drunk or,

1276 but wouldn't necessarily, so erm, but then again there's other things where I think you

1277 know might be interesting to interact with your environment so like if you could walk up to

1278 fountains and make the fountains change because that's one of the things we've talked

1279 about here is if you had a wearable that you could gesture and it would make the fountains

1280 in the centre squirt or bubble or something that sort of thing where it's quite a subtle thing

1281 that people might not get but it would just be enough for them to go oooh water's changed
1282 shape, so something like that that is even more subtle than an image on a screen so even
1283 more ambiguous
1284 I-yes
1285 P- and also it's more fun to do that sort of thing if you've got a group of people with you
1286 who know that it's happening as well
1287 I- umm
1288 P- so like if you went out with the kids and as you walk around little things would pop up
1289 and sing at them or
1290 I- yes
1291 P- you know those sorts of things
1292 I- yes
1293 P- so like a plaything
1294 I- yes, because that was one of the things that I have been thinking about with the digital
1295 idea was whether you keep it to yourself or whether it's something that you'd give to
1296 somebody else to wear and they could experience it
1297 P- mmmm like you'd lend it to them for their birthday or
1298 I- sharing it yes yes or sharing it as a group
1299 P- ummm yeah I suppose for me that would be the sort of thing you'd do with family or,
1300 or very, very close friends or, but I suppose to me it's the kind of thing I would probably
1301 do, I would probably see it as something you would do for children, or with children, rather
1302 than with other adults, partly because it's the sort of thing you'd make the time to do for
1303 children
1304 I- yes like making the garden magical
1305 P- yeah, that sort of, yes so if you could have it so you know make things pop up out the
1306 garden, I just love these (the tiny spoon and horses), they're just such bizarre small things -
1307 (looking at the tiny pastry cutter I had made) yeah I did wonder whether the original on of
1308 these was from a charm bracelet but, I don't remember it having any thing on it that would
1309 have attached it to a charm bracelet
1310 I- oh I see the pastry cutter
1311 P- mmm, because it's that sort of size
1312 I- yes
1313 P- but who knows

1314 I - so I think one of the things that's going to be very useful to talk a bit more about is the
1315 kind of, an object that looks quite old

1316 P - mmmhmmm

1317 I - or is made from something that doesn't look like a normal digital object

1318 P - mmm, yeah I quite like it as an idea, it's a bit like having a magic stone in your pocket
1319 and to me in some ways although I sort of quite like playing with the tail to me it's more
1320 something I'd like to have in your pocket that you're playing with inside your pocket and
1321 no one can see it rather than something that's publicly on view

1322 I - yes

1323 P - so it's almost like a talisman type thing but not again it's not on display, it's, it's hidden

1324 I - yes

1325 P - but I like the idea of, you know, because I like things like wooden boxes or just things
1326 that have a different, an unexpected sort of um, meaning or ability to do something you
1327 wouldn't expect

1328 I - yes that was very much the kind of sort of environment for it that I would be nice to try
1329 and create

1330 P - yeah, yeah, because it's not so obvious either

1331 I - yes, exactly

1332 P - so it's more, it's not shouting oh look at this, this is a modern new thing it's more, in a
1333 way it's because a lot of the things we use these modern technologies for are just extensions
1334 of things that we do anyway like communicating or what ever so why do they have to be so
1335 futuristic and sci-fi?

1336 I - yes and I think there's the thing about them having quite a short life span

1337 P - m m m

1338 I - s o

1339 P - where these seem more permanent because they're made of real stuff

1340 I - mmm, and I think through all my background as a maker and as a jeweller has kind of, it
1341 goes against the grain to make something that's just going to be then proceeded by the next
1342 one

1343 P - not a digital object, yeah, yeah

1344 I - so do you think that the object does kind of fit with you?

1345 P - fit with me? Well I don't know it is sort of it sort of fits with the sort of things I would
1346 have sort of within my own private space

1347 I – yes

1348 P – and it's the sort of thing that you know I could imagine you know if it wasn't on a sort
1349 of you know when I'm running to work I've got to make sure I've got my phone, my keys,
1350 my you know all those other stuff, if I was just wandering around and didn't have to think
1351 about other things it's the sort of thing I would have in my pocket, you know or just sort of
1352 be wandering around holding on to, so I think in that way it fits

1353 I – yes

1354 P – but I tend to sort of, when it, with regard to things like jewellery or, or other things I
1355 tend to sort of keep it fairly straight forward so I don't really have to think about it because
1356 I have so much other stuff going on

1357 I – yes

1358 P – so like I always wear the same bracelet and the same watch and I've you know worn
1359 the same rings for the last fortnight, but I've got a couple of other rings that I might swap
1360 but then I swap for a week or you know there's two pairs of earrings I'll choose from and if
1361 the blue ones seem to colourful I'll wear these ones, you know that's sort of erm,

1362 I – that level of decision making

1363 P – that level of decision making, but because I've got you know always running around
1364 trying to organise the two kids who still live at home you don't really have the time to
1365 make decisions about other things

1366 I – yes

1367 P – you know, so I mean again I suppose it comes back to that thing of well when would I
1368 be wandering around and want to access a big screen

1369 I – mmm

1370 P – you know I'm too busy to think about the things I'm meant to be doing that I haven't
1371 been doing (laughs)

1372 I – yes, I think that was one of the, the reason that I tried to make it so that it wouldn't
1373 happen all the time

1374 P – mmm

1375 I – and that you wouldn't know it would be that maybe you'd just forget about that

1376 P – mmmm

1377 I – and maybe, because sometimes you might walk past something and it might happen and
1378 you might not see it, it might be

1379 P – YES, that's the other thing I was thinking, would you notice it or

1380 I – it could be just in the corner of the bus shelter or...

1381 P – be almost like something going ‘oooyyy’ (laughs)

1382 I – yes, or on your mobile I imagine the little spoon shimmering in the corner of a bus stop

1383 P – yes

1384 I – or a small horse in the corner

1385 P – yes, oh that would be quite magical and that would also be quite magical for other

1386 people, because they’re just sort of like ‘what’s that’

1387 I – yes

1388 P – and not know

1389 I – yes, so

1390 P – I mean it would be like trailing fairy dust behind you

1391 I – YES

1392 P – (laughs)

1393 I – that’s something I imagines

1394 P – yes

1395 I – and so that it’s not your responsibility

1396 P – yes to make the decisions, no I quite like that idea or aspect of it

1397 I – so something you’d have in your pocket or your bag that you’d, so something that you

1398 may keep with you and then occasionally

1399 P – mmm

1400 I - it would surprise you

1401 P – mmm

1402 I - with these things would occur in the environment

1403 P – and it might be the sort of thing that makes you stop and think well you know I do

1404 spend too much time not thinking straight about what I’m doing and maybe if these things

1405 did happen they make you stop and you know take time out for a couple of minutes but I

1406 find it very hard to sort of do that sort of thing really

1407 I – yes

1408 P – you know

1409 I –I’m quite interested in the other side of the fence from where I come from...

1410 P- mmm, well I always assume with wearables that people are trying to make it smaller and

1411 less noticeable and more imbedded in clothing

1412 I – ok so the less noticeable thing is interesting

1413 P - yeah, but then are they trying to make it less noticeable because artists who are working
1414 with it seem to be trying to make it sort of noticeable but integrated

1415 I - right

1416 P - that idea you know that lights will flash or whatever but it is actually part of the fabric
1417 or part of the clothing

1418 I - yeah, so, but we're kind of moving away from the idea of an object there it seems

1419 P - well I think so, it's almost like it's integrated into so like they have these horrible, like
1420 there's that waistcoat, those horrible sort of Scottie vests where it all sort of wiring is
1421 hidden inside the fabric

1422 I - yes

1423 P - of the jacket or the coat or the vest and then various bits are plugged in by various you
1424 know bits hidden in the fabric

1425 I - yes, they're all quite clunky still aren't they

1426 P - yeah, I don't think anyone's really cracked it, I mean *****'s stuff is interesting
1427 because that's what she's working on and she's interested in sort of fabrics and how you
1428 can actually weave you know some of her people she's been working with have been
1429 looking at how you can weave net circuits into fabrics so I think some of the research done
1430 recently is on those sorts of things

1431 I - yes, so I mean I think some of, an object that looks quite old is quite...

1432 P - well it's interesting because it's almost like this sort of not science fiction, but science
1433 fantasy thing of you know has it come from a previous civilisation? Because you know it
1434 looks old but it does all this clever stuff, that's almost like, it has a futuristic ability without
1435 looking, but then it looks as though it's come from some sort of previous thing because it
1436 doesn't quite fit with how we see things

1437 I - yes

1438 P - so I think that's quite, you know and I think lot of people would like that idea, I don't
1439 know, don't think it's just my... I don't want things to necessarily look like they've fallen
1440 out of the pages of T3 magazine

1441 I - no or 'Stuff

1442 P - yeah, so things that have strangely, sort of a fairly strange feel, which it definitely has I
1443 think (laughs)

1444 I - (laughs) you see I can't help but make strange objects (laughs)

1445 P – (big laugh) yes I can imagine it slung from the saddle of some Mongolian herdsman
1446 and you have no idea what it's function was and then it turns out it's got this hidden and
1447 secret function that you would never have thought about and the Mongolian herdsman
1448 might never have known he just picked it up from some crashed space ship I don't know,
1449 it's just that whole, weird sort of erm, not quite fitting thing

1450 I – yeah

1451 P – but I think that's good

1452

1453 *Faith received a phone call – and had to collect her children – so we ended the interview*

1454

1455 I – Well thank you for spending so much time with me

1456 P – no that's ok

1457 I – it's been such a pleasure to learn about you and to make things for you, it really has,

1458 thank you

1459 P – you've made me feel very special

1 **4.2 Transcript of interview with Emma**

2

3

4 **I = Interviewer**

5 **P = Participant**

6

7 I - Can I start by asking what your expectations were of what I was going to make for you?

8 P - yes, I was, I don't really know why, but I think I was expecting a small metal memory
9 stick type object.

10 I - right

11 P - I don't know why, but I had presumed it would be metal, which now seems really, um
12 narrow-minded. I was actually very surprised, um, very surprised by the objects firstly
13 because they weren't what I was imagining and surprised by my own, by my expectations,
14 um, that I was expecting *a piece* of jewellery, I mean *I know* jewellery can be more than
15 this so why I was expecting it to be small and metal I don't know, that really surprised me,
16 but I was expecting one piece of jewellery and for it to be wearable. And the fact that there
17 are multiples, multiple pieces and that they weren't immediately wearable... erm It's not
18 that, I mean you hadn't led me to believe, you hadn't done anything that would make me
19 think you were going to make a small metal piece, but when the objects arrived and they
20 were multiples and they, they were totally different to a small metal object, I was really
21 surprised and I wasn't sure what I was supposed to do with these?

22 I - ok, so what were your initial thoughts and feelings about the objects?

23 P - well, having said that I was surprised and confused by them, um, I actually really liked
24 them. I love these materials, how they feel - how they're smooth and how the, how the
25 ceramic and the velvet feel together, they're lovely to touch and hold, um, and when they're
26 all piled up on top of one another, like this, I don't know if this has anything to do with
27 what you intended, but um, I really love the noises of them when they touch one another
28 (she taps one with another to replicate this sound). I didn't know what they were though,
29 um, that was very confusing, um, they felt very jewellery like, but I didn't see them as
30 wearable, although, obviously you could easily adapt them to be. I liked the scale, um, I
31 liked the different sizes, the smaller ones definitely feel more jewellery like than the larger
32 ones, these are just out of the proportion of jewellery so they blur the boundaries, um, but I
33 liked how, how each one was different, when I first noticed this I spent time looking at all
34 the subtle differences, the decoration and um, where the holes were placed. I really liked

35 them as multiples, as a collection of objects; they're delicate, but strong as well. They're
36 very intriguing.

37 I - did you open them alone?

38 P - yes, in here

39 I - and did you show them to anyone else?

40 P - yes, well * (daughter) as you know (because her response was to photograph her
41 daughter with them) and I showed them to * (partner)

42 I - what were his responses to them?

43 P - they weren't what he was expecting either, he was really surprised, but he also really
44 liked them

45 I - ok, what were your initial thoughts and feelings about the DVD?

46 P - I cried!

47 I - o h

48 P - yeah, I sat here and watched the film and it was the quote at the end because that was
49 about * (daughter). I found it really, um, I recognised the quote from when I answered your
50 questions originally and it was about me and * (daughter), it was a quote from when I was
51 thinking about * (daughter) so this made it directly connected to her and yeah I cried! But it
52 was, um, the whole feel of the film as well really, I don't know, it was, it was something
53 about... and the music, something about the music in it, it was really... the music really
54 created a certain feel and the look of the film, I hadn't expected it, I hadn't expected what
55 you were going to make to be like that. I thought it was very beautiful. I wanted the pieces
56 to really work though, um, because the film implied a function to the objects, but the
57 objects weren't usable in this way, so I felt very unsure about how to respond. And you left
58 that completely open, which in many ways I can totally understand, but it, and I know I'm
59 quite anal like that, but I would have liked, well a structure, to know how to respond,

60 I - right

61 P - which I know, I know you wanted to leave open, but I didn't know whether to respond
62 to the objects alone or to try to use them as they are shown, and because you gave no
63 boundaries to how I could use them, I could have smashed them up if I had wanted

64 I - mmmm

65 P - so I spent a long time thinking about them and how to respond and in the end it seemed
66 natural to involve * (daughter) in the response, which is when we played the game.

67 I - ok I'll get the photographs and the response pack to go through

68 P - They do, by the way, they're, I don't know whether they're meant to be but I've
69 washed this twice (the pearl) it comes off, it's washable crayon
70 I - I'd love to take some photographs of them,
71 P - so with a bit of soap and a nail brush it comes off
72 I -oh, I didn't know how, I was quite surprised and then I just thought I'll say after about
73 them, but I feel like I don't know if I could wash them (laughs)
74 P - well you see I didn't, you see the funny thing was that I at the time, at the point where
75 we, when I was, when I'd shown them to * (daughter) and she wanted to do this thing with
76 them part of me thought 'no you can't colour them in' and then I thought well this is, this is
77 really hard and that was like, that made me feel very, very anxious because
78 I - right
79 P - you'd, you'd specifically said that you'd now detached from them as part of the project
80 I - yes
81 P - and I, and I kept thinking well ok, if you detach then, then maybe it's ok for me to do
82 whatever I want to do with them which includes colouring them in however there was a big
83 part of me that felt very guilty about it and that we shouldn't be doing it and I kept saying
84 to her use the ones that wash off because it's you know it did feel kind of wrong
85 I - I can appreciate that because I think it surprised me, my initial reaction to it, but I think
86 you just have to let go of all of that
87 P - yes
88 I - in this kind of project and um, I think it's, um, you've done a lot of the things that I was
89 intending the piece to be
90 P - yeah
91 I - for the two of you really so
92 P - yeah, well that's I think hopefully that that will make the whole, the change in the
93 objects er, make more sense and therefore not you know be a kind of bad thing. And it is a
94 difficult thing about letting go of pieces when you've made them and they're perfect and
95 they're beautiful and then you want to see what people do with them
96 I - m m m
97 P - if people do with them what, what you know they decide to do with them and you, you
98 have to have let go at some point and I'm not just saying that for you it's because I have to
99 do that too it's just one of those things

100 I - I think you've talked through most of the things I was going to ask actually, so can we
101 talk through the responses from the pack?
102 P - yes
103 I - I'll lay the pictures out
104 P - ok. I'm always really worried about disposable cameras that they're not gonna
105 I - I know
106 P - they're not going to come out very well
107 I - I'm actually, I think they've actually worked very well, initially and this time round. So
108 the flash worked this time, or did you not use it?
109 P - yeah it did, no, no it worked this time. I should also explain there's one there that's also
110 got a bit of thread and a safety pin attached
111 I - yeah, yeah
112 P - I um, again because I wanted to do things with them rather than just kind of think about
113 them I put one in my purse and I, and it lived in my purse for the whole time
114 I - oh, right
115 P - um, and then at some point
116 I - This one here? (picking up photograph showing this piece)
117 P - yeah, that's where it hung after I took it out, um, I wanted to, I wanted to give it the
118 opportunity for me to wear it that was the thing so I got a piece of string and a safety pin
119 and I wore it on, pinned it on my jumper for a day and then at the end of the day took it off
120 and put it in my purse and it kind of stayed in my purse for the whole time and then one day
121 we were in the car about two weeks ago and * (daughter) um, * (daughter) was rooting
122 through my purse and found it and took it out and gave it to me and then I hung it up there
123 so that one has had a slightly different journey than the rest it was sort of separated out
124 I - yes. So you've already said that you'd decided to involve * (daughter) in the piece
125 because you felt from the quote it was obvious that that was
126 P - yes
127 I - an aspect of it, um, so can you talk me through some of the photographs?
128 P - yeah, I mean the one, there were actually more of those in the beginning (the pieces all
129 opened out from the box they arrived in) but that's when I unwrapped it and gosh, it's hard
130 to see them isn't it
131 I - I really like that photo actually

132 P - yes, well they kind of disappear and I took it all out and put them all over the carpet the
133 first time I got them erm, and I didn't count them, it wasn't until much later on that I
134 counted them and I thought there was hundreds but because there was so many you know
135 bits
136 I - it felt like that when I was making them as well (laughs)
137 P - yeah I can imagine, um, and I then wrapped them back up again and put them in the
138 box for about a week and thought about them a lot and that's what I was saying earlier on
139 kind of that I spent a lot of time thinking but not recording the thoughts
140 I - yes
141 P - so it's, I spent about a week thinking about them and not knowing what to do and then
142 um, I showed them to * (daughter) and er, but we didn't do anything with them first time I
143 showed them to her and then the second time I showed them to her um, I laid them out, I
144 laid them out on the table as you can see in those photos and I kind of brought her to the
145 table and said, well asked her what she's do with them and I think that was when these here
146 (pointing to photographs) when she was sort of saying well um, we should play a game and
147 this is the Mummy and was pointing out various different people and characters through the
148 pieces and then yes
149 I - I was going to ask other than * (daughter) did you see a play aspect to the piece?
150 P - I kind of did because there was something about erm, there was something about them
151 as er, counters, sort of in form, there's almost a board and they're counters and there's a
152 way round there's like a track and the ball also has some kind of orientation yeah a
153 mechanism to them, so just in that fact that the way there was these kind of play pieces and
154 the surface to play on yeah I did and I think it, when you lay them out like this it really does
155 seem like there's some end to be achieved somehow through them or you know that there's
156 a kind of way to work them um, I think * (daughter) said that she thought that these (the
157 velvet) were like wings
158 I - m m m
159 P - um, but I can't remember and I'm sure I didn't write that down, um, yeah and I don't
160 know whether there's something about them being white that made her want to colour them
161 in or that it was because she wanted them to be different because she was saying this is this
162 person, this is this person, this is this person um, that she kind of likes to differentiate
163 between them by changing the surface

164 I – I think you mention there as well that um, when they talk we don't know what they'll
165 say, so had she integrated the idea of
166 P – yeah! Because they were being er people, yeah she did say that didn't she
167 I – just on the last page
168 P – this is just me trying to write down things she's said as we um, as we used them 'you'll
169 have to put these on there and then stand them up and then they'll talk, I don't know what
170 they'll say'
171 I – so that came from them being a character rather than from the film
172 P – yeah, yes because she didn't see the film
173 I – oh, ok
174 P – she didn't see the film, ah, she just saw these, she was leaning, do you know what she
175 was doing, she was leaning them on the ball and she said 'you'll have to put these on there,
176 she was putting these (porcelain clasps) up there like that (balances one end of the clasp on
177 the porcelain pearl) 'and stand them up and then they'll talk'
178 I – I think there's a photo of that actually
179 P – mmm, yeah there might be, yeah of one resting on
180 I – yeah, there
181 P – oh that's it yeah. Although I think I did that before she said anything because there's
182 yeah, there's no crayoning on that, I think I've done that, but that's what she was doing or I
183 was doing when she said that they talk
184 I – yes, yes
185 P – yeah, well she said 'this is quite a difficult' these are all things that * (daughter) said
186 'this is quite a difficult game' I'm not sure what game she thought we were playing
187 I – yes
188 P – 'and then we put it in my bedroom'
189 I – that's really interesting, so, so there's a strong element of collaboration and discourse in
190 what you've responded with
191 P – yes, well again it, it was my I don't know I suppose I just, although I realised that, that
192 you can make something and propose it and then get people's responses to what it might
193 do, but it's also, there's also something to be taken from doing something with it
194 I - mmm
195 P - and then seeing how that, you know, how that affects it because, and I know that it's
196 this is very specific to me and the fact that I was thinking about communicating with was

197 three er, but how an object might work um, I have to say though that since doing this with *
198 (daughter), the point of doing this with * (daughter) was a point where I didn't think as
199 digital objects that, that these things had any kind of meaning or relevance to me it's only
200 since doing this and thinking about them differently, thinking about them as maybe in
201 isolation as having one that I've started to think well actually there's I can see how this
202 might work and again it's about, I think it's about subtleties. I can't imagine taking one of
203 these and recording a message and giving it to * (daughter), I can't imagine, I can't imagine
204 it being about planned, being planned or structured, but if it was about capturing something
205 er in the same way, I think I've written it here, in the same way that I now use my digital
206 camera to take thirty second snippets of * (daughter) and then play them back every now
207 and again, if it was about being able to take a snippet of her doing what she does and being
208 her and that that, the difference between that (the piece) and a digital camera is that it's
209 something that I'm wearing erm, rather than a device that I'm carrying purely because it's a
210 device for recording, do you know what I mean

211 I- yes

212 P- it's got actually the form and function are far more blurred um,

213 I- so it's the wearing part of the equation that is very important

214 P - yeah, in that it's something that would be portable and erm, it's different. I can imagine
215 having something like that which is a brooch or a pendant erm, the way that I would use
216 that would be very different to the way hat I would maybe use digital cameras, so, in terms
217 of playback, so erm, I wouldn't sit, if I was thinking about * (daughter) and I was sat on a
218 train or sat you know somewhere and I was thinking about * (daughter) I probably
219 wouldn't get my digital camera out and start to replay a video that I've got of * (daughter),
220 where as if I had something on me which I could, if I touched or rubbed or whatever which
221 would play something that was related to her erm, then I would do that. I think it's um, it's
222 also that there's a difference between a device, the communication, that maybe this is part
223 of why I was anxious at the beginning that communication's a very big ambiguous term
224 and so there's communication whereby I want to be able to talk to * (daughter) and to say
225 hello and there's um, there are the things that just kind of um er, remind you. Um, yeah so
226 different meanings, different types of communication and I think that's where some of my
227 anxiety came from was that if you, if you're thinking about communication and you're
228 thinking about the way you use a telephone erm, or the way you'd use er a tape recording

229 I- yes

230 P - er or the way an object communicates with out there being any literal voice or image or
231 whatever they're all very different things and I think um, and I think what's, what was
232 interesting for me about the way that I was thinking about the, this, these pieces is that to
233 start with I had a kind of negative view because I thought well there's nothing, jewellery, I
234 think jewellery objects communicate without needing to speak and if I want to speak to *
235 (daughter) I can call her and you know all those things, and then, and also I couldn't
236 imagine recording a message and having a message and then would they be different, and
237 there were all sorts of questions, and then I kind of gradually realised that it, that I was
238 being very er, I was being very narrow minded about the way objects might develop in that
239 I was kind of saying, I was kind of thinking to myself jewellery doesn't need to be digital to
240 communicate but what I was ignoring was the fact that um, digital communication could be
241 more like jewellery, or digital devices could be more like jewellery, which isn't to say that
242 they're replacing jewellery or that they're doing things in a better way than jewellery it's
243 about bringing things together from different areas and I think that, that what I was guilty
244 of in the beginning of kind of thinking er of saying *well jewellery does this fine anyway*
245 *there's no point, it doesn't need to speak to me to be able to communicate*, however that
246 doesn't mean to say that it wouldn't be interesting to have objects that do work in that way
247 and I suppose that that's how over time I erm, my feeling about it has changed that there's
248 no right and wrong, there's no 'that's the best way to do things' and also going to other way
249 and looking at that way that, that digital devices are um, the way they look, the way they
250 um, the way that they're kind of um kind of trivial bits of hardware really that could be
251 something different um, and particularly as the size of these things now are so amazingly
252 small, it's like, I remember thinking, a long time ago thinking somebody was doing a
253 project about tech, not digital jewellery, but certainly jewellery that kind of had some kind
254 of technological function but the, but the actual means to perform the function was so big
255 that it wasn't jewellery, it was you know, quite a large object, but now everything is scaling
256 down so much I think there's a lot of potential but then I suppose I worry about the way
257 that um, the kind of difference between a jewellery object and a technological object in er
258 in terms of turnover in terms of speed, so you can have um a brooch which is lovely and
259 you love it and you're always going to love it where as you've got um a memory stick
260 which in five years time will be obsolete because it won't, because computers won't take
261 that kind of memory stick any more they'll take something else, so if you bring those two
262 things together have you got a piece of jewellery that you might become incredibly attached

263 to but in five years time it won't do the job that it does now because technology moves
264 where as attachment to jewellery doesn't. If that makes any sense
265 I - definitely
266 P - yeah, so that kind of worries me about it
267 I - yeah
268 P - but, but also that's assuming, that's assuming it would be jewellery that you would
269 become attached to or that was really expensive and precious and that's where these objects
270 are interesting because they're not um, ok they're delicate and beautiful but they're not
271 kind of intrinsically er expensive so there's a, and not all jewellery is a, are kind of family
272 heirlooms that you become sentimentally attached to it's could just be about portability and
273 closeness and wearing and it might be fine that, if it's a piece of technology that becomes
274 outdated that the jewellery also is, you know not worn any more it might just be that it fits a
275 different category of object
276 I - m m m
277 P - because not all jewellery is
278 I - I'm really looking forward to telling you what it's all come from
279 P - (laughs)
280 I - um, oh yes, what do you think the piece as a whole, the film, the objects, the velvet, the
281 way of interacting presented in it, what do you think I've taken from what you've told me
282 about yourself?
283 P - erm, I don't know, I don't know I found it really difficult to um to imagine, I think it's
284 hard because when you, when I respond, when I used the response pack (probes pack) um
285 you don't remember what you've written
286 I - well it's quite a long time, it's a year or so
287 P - yeah, you don't remember what you've written and also I suppose you know you, the
288 responses were probably quite abstract and ambiguous and um so open to interpretation that
289 it, I dunno, I've I didn't, I couldn't see anything um directly related to what I'd written in
290 the objects, but having said that I really, really like them
291 I - and you did recognise the quote
292 P - I recognised the quote, so it's so they're strangely, there must, there is something there
293 even if I can't see it that helps me connect with them and maybe it's one of those things and
294 particular to the fact that I'm a jeweller in that I couldn't ever see myself wearing them as
295 pieces of jewellery, but I can completely see myself as using them as something else

296 I- mmm

297 P - and them being part of me, if, if they were I don't know you see if they were something
298 else I could have completely have imagined buying them, so there's definitely a way in
299 which these have been made for me even though I can't quite see directly how

300 I- I think I'd like to start explaining some of it actually and then some more questions
301 could come at the end of that

302 P - umhmm

303 I- yeah ok

304 P - o k

305 I- ok well I think aspects that I found um, to be really interesting and attractive areas to
306 work with um I think more than any thing was the fairytale

307 P - yeah

308 I- I think, I found it really interesting, I thought there would be from the people that I
309 worked with there would be one of the probes that everyone would respond to very well
310 and then others that didn't work so well

311 P - umhmm

312 I- and in actual fact it was so different

313 P - a different one

314 I- um, and I found that the descriptions that you'd given here and the way that um aspects
315 of the 'touch and loss, giving and sharing, pain and upset are precious too sometimes and
316 some of these descriptions I found them really um, really rich areas to work on, to focus on
317 and I wanted to make a piece that echoed, I think there's a quote about um, (looking
318 through fairytale) there's one specifically about 'the touch of their hands feet and face, the
319 sound of them calling me and talking to themselves' that

320 P-h m m m

321 I- that, that was very central to what I was thinking about, I wanted to make a piece that
322 had the qualities like sort of flesh, the sort of tactile of porcelain and velvet both having that
323 sort of kind of skin-like feel to them

324 P - yep

325 I- that was important in my decisions about the materials to use um, and I did quite a lot of
326 work around these images of * (daughter)'s shoes actually I made some little lasertrans and
327 I had those inside eggs um and things that were very cocoon like and just working initially

328 on all different ideas of communication where they'd maybe move physically as she moved
329 um, and a kind of non verbal, but kind of a gestural communication between the two of you
330 P-um h m m
331 I- and, and when we met and we actually started talking about and around the subject of
332 jewellery that had fed into the forms that I have chosen very strongly um, and also the
333 material quality with things that are comforting, the stitching
334 P - yes
335 I- and the redness, the blanket, that's described again here
336 P - yes
337 I- and the way I felt that you were somebody erm, articulate I think the um the photograph
338 the 'quirk of the nature' the list
339 P - where I had to make a list, yeah (laughs)
340 I- the kind of giving of information I felt to be something that I wanted to echo in the piece
341 so erm, something that was about the voice but re-appropriating existing technologies that
342 are already out there for capturing the voice and it not being about um, somebody's
343 telephone voice or doing something very ordered but capturing the ephemera of everyday
344 P - y e s
345 I- or focusing on something quite prosaic that can be beautiful as well
346 P - yes
347 I- so on the film, I don't know how clear it was when it shows the little series of four
348 symbols
349 P - at the bottom right hand comer
350 I- yes. So the idea would be that when you'd place the pearl on the velvet it would kind of
351 turn the system on
352 P - ok, yeah, I think I'd kind of um, I think I'd worked out that it would activate, the velvet
353 would form some kind of circuit and that that it would be activated by (picks up the pearl)
354 yes
355 I- so it could actually have the technology in the form of stitching on there and that the
356 lines on it um have I got a photo, it's a necklace case, a vintage necklace case, because the
357 discussions we were having about um, kind of pearls and I actually made a lot of porcelain
358 pearls at one point
359 P - actually, it's funny, the things that you can register but not realise that you've
360 registered, I, I think, and I think maybe just totally subconsciously and or also I maybe just

361 thought well because I'm a jeweller I would automatically think this but I think the velvet
362 um, as an inside of a jewellery box

363 I - mmmm

364 P - I knew, but whether or not I thought it was intentional or just because of, you know it's
365 actually very hard to work out what you're observing and er, to know what you're
366 observing, but also there are things that you automatically think inside and you might not
367 be aware, you might not be aware that you're thinking them

368 I - yes

369 P - if that makes sense

370 I - yes, or perhaps take it for granted,

371 P - yes

372 I - take it as read

373 P - yes

374 I - and then move on the next thing that you're looking at

375 P - yes

376 I - um, so the kind of, I wanted to make something that was, I think some of the things that
377 you've showed me are the sort of sketch book and we talked about can jewellery ever be a
378 blank canvas and I think I'd read some of your writing in the 'Treasure' book. I wanted to
379 make something that was quite empty but not in a sad way, empty in the fact that it had
380 potential

381 P - mmm

382 I - that you could fill, that you could contribute to, because I felt that from the interactions
383 that I'd had with you um, and for it to resemble things that were familiar from the photos
384 that you'd shown me of fabrics, but also of a discourse around jewellery

385 P - mmm

386 I - the fact that jewellery does quite often reside in a box, maybe it's an heirloom that we
387 wouldn't wear but it's none the less still a very important piece of jewellery

388 P - yes

389 I - and so on

390 P - yes

391 I - so that was my kind of motivation and from making the pearls I actually felt that um, I
392 actually wanted to make the clasps I felt like they were much more um, poignant forms and

393 had a lot more about the traditional decorative qualities that we were talking about; forms
394 of jewellery that function in a social way
395 P – yes
396 I – without being a contemporary form of jewellery and all the
397 P – yeah
398 I – kind of hierarchy of thought that goes with a lot of that
399 P – yes, which pearls have in a sense
400 I – yes, so I moved the forms on to this, I thought they were much more successful and the
401 fact that they're kind of white and they can still remain quite ambiguous, you wouldn't,
402 you'd have to, oh, to just finish the loop about how it would work, you'd have to put the
403 pearl down and it would turn it on and then you would place one of these down (clasps) and
404 speak for how ever long you wanted really depending on the memory capabilities that you
405 could have with one of these things but then as soon as you lift it away it cuts off and that's
406 the recording over and the next time you place it down it will play so you've only got the
407 one go at recording all of them
408 P – right, ok, so they're not sort of re-recordable
409 I – no
410 P – once you've used one that's it. And to get it to play do you also need to put it back on
411 the velvet with the pearl there
412 I – yes, that's what
413 P – sort of turning it on
414 I – yeah, which is completely different to the wearable, you see I'd thought of something
415 that you would be able to access in that manner
416 P – yeah
417 I – and it could maybe, this could be carried, taken whatever, it could be in your pocket or
418 whatever and then it would work
419 P – mmm
420 I – and it's interesting to hear how things could be adapted
421 P – mmm
422 I – One thing mentioned to me is the fact that um, you can't re-record, what if somebody
423 said something wrong or what if they coughed?
424 P – but that's still part of it isn't it?
425 I – mmm

426 P - that's, that's kind of the point
427 I- mmm, exactly
428 P -yeah
429 I- and I think that seemed to echo the jeweller's sensibilities that I think we carry with us
430 in the way we look at things. That's sounds really ambiguous but I think that kind of
431 appreciating the human qualities of things
432 P - yeah, no, no I think, I think that's really interesting and in fact I, I totally, that's I think
433 is probably the, what I said earlier about um, I can't imagine having a prepared speech
434 I- yes
435 P - and turning it on and then saying blah blah blah
436 I- y e s
437 P - but if it was a case of, of just recording something that was happening, and that may
438 include somebody coughing and you know it's, that's not what's important, um it's not
439 about saying things right or about saying things properly as you said about not putting on a
440 telephone voice it's just this was what was happening
441 I- yes
442 P - so they're more like document, it's like a documentary um, process
443 I- yes
444 P - um, recording the real kind of reality of things
445 I- yes, and I thought it could feed in visually and socially into the kind of way that
446 heirlooms operate um, but tying in that digital potential with out them being a device, with
447 out them being a product
448 P - yeah
449 I- and more of these could be made, thirty wasn't a symbolic number
450 P -m m m
451 I- it was just that this was the amount that I made in the period of time that I was making
452 them
453 P -yeah
454 I- and there could be more or one of the qualities of it could be that you know that you just
455 have this amount um, so maybe you know you allocate some for saving in case you run out
456 in case there are things you want to say or you go ahead and use them and enjoy them and
457 P - to be honest thinking about them not as jewellery um completely changes my, not
458 completely changes but alters my view of these as a collection and how they might be used

459 um, because I did, when, when I got them out the first time I um, I didn't wrap them back
460 in the tissue paper I laid them all in the velvet and then rolled them once and then laid them
461 in the velvet again and rolled it once um, and wrapped them up and then the velvet just sort
462 of sat on the table for ages as if um, this is now a thing that lived in my house and then the
463 next time after * (daughter) and I played with them we put them all in the velvet and then
464 just sort of folded them all over and just put it back in the box, so there was this element of
465 ritual, of getting it out and putting it back away again and that again makes, again makes
466 more sense for me if I stop thinking of them as being wearable and think about them as
467 living where they live, living here where they live and them, and it and them being about
468 um, that their function is to contain or the traces, but not to be worn if that makes sense so
469 and what's also really quite nice about them, that is the similarity but difference between all
470 of the pieces and if you were say taking this as a, as a family you know thing, a way of
471 recording people and then being able to play them back and being able to pass that on or
472 whatever um, you might not know who you were about to listen to it would be really
473 interesting in the same way that you go through a photo album and you point out to people
474 'ooh that's your great aunt such and such' you could take one of these put it down and hear
475 her voice or and somebody in the room would know who it was and other people might not
476 and that would be really, that would be really quite interesting and you might start to kind
477 of because they're slightly different you might start to connect certain ones and you would
478 vaguely know who you were getting with each one but not necessarily definitely um, that I
479 think again it, it's about just this sort of thing, it's about the subtleties of, of the process of
480 the objects, not the objects themselves for me it's because I think they or they could be used
481 in lots of different ways, but it's about thinking as you said about all of, all of the different
482 ways that they could be used from one object that you carry and it's self contained and
483 somehow, or even if it relates to a garment if the circuit, if you need those elements in order
484 to make it play if you have to wear that thing but you also have to wear a certain piece of
485 clothing but then that means you can play it but it was just that thing that you carry about or
486 whether it's a collection of things that live in a box that you get out from time to time on
487 special occasions they're different things but they're equally or, I think they're equally
488 interesting, they, they have equal potential to kind of erm, to work
489 I- I put the little holes in there as ways that they could be maybe categorised or adapted or
490 whatever it is that you wanted to do with them, I thought maybe people would put little tags
491 on saying who they were

492 P - mmm

493 I - or put them in different places for ones that you knew had been used as once you've put
494 it down that's it you're recording

495 P - yes

496 I - um and I, it's interesting that you said about the family photo album because I imagined
497 the ambiguity of not knowing which one was going to be who being like going through a
498 box of family photos and not knowing which ones

499 P - and not being ordered or whatever

500 I - yeah

501 P - yeah. No I think as I say that changes, it changes for me the way that I, I view them as a
502 whole if I don't think about them as being worn, if I think about them as being um, kind of
503 interesting objects

504 I - mmm

505 P - decorative with jewellery like qualities but not being something that has been designed
506 to be you know put on and shown or whatever

507 I - I was quite interested from my perspective coming as a jeweller to this hybrid topic um,
508 not presenting a form of jewellery that was a very predictable form of jewellery for people
509 who weren't from the jewellery field

510 P - m m m

511 I - as well. I thought it would be important to show pieces that could be worn all the time
512 potentially or other ones that would be worn um, as a lot of pieces are that we see in books
513 - they can be worn but under limited circumstances

514 P - yeah, they're not really designed for um everyday use or much

515 I - yeah and others that function in sort of discourse of what jewellery is and can be

516 P - yeah

517 I - and socially. With out trying to tick boxes to show them all that

518 P - yeah

519 I - but I had in my mind that that was an important aspect when you're communicating

520 P - yeah

521 I - what, what it is that we do

522 P - yeah, I think it's, I mean it's very difficult to try and I think with in this piece
523 specifically you've tried to do such a lot it's really difficult to be kind of putting all of those
524 things in and to some extent then the success is mediated by me as a person and how well I

525 can read those or not and, and even if I haven't read one of, read something that was in
526 there um, that doesn't mean that it, that it was unsuccessful because I'm, I'm just coming
527 from my point of view, and because as I say because I'm a jeweller and I automatically see
528 things I don't know whether they're intentional. The fact that the, you never called it a
529 pearl, but the fact that that is quite clearly a big pearl as far as I'm concerned that may just
530 be because I'm a, I'm a jeweller and I'm naturally going to think of it like that so it's, it's
531 kind of difficult

532 I - it is and I think that plays into who I'm making it for as well

533 P - y e s

534 I - I don't think I'd have made this piece for someone who wasn't a jeweller

535 P - n o

536 I - I think the person out of the three who wasn't a jeweller I made the piece that I thought
537 you could wear all the time, but, because physically you can, but aspects of it she wouldn't,
538 she'd have it in her pocket, but she wouldn't want to draw attention to herself even though
539 it's quite a small object

540 P - m m m

541 I - um, she'd see it as something you'd wear on special occasions when you'd got the right
542 clothing etc

543 P - y e s

544 I - t h i n g s that I don't normally

545 P - n o

546 I - t h i n k about strangely enough

547 P - n o, no you just think well if it's got a pin on it and it's not going to break and it's not
548 too big and it's perfectly acceptable that you could wear all the time. You could always
549 wear it inside what you're wearing though couldn't you

550 I - y e s you could

551 P - y o u could turn it in and

552 I - b u t even when, you know, I was thinking that was the role that the object would fulfil
553 then some interesting surprises when you interact with people of how

554 P - h o w they feel about it

555 I - y e s

556 P - y e a h

557 I - t h e not drawing attention to myself was a very important aspect to it so

558 P - yeah

559 I - so just really interesting and I think the discourse that the process allows is probably the
560 most important part of it, the conversation we're having now

561 P - yeah! Because as you um, you can react to something and respond to it it's, I suppose
562 it's, it's the same with everything with um, with my work, with me thinking about my work
563 I get more out of er having conversations with people about it than I do me thinking about
564 it and when I give tutorials to students it's like well you know, you, because you it's, it's
565 almost impossible to um to encapsulate and translate what you're thinking um, with out
566 being able to bounce things off somebody else and respond to somebody else's um kind of
567 ideas, especially something like this where you've made something which I've responded
568 to so it's important to get everything out in that kind of way.

569 I - I'll just look through my notes to see if there was anything else I wanted to ask you

570 P - sorry this is a very boring question but did you, are these slip cast or are they pressed
571 into a mould

572 I - they're pressed, I've cut the form out - well rolled the porcelain, cut it out and then I've
573 got some um, I actually found them in a bin ages ago, they're really beautiful plaster
574 moulds of cutlery

575 P - oh these are handles!

576 I - no they're just well one part was, that's sort of the beginning of the spoon

577 P - oooh

578 I - and that's the end of one of the handles

579 P - yeah, yeah

580 I - but they had, they felt like they had the right qualities for what I wanted to make

581 P - it's funny. I'm sure this must be a kind of ubiquitous decorative pattern, but I'm sure
582 my Grandma's got some spoons with that on

583 I - yeah they did seem really evocative

584 P - yeah

585 I - and the fact that they were cast so they would make the three d rather than the relief
586 rather than an indentation

587 P - yeah, yeah

588 I - I think um, I've mentioned most of it, the idea, the idea of "being there" "in person"
589 trying to think of all different ways of the concept of what 'being there' means

590 P - yeah

591 I - and it could mean so many things as you've said of objects that somebody's owned,
592 where somebody's been etc, but with the digital I actually wanted to use a digital
593 technology that's been there for a long time, but in a different way
594 P - yes
595 I - It's not necessarily all about newness
596 P - no! no I see what, I, I kind of understand what you mean, it's not er I think it's, it's
597 quite easy to assume that, that, that, you or anybody might be doing a project about digital
598 jewellery because of advancements in digital technology and that, and as you say that's not
599 necessarily why, why it might be a good, a good or an important thing to look at, um, I
600 think I'm curious about the kind of um in terms of the actual physical scale of the things
601 that you made how they relate to erm, the technology itself
602 I - well you'd have, you can have actually stitching that will carry current so that could all
603 be within the velvet it might need to be a little bit plumper than it is but
604 P - so is it metallic thread or
605 I - it's things of that nature and coiling and things in there that will form electronic loops so
606 that when things are placed near it will form a circuit
607 P - yes
608 I - so they're (the clasps) are within a space making the connections occur, not necessarily
609 touching
610 P - yes
611 I - so the pearl could be anywhere within that
612 P - oh right, so it's in proximity to the it's not necessarily physical plugged in to or touched
613 I - yeah, so there's a more well to me it feels like a more gentle way of interacting with
614 something
615 P - yes
616 I - and less a device feel to it
617 P - yes
618 I - it could be placed and um, quite seamless rather than it being plugged in and it kind of
619 changes the dynamic of it entirely
620 P - yeah! Well it's like, it's like um, like having a wireless network as apposed to having to
621 sit and go to the plug socket and it's kind of more, it's a bit more organic and not quite so
622 mechanical
623 I - yes exactly

624 P - and the things themselves

625 I - these would have little RFID tags and the actual um, radio frequency tag can be as small
626 as a grain of rice but you need quite a long ariel or antennae and you can actually use silver
627 inks that I've been looking at, so you could actually make one of those traces like the words
628 or one of these drawings could actually be the antennae if you had the right kind of ink

629 P - right and that would be printed o to the surface or inside?

630 I - that would be on the surface

631 P - y e s

632 I - so applied afterwards

633 P - y e s

634 I - I think because of the nature of the porcelain when you make it, with the high
635 temperatures it needs I imagined these things being applied afterwards, but following
636 contours, or making that kind of line that I'd formed in the film

637 P - mmm

638 I - and then the pearl would be something that would connect together, so two halves that
639 would attach, so I did that one with two halves rather than slip casting it and that would
640 have the speaker in there

641 P - oh I see right

642 I - to record and have the sound coming from it

643 P - right so the actual physical voice itself would come through the pearl

644 I - yes

645 P - but the pearl would be reading it off the clasp in a sense

646 I - so each one of these (clasps) would have its own utterance that it would recognise so
647 like a code that, like any kind of say a phone number that it would recognise and know that
648 that's for that one

649 P - yeah, yeah

650 I - a kind of trigger, so I think the information would be stored in the circuit and in here
651 (pearl) and this (clasp) would be a kind of key to it

652 P - yeah, yeah

653 I - in effect

654 P - I think I'd got it slightly wrong in my own head that it would be that somehow the pearl
655 would turn the, the pearl would turn the clasp on and it would be the clasp that would kind
656 of recite but that the pearl needed, but that the pearl needed the circuit in order to kind of

657 connect all those things together, but I suppose I hadn't quite, and that makes more sense of
658 the holes (in the pearl) for me because I hadn't, I couldn't work out why it had two holes
659 I – yes
660 P – in and where they were, but now yeah, I don't know there's something there that feels
661 more clear about this is the kind of translator
662 I – yes
663 P – in a sense
664 I – yes. So these could be worn if you knew say this one was * (daughter) singing a song
665 P – yes!
666 I – maybe if you knew that you would want to wear it
667 P – yes
668 I – but then it would actually come to life
669 P – when you placed it where you needed to place it, yes
670 I – yes
671 P – yeah I mean I think that's it there's a lot of um, in terms of the um, practicalities of how
672 to use it there are lots of potentials um, because I can kind of imagine the, whether these are
673 things that I would wear or not if I had a collection of things um, lets say rings that, plain
674 rings which are the most kind of easiest ubiquitous things to wear and they all did this and I
675 kept them in a jewellery box um, I could pick one out one day and wear it and know that
676 that was the one that was singing so you know there's the question of whether or not this as
677 a process has worked or whether these objects specifically would work as things I would
678 take away and wear which I probably wouldn't but there are, that's probably, that's again
679 difficult because I don't wear very much jewellery, I have to say you had a very difficult
680 job making anything that I could even remotely consider wearing because I don't wear
681 anything so I sort of, you know, I don't think that's a (laughs) really very unusual thing
682 (that she probably wouldn't wear these objects)
683 I – I'd forgotten that when we were talking today, but yeah, that was in my mind as well,
684 that you're a jeweller, like many jewellers, I think
685 P – yeah
686 I – because you feel that there's a real relevance, you kind of understand the
687 communicative potential
688 P – yeah!
689 I – of what you're doing

690 P - yeah

691 I - yeah, and that was in my mind

692 P - yeah, but I think, I kind of um, I suppose the other thing is that er it's kind of, it's easy

693 to automatically think well you've been given these things and asked to respond to how

694 they would work, when in being given them they throw up so many questions erm, but I'm

695 sure this is the case these aren't the end object

696 I - no I feel like they're in an iterative

697 P - exactly so if like, you know, my first instinct is my response is to say well yeah but

698 they wouldn't do this, and they wouldn't do that and they wouldn't do the other and then

699 again time was very important, I know that I didn't send them, I know that I didn't send it

700 back um very quickly but I almost needed enough time to work out, first of all to get out of

701 my head the idea that this was the final idea that I was commenting on, once I'd got into my

702 head that this was a kind of discursive piece that I then just needed to respond to and then

703 again maybe this is a problem with me being a lecturer it's kind of all, you know, the kind

704 of response and not criticising something but just saying how would I feel about it

705 I - I think an interesting point that you've just raised is if I'd have described it as a

706 discursive object then I think that would have...

707 P - I think have might not worried so much about whether I think, whether I thought it

708 worked as it was

709 I - yes

710 P - and started to think more about well what, what do I feel about it? And that's a very

711 different thing and I mean again I, oh, it's, it's really hard to know in hindsight how much

712 you could say

713 I - m m m

714 P - without leading and I sort of can appreciate that it's best not to say anything and just let

715 things happen whatever happens happen, because I'm sure that whatever happens most of it

716 will come out in discussion afterwards anyway but erm, I think that's part of, that's

717 probably another part of the initial difficulty I had deciding how to respond because I was, I

718 was kind of worried well, shall I, do I imagine that this works the way that I'm told it works

719 and respond to that or do I kind of think about how I would use it in a different way or, you

720 know, so I ended up doing all of it really, but erm, it's yeah it's been a case of kind of just

721 trying to kind of engage with it and it's potential rather than it's success at doing this job

722 here

723 I - yes, because I think when I, the next stage sort of post PhD will be to collaborate with
724 electronics people who have this kind of specialism, but I didn't want to involve that at this
725 stage, I think it's more important to try and understand what I'm interested in, in these kind
726 of different forms of social communication that you can enable rather than getting a tenth
727 of the weight of this process done but know how something works beautifully.

728 P - yeah, well, I suppose, well mind you this may be just me being terribly narrow minded
729 but, that knowledge of how things work is there, it's a different kind of thing to knowing
730 whether, whether it's appropriate to use it in the way that you're looking at and how, how's
731 the appropriate way to use it, so in a sense I suppose you need to find out where it fits

732 I - m m m

733 P - before you start to decide how, how to use it

734 I - and a knowledge of 'it's not complete blue sky thinking', these things are available

735 P - yeah, yeah

736 I - the technology does exist

737 P - yeah, no absolutely. And also it's the case I suppose that, that, that usually with, if the
738 object itself, there's no point designing an object that takes advantages of this kind of
739 technology if it's designed to do something that's totally inappropriate and useless, which
740 is what, so I suppose I'm saying what you were saying a minute ago, which is that you're
741 going about it the other way, which is work out what's appropriate um or ways in which it
742 can be used appropriately and then find the technology that will do it, because as you say in
743 most instances the technology is there, if you can imagine it can be done, then it probably
744 can be done, so

745 I - and also I think starting with jewellery and ending with digital jewellery, how you can
746 actually get there and what that is and how achievable it is rather than the digital jewellery
747 not being jewellery anymore, but a device or a digital object erm, I wanted it to still be
748 jewellery or function in that way

749 P - yes, yeah

750 I - that was really important to me

751 P - well it's about trying to retain those things about jewellery that aren't um, they're not
752 the obvious things that everybody thinks of, which ironically is what I thought of when I
753 imagined getting this which is that it would be metal and one small thing, because that's not
754 what's necessarily important about jewellery, um, it's, it is the fact that it can connect you
755 with out, with out having to physically connect you, so it's about retaining all the best

756 things about that and why that works um, and not just as probably as we said before about
757 making digital things that are pretty or precious or it's like trying to take a memory stick,
758 which we carry around with us everywhere and which contain lots of important
759 information, but is a big ugly piece of plastic and trying to design it to be more interesting
760 and nicer or into a piece of jewellery. That's not, I don't think that's the right way round, I
761 don't think that's appropriate. I think it's appropriate that it's a big piece of plastic.

762 I - y e s

763 P - that's attached to your key ring and I don't think it's appropriate that it's jewellery and
764 it's kind of, I don't know it's, it's quite hard to explain but I do, I kind of do understand
765 exactly what you're trying to do and the way in which you're trying to look at it

766 I - well that's great (laughs)

767 P - (laughs)

768 I - somebody understands! (laugh)

769 P - I know, well I think it's quite, I think it's really surprising, the things that you gave me
770 were really surprising, and my feelings about them surprised me, um, because as I say to
771 begin with I, I kind of thought well what am I supposed to do with these? And the more I
772 thought about it the more I, the more I can see er, a really interesting set of erm, I'm going
773 to call it a product, maybe that's going too far, but a really interesting way of interacting
774 with objects, whether they're wearable or not I think this kind of collection, the way that
775 this might operate as a collection of things that's stored in a particular place and it's maybe
776 a nice event where you get them out um, I can kind of see all that, which I couldn't see at
777 the very beginning, (laughs)

778 I - thank you so much for being involved it's been such a pleasure

779 P - n o that's alright I'm, I'm sorry that I didn't um I didn't kind of give you more earlier on

780 I - no it's fine, I understand everything that you're working towards at the moment and I
781 know, I know exactly (laughs) about

782 P - stress

783 I - working so hard

784 P - so what um, in terms of erm, this is a big question, so what now, what do you do now?

785 I - well for the purpose of the PhD um, it's about describing really what's happened and
786 how it could go forward but I'd actually like to take it forward afterwards and work with
787 people and actually continue that iterative process

788 P - y e s

789 I – with them um, and collaborate with people who can make these things actually real
790 P – so you're not, you're not going to develop any more in terms of the kind of function of
791 the object for the PhD
792 I – no
793 P – it's going to be kind of 'this is it now', this is what's happened
794 I – yeah, and how this could go forward, what it's brought to light and the different
795 dynamics and the subtle, different subtleties in how people have responded to the, you
796 know, the ideas that I've put forward and also how people would subvert it or use it in a
797 different way which I'm totally open to
798 P – um
799 I – and I think it highlights things about not only what digital jewellery can be but also
800 what jewellery is and the certain ways that jewellery can enable a discourse and
801 P – yeah
802 I – ways that people interact and communicate
803 P – yeah
804 I – in a more personal mode I'm using the word communication there
805 P – yeah
806 I – the blurring like you were saying before, the blurring of what that could be
807 P – yeah, the idea of a communicative device, it, it may be that there are other within our
808 definition or notion of communicative device there may be other kinds of communicative
809 device
810 I – yes
811 P – that we don't have yet, um, but it's yeah, merging things together you could end up
812 with something
813 I – yeah, but something that values appropriateness and relevance for people based on
814 things that are meaningful to them and significant
815 P – yeah
816 I – I don't know if there are any other points that I should make. I think as well the fact that
817 I've used a film as a way to communicate um, seemed really appropriate to me in the way
818 that I could present an environment
819 P- mmm
820 I – and show it in a way that kind of highlights how I imagined the technology to be the
821 kind of magical qualities of it rather than the specifics of how it connects

822 P - y e s

823 I - or, or the traditional ways that we may see a signal beeping across to something. I didn't

824 really want to play into that kind of imagery

825 P - yeah, no I think um, I think it worked very well, I think the film erm, something about,

826 there was something about the way you'd used, er kind of represented the, the kind of um

827 devices communicating with each other, the elements communicating with each other um,

828 and then the way that that is kind of retained within that, the clasp bit, um, it spoke very

829 clearly, I understood form it what you were um, what you were talking about without the

830 specifics. I mean again you know I understood enough, I didn't quite get the, the you know,

831 but that's not what you were trying to communicate, I wouldn't have got that from that

832 unless I'd known a lot about technology, so everything else was, was there without being

833 really spelled out

834 I - or like a manual or

835 P - no, I thought the little characters, the, the icons in the bottom right hand comer, they

836 were also really, really good

837 I - oh

838 P - because that all made it, without again being very kind of um, spelled out or

839 patronising, it made it very clear what process was happening, what you were watching

840 I - oh that's good, I wanted to, I think ambiguity can be a really important tool, to kind of

841 leave it open enough for somebody else to, not only add their own interpretation. But see

842 how it could work beyond what I'm presenting

843 P - yeah

844 I - so it's not controlled too much, too rigidly

845

846 *Break to change tape*

847

848 I - are there any other things you think we should talk about?

849 P - I don't think, I can't think of any thing. It's interesting and slightly frustrating now

850 seeing the outline of the um, of the necklace box, that I didn't see it

851 I - it is very thin and faint

852 P - n o but I did see, I could see the lines, but I just didn't see the (gestures the box shape

853 with her hands)

854 I - y e s

855 P - and it was, I dunno, I did, it was, it was quite, kind of frustrating because I knew,
856 because I knew damn well that that, that was that shape for a reason and that the lines were
857 there, were that shape for a reason, but I couldn't work out what it was
858 I - there's a kind of it's kind of um, the fabric quality, the dressmaking qualities and it felt
859 like dressmakers chalk and a pattern
860 P - yes
861 I - and that love of fabric that
862 P - y e s
863 I - came through quite a lot in your responses um, and also like a drawing, these all seemed
864 like they were almost what they were representing but not quite, they were kind of um,
865 representations of something
866 P - y e a h
867 I - and the sketchbook, the drawings, the lines that fed into
868 P - y e a h
869 I - it's funny you kind of feel like you absorb certain things and you try to empathise to a
870 level without analysing
871 P - y e s
872 I - or work out what somebody needs
873 P - y e s
874 I - but you feel like this might be an experience that might fit for them or that they'd enjoy
875 P - y e s
876 I - a pleasurable experience for somebody
877 P - y e s
878 I - and you kind of absorb things and then afterwards when you're looking you think oh
879 yes that's because I was thinking about this
880 P - y e s
881 I - but it's not necessarily direct
882 P - no, and I, I kind of think that's why it, you know, I, you, I can't remember, one of the
883 first questions you asked me was about you know these objects and how they related to me,
884 I, I like them, there's a lot about them that I kind of um, that I like the kind of little
885 decorative bits, and I like the scale and I love the materials, so there's obviously a lot there
886 that, that does connect to me or connect to the things that I said, whether or not I can see it

887 clearly or you were doing it totally purposefully, you know, I think that it's worked in a
888 way
889 I – yes
890 P - A certain connection with them. It's interesting, I mean it can never be totally
891 intentional or conscious, I think with anything that we make
892 P – no
893 I – we kind of absorb things from all, all kinds of influences, conversations you've had or
894 environments that you live in or whatever
895 P – yeah
896 I – I think that's one of the tensions when you're trying to make everything as transparent
897 and explicit as you can in the PhD
898 P – yeah
899 I – because you'll remember things and think, oh yes that's what that relates to
900 P – yeah
901 I – (laughs) so it's not, within art and design it doesn't easily all of it fall into this way,
902 even if you make a journal everyday
903 P – no
904 I – subconscious things that you've absorbed and you're responding to
905 P – yeah I know, I kind of, I can understand there's not a, and with something that's non
906 scientific there's not a kind of set of rational explanations or you know an event leading to
907 a er a result that can be explained, which is why practice based research is so hard to kind
908 of um, explain to people or to kind of define in anyway
909 I – yeah
910 P – yeah
911 I – well thank you Laura, again it's been a real pleasure talking to you
912 P – that's all right, that's fine. I don't want to give them back to you (laughs) and I know I
913 have to
914 I – well I'd like to exhibit them, but then you know after that
915 P – well you know obviously, it's fine, but I suppose, I suppose the longer I've had them
916 the more I feel like they're mine and there's, there's, that they play a role, whether, you
917 know, obviously they're not digital, but what role they play I don't know. So when you've
918 had enough of them, then you can send them back if you want to, ok (laughs)
919 I – ok (laughs)

920

921 *Whilst putting the pieces back into tissue and away in the box*

922

923 I - it has been such a pleasure learning things about you and making something for you

924 P - I don't know it's kind of it was, it was so surprising getting them, I don't know why I'd

925 got in my mind that I was, that you were going to make me *a piece* of jewellery, it's funny,

926 why of, why of any of the people would I think that that was what you were going to make?

927 I - it would probably be the same for me I think you just, you don't know whether the way

928 that you see things you know is going to be echoes by somebody else, do you?

929 P - no, no I suppose not. I suppose you, it's, it's just it's easy and natural and automatic to

930 make assumptions about erm, the way someone else would do something. And I think, I

931 mean doing it like this is the best way to do it, because it's the most kind of, I think it's the

932 most time effective, talking about it and also I think it helps, I think it helps to get all of the

933 response, all of your thoughts out

934 I - yeah

935 P - erm, so that's why, so even if, I'm thinking about it now, even if I'd kind of written

936 down all the things I was thinking as I went along and said all of the things, having spoken

937 to you today I'm not sure you would have got any more, do you know what I mean?

938 I - yeah, sure

939 P - so I felt quite bad that I wasn't sending you stuff when you were asking me for it, but I

940 hope that that now,

941 I - no it's fine, it's just the sort of person that I am, I just like to sort of make the most of

942 the time that I have with you and so I've got an idea of what to ask

943 P - no I know and sort of having talked about it before

944

945 *Another pause whilst continuing to pack objects away*

946

947 I - and I think I'm not that interested in digital for it's own sake at all if I work with other

948 things that aren't digital then I'll be just as happy, but I do, the thing I do enjoy about it is

949 how you could add another aspect to something

950 P - another layer

951 I - yes

952 P - yeah, so I think that was what, when I was saying to begin with I was thinking um, oh
953 but um these as digital pieces they could record voice, but it doesn't, but hang on a minute
954 jewellery does that anyway, it's about um, the fact that you could, you could have objects
955 that have another layer, and it doesn't make them, it doesn't make the previous objects
956 wrong or useless it just makes these objects different

957 I - yes

958 P - so and again once you kind of start to think well there's nothing wrong with doing that,
959 it's about doing it in a kind of appropriate, intelligent way

960 I - exactly, and not just because we can

961 P - exactly

962 I - because a lot of the people designing wearable digital devices, it's because it's getting
963 smaller and we need it, or they tell us that we need it where ever we are

964 P - yeah

965 I - and they think well then lets place it on the body, it's just a convenient location

966 P - yeah

967 I - they don't really give it much more thought than that and then it's kind of on to
968 industrial product styling and

969 P - yeah

970 I - it's just removed from where we're coming from it

971 P - yes

972 I - just feels like the balance needs to be redressed really

973 P - yes

974 I - and it's not about kind of cyborg or I think a lot of design is quite retro futures so
975 they're going back to what things looked like in the Jetsons or

976 P - yeah, yeah, what we thought things would look like in the future

977 I - yeah and using that as the kind of form to take which is an interesting phenomenon in
978 itself but I think it's just, and there's nothing wrong with, with it, there's nothing
979 necessarily wrong with gadgets or wanting to do something because you can or newness
980 and novelty, it's just they're very sort of different motivations to what my education has

981 P - yeah

982 I - made me into

983 P - yeah, and I think it's also a bit lazy, not to question where you're coming from or why
984 you're doing it or look outside for other possibilities

985 I - yes definitely

986 P - it's kind of, yeah I think it's lazy

987 I - I think that in the design field, have you come across the design and emotion

988 P - yeah

989 I - work that's going on, how things can be broken down into making a happy, or cute or

990 tough iron and

991 P - yeah, yeah, yeah

992 I - and make things that people will all respond to in the same way which is nonsense to

993 my thinking anyway, but these kind of recipes or doctrines

994 P - yeah and I'm really, and I'm kind of shocked that we're still doing it because there's so

995 many, I don't know, there's so much that's kind of talked about, kind of anti-styling and

996 that we're not all the same and that, you know we all kind of know this and yet we're still

997 being sold, we're still being sold, you know these, these kind of gadgets and products in the

998 same way, nobody's really paying any attention to it and I think

999 I - and the lifespan of them as well, it's all about the now, that phone is not trendy now,

1000 even in some adverts they're covered in a, the phone's got a paper bag over it because it's

1001 just so embarrassing to own

1002 P - yeah! Yeah

1003 I - you know, I'm ashamed of my phone?!

1004 P - I know

1005 I - and everything's replaceable and lifespans have shrunk and that's so different to

1006 jewellery

1007 P - yes, yeah, well that's, that's what I think is interesting and it's kind of a nice challenge

1008 - is to see where those two things - where, where the miss match is between those two

1009 things and what happen when you bring them together - whether you kind of try and

1010 extend the lifespan of a technological thing or whether you reduce the lifespan of a

1011 jewellery thing, you know it's kind of both ways,

1012 I - yes, the thing that I've wanted to sort of find out as well is if, because I'd presumed that

1013 the way that I kind of feel about jewellery and it echoes a lot of the things that you've been

1014 saying, is that just because I'm a jeweller? Am I imbuing it with so much preciousness?

1015 P - yeah I know

1016 I - in an emotional context? Because that's what I'm really interested in and I can see the

1017 potential that it has

1018 P - I think er
1019 I - you know I feel like a preacher sometimes (laugh)
1020 P - yes, yeah, I think the only, my, my, I feel like that a lot, and the thing I have to
1021 remember is that, that some people do feel this way about jewellery and because you're a
1022 jeweller you're always going to be, and you feel, and you kind of understand the kind of
1023 potential or power of it, um, you are always going to be amongst the kind of extreme, the
1024 extremists, the ones that erm, relate to jewellery in the same way that my Grandmother
1025 relates to her jewellery and you know, so it's not that, and there are going to be an equal
1026 number of people who maybe don't feel that way about it, but I have to say, I'm, the more I
1027 speak to people and read I think it's just an age thing
1028 I - do you think so?
1029 P - yeah, and I think um, the older you get particularly women, the more important pieces
1030 of jewellery become, to the point where, you see I'm not sure, I know a few, I know quite a
1031 few young people who have pieces of jewellery that are important, but not pieces of
1032 jewellery they would feel, you know they would actually feel totally devastated if they lost
1033 and I think the older you get the more that's um the case, so maybe we've just got a really
1034 old view of jewellery
1035 I - (laughs) yeah
1036 P - before we're that old
1037 I - yeah, I suppose when you're younger you think that you're going to live forever
1038 P - yeah!
1039 I - and things can always be done in a few years, things can be repeated and
1040 P - and also you haven't lost people so you haven't got objects that have some kind of
1041 resonance from relationships that have gone or people that have died or
1042 I - yes
1043 P - you know, I think it's, it just has this, this great potential to
1044 I - yes
1045 P - encompass parts of your life and you need to have lived quite a lot in order to recognise
1046 that
1047 I - yes and the idea of valuing the small moments in life, um, seemed very important to you
1048 too and I think was something that fed into what I wanted to make for you
1049 P - yeah, no which is why, which is why I think to begin with I was thinking about um,
1050 how, would I record a message, I couldn't get my head around the idea of recording a

1051 message, but then when I started to think about um, just recording stuff that happened and
1052 um, you know, recently * (daughter)'s had two or three songs that she's been singing that
1053 are absolutely hysterical, if I tell you what they are you won't get it you have to be there,
1054 but that's the thing if I can take that and have that with me then that would make sense, of
1055 having a thing that I could hear her through when it's those things that absolutely make me
1056 crease up laughing or yeah, that, that you just want to retain that bit of her being young and
1057 of her, you know I think, I think what's also interesting is when you, when thinking about
1058 these things and talking about them is that, is not making the assumption that everybody
1059 could use it or that everyone could, or that it would work with every person

1060 I - n o

1061 P - is that it might be that there are specific ways in which it would work and you might
1062 only want to use it with one person or whatever, or use it in your own way which is where
1063 the ambiguity is really interesting because that allows you to think about a lot, lots of
1064 different ways of using it that are specific to individuals.

1065 I - yes, yes, yep

1 **4.3 Transcript of interview with Ana**

2

3

4 I = Interviewer

5 P = Participant

6

7 I - Can I ask you first of all, what your expectations were, of what I was going to make for
8 you?

9 P - erm, what did I think the piece would be?

10 I - yes

11 P - I thought it was going to be a camera, actually

12 I - before you saw anything?

13 P - yeah, before I erm, I think it's because of something you mentioned to me earlier when
14 I'd been taking the photos for you (I had asked the participant several months ago if she
15 had any images of her family land in Cyprus that I may use in the project)

16 I - right

17 P - and erm, and you said something and I think I might have miss understood but I
18 thought, gasp, it's going to be something like a secret camera

19 I - right

20 P - so when I'm out and about and I see something, I can just take these little snapshots,
21 erm, I think even when erm, I opened it, but before I looked at the DVD, or the disc I mean,
22 erm, I think I still thought it was a camera then because I thought it was a brooch

23 I - yes

24 P - and wear it and then when you see something you can take a picture, I'm quite, I was
25 quite, well not surprised, yeah I suppose surprised really when it was a rain sensor, it took
26 me, it did take me by surprise, I wasn't expecting it actually.

27 I - and how did it, in what way did it take you by surprise?

28 P - erm, I think because I wasn't expecting it, if you see what I mean, I'd sort of built up
29 this sort of thing in my own head

30 I - ummm

31 P - of what I thought it was going to be

32 I - yeah

33 P - erm, and I guess, erm, it was a lot more deeply sensitive than I imagined, and I knew it
34 would be, because you're a close friend of mine, but I wasn't kind of expecting it to be that

35 sensitive and the sort of family connections and everything, I thought erm, it was very
36 poignant

37 I-Did you open the package alone?

38 P - yes, definitely

39 I- and you've just sort of said what your initial perceptions of the piece were and the fact
40 that you thought it might be a camera, but erm, what were your initial thoughts about the
41 materials that I'd used?

42 P - I really liked them, erm, I really love this twig (laughs) I think it's a really beautiful
43 twig (laughs) and I thought it was so perfect that for a minute I didn't think it was quite real
44 (laughs) I thought you'd cast it into something, but erm, yeah, on second looks... and I
45 really like the glass piece I think it's a really lovely shape and the metalwork around here, I
46 think it's really lovely, and I like the way it opens up, umm

47 I- right

48 P - yeah

49 I- erm, so what were your thoughts about the form? You've just mentioned about the twig
50 form, but in general about the form and the look of it?

51 P - I think it's really, what's the word? A really nice use of materials, um, the fact that the
52 actual petals, well yeah, they're like petals, in that they're really fragile because paper is so
53 fragile, but you've got them encased in something that's well relatively strong so they're
54 protected, erm, yeah

55 I- and what did you think about the use of the stamps?

56 P - I thought it was really clever, and the inside of it, the little images on the inside

57 I- I haven't got the picture out of the box have I. I'll just get the picture of what the stamps
58 look like.

59 P - this makes it much more personal, you know, to me, that you've used the little map of
60 Cyprus and the um, little wooden icon that I've got, that was given to me by my Gran from
61 Cyprus when I was about four when I had my tonsils out (laughs) and every time I go on a
62 journey I always take it with me, hmm

63 I- and what did you think about um, how different it maybe appeared in the film? Did that
64 change your perceptions of it when you watched the film?

65 P - what do you mean?

66 I - um, the way that maybe

67 P - the movement?

68 I- things like that

69 P- yeah I mean, the movement has a lot to do with it, I think I would like to have, I

70 actually thought it actually moved, but I suppose it could do

71 I-yes

72 P- that's what you're trying to say

73 I-yes

74 P- erm, no I really like that because it really works like a flower blossoming, erm, actually

75 seeing it on the telly as apposed to our computer was much better because the detail was

76 better and the computer image was a bit bad but seeing it on there

77 I-yes

78 P- was much better

79 I-yes

80 P- saw a lot more detail

81 I- what were your thoughts about the way that it was suggested to be worn?

82 P- (raises eyes)

83 I- on the DVD it shows you how it's worn

84 P-oh

85 I- kind of cupped in the hand

86 P- I didn't actually, I didn't erm, apart from yeah my initial ideas of a brooch, because I, I

87 suppose I felt like it was something external maybe

88 I- yes

89 P- erm, and it was yeah, somewhere in your garden or on land that was sort of a prominent

90 sort of place where you could see it and you could visit it and look at it erm, I didn't really

91 see it well apart from a brooch but that was when I thought it was a camera.

92 I- yes

93 P- Erm

94 I- when it's shown on the DVD cupped

95 P-yes

96 I- erm, did you see it as a piece of jewellery?

97 P- I did yeah, when the hand, oh, I did think it holds really well in your hand, like it's a

98 really tactile, quite a tactile, although it's delicate, it's quite a tactile piece and it looked

99 really beautiful, which was cupped in the hands

100 I- so did you see it as quite a tactile thing when you

101 P - yeah, yeah. It's the sort of thing I would want to pick up and touch and I think the
102 materials that you've used, er, have been very sensitive, well you've reacted to kind of what
103 I've said in a way
104 I - right, how specifically?
105 P - in that you've used some natural materials, erm
106 I - right
107 P - being that trees are one of my favourite things and um, it, there's a very deep
108 connection to nature and that even the piece that isn't made of natural, well I suppose that
109 glass is sort of natural material, but um, they're still resembling a natural feature, so
110 I - So we've said that the piece is recognisable as a piece of jewellery but also as something
111 that you would visit
112 P - like a sort of mini sculpture
113 I - Right?
114 P - yeah
115 I - so do you think that's different to jewellery?
116 P - well I, not necessarily because I think they can sort of cross over
117 I - right
118 P - quite a bit, I mean you can get sculptural jewellery
119 I - yes
120 P - can't you
121 I - yes
122 P - so...
123 I - so how does it relate to your ideas of what jewellery is?
124 P - erm, well I mean in my job at the moment I have to think very, very conventionally
125 I - umhmm
126 P - but that's just what I have to do for work, but erm, you know I'm quite sort of capable
127 of thinking outside of the box
128 I - sure
129 P - you know, and it's quite nice doing that, it's actually let your imagination run around a
130 bit and, you can see how things can be applied in different ways and how your creativity
131 can be applied in different ways, be it jewellery or sculpture or anything really
132 I - so what were your initial thoughts of the digital potential? The way that a signal would
133 come from one place and make something occur in the piece?

134 P - um, I wasn't sure about the sort of workings of it, cos I'd just
135 I - no (laugh)
136 P - o h (laugh) you know it goes right over my head
137 I - that's ok (laugh)
138 P - but erm, I did actually think that, um, I did wonder if it got wet if it would open up
139 anyway? Like sort of paper does tend to do that, or some sort of paper does that
140 I - yes
141 P - erm, I wasn't sure if it was actually literally if it got wet there would be something just
142 by absorbency the petals would open up
143 I - right
144 P - um, but yeah in terms of how the workings of it, I'm not sure
145 I - I think I'm thinking more about the concept
146 P - yeah, erm, what do I think of it?
147 I - yeah
148 P - Of it as a concept. I mean as a concept I guess I was thinking it's the sort of piece
149 where you're really thinking, concentrating on people's emotions, human emotions, and
150 um, feelings and I guess I thought it could be a piece that could maybe bring people
151 together
152 I - umm
153 P - or remind you of, um, just to enjoy your life and being with people that matter to you
154 and enjoy that time that you've got, um, so I guess, I dunno, I was thinking that maybe
155 when it blossomed, it kind of upset me that it was only the once, and I thought *oh my god*
156 (laughs) um, but I kind of if it wasn't only once then that would defeat the object, of your
157 piece I think, I don't know, for me anyway
158 I - In what way? Can you elaborate on that?
159 P - umm, well, I mean that was a kind of crucial point for me, when I started blubbing
160 (laughs) when it said it only blossoms once and I was just like 'oh' 'yeah' and it I sort of
161 got it that it was sort of represented life really and that erm you only live it once and erm,
162 oh I've lost track of what I was saying now (laughs)
163 I - we were just talking about your thoughts about the digital potential of it
164 P - umm, and um, I guess it's a very personal thing
165 I - u m m
166 P - erm, what else was I saying

167 I – that’s alright we can come back to that
168 P – yeah I have got more thoughts on that they’ve just gone out of my head
169 I – erm, what do you think from what you’ve told me in the initial pack of probes
170 P – yeah
171 I – what do you think um, I’ve drawn on from what you’ve told me about yourself?
172 P – What, for me personally?
173 I – yeah, in the piece, what do you think I’ve taken from what you’ve told me about
174 yourself? And made into the... and used within the piece?
175 P – I think you’ve used it really sensitively erm, and I think erm, the fact that you’ve
176 emphasised that erm, it’s quite important to enjoy your life and it’s, *what’s the word?*, life
177 affirming really and there’s another side to it for me in that erm, I I’ve realised that I have
178 very strong family connections even though my family are actually quite disjointed erm,
179 and though, and having almost like roots somewhere as apposed to, well, land or a house
180 that erm, you know is yours or belongs to a family member, um, and like you know that
181 that’s always there for you, that’s sort of been quite important and I think you’ve picked up
182 on that um, in the fact that this is something that you plant on family land like you were
183 saying and the other thing I guess is the um, the aspect of a connection to nature as well and
184 my love of plants and flowers and things.
185 I – when I’ve asked you quite a lot of questions then I’ll start telling you the things that I’ve
186 based it on
187 P – yeah, yeah
188 I – So do you feel or think that the piece fits with you and in your life?
189 P – yeah definitely, erm, I mean I guess this is why I was taken aback as well because
190 when, if it was going to be a camera say then it would have been erm, would have been a
191 lovely piece but it would have been more superficial, if you see what I mean, I guess this
192 has made it much more personal to me erm, in that you’re sort of saying this is life
193 affirming and this is about your connection to your family and family land and I think
194 you’ve drawn on that in this piece
195 I – I’ve photocopied the response pack can we talk through this?
196 P – yes
197 I – this chart that was your immediate response can you talk me through that?
198 P – yeah I mean that’s when I watched it I kind of had a pen and paper ready just to kind of
199 get it all out first hand and because ***** was in the house as well, I wanted, I did that on

200 my own and then I thought I want to get my thoughts down and everything like that before
201 he saw it

202 I - right

203 P - and before he sort of made any comments on it, I actually asked him not to comment so
204 (laughs) I wouldn't be influenced by anything

205 I - right

206 P - so these are all my, um, initial thoughts really, um, yeah I guess it starts with deep
207 sensitivity in that I think you've touched on something, (laughs) quite, yeah, big really, um,
208 not, I wouldn't say it's a raw nerve because that makes it sound like it's horrible, but if you
209 know what I mean. (Looking at her written responses) I've just put 'planted on family land'
210 um, like I was saying that sort of represents um, a kind of permanence to it and a rooting
211 for me, I mean obviously you can't plant it in a garden that you're renting it just doesn't
212 have the same effect and I guess if it's on family land then each future generation, so you
213 can pass it on and they can see it erm, which links to strong emotional family ties for me,
214 um, the single blossom did make me feel a little bit sad um, because well it's about life and
215 death in a way, but without one you can't kind of you know enjoy the other if you see what
216 I mean, it's because we don't live forever that you have to enjoy life erm, and that got me
217 thinking, I don't know what they're called but I think there's these cactuses and they only
218 blossom once

219 I - right

220 P - in their entire life

221 I - right

222 P - yeah, but I don't know what they're called but I know that they exist and I was thinking
223 oooh, that's interesting, erm, yeah I just thought it was very poignant and yeah it was just
224 life affirming in that it was about the sort of preciousness of life for me and that you only
225 live it once, erm yeah

226 I - right the next page I think, you mention that the way I've asked you to respond may be a
227 little bit intimidating

228 P - I think it's just like when you had to write an essay at school (laughs) and you've got
229 this blank sheet of paper, it's just the same sort of thing and because I felt like I wanted, I
230 didn't want to just write like anything, so on one of those days where I felt too tired, or you
231 know. I just felt like you know I didn't just want to do it even if I wasn't in the mood

232 I - right

233 P - do you know what I mean?
234 I - yes
235 P - I felt like I wanted to give the best of what I could to your response erm, but once I
236 started erm, writing it was actually quite nice because it was quite therapeutic and I was
237 like 'ahhh' this isn't so bad and you kind of get into a bit of a roll
238 I - so did you feel quite comfortable with the response pack?
239 P - yeah I quite liked writing, I've only just started using the camera
240 I - oh right
241 P - but that is something I'd like to do and hang on to
242 I - that would be great
243 P - and do sort of gradually, but yeah, erm, yeah and I'm quite looking forward to using the
244 camera, erm,
245 I - I think the next thing, I quite erm, you mention ideas of delight and beauty
246 P - yeah here, and poignancy, yeah
247 I - are these things that are directly related to the piece or because of the piece are you
248 having general reflections about other things in life?
249 P - I think it's a bit of both really, I mean, I always notice things and you know I might just
250 be on my way to work or something and that's when I think oh I wish I had a camera or
251 something just, you know it might just be the perfect light or something, and then it's gone,
252 but that moment um, you just wish you could have captured it, but I guess you have
253 captured it because it's in your mind, your memory, but um, I suppose I quite like visual
254 sort of memories of things, but um, but yeah, your piece has provoked a lot more of that
255 sort of type of thinking um, in a sense that I just sort of think, ah you know, just stop
256 worrying about bull shit and enjoy life really, but we all do it you know, but you just have
257 to sort of remind yourself that, you know. That you should just enjoy life really and not
258 worry about little things and get stressed out about little things that don't really matter
259 because I'm sure they can be sorted out anyway, but ummm
260 I - ok,
261 Lets look at what was next, right (looking at next pages in response book); I think that's
262 some ideas that have been stimulated by the piece
263 P - yes
264 I - can you tell me more about these?

265 P - Well I've always wanted to plant a tree and I really want to plant a tree one day,
266 somewhere, but erm, I mean you can always plant it in a pot and take it with you, but its not
267 quite, I dunno you could do that, but I quite like the idea that you have a, a tree planted on
268 family land and it's always there and you can watch it grow over time and then other
269 people can watch it grow, especially if it's a tree that lasts for a long time

270 I-yes

271 P - erm, I just quite like that idea

272 I - yes, and what was the next one (referring to the response book)

273 P - yes, and then I was thinking perhaps sort of every generation of the family is given like
274 a rain sensor to plant on their family land erm, so even though the piece itself it's sort of
275 function as it were, when it only blossoms once, that's quite short lived, erm, I dunno, you
276 can still keep it and like it remains there like a mini sculpture and you can observe it then.

277 I - can I just pick up on the word function, what, what do you feel that the function of this
278 piece is?

279 P - well maybe function isn't quite the right word because it makes it sound a bit, dunno,
280 like

281 I - that's alright, thinking about it in those terms what would you say the function was?

282 P - well it's not like a household appliance (laughs) in the sense that it helps you clean the
283 dishes or anything like that

284 I-yes

285 P - but, erm, I suppose its purpose to me is that it reminds you of the smaller things in life
286 and erm, it's like it could help you to just take stock and stop and look at things which I
287 think a lot of people, well including myself, but you know, you forget to do that in the
288 humdrum of life and erm, it could be just like something that you pass in the garden on the
289 way to work and you just stand for a minute and look at it, like you would a flower that's
290 just come up, or I dunno something else that you notice erm, and then you just trundle off
291 on your way to work sort of thing, but it's these little things that I kind of think 'oh' that's a
292 nice rainbow that I saw on the way to work, or you know just little things like that, and
293 what I was saying before maybe, like erm, could be used to bring people together

294 I - right

295 P - erm, to say when it has blossomed, I think I mentioned somewhere that (in response
296 book) although it blossoms only once that maybe it would remain open for a little while

297 just so say if your family aren't all together that they've got time to come together and it
298 just could be get people together for a meal

299 I - yes

300 P - but it's like a little indicator to say come on everybody come over and
301 I - yes

302 P - do you know what I mean? That sort of thing erm,
303 I - I think you mentioned on one of them about how there would be some part of it that
304 could drop away and would leave a skeleton form

305 I - yeah, yeah, erm, I suppose it's because you don't want it all to fade away, erm, I mean I
306 know this would remain (twig) and the glass piece, but um, you kind of want, I suppose
307 that's why you have tomb stones isn't it because it's something that is although they're
308 gone, you have something that reminds you that you go and you talk to the tomb stone,
309 even though it's not them

310 I - yes

311 P - but it's that same sort of thing that although the rest of it has faded away, this little
312 skeleton or skeletal sort of form inside sort of stays there, there's a little sculpture

313 I - Yes. You've mentioned the word permanence quite a lot (in the response book)

314 P - mmmm,
315 I - through a lot of those responses

316 P - I think, I mean I guess that's erm, just my longing really to have somewhere that I can
317 call home and I guess when my house, our old house in Leeds got sold I felt very uprooted
318 and very insecure in a way, erm, and I suppose that's just a longing just to feel, to have
319 some stability and I think that's kind of what my Mum's house in Cyprus represents now
320 because it's like on family land erm, and in Cyprus what is yours is always yours, even
321 when you die it's passed on to your next of kin

322 I - right

323 P - The government don't sort of interfere, not like over here sort of thing um, and I guess
324 when my Mum got her house built it was just erm, that's what that represented um, a kind
325 of rooting

326 I - m m m

327 P - and a kind of permanence

328 I - m m m

329 P - and a bit of stability, knowing that that's that will be ours one day, you know, and then
330 for our kids hopefully and whatever, so umm.

331 I - That leads on - my next question looking at some of these pages about the comments
332 that you've made, it's pretty much about your Mum really and about the family being really
333 integral

334 P - um m m

335 I - a really important element

336 P - yeah I mean it's like that old saying, blood is thicker than water and blah, blah, blah,
337 and that to me it sort of represents an unconditional love that, well you know you might,
338 touch wood, but you might split up with your partner and do you know what I mean

339 I - yes

340 P - but where as your family will hopefully love you all the time, erm, and I put 'that is
341 guaranteed' and then you think well 'or is it?' you know, erm, but it isn't because not
342 everyone is around forever and that's why you sort of need to let them know what they
343 mean to you and the time you've got together sort of thing

344 I - yes

345 P - erm, yes

346 I - and the picture that you've stuck in there

347 P - mmm, it was yeah, it didn't really do it justice that little picture, but erm, it was erm, a
348 wildlife er, photographer exhibition

349 I - how do you think that picture with the snow branches connects to the piece? Did you
350 choose it because there was a connection?

351 P - erm, yeah I mean that was my favourite picture at the whole exhibition and erm, I
352 suppose it does link to the piece in that it's a tree

353 I - y e s

354 P - (laughs) sorry

355 I - (laughs) it's alright

356 P - but erm, yeah, I just thought that it's just such a gorgeous picture really erm, well not
357 awesome, but awe inspiring, erm, yeah

358 I - I think you described the picture 'frozen and a bit magical'

359 P - yeah because it had snow all along its branches on each branch so it almost highlighted
360 each of the branches and it almost looked like it was frozen in ice, so it looked really quite
361 surreal, but a bit sort of magical

362 I- yes
363 P - well I can't, it's really difficult to describe it without you seeing it
364 I - what would you, what to you is magical in that sense, what is it about it that makes you
365 want to describe it in that way?
366 P - erm, well it's not, it is a visual response because obviously you're looking at it, but it's
367 how looking at it makes you feel
368 I - right
369 P - it's just like (gasp) 'ahh' that sort of, it's like when you look at fireworks and you go
370 (gasp) 'ahh' - and everybody does it, but you can't help it and it's that sort of feeling I
371 guess um, it's just quite joyful um, but joy doesn't last all the time, that's why it's, it can be
372 quite instant and really nice
373 I - yes, um, right, ok, have we mentioned everything from the pack? I think there was a
374 picture there that you've drawn about it having a snow sensor
375 P - (laughs) I think I might have been going off on a tangent
376 I - no that's fine
377 P - but I think your idea sort of stimulated a lot of thoughts in my head and just my own
378 creativity, so I was just like 'oooh, you could have this! And' (laughs)
379 I - and on the next page you mention the "quite Greek idea" about keeping a light on for a
380 memory of somebody
381 P - yeah,
382 I - so do you think that connects to this idea as well?
383 P - I don't know what made me think of it to be honest, erm, I suppose it was stimulated by
384 this because I sort of went to bed and I'd sort of, I wasn't trying to think hard about your
385 piece because I thought I don't want to sort of force things, but I just wanted it in the back
386 of my mind when I went to bed. And then I just sort of woke up and I was thinking
387 'ummm' I don't know maybe it could have in the dark a little, when it went dark it could
388 have a little just a really soft glow, somewhere in the piece and if it had that little skeleton
389 maybe that could glow at night or something, erm, so you could see it even at night and
390 know it was there, erm, and yeah, I don't know, it's probably not just a Greek idea really,
391 well most people do when you go into a church you light a candle and stuff but erm, I'd
392 always when visiting Grandma's house in Cyprus after she passed away I'd always take a
393 flower and I'd light a candle and then erm, my Auntie said 'oh, have you been today to her
394 house and I said yes and she said oh I thought you had because you always leave a light and

395 a flower' so yeah it was just sort of, I suppose for your piece it, it's just to know it's there
396 um, but also too to sort of remember people by, people that aren't with you maybe.
397 I – and you've just mentioned your Grandmother there what are your reflections on the way
398 that I've used - in the quotes, I've taken two quotes where you've spoken about your
399 Grandmothers and the pictures and you mention you've got your love of plants and flowers
400 from one Grandmother
401 P – ummm
402 I – and this icon from the other
403 P – yeah
404 I – what are your reflections about the way I've kind of woven both of your Grandmother's
405 into it?
406 P – it's, well it's really sort of integral to me because I think I really looked up to both of
407 them, but I suppose I don't, umm, it's sad really, but I didn't really realise it until after
408 they'd gone you know erm, but it's yeah and I suppose my love of plants didn't really come
409 out until after she's sort of passed away, because when you're young you're not really that
410 interested in plants, well you might be, but I wasn't at the time and erm, and I think, yeah
411 I've realised that I think that's where I get it from, or maybe I'd like to think that's where I
412 get it from (laughs) but um, and then yeah I suppose I always carry that icon with me when
413 I 'm going on major trips like as a way of her protecting me and erm, and I don't feel like I
414 can stop doing that now, I think if I don't take it the plane will crash (laughs) but um, I
415 think that's had a lot to do with the sensitivity of the piece and um, that they were two very
416 integral people to my life really but especially my Gran in England, because she helped to
417 bring me up
418 I – yes
419 P – so, umm,
420 I – and what do you feel about the potential of being connected to another place or space in
421 this way?
422 P – (looks at me in a confused way)
423 I – not just the connection to um, memories of people
424 P – mmm
425 I – or to people
426 P – mm

427 I – but the actual fact that it could be something on the other side of the world that is
428 triggering something here

429 P – mmmmm

430 I – like a specific connection to a place where it’s raining on the sensor

431 P – oooh, I didn’t really think about that, so what you could have two of them? And they
432 connect together?

433 I – well I suppose you could, but what I’m meaning is um, well the way it would work
434 would be, you’d have your sensor and you’d plant it

435 P – yes

436 I – so that could be in Cyprus,

437 P – yes

438 I – so when it rains on that sensor in Cyprus

439 P – mmm

440 I – it send a signal to the piece here in England

441 P – yeah

442 I – and it blossoms open

443 P - yeah

444 I - so it’s a connection, a physical connection of two places

445 P – yeah, yeah. I mean I didn’t really think of that which is a bit silly!

446 I – no

447 P – but erm, that would really tie it together really nicely, because then as apposed to you
448 trying to gather your family round just one person – another person and like I said my
449 family is quite disjointed

450 I – geographically

451 P – yeah, geographically, so it would be quite nice if they all went off when that one went
452 off and you’d be like ‘oooh’ and would ring each other up or whatever and you’d be having
453 a little get together or something, yeah that would tie it in really well.

454 I – yeah, I was thinking in terms of how it would kind of reduce the physical gap between
455 two places maybe

456 P – well it would just make you feel connected really, erm, ummm, although my Mum’s
457 not that far away it’s far enough really

458 I – and she’s in Cyprus

459 P – yes, so erm, yeah it would be nice to have, I mean it’s nice to talk but ummm

460 I - Another idea that you've had is that perhaps 'the piece could age over time and change
461 like we do'

462 P - yeah I mean, so I suppose erm, it's not wanting it to fade away completely,

463 I - yes

464 P - like things in nature do really um, so it would age at the same sort of rate that we do
465 and I don't know how it would age or what this would look like but um, just so it would
466 sort of accompany you in life

467 I - I was going to ask as well what did you think about an actual element from nature - of
468 rain being the activator? The rain being the thing that started the reaction

469 P - well, it's quite poignant again, because it, well nature needs water to actually function
470 so um, I think that links in really nicely

471 I - what did you think about the words that I had chosen to use in the film, your quotes that
472 I used - the two about your Grandmothers and the 'hidden secret detail that's very me'

473 P (laughs) I wasn't really sure if that sounded a bit daft coming from me or not, but I know
474 what I mean but

475 I - in what way would you think it was daft?

476 P - no, I wasn't sure if I sounded like I was going up my own bum a bit (laughs)

477 I - (laughs) nooo

478 P - it's just it's like um, I suppose it's like a piece of jewellery where you've got like a
479 diamond on the inside of something so you can't always see it or, you know just little
480 hidden quirks or detail in that I suppose this is like that (the piece) in that it will look the
481 same for a while then it's triggered off by rain and it changes, but that's a little sort of
482 secret until that happens erm, and the other quotes, well I guess they link to the piece
483 because erm, they were integral people and I can see, well the people in your life sort of
484 add to your character and how you are today erm, so I guess she's added to my character
485 having her in my life for the time that I did

486 I - yes. Did you show the piece of the film to anybody else?

487 P - Only *****, my partner

488 I - what, what was his reaction?

489 P - I didn't ask him because I didn't want to know, sorry

490 I - that's fine, no, it's fair enough I just want to cover that area, it's ok

491 P - I let him have a look on his own, but I was 'I don't want to know'

492 I - that's cool, and do you think your relationship with the piece has altered over the time
493 you've had it?

494 P - No, I think the initial sort of feelings and emotions are the same, but as I sort of had it
495 over the time or whatever it was, it stimulated ideas which I sort of discussed with you and
496 it's brought up, I suppose it's brought up some feelings that I've had, you know, just about
497 well, they're not sort of new feelings really, but it's just sort of reminded me of them

498 I - yes

499 P - um, but yeah, my emotions are still the same but I guess it's just stimulated ideas that I
500 had about it

501 I - I think I'll start explaining

502 P - ok

503 I - what I based my decisions on and I've brought a cd that we can look at on the computer.
504 I've brought the probe pack back

505 P - o h yeah

506 I - so you can see some of the photographs that you took

507 P - (laughs) They're quite interesting to see them now

508 I - that's the icon

509 P - yeah

510 I - that I chose to

511 P - that was a bad picture wasn't it (laughs - the image is off centre and blurred)

512 I - I actually like it

513 P - there's only half of it

514 I - I actually, I think the disposable cameras are difficult for that

515 P - ooooh the handbag

516 I - I need to show you the CD soon

517 P - you see I had to photograph that, I couldn't throw it away (Grandmother's handbag),
518 but I've given it away to charity now

519 I - have you?

520 P - yeah I finally gave it away, but, what's that? My hand? Why did I take a picture of that?

521 I - 'Something about me that I like'

522 P - o h (laughs)

523 I - Well that's one of the reasons that I made it a handheld object

524 P - ahhh! I see, ooooh! (photo of sunset and sea)

525 I – Um, I know, that view has come out really well
526 P – that's come out really well
527 I - amazing isn't it
528 P – (laughs) my kooky shoes
529 I – And that one as well (another sunset) but that's one you've seen is so lovely
530 P – yeah the light's much better on that one
531 I – yeah
532 P – Oh that one didn't come out quite as well, or actually it's not too bad, pink berries
533 I – yep, well that one stimulated the colour I've chosen to use on the inside
534 P – mmmm
535 I – and the tree element, well a lot of these images did. Oh that's a good one
536 P – oh yeah that tree was gorgeous, great colour
537 I – that was the spider's web, you can just see it on there
538 P – ooh yeah
539 I – which I thought was a reflection first of all and then I realised it was a spider's web
540 P – I didn't quite get the focus right
541 I – well you can't really on those cameras can you so. Right I put, well it's funny you said
542 it yourself a few minutes ago
543 P – yeah, what?
544 I – about noticing things, because the first thing that I wrote down
545 P – ooh that looks like a report! (laughs)
546 I – it's not a report (laughs) start analysing (laughs)
547 P – (laughs)
548 I – no my objective wasn't to analyse or to see what somebody needed
549 P – no
550 I – but quite an empathic response
551 P – yeah, yes
552 I – and I tried as much as I could to base it all on what you told me in the pack
553 P – ummm
554 I – rather than what I knew about you already
555 P – what you know about me, yeah
556 I – but naturally because we're friends that's going to be the background
557 P – yeah

558 I- but I've grounded everything or rooted everything in the pack, but the first words that I
559 wrote on sort of, I opened the pack and read everything and looked at everything and got
560 these and just tried to sort of absorb something from them and the first words I've written
561 were 'a noticer'

562 P - 'a noticer' (laughs) ahh

563 I- and um, a lot of the way you describe things and, like being mesmerised by the colours
564 and how light played on the facets on the piece of jewellery that you described and sunlight
565 would also cast many prisms across the room and I was thinking of maybe making
566 something that would do that,

567 P - mmm

568 I - through a crystal

569 P - m m m

570 I - that would give you a rainbow

571 P - oooh!

572 I- around you, only occasionally

573 P - yeah!

574 I- but that could happen

575 P - o h wow! I like that!

576 I- and that sort of linked into the star sapphire rings that you were describing as well, and I
577 was thinking about um, I described you and you've described yourself to me as well as
578 finding beauty in the prosaic, or the everyday, and noticing

579 P - m m m

580 I - details and beauty where it doesn't have to be 'wow!' and really overt,

581 P - yeah

582 I- you can see something very subtle

583 P - m m m

584 I- but unlike a lot of people you'll actually notice it

585 P - mmm

586 I - and that's one of the things that I wanted to try and bring into the piece

587 P - mmm

588 I- with kind of the use of materials that are not um, necessarily very sophisticated

589 P - m m m

590 I- things like paper

591 P – yeah
592 I – but which are things that still can be appreciated
593 P – if you use them
594 I – and then I think all the way through I started to get a feel of um, the kind of importance
595 and influence that both Grandmother’s have had on your life
596 P – mmm. (Looking at more of the photos she originally took in the probe pack) What’s
597 that!? (laughs) (picture of a squash)
598 I – (laughs) that picture
599 P – (laughs) ‘something funny’
600 I – that made me laugh, it’s a big squash or something
601 P – ‘Something boring’ my bus stop
602 I – yes, so the links to both the Grandmothers and so I chose to focus on the icon from one
603 and the love of plants and handbag from the other and in a lot of my initial ideas I was
604 going to work in the clasp, duplicate that kind of clasp
605 P – oh right
606 I – that would be in that and even laser cutting the icon image out of leather so it was like
607 the leather from the bag
608 P – oh yeah
609 I – I tried, well I really simplified everything in the end and um, something that was really
610 important was the little letter that you sent me accompanying the photographs
611 P – oh yeah
612 I – I found that really, really helpful to start to come up with ideas, erm, and I felt like I
613 wanted to make something about both Grandmas as well because there’s that – something
614 blossoming – the reason I chose something that was quite gestural like that
615 P – yes
616 I – was because not only because it links into the love of plants and flowers but also about
617 what they’ve kind of, the influence they’ve had on you and what they’ve kind of given you
618 in whatever way
619 P – mmm
620 I – they’ve kind of given you a kind of strength that can blossom, you know as you
621 develop, and I think I’m not sure which one, it’s either the dream (referring to the responses
622 in the probe pack) or the yeah, this one (the rosette) this idea of growth I thought was quite
623 P – mmm

624 I – something that I wanted to make a piece about. And I think the thing that influenced the
625 piece from our friendship, that wasn't specifically from the pack, was the water element
626 P – right (laughs)
627 I – (laughs) and the fact that I always see you as somebody who carries a bottle of water
628 with them, and I always think it's so virtuous
629 P – (laughs)
630 I – and I brought the two things together so I thought it would be really lovely to bring in
631 that metaphor of how things grow and how things are fed in nature
632 P- mmmm
633 I – etc, with that sort of quirk of your nature that I know.
634 P – mmm
635 I – can I ask you something?
636 I – yes
637 P – what made you do it as um, I mean I think I know why you did it, I was just wondering
638 why you made it blossom only once?
639 I – I think erm, I wanted something that wasn't about being predictable and wasn't about
640 being sort of repetitive
641 P – yeah
642 I – sort of something that had that kind of, like you've been talking about before, had that
643 true to life quality about it where it would occur, have it's moment and then... like a
644 lifespan...but maybe the poignancy is in fact in
645 P – that fact that it happens only once, yeah
646 I – but my idea would be that it would blossom open
647 P – oh I see
648 I - and then it would stay open, because I wanted it to reveal um, the other pictures inside
649 so you have a change from a secret piece where it's hidden and then it blossoms and these
650 pieces are now on show
651 P – yes, yes
652 I – um, and so you could see all the icons inside repeated
653 P – yep, yeah. I wasn't, that's what I wasn't sure of whether they'd stay open or it would
654 fall away like a real flower
655 I – yeah
656 P – like a rose does sort of thing

657 I – yes. I had thought about that as well, I thought it would be interesting for it to occur and
658 then slowly decay in some way, something I'd sort of catalogued in the previous ideas for it
659 – I'll go through some pictures with you in a bit. Yeah, it being something quite organic as
660 well
661 P – yeah
662 I – yeah and the held in the hand, because it's something about you that you said that you
663 liked, something that was quite contemplative
664 P – yeah
665 I – something to look at as you held it
666 P – yeah, I mean I do really like rings for that reason, because you can just sit and look at
667 them because yes, they're within your vision aren't they?
668 I – yes. What else? Oh I'd also thought, yes, to do with water as well, I'd also thought
669 about something um, with hydration so the piece having water in and it could be um, a seal
670 could be broken which would let the water in which would then let it blossom
671 P – oh right, yes
672 I – and also using um, water to inflate or deflate as a sort of power, as a force within it
673 P – ok, yes
674 I – so it could act like a pump
675 P – yes
676 I – but it would be the water that could sort of push it open
677 P – oh right
678 I - so thinking about water in a lot of different ways, but I think the main thought was
679 actually having a rain sensor, which felt by far the best thing to me
680 P – yes
681 I – and quite an external thing rather than it being concealed
682 P – yes, yeah
683 I – which relies on the environment
684 P – yes, on nature itself
685 I – yes that's what I wanted to ask as well in terms of an idea of control
686 P – mmm
687 I – you know with our mobile phones we are in control to a certain degree
688 P – yes
689 I – and other digital devices such as that

690 P - yes
691 I - with a piece like this one
692 P - no
693 I - there's practically no control
694 P - no
695 I - at all
696 P - no, but
697 I - and you might even miss the blossoming happening
698 P - erm,
699 I - how would you sort of feel about that?
700 P - well that's why I sort of put erm, because when I wasn't sure if it was going to fall
701 away or not, that's why I sort of said once it had blossomed erm, maybe it could stay open
702 for a few days to give people time, like family to get together. Erm, but I think I don't think
703 you can control something like this I think it would take away a lot of the feeling of the
704 piece erm, I think it's best if it wasn't controlled and it's just reliant on nature but you
705 somehow gave people the time to get together sort of thing
706 I - mmm
707 P - because you can't control what happens in life I suppose can you, sort of, that same
708 kind of thing or nature
709 I - yes. Because when working with things like electronics and digital technology erm,
710 control is quite a big element in terms of having the control and
711 P - yes
712 I - um, so how, do you have any opinions about, because it's a digital object
713 P - m m m
714 I - but not one with control...
715 P - well I mean you can still have this digital aspect in there, it's opens on contact with
716 water and then it opens in one place and then another place digitally, a different
717 geographical place um, there's your sort of digital connection as it were but um, I think, I
718 don't, I think it would be really odd if you thought right I'm going to get up and turn on my
719 sensor today, even if it's not raining, or even whatever, um, I should think it would take
720 away from the piece and maybe it's nice to relinquish a bit of control now and again
721 (laughs a little) because we're all control freaks aren't we really? (laughs)
722 I - do you think that the digital devices that we carry around with us contribute to that?

723 P – well yes in a way, well we're all sort of slaves to time and whatever and some more
724 than others, and computers erm, but I think this is a different, looking at it from a different
725 slant really. You're not trying to control people or telling them how to run their life
726 differently or better it's about, I think it's about simplifying things and just enhancing
727 people's lives but in a simple way like with their emotions, I don't know if I'm using the
728 right words, but I'm, what I mean is you're not trying to create a piece, I don't think
729 anyway, I'm not trying to put words in your mouth, but where you're trying to control
730 people's lives, but you're just making it that bit more, that bit nicer, more life enhancing
731 and yeah

732 I – um, let me think what else I can tell you, I think a lot of this is writing down things you
733 had put in the pack, I think the hidden detail and secret

734 P – umm

735 I – I was really, well not a secret in a sense, but I

736 P – no

737 I – but just a point to notice in something that is revealed or um, I found that to be really
738 something I wanted to focus on and the also that the piece should be a gestural piece

739 P – mmm

740 I – rather than something snapping open to reveal a picture or snapping open to reveal an
741 object or something like that, it was the actual movement

742 P – yeah, well it's the

743 I – as well as it from being closed it ends up open, but how that actually occurred was very
744 important

745 P – yes

746 I – important to me, so it was a very smooth gestural

747 P – well it's quite evocative isn't it, it's, well it can mean lots of things can't it, blossoming

748 I – right, yes

749 P – it can mean the blossoming of you or um, I dunno, you know it's quite a beautiful
750 movement isn't it to watch something blossom, open up, like when you watch a flower
751 open up

752 I – yes, I've brought some little models to show you as well

753 P – ok

754 I – these were some really early ideas

755 P – oooh, yes, really delicate

756 I – these were very early ideas and this one has a wire in it, the forms are not as important
757 as the way I was just starting to explore the way it would gesture open
758 P – yes
759 I – and I started to think early on about having the colour in it
760 P – yes
761 I – those kind of colours and to get the... there are hundreds of models with cocktail
762 umbrellas
763 P – yeah, oh wow look at this one, hmm, oh that’s lovely, what are these?
764 I – they’re parts of a doily that I cut out
765 P – ohhh
766 I – and then I used some of this
767 P – I used to love these umbrellas as a kid
768 I – did you
769 P – yeah (laughs).
770 I – and then I used some of this paper, this see through paper and it was from an envelope
771 and it had this stamp on and that made me think of using stamps
772 P – ohh yeah
773 I – so I went on ebay and bid for all these stamps and I bought ones from 1938 to 1956
774 which I thought would have been times when your Grandmothers lived there
775 P – yeah, oooh right!
776 I – and I thought they’re from letter, actually from letters that, they’re all franked and I
777 made sure that they’re all from the Greek side
778 P – oooh wow
779 I – they’ve got Limasol and Famagusta
780 P – oh wow
781 I – frank marks on them
782 P – have they?
783 I – yes
784 P – that’s amazing
785 I – and so they’ve all actually come off letters sent to England
786 P – oh my god
787 I – and I thought you never know some of them might even have been from your
788 Grandmothers (laugh) you just never know

789 P - how weird is that?
790 I - but just to have that actual
791 P - that's really quite freaky
792 I - just to actually have that link that those stamps have actually done the physical journey
793 that I'm trying to describe in the film that I've made for you
794 P - that's amazing that, that's just really quite, god! Wow. Because you just, I don't mean
795 to be rude, but I just thought you'd just got a stamp and you'd just you know, but I did
796 think they look quite old, I did wonder where you'd got them from, that just adds to it all
797 really, yeah.
798 I - and the fact that the piece is about a certain kind of communication and the stamps have
799 served their purpose in a form of communication before as well
800 P - mmm, that's really lovely
801 I - I got um,
802 P - god you've got loads of stamps
803 I - yeah, these ones I bought quite a lot of
804 P - oh wow
805 I - using them just looking at the way it would open
806 P - yeah
807 I - and I got this one, I've brought all the models that I've made
808 P - so these are all, none of these are photocopies?
809 I - no, they're all originals
810 P - because I thought like, I thought oh, there's be an original in there and then the rest
811 would be photocopies,
812 I - no they're all original stamps
813 P - wow. That's amazing
814 I - and I did some
815 P - that's really nice
816 I - and I got some, I tried lots of models with um, they're kind of breaking from over use,
817 because the cocktail umbrella structure is actually very fragile
818 P - mmm
819 I - but here's a mixture of English and Cypriot stamps
820 P - oh
821 I - but I think it seems too busy

822 P – yeah
823 I – and I needed to simplify the whole piece
824 P – yes
825 I – um, and pare it down, but you can kind of see, basically this has been, this is a piece of
826 memory wire (showing new model) there that would be up the inside, I think I would use a
827 thinner coil than that and when it gets hot it shrinks, I can show you with a hairdryer or
828 something and as it shrinks it will pull down like that
829 P – ahh I see
830 I – and pull it all down so it’s quite a simple premise
831 P – yes
832 I – um, well it’s a simple premise once you’ve worked it out (laughs)
833 P – (laughs)
834 I – I can say that now
835 P – no I think that works much better, the ones that are all from Cyprus
836 I – yeah – why do you say that?
837 P – just visually as well it’s a little bit too much going on and you might sort of miss
838 something
839 I – yeah
840 P – erm, but you’ve already made the connection in a way between Cyprus and England
841 with both my Grandmas
842 I – yes
843 P – if you see what I mean
844 I – yes
845 P – and connecting well the digital potential of connecting one country with another. But
846 that, yeah I mean I kind of noticed the stamps were franked but it didn’t really click and I
847 thought oh there must be a few originals and the rest are photocopies
848 I – right
849 P – but now you mention that, that’s a lot of thought gone into that, yeah and it adds to you
850 making that connection, that’s weird to think that’s carried somebody’s letter
851 I – all those letters, I think there’s ten
852 P – mmm, and now it’s here
853 I – yes
854 P – it’s quite bizarre isn’t it?

855 I- so now I've kind of told you the process

856 P- mmm

857 I- and the things I'd based my decisions on

858 P-yeah

859 I- does that make you see the piece any differently or feel differently about it

860 P- erm, I don't not, the only thing, it does add to it was the erm, stamps and what you'd

861 put into the stamps, because I really just thought you'd had like one or two originals and

862 photocopied the rest, but the fact that you'd got a load of originals that had been on this trek

863 to England I think that's quite remarkable actually, yeah and from the time, because I did

864 wonder, I thought oooh I wonder why you haven't used more recent stamps

865 I- m m m

866 P- I did think that but yeah I didn't realise what you were sort of thinking about really, but

867 erm, they're quite pretty stamps as well

868 I- m m m

869 P- visually quite nice stamps um, so yeah that does add to it yeah

870 I- is there anything else that we should cover? So as a piece of digital jewellery do you

871 feel that it is a successful piece for you personally?

872 P- well, yeah it's very, it is very personal and I think making things that are more personal

873 would make them more successful in a way

874 I- why do you say that? In what way?

875 P- Just because I think the more personal they are um, not, I mean not saying, well you

876 could have pieces that are almost tailor made you know bespoke pieces to that person or

877 individual but um, for me it's being more sort of successful because it has been so personal

878 but I think even if you had pieces that um, weren't sort of bespoke but still sort of enhanced

879 um, people's emotions I think that would work too.

880 I- how do you think you enhance emotions?

881 P- well, enhance positive emotions, um, like um, yeah because you can enhance any

882 emotion but it might be a negative one but it's they're not about that

883 I- just in terms of, just to understand you more clearly when you talk of enhancing

884 emotions how does that manifest itself?

885 P- um in the sense that um you're bringing about sort of positive feelings erm, by sort of,

886 well in this instance you know you can be bringing people together for good times

887 I- right

888 P - and in the other things you've sort of discussed um, like other pieces that you're
889 thinking about erm, just bringing about positive emotions, things that generated something
890 beautiful to look at or um am I making any sense?

891 I - yes, do you think beauty...

892 P - that is yeah

893 I - what would you describe beauty as being, how would you define what the term beauty
894 relates to?

895 P - erm, well it's lots of things to different people but to me it's um, noticing (laugh) that
896 word again, but um, noticing the beauty in things, in little things, and it could be something
897 really simple and that's what, but and I think I mainly see it not just in nature, but it might
898 be a beautiful building or something, but erm, it is I feel more connected to nature just
899 because I find having that connection to nature quite nourishing um, yeah can't think of a
900 different way I can describe it really but um,

901 I - nourishing in the sense that?

902 P - on quite a deep level in that um, well it's like when you're out in the garden planting
903 things and just having that connection to nature and watching things grow, that's quite
904 nourishing

905 I - nourishing physically or...

906 P - soul wise I think

907 I - right

908 P - yeah and I think when you see beautiful things that's almost the same sort of thing,
909 same sort of feeling, quite nourishing

910 I - thank you. I think we've covered things, I mean it will be interesting to, if you do take
911 photographs, which you don't have to

912 P - m m m

913 I - but if you want to and you do

914 P - I mean if I do it will probably be things that I notice erm, just little, yeah, much the
915 same as what I took before probable except you had a specific thing

916 I - and what connection do you think that that activity will have to the piece that I've made
917 for you?

918 P - erm, because it, doing that I guess helped me stop and look at things again

919 I - the piece has made you feel like that?

920 P - erm, I suppose taking the photographs would do that

921 I – right so how would that connect to the...

922 P – um, sure I mentioned it earlier or in the response, yeah there, it's there (written as a
923 response in response book) hold on,

924 I – ok, if you use the camera,

925 P – yes

926 I - you're saying that you'd like to go out and take snapshots that you've noticed that you
927 feel to be personally beautiful to you

928 P – mmm, yes

929 I – and I'm just asking what relationship that activity of taking the snapshots you feel has

930 P – yes

931 I – to the piece I've made you - why the piece makes you want to go out and do that

932 P– yeah, well I think the piece has made me think well, the poignancy of it is that you only
933 live life once and you have to enjoy what you have

934 I – yes

935 P – in that time and um, often when I'm about and I see things I often wish I had a camera
936 with me so I can capture that moment and um, I find these moments of beauty or whatever
937 you want to call it very poignant because um they remind me of how precious and beautiful
938 life is and just to enjoy simple things that you see really or people that you have in your life
939 so I guess that's the link between taking photographs and your piece.

940 I – thank you ever so much for taking part in this

941 P – it's all right, you're welcome

942 I – it's been such a pleasure

943 P – no it has for me as well

944 I – has it

945 P – no it has, I've really enjoyed it.

946 I – oh that's good

947 P – because it's like it's stimulated my creativity in a different way to what I have to do for
948 work but that piece was really like 'mmm' really quite soul provoking and thought
949 provoking which makes me think I just want to get out there and do what I want and stuff
950 and so

951 I – thank you so much

952 P – thank you