Northumbria Research Link

Placing in Age: Transitioning to a New Home in Later Life

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Moving home in later life is an experience born of necessity for many older people. Yet while a good deal of research has considered how to support 'ageing in place', relatively little attention has been given to the transition of moving to a new home, or how a feeling of belonging is accomplished once there. We present findings from two studies that explore 'placing in age'. The first looks at downsizing one's home; the second at living in a residential care home. We reflect on what placing in age means in these two circumstances, and how technology might be used to support it. We highlight the importance of continuity through change and the ability to 'design' everyday life. Rather than support for stability, or reminiscing about the past, the aim is to address the need for change and to enable the meaningful spending of time now and in the future.

1. INTRODUCTION

Moving home is an interesting transition point when undertaken in later life. Despite this, it is the focus of little research in the field of HCI, with efforts either exploring transitions as a more general aspect of older age [Salovaara et al., 2010], or more commonly, focusing on how to support ageing *in place*. Accordingly, prior work has aimed to bolster a person's capacity to remain at home, and to consider how a sense of home can be upheld as assistive technologies are introduced [e.g. Leonardi et al., 2009; Birnholtz and Jones-Rounds, 2010]. This is no doubt important. However, there are many circumstances that make ageing in place impossible or undesirable, and which result in older persons either choosing, or finding themselves, relocating. In the UK in April 2012, there were 432,000 people over the age of 65 living in care [Laing, 2013]. In England, where the research reported in this paper was undertaken, about one tenth of men and one fifth of women aged 85 and over live in a communal establishment [Office For National Statistics, 2013], and homeowners aged between 55 and 64 are most likely to consider selling a large house to move into smaller accommodation [Cowie, 2013]. While this is of course framed by a particular housing infrastructure and set of socio-cultural norms, the World Health Organization (WHO) reports that the number, and often the percentage, of older people living alone is rising in most countries, even in societies with strong traditions of older parents living with children, such as in Japan. Furthermore, a global trend towards people having fewer children means that this is unlikely to change; there will be less potential care and support for older people from their families in the future [WHO, 2011]. This suggests a need to understand 'placing in age', whereby older people move into downsized homes, sheltered accommodation or residential care homes, as a complement to ageing in place.

In this paper, we present two studies that explore and develop the concept of placing in age. The first focuses on downsizing one's home, done proactively and with a view to shaping what the next phase of life will be like. The second focuses on living in a residential care home. A move into care is often done at a time of crisis rather than through active decision-making [Sherman and Dacher, 2005], and so, while for downsizers placing in age is a deliberate act, for care home residents it often must be accomplished through adapting to a particular set of circumstances. Our goal is to consider what placing in age entails in these two situations, and to ask what it would mean to design technologies to support it.

In the sections that follow, we outline prior research that informed our work, and then describe the two studies and their findings. The first study involved interviews with downsizers, through which we aimed to understand the choices they made in relation to moving and how this was bound up with developing a sense of being in place. The second study entailed a series of creative activities with a group of care home residents, through which we aimed to understand the circumstance of living in care, as well as prior and desired experiences of home. In the discussion, we unpack two aspects of placing in age that work across the two sets of findings, and posit that small and flexible technologies may have a role to play in supporting placing in age, as access to space is reduced and possessions are disbanded.

2. BACKGROUND

In this section, we review prior research on the meaning of home and how a sense of home is accomplished, especially in relation to moving in later life. We draw on literature in the fields of gerontology and social anthropology, as well as related HCI work.

2.1.   Experiences of Home

Home is a concept that is deeply familiar yet difficult to precisely define, the word itself serving as an abstract signifier of a wide set of associations and meanings [Moore, 2000]. Whilst some have argued that the term 'home' is too ambiguous to be of scholarly use [Rapoport, 2005], others have tried to unpack the meanings that are bound up with it. McCracken [2005] unpacks the concept of 'homeyness', noting how the creation of homeyness is bound up with the creation of family and the self. A similar line of thought is expressed by Dovey [2005] in relation to older people's experience of home. She describes home as a place of security and order, but also as playing a critical role in constructions and expressions of the self. These meanings are accomplished through everyday engagement and established by repetition and memory, so that while home might be defined as the place where one lives, it is experienced as much more than a dwelling place [Sherman and Dacher, 2005] and its meaning might instead be considered a living process or dynamic construction [Horwitz and Tognoli, 1982].

This emphasis on home as a dynamic construction is reflected in various models of psychological processes that link person to place. Rubinstein [1989] proposes three such processes: social-centred, in which links to place concern an understanding of the appropriate way of doing things; person-centred, in which links to place concern its expression of the person's life-course; and body-centred, in which the environment can be regulated and manipulated over time to provide comfort and to accommodate increasing limitations of the body. For people who have spent many years living in the same location, place attachment may be particularly salient. Focusing on older adults, Rowles [1983] details three types of 'insideness' that emerge from this type of longevity. Autobiographical insideness is the sense that a place is bound up with identity and legacy through personal history and memory; physical insideness relates to an affinity with the space that is underpinned by familiarity and routine; and social insideness relates to one's integration into the social fabric of the locale. Thus, a sense of being in place is supported by a lifetime of experience.

Summarising the literature in this area, Oswald and Wahl [2005] draw together work in environmental psychology and gerontology, including the above two models, to suggest that home has three dimensions: physical, social and personal, with personal encompassing behavioural, cognitive and emotional levels. These high level dimensions also find support from qualitative work. For example, Shenk, Kuwahara and Zablotsky's [2004] study of four widows led them to observe that the identities of these women were intrinsically linked to family, home and possessions. They suggest that home and possessions are important in serving as salient reminders of the past, as enabling the preservation of routines related to being a homemaker, and as continuing to be a focal point for wider family, even when adult children are long gone. This can include the preservation of elements of the family home for the sake of others, such as a husband's jacket that remained hanging up at the request of adult children (who had left home), rather than because his widow felt the need for it. Shenk et al. argue that attachment to home is bound up with a sense of familiarity, a sense of order, and the development of routines and rituals through the repetitious use of space, and suggest that the home and its contents are tied to a woman's past roles as wife and mother, whilst also representing her future life as a widow.

The importance and meaning of home is one of the key drivers of efforts to support ageing in place, and research has suggested that aspirations to remain in place are underpinned by a number of different factors. Després and Lord [2005] propose that, for suburban elders, the home obtains meaning through familiarity, links to memory, and through offering a sense of security, but also because it is an indicator of social status, because it provides a locus of socialisation by enabling one to entertain at home, and because the simple necessity of maintaining a house is seen as a means of staying active and healthy. These factors resonate with analyses by Rubinstein and Parmelee [1992], who suggest that one of the reasons that place is important to older people is because it underpins a sense of continued competence, and Twigger-Ross and Uzzell [1996], who suggest that support for self-esteem and self-efficacy are important elements of place. While this research points to the importance of ageing in place, it is nevertheless true that remaining at home necessitates a reworking of the place itself. Oswald and Wahl [2005] note an age-related tendency for environmental centralisation inside the house; as persons become frailer their environments become more localised to key sites. These tend to be places that are comfortable, that offer a view outside, and that can become 'control' or 'living centres' [Rowles, 1981], in that items that are necessary for everyday activities can be kept close to hand. Furthermore, technologies to support ageing in place may lead to further modifications to the home that change the way it is experienced. Sherman and Dacher [2005] have argued that more attention needs to be paid to preserving the essential components that give meaning to home when modifying it to reduce physical risks, suggesting that simply being able to remain in the space itself is not sufficient, especially when, in extreme cases, it comes to be experienced more like a care facility than a home.

While efforts in HCI to support ageing in place have largely focused on supporting accessibility and reducing risk, rather than on how the home in itself is experienced, some studies have considered the broader implications of what it means to introduce technology into the home environment. Birnholtz and Jones-Rounds [2010] note that the experience of autonomy that comes from ageing in place is bound up with control over how one connects with others. The older persons that they interviewed used areas such as the porches of their houses to make themselves available for contact, and withdrew when they wished to be alone. Having the *option* to interact, and even to call for help, was critical to feeling independent, and has

implications for the design of monitoring and security devices. Leonardi et al. [2009] delve deeper into the different spaces within the home, exploring the functional and emotional geography of domestic space. They observe that as older people spend increasingly more time at home, the spaces within it acquire new meanings and functions. Their study of widows and widowers led them to propose two axes within the home, the kitchen vs. the bedroom as places of activities and intimacy, respectively, and the living room vs. the bedroom as places of sociality and mourning. They also note that functional objects are typically found in the kitchen and living rooms, and leisure objects in the living room, and suggest that efforts to introduce technologies into the home should respect these kinds of distinctions. The bedroom, for example, was closely linked with mourning in this context; thus, they argue, functional technologies might not be welcome here.

2.2. Moving and Household Disbandment

Nevertheless, the home can also be a site of ambivalence. Rowles and Chaudhury [2005] observe that staying at home can become stultifying, and Blythe et al. [2010] cite UK statistics in highlighting problems of isolation and depression that are commonly associated with ageing in place. They argue that "the techno-utopian vision of ageing populations cared for in single occupancy dwellings equipped with "smart" technology may well be unsustainable" [p. 162]. Moving in later life can encompass the transition of 'downsizing' one's home to a smaller space that is more easily managed, or entering sheltered accommodation or a care home, where assistance is provided with some aspects of daily living. While downsizing can be a proactive and positive move [Oswald et al., 2002], moving nevertheless necessitates disbandment of one's home and with this a reduction of both living space and possessions, coupled with a need to create a sense of home in a new locale. Moving raises questions of how to re-establish meaning in a new place, and how to deal with possessions that can no longer be accommodated. This is significant not only because possessions have the potential to support the transferability of a sense of place [Rowles, 1993], but also because those that cannot be divested in a way that is satisfactory can continue to be a mental burden, even after a person is physically rid of them.

Marcoux [2001a] provides a compelling illustration of how the process of 'casser maison', or breaking house, can be an opportunity to reconstruct oneself in other people's memories through the divestment of one's possessions, or alternatively an act that is experienced with grief if appropriate outlets for them cannot be found. Moving entails not only deciding what to bring to a new home, but also what to place with others. These decisions are bound up with legacy and are carefully made; where divestment is successful, persons are able to achieve a continued presence of sorts in the homes of loved ones. Ekerdt and Sergeant [2006] and Finch and Mason [2000] similarly note that the transfer of possessions is a means of constituting family and producing legacy, and Morris [1992] has argued that the selection of items to be passed on is a form of image management that relates to the notion of ancestry. Price, Arnould and Folkman Curasi [2000] emphasise the storied nature of the meanings people attach to objects, and how the need to exercise control over the future life of special possessions is underpinned through efforts to transfer the personal meanings that are ascribed to them, as well as the objects themselves, when passing them on. This is described as an attempt to sustain or create familial legacies and to achieve symbolic immortality.

However, if willing takers for cherished objects cannot be found, older persons can be left with little idea of what has become of their possessions. Marcoux [2001a] notes that things do not cease to be important when people are separated from them; indeed, if this separation entails their being accepted by others, they can more easily be forgotten, the burden of their care having been successfully passed on. Ekerdt and Sergeant [2006] report how, by keeping important items in the family, adult children can provide a way for an older parent to retain 'ownership' of them, nominally at least, and by being involved in the move, family members become part of a collaborative memory, providing answers to questions about 'what happened to such and such'. Where objects are not accepted by family, being able to mentally detach from them is much more difficult [Marcoux, 2001a], and they can continue to persist in one's thoughts long after the physical transition is complete.

The importance of ridding has also been highlighted more broadly, as being as essential to identity work as the holding, keeping and acquisition of possessions [Gregson, 2007], and as signifying the preservation of certain practices and the discarding of others [Shove et al., 2007]. Marcoux [2001b] has observed that by enabling ridding, moving represents an opportunity to re-evaluate and separate from relationships, to reshuffle memories and bring them back into consciousness, and to choose to reinforce some whilst abandoning others. The relationship between ridding and separating from relationships has also been underlined by Miller and Parrott [2009], who suggest that being able to gradually part from objects allows a sense of control over how we separate from those we have lost, including those who have passed away. Within HCI, Odom et al. [2010] note that bereavement entails managing a shifting social relationship with the deceased, part of which is accomplished through the safeguarding and putting to rest of inherited possessions.

2.3. Moving into Care

Of course, having the capacity to keep certain objects and bring them to a new home is the flipside of ridding. Previous research on this has covered a range of living circumstances, and we begin this section with a brief clarification of terminology. We use the term 'sheltered accommodation' to refer to self-contained dwellings that offer independent living

with extra help if needed, and the term 'care home' to refer to communal homes that provide personal care or nursing care. The term 'nursing home' is used to refer to homes that provide medical care and that may specialise in certain conditions, such as dementia. Where citing other authors, we follow their terminology.

Sherman and Dacher [2005] note that certain cherished possessions can serve as transitional objects for older adults moving into a nursing home, and Wapner et al. [1990] argue that belongings play a number of roles in adaptation to a nursing home, including giving a sense of control over changes in the environment, serving as comforters during a period of transition, serving as anchor points that support exploration of a new environment, facilitating presentation of self, acting as a connection between past and present worlds, fostering a sense of belonging in a new space, and meeting needs and activities in a practical sense. Their survey of 100 nursing home residents revealed that the most frequent meaning attributed to cherished possessions was memories, and their most frequent functions were in providing historical continuity, comfort and a sense of belonging. They also report a modest (correlational, not causal) relationship between adaptation to being in a nursing home and ownership of possessions. Peace et al. [2006] argue that a lack of possessions makes it more difficult to reveal aspects of the self to others, and that this has ramifications for forming new relationships with others in care.

The bringing of possessions when transferring to a new home is not only bound up with the affordances of space, however. In some cases older people simply do not have the opportunity to decide what happens to their belongings. Sherman and Dacher [2005] note that it is often family members, or even social workers or nurses, who make the critical choices of which objects to take to a nursing home. This is because admittance often constitutes a crisis for the older adult, one that may involve their being unexpectedly admitted to hospital and then transferred directly to care. While Young [1998] reports that being 'placed' by family is the most upsetting way to move, and sorting possessions the least amenable task for delegation to others, sometimes it is inevitable. Unintentional loss of possessions has been argued to correspond to a lessening of self by Belk [1988], who proposes that we regard our possessions as part of ourselves. Drawing on Goffman [1961], he notes the role of personal possessions in maintaining a sense of self in total institutions, and suggests that where the self is a 'user' rather than an 'owner' of objects, it is less unique and involves more of a shared group identity (such as that of 'residents'). Belk suggests that objects help underpin a sense of identity and ontological security, as well as a reassuring sense of continuity, and underlines the importance of this in homes for the aged. He argues that we learn, define, and remind ourselves who we are by our possessions.

Such a view is echoed by Peace et al. [2006], who argue that care homes can be contrasted with mainstream living, where identity is sustained through the integrating processes that bring coherence in one's environment through having an ordered house and a correspondingly ordered set of associations. They posit that by reducing not only possessions, but control over space, routine and encounters with others, residential care removes the material with which older people can practice identity construction. As routines become less elaborate and choice in companionship becomes compromised, the internal world is amplified and small numbers of possessions are magnified in their importance. Citing an example from one of their participants, they report, "Bronwyn has to rely on other people to take care of her body, her financial affairs … her routines and her clothes, but these small objects are manageable and within reach, so that she can continue to care for a small but symbolically significant portion of the material world" [p. 150]. However, they note that in general, older people can find it hard to remain autonomous in a situation where routine and space are integrated by forces beyond their control.

This resonates with a position put forward by Thomas [1996, cited in Shura, Siders and Dannefer, 2010], who argues that boredom, loneliness and helplessness are the three plagues of nursing home life, relating to a lack of opportunity to control the content of one's own experience, a paucity of options for activity, a lack of social integration, and minimal opportunities to demonstrate one's own abilities. Efforts to support positive experiences of living in care are multi-faceted, for example Brummett [1997] advises architects on how to make a care facility feel like a 'home', with recommendations such as including a small-scale public place to stimulate community interaction, and favouring themed communal spaces, such as a parlour, card room or sun-room over the 'generic activity room'. However, Caouette [2005] has noted that regulations and the presence of other residents limit the expression of a nursing home as a place that offers liberty of action and control, with respondents reporting that, for example, they would "dress better to go out of my room". She suggests that the notion of home had often been transferred to their adult children's dwelling and that, when spending time together, these adult children preferred to take their parents to their own homes rather than visit them in the nursing home itself. Within HCI, Müller et al. [2012] have argued for the need for more individual or spontaneous activities as a way of improving the quality of life of care home residents.

This notion of control is also underlined by studies of how best to support a transition to congregate housing. Leith [2006] notes that a deliberate resolve to feel 'in place' and an on-going effort to stay 'placed' in a home are key to adaptation. While possessions have been highlighted as supporting personalisation during settling in [Young, 1998], Leith argues that they are not crucial components for feeling at home. Instead, being prepared to change the manner in which one shapes one's living environment (including paring down one's possessions), being with other similar women, living in a lively neighbourhood

that supports age-integrated interactions, and having a degree of privacy, are emphasized in her analysis. In a study of quality of life indicators in residential care, Robichaud et al. [2006] also argue that the environment should provide an opportunity to share enjoyable moments, to take care of others, to feel part of a group, to feel respect within a relationship, to admire others, and to gossip. Leith concludes that aging in place does not mean remaining in the same space forever, nor does it mean recreating this space in a new home. Instead it entails 'placing' oneself where one is 'ageing', or rather, where one is *living*.

3. PLACING THROUGH DOWNSIZING

Through the first study we report in this paper, we aim to understand how older people seek to choose and create a new home in which to live when faced with the circumstance of downsizing their existing property. We focus on the decision to move, what it entails for access to space and the keeping and ridding of possessions, and what this implies for the making of a new home and lifestyle. Our aim is to understand how older people seek to 'place' themselves in a downsized home, when they have a degree of control over the transition.

3.1. Method

We interviewed two men and five women aged between 60 and 75, who were living in or near an affluent city in the South of England. Two were in the process of moving (Tess[1] and Catherine) and five had moved within the past year. Three were married (Nadia, Zoe and Edward; Zoe and Edward were married to each other and interviewed together); one had been widowed within the past five years (Robert); the remaining three (Tess, Catherine and Tanya) were divorced. All were grandparents except for Tanya, who had two adult children. Participants were recruited from a stall at an event run by a charity focusing on the needs of older adults, and through an advert placed on the website of the University of the Third Age, an organisation through which older adults can teach and learn from each other. We selected people who had recently downsized their home or who planned to do so, and who did not have a second property. Participants were given a £20 gift voucher to thank them for their time.

Participants were interviewed at home so that the researcher could get a better understanding of the environment in which they lived and the possessions with which they surrounded themselves. The home was a resource in the interview process: participants gave tours of their homes, picked out key objects and described places within the house where they felt most 'at home'. Those who had moved were also asked to describe their previous homes, those who were in the process of moving were asked to describe the home they had decided on (Catherine) or what they were looking for (Tess). The interview was semi-structured because of the varying circumstances of participants. Questions focused on the houses and their locations in terms of physical characteristics, atmosphere and community; what triggered the decision to move, whether anyone else was involved in the decision and why a particular property had been chosen; the curation of possessions and their links to identity, family and practice; the process of ridding; the changing meaning of home and how a home is 'made'; how downsizing was bound up with changes in lifestyle, whether it was seen as opening up new experiences, and whether opportunities had been lost. Interviews lasted for approximately an hour.

3.2. Analysis

Transcripts of the interviews were analysed by the first author using grounded theory techniques [Corbin and Strauss, 2008], so as to allow themes to emerge from the data in a bottom-up manner. This approach was adopted because of the broad nature of the research questions. Initial data analyses comprised of ascribing open codes; iteration during this phase involved an exploration of the relationships between these (axial coding). Higher-level categories were then identified by examining properties that were shared across codes through the process of iterating around the core theme of *continuity as an active process*. The salience of this theme speaks to the ways in which participants spoke of balancing a sense of continuity through the process of downsizing, with the need and desire to implement some changes in their lives.

3.3. Findings

In this section, we present three categories that emerged from the data that relate to the issue of placing oneself in a home when downsizing in older age. First though, we provide a brief vignette of each participant, to convey the circumstances in which they moved, and to put the choices they made into context.

At the time of interview, Tess was living in a five-bedroom terraced house (also known as row or linked houses) near a green space in the city. She described her home as "light", "relaxing" and "easy", and had lived there for 25 years. She had moved in with her first husband, and stayed there after they separated, taking lodgers and altering the house to accommodate them. She had also shared the house with a more recent partner. She described the house as "too big" and said that it would be "ridiculous" and "selfish" to live there alone; she was also motivated to supplement her basic pension with the money she

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[1] All participants are given pseudonyms.

might make from selling; she didn't want lodgers in her retirement. She was looking for "a smaller version of this", and felt "very torn about this move, I don't want to leave this position [..] but it will be fun to start somewhere new".

Catherine was living in a three-bedroom semi-detached (duplex) house in a city, described as "happy", "light", "secure", and a "hub" for family and friends. She had owned the house for 23 years and had been thinking of moving for 2-3 years; she had sold her current house and had chosen a new property. Echoing Tess, she cited the "eco implications" of living in what "is a family house, really", and noted the financial gain of selling, commenting that doing so would enable her to give money to her daughter "when she needs it", rather than as an inheritance: selling was "a sensible use of resources" for the family. She had decided to "stay more or less in this area" in a house similar to her current one "but smaller". She commented, "I just think life is about change, all the time, isn't it? That's all you can depend on really is change, and this house has changed while I have been in it, [..] I just feel it's the right thing, this change for me now is right".

Nadia had moved from a four-bedroom house in a village to a three-bedroom flat (apartment) in a city, in which two of the bedrooms were used as personal studies (one for her and one for her husband). She had lived in her previous home for 21 years but it had never been a family home; only her eldest son had lived there, and he only for six months. She hadn't felt part of the village community, but was becoming familiar with her new neighbours. She and her husband had moved in anticipation of a housing market crash, selling before they had somewhere to buy and then renting while house-hunting. One of their sons lives in the city they moved to, and they decided to move there when visiting him and noticing the number of posters advertising concerts. She contrasted her current location, where she "could see a different concert every day!" to the life she envisioned in her previous village: "I could see myself becoming one of those women who goes door-to-door shaking tins".

Zoe and Edward had moved from "a bungalow [one-storey house] with very large rooms", where they had lived for 14 years, to a much smaller one. They had a framed aerial photo of their previous house on the wall of their new one, showing a two-acre garden that they had landscaped. The location was described as "very rural": "if you didn't belong to the old farming families, and if you didn't go to church, they didn't want to know". They spent a year looking for a new home, triggered by ill health for both of them and a need to be near doctors and chemists, coupled with a mindfulness that their own parents had "left it too late" to manage a house move alone. They "made all the decisions" for their own move. Their new home was described as "quieter", more "manageable" and more "convenient" than their old one had been. Located in a different village, it was "friendlier" and better connected by public transport than the previous one.

Robert had lived in his previous home for 25 years. He described it as a five-bedroom detached and extended house, with a large garden that "just got bigger and older in terms of my living on my own". His wife had died five years before he moved out, and he felt the house to be "lonely after my wife died". He described the trigger for his eventual move: "Well the heating broke down one winter and it took ages to get it done and then they made mistakes, and I thought, 'That's enough', I am in my early 70s, I am 72, 73 this year and I just had enough of it. If I hadn't done it then I would never have done it, that's a common saying for people of my age, that if you leave it for a year or two you are stuck in". He moved from his village home to a two-bedroom flat in a city, commenting "I am a town boy, although we lived in [village name redacted] for 25 years it never grew on me, I didn't like village life". He described the move as a fresh start "in as far as one can have a fresh start in one's older age [..] it's a great feeling to get rid of the house". However, he felt that he would have been unable to move earlier: "you have to work through your feelings a bit".

Tanya had moved from a three-bedroom Victorian terrace to a smaller two-bedroom terrace in a different city. She had bought her previous house after separating from her husband, and chosen it so that it would have enough space for her children (who were then in their late teens) as well as for her "to really sort of spread my wings". She felt that through the move to her current home she had "uprooted myself completely", a process that initially been "scary" and "lonely", but that she had worked through: "You have to work quite hard, don't you? To kind of start things off but actually then things come." The move had been triggered by her children leaving home and the fact that she could retire; it was done not out of necessity, but a sense of freedom. She had chosen the house as somewhere for "my third age" and described the move as a "rite of passage" of sorts: "I knew that this one was going to be a home for the next bit of my life and it was going to be very different because it was not going to be a working life. You know? Certainly I was going to be sort of around it more".

As these vignettes illustrate, for the downsizers we interviewed moving was done proactively and thoughtfully, with a view to creating a set of circumstances in line with the way they wanted to live. In the following, we describe three categories that emerged through data analysis as ways in which our participants attempted to place themselves to befit their 'age', or perhaps more accurately, their stage in life.

3.3.1. Making and keeping things manageable
The vignettes show that our interviewees varied in terms of their need to downsize. However, in all cases downsizing was associated with a sense of making things "manageable" (Tanya), and keeping them that way. This was bound up with the

nature of the homes participants lived with, as well as where they were located. As highlighted above, Robert had a sense of his home overwhelming him, in contrast to his new flat, which he described as "nice, it's small, it's easy to keep clean, even for a man". Similarly, Edward and Zoe had a sense that the garden they had shaped would become too much for them; the smaller garden in their new home would suit them better over time. In terms of general location, changes in health and mobility meant that the need for easy access to shops but also to doctors' surgeries, hospitals and pharmacies was explicit in the interviews, and cited as a reason for choosing villages and cities that were walkable and had good public transport. Access was an issue even for our most active participants, and was bound up with self-reliance. Catherine commented, "I can bike to wherever without relying on any public transport at all" and Tanya noted, "I had to think, really, about where it was located and I didn't particularly want to have to get the car every time I wanted anything".

However, downsizing was not without challenges. Moving to a new location often meant that existing social networks could be compromised, and while some participants, such as Catherine, seemed to relish the chance to "winnow", saying "I do feel that possessions actually can weigh you down, really weigh you down, and so they are cluttering up what you do rather than what you want to do", others found it difficult to lose key belongings. Robert, Edward and Zoe all noted the difficulty of parting with furniture in their interviews. Zoe said, "I knew straightaway it [the new house] was where we were going but it was when I started to have to get rid of things that I thought I don't want to go... you know, but the die was cast". The difficulty of this was perhaps exacerbated as, for most of our participants, downsizing was done in anticipation of, rather than in the face of, difficulty. There is a sense that participants could have kept those things that were bound up with their old homes, the social networks, gardens, and furniture, for a little longer, but doing so raised the risk that they would then be unable to move independently. Zoe noted that they had moved into "a bungalow, for old people" and Edward responded, "you'd be grateful for that in five years' time". Choosing a house that one will grow (or "shrink", as Zoe put it) into, at a time when one is still able to take control of the process of moving meant that choices were taken proactively, and the move undertaken before strictly necessary. Only Robert had handed over the process of moving to his children, his account illustrating the difficulty of doing so:

"There was a lot to get rid of but it was all up in the attic and the kids threw it all out ... Well they looked through it, they found their toys of the past and all this sort of thing, but apart from that they were ruthless ... by that time I was not interested I just wanted to get out ... you have got to sort of make up your mind and just get on with it." (Robert)

In summary, placing through downsizing was future-facing in that houses that were foreseen to remain manageable, and that may become more appropriate over time, were chosen. Manageability is bound up with self-reliance, and this was reflected in the decision to move while still able to do so, rather than getting "stuck" in a house that might become overwhelming. This could mean forfeiting valued possessions and existing social networks, in order to maintain control over the move and the lifestyle that was anticipated to come with it.

3.3.2. *Spending time*

The second theme relates to how downsizing was expected to impact how time would be spent. We have noted Tanya's observation that moving entailed choosing a home that one would wish to spend a lot of time in, and this surfaced in other interviews too. For Tess it meant having a home she wouldn't need to share with lodgers, and for Edward and Zoe it meant having sufficient space to spend time alone in as well as together. Spending time was also supported by being able to cater for friends and family, and by retaining certain possessions. Zoe highlighted that their house had space to entertain "so we're not going to miss out on parties and things", and Robert emphasized the importance of being able to have family visit: "I can still have people to stay, if the kids come, it is ideal, absolutely ideal". Furthermore, and in contrast to the tendency in HCI to design reminiscing technologies for older people, the possessions that were prioritized by participants tended to support ways for spending time post-move. Tess had separated out "books and sewing things and the things I use" in preparing to move, and Nadia had kept all of her piano music, but had reduced a lifetime of sentimental artefacts down to a written summary of the details, and cards from her 70th birthday only. While memories might be triggered by representations of cherished artefacts, practices that are rooted in material objects are also difficult to sustain if those possessions are lost.

In addition to supporting existing relationships and interests, downsizing was also seen as an opportunity to potentially open up new activities. Robert commented about his new city life:

"I have always been aware that here there are far more places to go to, the theatre, the cinema, but pubs especially, and I go to any lectures whenever there are any lectures on, I went to one at [place name redacted] at the University, you can go to a lot of lectures at university. I have joined the University of the Third Age, I was a member before, and I found this really good pub…"

For Robert, who was the only widower in our study, part of downsizing was about "getting used to being on your own again". He noted, "When you are retired and on your own, you need to keep in touch with the outside world". However, the desire to "do things" was echoed across our participants. As already noted, Nadia had cited the opportunity to go to concerts

as a key reason for moving; a criterion for their flat had been that it was within a mile of the church that hosted these. Spending time was essential to establishing a new home; Zoe commented, "We shall do more, and that'll be part of my settling in process".

In summary, placing through downsizing meant considering how time would be spent and how a home would shape this. Access to local amenities and the ways in which space could be used and appropriated are significant here. We also emphasise the importance of possessions in sustaining particular practices now and in the future, rather than simply being viewed as triggers for memory; again, the future-facing aspect of downsizing was evident.

3.3.3.   *Fulfilling obligations*

The final theme that emerged in the analysis relates to obligations to family members, possessions, and the interplay between the two. Participants looked to be able to continue their family roles after a move, be this hosting social gatherings, storing their adult children's possessions, or embodying the "family home" (Tanya). Catherine had kept items that she thought would be of value to her daughters in the future, including letters that they had written to her, which she felt would "continue their histories", and Tanya saw her adult children's possessions as "a foothold" for them within her new home. Although this home was supposed to be about what *she* wanted, she said, "I still have to think about them [the children] and possible grandchildren", who "if they actually turn up, ever, well, they might want some of [my sons'] old toys".

Of course, the nature of downsizing is such that participants were not only keeping family possessions; they also needed to get rid of some. Zoe described how "I thought I was letting the family down" by getting rid of "my old family treasures", and cited the way in which the ridding was done as adding to the difficulty: "If I could have sold it to people I knew, but you don't – you let it go to dealers and people who are in the business". In contrast, Robert cited his satisfaction in getting rid of some of his furniture, which he had been able to pass on to a family in need in much the same way as he had acquired it in the first place: "she gave it to us for nothing and I gave it away for nothing". Key to him was that a particular table was taken by one of his sons: "I had no regrets, provided it went somewhere in the family". When the process of ridding was too difficult, possessions were either moved unsorted, or handed over to others to dispose of. Robert had avoided sorting through his wife's collection of "knick-knacks", simply choosing to keep them all in the drawers where they had always been, where "they are hidden and I can forget about them". He noted, "the kids didn't want them, the kids don't do they? .. I didn't feel like throwing them away yet". A lack of interest by one's children was a common feature of the interviews; Tess laughed, "Children don't want things do they, good heavens!"

As a final point, participants also seemed to feel a sense of obligation to objects themselves, regardless of family involvement. Their belongings often represented an investment of time and care across a lifetime: Catherine had "nurtured [her plants] for ages", Edward had "quite a few of these antique pictures that we've picked up over the years", and Tanya had a collection of "slightly blown mirrors and paintings" that she had "rescued". Such objects provided "some connection with the past" (Robert) and reflected character; Zoe commented, "We're junky people. We're collectors." These possessions, which had been invested in over time, represented a duty of care, and so getting rid of them was difficult. Furthermore, they were bound up with legacy. Tanya noted "I mean I think things like the mirrors [..] I just think they're charming. I just hope a child, one of the two will actually want it in the future."

In summary, placing through downsizing meant dealing with the obligations bound up with possessions, both in terms of keeping things belonging to immediate family and providing a space or appropriate outlet for heirlooms.

3.4.   Discussion

The literature reviewed at the beginning of this paper highlights how creating a sense of home is a dynamic and longitudinal process, underpinned through living in a space. However, the analysis presented here highlights how home can be re-imagined at times of transition, and how for older people this can be a proactive and positive move. Notably, this perspective is rather different from the agenda associated with ageing in place, where the emphasis is on supporting stability through assistive technologies. Instead, our analysis suggests the value of balancing continuity of valued social networks and meaningful ways of spending time, with the chance to develop new networks and routines, and to be rid of possessions (including property) that are inappropriate or even overwhelming. Placing in age was future-facing, the interviewees wished to locate themselves in a situation that would be sustainable for the foreseeable future and may even become more appropriate over the coming years. It would suit both their abilities and stage in life; things would be more manageable, key locations easier to get to, and home itself would be a site to support interests and to maintain relationships and familial roles.

The participants' accounts illustrate how placing through downsizing could potentially support the three dimensions of home highlighted by Oswald and Wahl [2005], and outlined in the literature review. *Personal* aspects of home were evident in the desire to move with possessions related to the life course, identity and legacy. *Physical* aspects of home were supported through the fact that downsizing made familiar activities and daily routines more manageable, and through the keeping of possessions that support particular practices. For example, houses with smaller gardens, and possessions that enable

activities, both helped the transfer of existing routines to a new space. It was notable that possessions that were prioritized by participants tended to support ways for spending time post-move and, while this runs counter to much of the design space for older people, which often focuses on reminiscing, it does resonate with research on the long-term value of objects. Odom et al. [2009] note that objects that support engagement in useful or enjoyable activities, and that are pleasurable to use, can become the focus of deep and potentially life-long attachments. *Social* aspects of home, which relate to a person's integration into the social fabric of a locale, were identified as needing to be built as part of the process of placing in age. For all participants except for Catherine (who had chosen to stay very close to the strong network she enjoyed around her home), settling in meant going out and engaging in new social activities. This was especially apparent for those who were recently retired or widowed; building new social networks and finding new ways of spending time was crucial to placing in age. For some, the social fabric of their new homes was seen as offering more potential than their previous ones; Nadia's reluctance to become a tin-shaking old woman illustrates this well.

Drawing on these dimensions of home, placing in age in the case of downsizing entails continuity of the personal and physical aspects of home, coupled with adaption to the changing social aspects. If home is made through the presence of personal possessions, a sense of familiarity through routine, and an understanding of social norms, then our analysis illustrates how downsizers lay the foundations for this. A sense of home cannot be transferred, but the means to build it can be established when relocating.

4.   PLACING IN A CARE HOME

The study of downsizing provides one example of placing in age, in which older people are able to exert some control over relocation, have the financial means to choose where they would like to live, and are downsizing to spaces that are still large enough to host guests. It is interesting in that it highlights placing in age as future-facing, as something that entails the active building of a home that can sustain a desired way of living. However, the proactivity that is explicit in downsizing contrasts quite sharply with the situation of moving into care, which, as already noted, can represent a moment of crisis for an older person [Sherman and Dacher, 2005]. In acknowledgment of this, our second study is of this rather different context, in which relocation is done out of necessity rather than through choice. Our second study complements rather than explicitly builds on the former; it is undertaken to provide a fuller understanding of what placing in age can involve. However, in running it we were influenced by the idea, demonstrated in the downsizing study, that placing in age is future-facing. Therefore, a desire to understand how older people can be supported in framing the circumstances in which they live to have a stronger sense of being in place, and how this can be done *actively*, by them rather than for them, underpins the approach we took.

Because of the distinctions between moving to a downsized home and moving into residential care, we took a different methodological approach in our second study, and chose not to focus on the point of relocation, but on the circumstance of living in a care home. This was partly prompted by initial discussions with care home managers, who told us that transitions for their residents were often triggered by an unexpected event such as a period of ill-health, or were prompted because of an inability to cope with living alone or being widowed. It was not uncommon for care home residents to have been living independently, be admitted to hospital, and then transferred directly to a care home, with their possessions and home being dealt with entirely by family members. In this situation, placing in age is about adapting to a new home, rather than proactively considering how a move might make life different. We therefore aimed to learn more about living in care: how time was spent, both alone and with others; how space was used, especially in communal areas; how personal possessions and other objects were utilised; and ultimately, how a sense of being at home was, or could be, accomplished.

To address this aim, we worked closely with a single care home, Green Oaks[2], with the aims of building deeper relationships with a small number of residents, and of integrating ourselves into some of the routines and shared spaces of the home. Our study spanned eight weeks (dictated by the length of a research sabbatical/visiting researcher scheme) during which we spent the initial three weeks visiting care homes in the area and talking to managers as a means of recruitment and to gain initial understandings of particular organisations in addition to developing probe ideas closely informed by the literature. We engaged with Green Oaks for the remaining five weeks, leading one or two sessions each week with a small group of women. The sessions were run by either both of us or the second author, and were sometimes followed by time spent individually with some of the residents. Each visit could last for up to three hours. We were flexible with our arrangement of sessions as they had to fit around participants' appointments with healthcare professionals, which were often subject to change, participants' health, and also the daily mealtimes and routines of the care home. As a means to underpin our engagement with the residents, we drew on our design practice and structured our visits to the care home (at least initially) as creative sessions for which probes [Gaver, Dunne and Pacenti, 1999] were specifically designed. Through the use of probes we hoped to start a conversation mediated by objects and acts of 'making', and to be able to represent abstract notions of home in physical items

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[2] All places are given pseudonyms.

in order to facilitate gentle explorations around residents' experiences of home within residential care. Such an approach resonates with that of Blythe et al. [2010], who found that having an artist draw portraits of care home residents supported their ethnographic approach by allowing observation to unfold naturally around a central activity, which served as a 'ticket to be silent' as well as the more familiar 'ticket to talk' [Sacks, 1992]. Our probe activities were co-creative and led to the making of a personal object, for use in the public spaces of the care home, for each woman. Because the creative sessions took place in communal areas of the home, they allowed us to closely engage with a small group of residents, as well as to observe their interactions with care home staff and other residents, and to more generally understand the social dynamics of these spaces and how they were used. Furthermore, the care home had an existing program of creative activities, which our approach resonated with to a degree. This is similar to the method reported by Müller et al. [2012], who note the familiarity of care home residents with organised activity, and so designed their own activities, using probe-like stimuli, to underpin engagement between researchers and residents.

In the following sections, we describe Green Oaks, provide more details regarding our approach, and offer insights drawn from our analysis.

4.1. Green Oaks

Green Oaks, home to approximately 30 residents, is a purpose built residential care home in the South of England. It offers residential and dementia care for both men and women over the age of 65 and is comprised of four units, spread across two floors. It has a dedicated dementia unit. Residents each have a private room, and share communal bathrooms, several large shared spaces that serve as living rooms and dining rooms, and communal gardens surrounding the home. Many residents have items of their own furniture from previous homes in their private rooms and typically a resident's room contains a bed, armchair, washbasin, wardrobe, chest of drawers, small bedside table, wall mirror, personal phone and television. Alongside management and care staff the home has an onsite activities co-ordinator and visiting GP, optician and chiropodist. Relatives and friends are free to visit at any time of the day and there is an organised group trip once a month. Within the group of care homes run by a parent company Green Oaks is one of the smallest, has comparably limited amenities and is an older building. The manager (Helen) explained that the majority of the residents were women and that it was common for residents to move to the home with little time to prepare following a stay in hospital and/or medical assessment that viewed them too vulnerable physically or mentally to look after themselves in their own homes.

We approached Helen to describe the research aims and to show examples of our previous creative methods used with elderly people [Wallace et al., 2013]. We left it open to Helen to approach residents on our behalf and she introduced us to four residents (Grace, Lily, Amy and Emily) who she felt might enjoy working with us (all between the ages of 70 and 90). We had not suggested or stipulated a gender bias and Helen had selected residents who she felt would appreciate the project and who would all also like to spend time together. The women had all either lived for most of their lives locally or in neighbouring towns and had each lived in the care home for several years. They had limited mobility, but had not been diagnosed with any cognitive deficiency such as dementia and they each had only mild vision and hearing impairments. They were all widowed and each had family living nearby. Grace, Lily and Amy each needed to use a wheelchair and were unable to walk unaided for varying physical reasons, whilst Emily could walk with the use of a support (such as a wheeled walking frame). Grace was accompanied by a member of staff to the nearby local shops once a week to buy provisions and was regularly visited by family members. Lily seldom left Green Oaks due to ill health, which specifically affected her mobility and made any journey very painful, but was visited regularly by family members. Amy also seldom left the home and due to ill health was admitted to hospital part way through our project. Emily was visited by her family but although the most mobile of the group never spoke of going out of Green Oaks and there was a general impression that this was the case for most of the residents. Each of the women had moved into the care home with little or no advanced preparation due to either a health related incident or prior accommodation becoming uninhabitable (flooding).

A typical day for the women consisted of assistance to get out of bed, washed and dressed followed by breakfast in one of the communal dining areas where each person had self selected a particular seat and table that remained theirs. Activities such as collage making, painting or playing board games would run from mid morning to lunchtime in the communal spaces for the women to join if they wished. The women most commonly stayed in their own private rooms other than at mealtimes. The women would be routinely asked if they needed a toilet break and tea or coffee would also be served at a regular mid morning time. Lunch would be the next punctuation point in the day and activities would again commence in the communal area during the afternoon until the evening meal. There would be regular times throughout the afternoon when tea and coffee would be offered to the women and toilet breaks offered. Music (CDs or radio) would be played softly in another communal lounge throughout the day. Following the evening meal residents would be assisted in washing and preparing for bed. Most residents appeared to self-medicate; we did not view medication rounds on any of our visits, but staff assisted residents in scheduling routine appointments on site with visiting doctors and other health professionals such as chiropodists etc.

4.2. Creative Methods

We used a space in one of the communal areas of the home to work with the women as a group in a format that echoed existing activities run in the home (small numbers of people sitting around a table to make something). However, fitting into the existent pattern of activities led to some methodological departures from our typical way of researching. Instead of working with individuals on a one to one basis [Wallace et al., 2013] and giving them probes to live with and complete over a number of weeks, we worked with all four residents collectively, and designed probes to make and complete *with* the women. Probes in this context were dialogical objects, conceptual stimuli and scaffolds for creativity that enabled us to enquire about points of continuity with the women's previous homes, the ways in which they had been home-makers throughout their lives, and their feelings about home more generally. In a practical sense probes enabled and mediated us getting to know one another, and were tools that facilitated the women in acting as *creators,* in the ethos of homemakers, once more. Indeed, this was essential to our approach; just as our interviews with downsizers had focused on the ways in which aspects of home are deliberately 'made' and everyday life is 'designed', so we hoped to understand how care home residents might wish to alter the spaces in which they spent their time, the activities that unfold within them, and the atmosphere that results from this. In keeping with the attitude presented by downsizers, the study was forward facing in that we were exploring future design opportunities together and orienting the women towards imagining their own dream spaces and the creation of these.

We decided on four themes, inspired and informed by theoretical considerations of home highlighted in the Background section, and findings from the study with downsizers. These are Home as Sanctuary, Home as a Journey, Living in and through Objects, and Home and Continuity. With these themes in mind, we began generating sketches of probe ideas both through quick brainstorming sessions and over time through more reflective design attention to the ideas. In the following sections, we describe clusters of initial probe design ideas that we developed before meeting the participants, related to each theme in detail. Naturally, just as the themes are interconnected, so too the probe ideas relate to more than one theme, but we have clustered them here to assist our description of how ideas developed around the nuanced dynamics of each one.
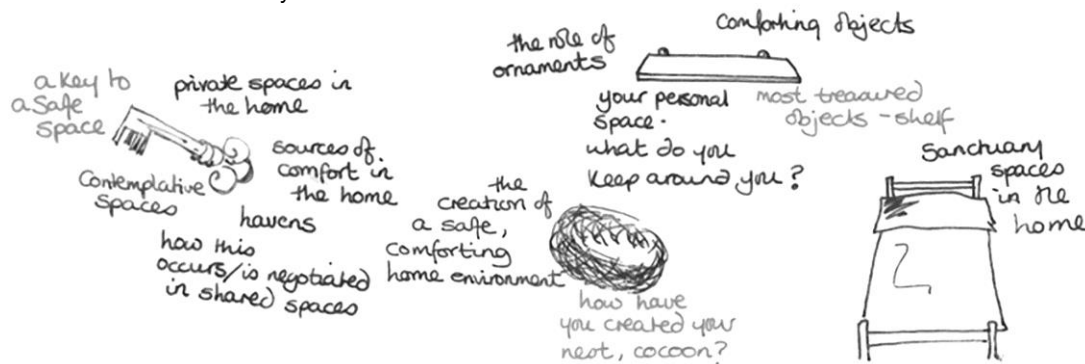
4.2.1. Home as Sanctuary

Figure 1. Sketches of probe ideas related to Home as Sanctuary

Ideas developed in relation to home as sanctuary (Figure 1) centred on the role of objects, spaces and agency in the creation of home as a safe place. The tension between shared space and private space is one that is prominent in the literature on care, and 'home as sanctuary' enabled a focus on home as something 'within' and private. The notion of sanctuary enabled us to explore firstly notions of safety, comfort and security in the care home (both physical and emotional), and secondly how objects (specifically possessions) served to anchor, help transition and comfort the women. Here we drew particularly on work by Wapner et al. [1990] and also Sherman and Dacher [2005] in relation to cherished possessions as transitional objects. We were motivated to explore if/how the notion of home functioned as a sanctuary for the women, if/how they had created safe havens in the care home, and dynamics of how they had engaged with different private and public spaces.

To try to unpack how we developed our initial ideas we detail some of our thought processes and what we were guided by through this design activity. We were initially directed by the potential of metaphor and considerations of form, asking ourselves 'how can abstract concepts stemming from the literature be captured in a physical object?' Considering metaphor gave us a 'way in' here. Taking *Home as Sanctuary* and the cluster of sketches in Figure 1 as an example, through initially reflecting on what a sanctuary space, object or sanctuary-like feeling was represented by for us we were able to develop metaphors that could be moved from something very personal to us to something more general. Our considerations were of which of our ideas could open up a particular kind of dialogue with participants that could be purposefully directed towards each of our themes. Sanctuary spaces in the home for example may be those in the least public rooms of the house; somewhere to retreat to perhaps - a bedroom or bathroom for instance. Here the notion of soft bed linen or a pillow may serve as useful in suggesting this sense of safe haven, of retreat. Equally a key is a very interesting form of object in that it is

instantly suggestive of locking something away, of keeping something safe, potentially of retreating and locking the world out. Conversely, a key could also suggest being locked up oneself and would need to be handled sensitively. In addition to relating to sanctuary in terms of safety and a cocoon of some sort, a nest is a recognisable metaphor of home and of the act of building or making a home. The notion of care home residents still being active homemakers is counter to many assumptions of life in a care home. It connected to our ethos of viewing residents as co-creators, making with us in the design process rather than passive agents or subjects to study. The final sketch in this cluster is of a shelf and relates to notions of treasured objects – something one might place in a sanctuary space. We were thinking of objects that might themselves represent a sense of sanctuary for the women. In a care home it may be that objects need to serve the purpose that previous rooms performed. Rather than having a particular nook in the house where one felt most secure or 'at home' perhaps now, with limited privacy at their disposal, certain objects connected the women to this sense of home in a sanctuary-like sense.

Implicit in our thinking was the sense that we did not want to make probe objects that would disturb participants or be potentially upsetting to them. In a slightly different ethos to Gaver et al. [1999], due to our particular setting we did not want to provoke or disrupt in any sharp sense and we viewed the care home as a potentially sensitive context. We sought to create probes that were gentle and intriguing. Considering metaphors is only the first stage in this process; we needed to consider the materiality of these potential probes and both what and how they would form an action based question. We have discussed our process of designing probes more generally elsewhere [Wallace et al. 2013] but remaining with this cluster of ideas (Figure 1) we could open up our thinking more specifically. We considered how the key as a probe could be posed as an object that would enable access to an imagined safe place, or to a dream haven. We could provide a selection of keys of varying age and ornamentation and the women could select one that felt most appropriate to her and then imagine perhaps what she would lock away to keep safe, or recount spaces that have felt sanctuary-like to her in the past, or what the key would give her access to; a particular kind of imagined haven perhaps or future aspirations of such a space. We considered how this could be captured – potentially through visual image, written word, drawing or conversation (or a mixture of all). A nest could be created from photographs, images from magazines or artefacts from the women's own belongings or created with us specifically to represent what was prominent and important for them when they made previous homes, how they have achieved this in the care home or how comfort and security are created in a more abstract sense. We envisaged something potentially sculptural with forms that were made from modelling materials or printed imagery that literally or metaphorically represented aspects of what the women wanted to convey. A small shelf or cabinet, as a repository of domestic objects, could prompt consideration of which of the women's existing objects they would describe as connected to home as a sanctuary or embody sanctuary for them and what this functioned to support for the women. Personal belongings could be re grouped on a shelf if installed in the women's rooms or photographed and assembled visually. The act of selection, of curation and description of the meanings of these objects in relation to the notion of sanctuary and what this enabled for the women was the central idea here.

By working through our design process in this way for each of the remaining three themes – thinking through potential metaphors, probe forms and activities – we were able to develop a collection of ideas that spoke to many of the facets of home that had emerged from the literature. The following three sub sections give detail.
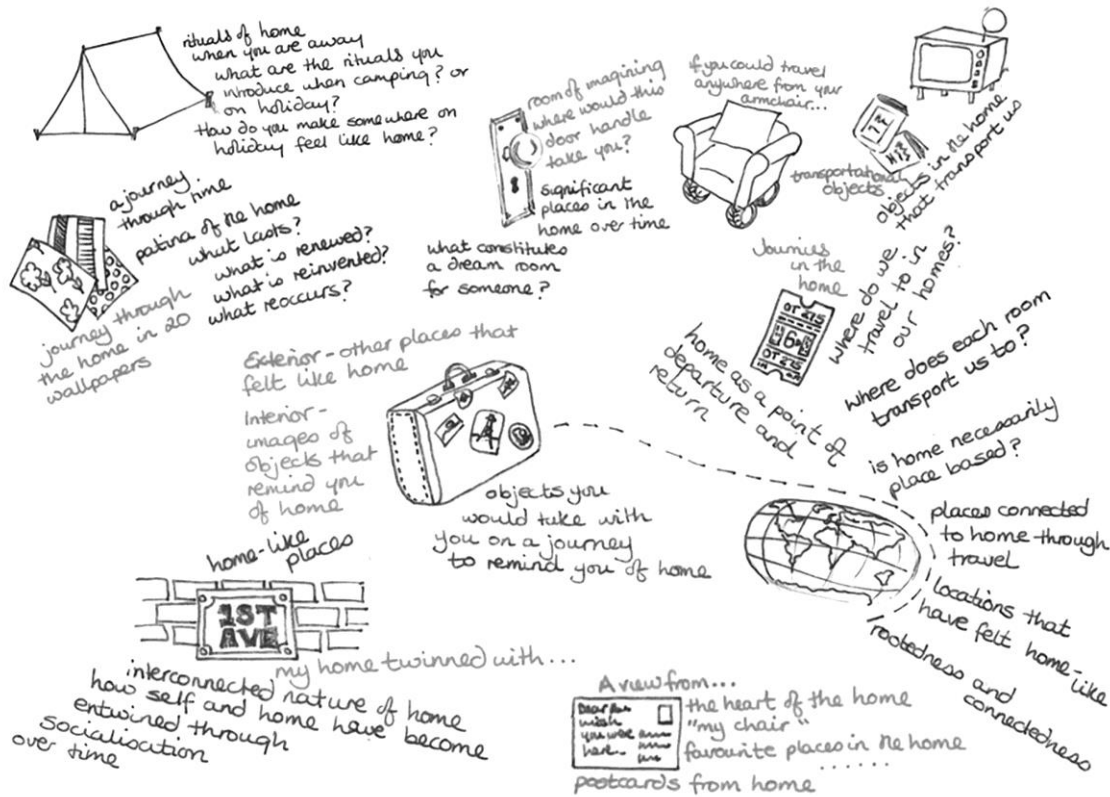
4.2.2. Home as a Journey

Figure 2. Sketches of probe ideas related to Home as a Journey

In contrast to home as sanctuary, 'home as a journey' fore-grounded home as connected to things 'without'. This theme related to the literature on home as an ongoing construction and we were motivated by Rowles and Chaudhury's [2005] discussion of how the experience of home is partly defined by the experience of being separate from it; it is an experience that is largely unrecognised until threatened. These perspectives relate to an on-going tension in life between wanting to remain in the known and familiar, and an imperative to venture forth and reach out, a tension with clear implications for people for whom travel and mobility may be compromised. On this latter point we were also motivated by Blythe et al.'s [2010] use of technology (Google Earth) to enable care home residents to digitally visit places from their pasts.

Many of the probe ideas under this theme related to facets of what home meant to participants through reflections on how in the past they had created the essence of home in some 'other' space (for example on holiday), what rituals of home endured for them when travelling and which other locales have ever felt like home (Figure 2). A small suitcase asking to be filled with representations of things that would always accompany you on a journey, and signifiers of holidays such as camping equipment or seaside postcards, could both serve to describe the pared down rituals and idiosyncratic gestures that make a space feel like being at home (like hanging a particular picture up in a tent when camping). We were also motivated by the interconnectedness of home [Horwitz and Tognoli, 1982; Rowles, 2003] whereby home is something that is constructed over the life course through connections to other places, people and things. Maps of the world could serve well as the starting point for probes here as well as plaques or road signs twinning different towns. To serve this idea further we also considered the home as a point of both departure and return, and developed ideas around the transportational properties of objects in the home (such as the television or books) that carry us to other places and times. The exploration of these conduits to other places and favourite 'journeys' taken metaphorically through them could inform design to enable participants to maintain and discover connections to the world beyond the care home and the confines of physical ability in new ways. Relatedly, we developed ideas such as a door handle to an imagined room, through which we could invite participants to mentally create a room that they would love to enter. This would enable us to gently encourage participants to become the maker of a room again albeit in an abstract sense. In a more physical probe idea we considered the notion of a journey through the home over time through the wall coverings and décor that the participants had used over decades.

4.2.3. Living In and Through Objects

Figure 3. Sketches of probe ideas related to Living in and through Objects

The concept of 'living in and through objects' was also one that we wished to examine, as it drew on the idea of relinquished objects (i.e. living through objects that have been placed with others) as well as those that have been kept.

Probe ideas related to 'living in and through objects' (Figure 3) explored the very practical aspects of home-making through small houses that could literally be decorated, or the rituals and idiosyncrasies of maintaining a home and keeping it clean, and also more abstract aspects of home relating to presentations of home to others (doilies used to enquire around conformity, snobbery, convention, presentation of home to guests, or a series of picture frames used to explore where participants would place certain kinds of photographs and images in the home). We wanted to focus on how objects support and represent action, and we drew on the notion of objects as anchor points [Wapner et al. 1990] in thinking about what these might signify in terms of achievements and milestones. Probes that used collections of objects, souvenirs, heirlooms and home mottos were considered as ways to enquire around what home represents to participants, or how objects have functioned as tickets to talk, symbols of self in society, ways of achieving a sense of control over an environment, ways of maintaining a historical continuity, or a family story. We also considered the home as an object in its own right and ways to explore what it means to own a home.

4.2.4. Home and Continuity

Figure 4. Sketches of probe ideas related to Home and Continuity

Finally we developed probe ideas (Figure 4) related to the notion of 'home and continuity'. This was a central theme in the downsizing analysis and also surfaces in the literature (notably Shenk et al. [2004], Rubinstein and Parmelee, [1992], Marcoux [2001a] and Price et al. [2000]). Some probe ideas centred on key events such as family celebrations or how the home had acknowledged wider celebrations occurring in the country or globally at certain times in the participants' lives (where bunting could be a useful signifier and beginnings of a probe). Other probes referenced the detail of the people who had lived in a home over a number of years (Blue Plaques that honoured the achievements of family members), or how a sense of continuity was maintained through generations of a family (the preparing of certain meals and the keeping and passing on of certain recipes), and also through different practices such as home rituals (a welcome mat offering space for description of rituals of returning home for example, or serving as an example of a home-ritual, or cause to consider what practices had been developed to create the ambiance of home).

4.2.5. From themes to probes

Our four themes enabled us to develop probe design ideas that drew on the literature and downsizing study to create ways of exploring the complexities of home via creative means with the care home residents, whilst being sensitive to the fact that they were no longer living in their own homes. From these initial brainstorming sketches we took four probe ideas forward into fully realised probes: *Wallpaper House* (related to continuity and living in and through objects), *Welcome Mat* (enquired about the ritual of coming home, the feeling of home and also continuity over time), *Door Handle* (explored both home as a journey and assimilated some of the ideas generated around keys (4.2.1) and sanctuary spaces) and *Chair* (explored home as a point of departure and return). We developed ideas that had the flexibility to be focused on the past, the present or the future and that we felt had a good breadth and range of contexts and activity involved. Equally we would have been satisfied to develop a different set of four from the initial ideas; it is not that these were necessarily better than the other ideas, but that they felt like strong, flexible ideas and ways of introducing some potentially difficult topics about home in sensitive ways. There was a good variety of form and activity across the four probes and we could see how they would each build on the last for use sequentially over a number of sessions. We developed the probes and discussed their physicality and design as we made them with each other and with colleagues, talking through appearance, scale, how 'finished' to make them, how they would be introduced and what the activities related to them would be. We also drew heavily on our experience of working with this method over a number of years to guide how we developed each object to achieve a balance between something that felt too complete for a participant to contribute to or conversely too under-designed to show our commitment and that we valued their input.

Wallpaper House (Figure 5) comprised a series of plain lining paper flat pack models of houses that could be drawn or written on or decorated using a number of wallpaper samples provided.
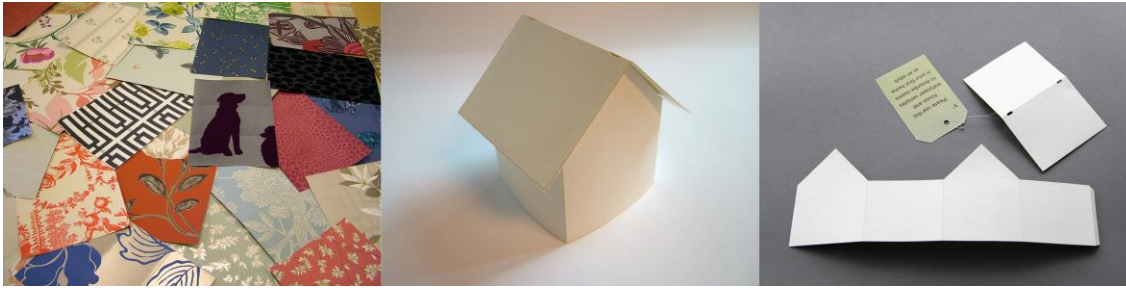

Figure group 5. Wallpaper House probe

Through this probe we asked the women to each create, with us, a series of houses that were representations of different rooms from homes in which they had lived over the course of their lives. We asked about favourite rooms, their changing tastes over the course of time, homes in which they had grown up, their first homes as adults and homes in which they had spent the majority of their lives. The wallpaper samples provided an initial visual, tactile and evocative stimulus and 'way in' to talking with the women. The colour and feel of the wallpapers were evocative and tactile elements of the *physicality* of creating a home that could potentially provide an immediate connection to aspects of being a homemaker over the years. The form of the house was simply rendered (one main strip that folded to represent walls and a rectangle that folded to form a roof) and was a symbolic representation of a house without denoting scale, taste or prosperity. The size of the probe was easy to hold and manipulate and the activity was achievable in that the women selected wallpapers or described particular rooms and we (the two researchers) cut shapes from the wallpapers to their direction, stuck them to the models and wrote any descriptions that the women wanted to add. We sought to learn about the residents as home-makers, how they had re-imagined home over their lives, their tastes and personal aesthetics of home. This probe served as a gentle introduction to both working creatively with us and to the creative, discursive dynamic of our approach.

Figure group 6. Welcome Mat probe

Welcome Mat (Figure 6) asked residents to reflect on and describe the ways in which they had made their homes feel welcoming over the years. The aim was to stimulate reflections and discussion on the detail of what coming home feels like and how the residents created their particular ambiance of home and form of homeliness for other people. This probe, although a simple prompt around discussion topics enabled us to draw on what Dovey [2005] describes to be a fundamental dialectic of home; that of inside/outside, which is embodied in the built environment and which mediates penetrations of otherness into our lives. This probe oriented us towards discussion of home in relation to notions such as 'closed and open', 'safety and danger', 'home and journey', 'familiar and strange', 'self and other' and 'private and public'. Dovey discusses how practices of entering are given ritual meanings about social identity and threats to it, and we were able to enquire around this with the residents through grounding it in their reflections of practices and rituals of returning home and the creation of welcoming spaces.

Figure group 7. Door Handle probe

The *Door Handle* probe (Figure 7) leverages connotations implied of doors leading into different spaces. This probe was about visualizing an imaginary room where the probe object is the tool to allow access to this fantasy space of the resident's creation. We presented residents with a series of different door handles to choose from and asked them to imagine "If you could use this door handle to enter your dream room (real, imagined, present or future) what would be inside? What would it sound like? Where in the world would it be? What would you be able to do in there?" The aim was to stimulate creative thinking and to aid imaginings of possibilities unbound by past or current limitations. This probe reoriented us away from reflecting on the past to focus on the present, the future and the imagined. The probe activity, although not rooted in physical making, involved much creativity and required the women to engage in a design activity (creative visualisation) to describe their imagined space. *Chair* probe (Figure 8) took this introduction of a design ethos a stage further in asking the women to imagine where they would like to travel from the comfort of their armchairs, if anything were possible, and introduced the notion of ways in which technology could link the care home to the outer world in new ways.
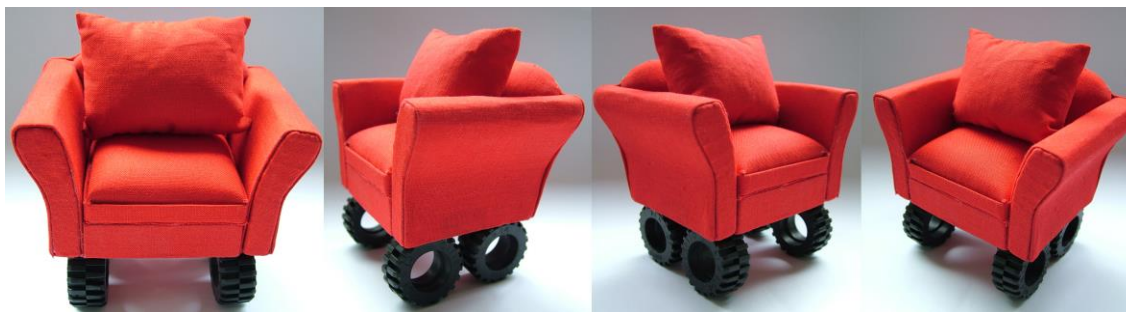

Figure group 8. Chair probe

We knew that most residents in Green Oaks seldom left the home and we used humour in the design of this probe to diffuse the possible negative dynamic connected to this by repurposing the armchair as a vehicle for travel, replacing its feet with oversized wheels. We asked the women to envisage that they could travel anywhere in the world from their armchairs and to describe where they would go and what they would like to see. We wanted to use these questions as an opportunity to also open up conversations about design possibilities in this space and the potential of technology to facilitate our ideas. The cover of *Chair* probe could be written onto and the cushion could be embroidered, but again the key creative act here was the women becoming open to and active in imagining design possibilities and the potential of technology to support them in new ways within the care home.

4.2.6.   Summary

We designed probe objects to explore aspects of what was meaningful to the women through gentle, sometimes humorous, occasionally surreal and essentially creative means. We encouraged creative reflection by presenting scenarios that were not based on the limitations, practicalities or realities of everyday life. The probes merged personal biographies with imagined worlds within a format of small, manageable acts of creative thinking and making. Both probes (in the facets of their design) and we (in using the probes with the participants) acted as scaffolds enabling the women to respond creatively. Each of the probes were designed to function at a different level, drawing us all into more in-depth discussion, reflection and creative thinking. *Wallpaper House* enabled us to start to get to know the women and them to start to share things about themselves with us around taste and the literal aesthetic detail of homes in which they had lived. *Welcome Mat* introduced the more abstract dynamic of 'home and other' and the inside/outside dialectic of home through discussions around how a welcoming home environment is achieved. *Door Handle* oriented us towards creative visualisation and imagination of dream spaces, moving reflections from inward and backward looking to something more outward and forward facing in texture. Finally, *Chair* continued this creative visualisation but moved us forward from imagining to discussing the use of technology to connect to other places and possibilities for design and technology to do this in the care home.

Throughout our use of probes, which formed the focus of the creative sessions, we audio recorded our engagements and conversations with the women and kept field notes. Recordings were transcribed and, along with our field notes, were thematically analysed. We (both authors) worked together to pull out key observations and organised these into themes around key insights. We now report several insights that emerged through the use of the probes. We present three sets of findings (sections 4.3 to 4.5), relating firstly to insights drawn from conversations around the probes, secondly to our observations of the social dynamics and use of space within the home (the probes being a vehicle for this), and thirdly to understandings reached from small interventions and diversions from our original methods, and how these underpinned a greater sense of control and ownership over the creative sessions by the residents.

4.3. Conversations around the Probes

In this section, we highlight three sets of insights that emerged through conversations around the probes. Firstly, they served as tickets to talk [Sacks, 1992], supporting new conversations about the past. Secondly, they highlighted the continuing importance of relinquished objects. Thirdly, they highlighted the significance of having a room of one's own.

4.3.1. New conversations about the past

We began the first session by making the *Wallpaper House* (Figure 5) and discussing the *Welcome Mat* (Figure 6) with all four residents. Personal tastes and anecdotes about decorating were shared, but predominantly the women used the opportunity to describe locations where they had lived and to give details regarding their family histories.

This form of self-disclosure and sharing of past experience was to be expected, but it is worth noting that the majority of these stories seemed new and often surprising to the others in the group (for example two women discovered that they had lived in the same street at different periods of their lives). This suggests that, although the women knew one another, saw one another daily and were friends, this level of detail was not often discussed. The probe activities created a reason and opportunity to talk about these things and revealed firstly that without this specific focus the women's conversations did not naturally reach this depth, and secondly that there were no structures in place within the home to facilitate such self-disclosure or discovery of shared experience.

4.3.2. Relinquished possessions as fantasy objects

The *Door Handle* probe (Figure 7) was left with the women in preparation for our next session, when due to illness we met only with Grace, Lily and Emily.

In discussing dream rooms it was striking that for some women their dream would be to still own some of the possessions that they had relinquished, or had had no control over losing in order to move into care. As already mentioned, it is common for a move into care to be sudden, rather than to be a long-planned event. Often someone's home and belongings were subsequently organized by family members and decisions regarding which belongings to take into a care home were either made at a distance by the older person, or solely by family members.

Lily's experience was the latter and she described a deep feeling of loss over one particular possession, a doll: "The only thing, I had a lovely china doll (...) She was a beauty, (…) She'd got long blonde hair, curly hair. (...) Broke my heart when (...) I often think of my Maria. She was lovely.."

Lily described the doll as something that signified her previous home – a place that she had cherished and now mourned to a degree: "I'd just have my flat what I had, yes that was beautiful. When I had to give it up it broke my heart." Her previous home now represented an ideal of home: a dream and fantasy in which the doll was a symbol. The expressive way in which she talked about both revealed something of the emotional strain around the compromises made in living in a care home.

4.3.3. The intensity and significance of 'one's own room'

Discussing the *Door Handle* probe further Emily and Grace responded very differently both to Lily and to each other. Emily described a room of her imagination and Grace described her move to Green Oaks as a new start and how her room had become a place to enjoy. Although different responses to the probe, both women described the intense significance of having their own room.

Emily had entered into the spirit of the probe and described a dream room that was a fantasy, but her descriptions highlighted qualities that were important to her about her own space: "Most of all you'd want something that was unusual… and good china… and perhaps you could say most of all there's something in there that nobody else has got (…) And you're not going to have anybody going in there and doing what they want, (…) you need to know that you've got to respect that room, (…) yes, I think if you stop and think about it you start to weave dreams around your room don't you." Emily's comments emphasized her need for privacy and control and how intensely important it was for her that others respected her space.

Similarly, Grace drew attention to how significant her own room in the care home was to her: "...a lot of people don't understand why when we've had breakfast and dinner and tea I go back to my room. But I've always been used to being on my own and I do things you know I can watch television, read a book or things like that. And I'm quite happy." Her private

room was the only space in the care home that truly felt like home to Grace. All three women spoke passionately about the importance of having things around them that were their own and having control over their space. Currently their own rooms were the only spaces in the care home that supported this sense of ownership and control.

4.4. The Use and Social Dynamics of Communal Space

In addition to serving as tickets to talk, the probes and their role as the focal point for the creative sessions also enabled us to participate in the use of the communal spaces within Green Oaks, and to observe the social dynamics associated with these. In this section we report what we learned about the creative activities in the care home, the merging of home and work spheres (a home for residents and a workplace for staff) that was particularly evident within the communal areas, and the contrasting qualities of private rooms.

4.4.1. Creative activities in the care home

A complex set of behaviours and relationships existed around the structured creative activities in the care home. Green Oaks had a regular routine of activities and our creative sessions initially resonated for the women with this established practice (although see section 4.5 for details on how our methods evolved to move away from this). We detail these issues through two key insights.

Our first observation was that, although the women regularly participated in the structured and guided activities in the home, these activities themselves offered little in terms of personal interest or significance to them. When we began our first creative session together Amy asked us, "What's being put in front of us again now then?" Her tone suggested that she was accustomed to being presented with tasks and activities rather than choosing or being involved in developing ideas for them, and also that these weren't always enjoyable endeavours. Through using the probes with the women we could see a very different dynamic where the women became active, creative and imaginative in their reflections, ideas and in creating things (completing the probes, making designs for the mugs (see 4.6) and teaching us to crochet).

Secondly we were able to see that in some cases the women participated in activities chiefly to please the activities organizer, because they liked and appreciated him, rather than for their own fulfilment. At our first creative session we had noticed some freshly painted plastic containers, which we were told by the women were things they had painted to be made into a totem pole. On enquiring what the totem pole would be for the women said "We don't know, but it keeps him (the activities organizer) happy". The role of creative activities in Green Oaks was largely to provide social events that help pass the time. In participating in them, the women conveyed a sense that they were supporting staff, and subsequently maintaining their relationships with staff members in the home.

4.4.2. The merging of home and work in communal spaces

Bound up with this discussion is the relationship between residents and care home staff. Green Oaks was a site of work as well as being home to the residents, and this merging resulted in a particular dynamic: the pulse of the home was set by fixed meal and activity times, and our visits were difficult to organize with the women directly, as arrangements for their appointments (with chiropodists or hairdressers, for example) were made by staff on their behalf. We often saw residents deferring to Green Oaks as a workplace and to the staff as just that, staff: "How long are you here today, Simon? (…) That's a very long day. What about you, Joanne? (…) I think they're too long a day for you girls and boys." This deferral to the care home as a work environment, and the participation in creative activities to support the activities organizer, suggest that the women nurtured their relationships with staff through empathizing or participating in a particular activity as a way of placing themselves within the fabric of the care home.

The role that care home staff played in managing the communal spaces related not only to the spending of time within them, but also to permanent features of the spaces, such as décor, and to their more transient qualities, such as music selection. Clearly these were done to lend a homely atmosphere, with furniture, ornaments and framed wedding photographs selected because they spoke of living rooms. Yet on closer observation, these items related to no one in the home specifically, and the communal living room was seldom used. If anyone was sitting in there they were usually asleep. We learned that staff would bring people there if they were aware that a resident was spending all of his or her time alone in their room in an attempt to encourage interaction with other residents. However as this space was rarely used by other people this seemed an unlikely outcome. In general, communal spaces were used for meals and particular activities, but little else.

4.4.3. The quality of private rooms

The quality of the communal spaces offered something of a contrast with the residents' own rooms, where they spent the majority of their time. Yet Green Oaks was a highly social environment. Many residents kept their doors open and we observed a sense of trust in access to personal space. Residents often went in and out of each other's rooms; Grace (for example) asked a male resident to go to her room and find a small crochet hook in one of her dressing table drawers during one of our visits, which had seemed a perfectly ordinary request to him. Emily described how residents look out for one another, talk in caring ways about one another and help one another.

Spending most of the day within one's own room meant that, unlike the communal spaces, which were designed to appear as a typical living room, the rooms needed to be reappropriated for different purposes throughout the day. Grace showed us around her room, which housed furniture that made it a bedroom, living room and bathroom. Having everything to hand had its benefits, enabling Grace to continue doing the things that she loved, but it also meant that one room had to perform the role of many different kinds of spaces simultaneously, and act as the only space to host different guests. Relatedly she commented that she had to be careful to display similar quantities of photographs of all of her grandchildren despite not having very much space in order to avoid her children thinking, when visiting, that some were being prioritised in her affections over others. This suggests a rich space for design to consider ways that a resident's personal room could be made more flexible. Of course having only one main room to host guests is also the case for many people (students living in residential halls or people who live in studio apartments for example) and we could develop designs for innovative uses of space and multi-tasking furniture inspired by this context, but key here is that unlike students or apartment dwellers, care home residents seldom leave the home and don't have the use of other buildings or public spaces to potentially offset the disadvantages of living mainly in one room.

4.5. Adaptations of Methods and Implications for Control and Ownership

Through our use of the probes, we hoped to build relationships with the women and learn more about the environment in which they lived. However, once we had established a pattern of spending time with them and as we got to know them better, we were able to adapt our methods to lend more control over the sessions to the women themselves. Doing so altered the dynamics in ways that are suggestive of how this might be achieved more generally. We report these insights here.

4.5.1. Control and ownership in the creative sessions

Struck by the women's lack of control or sense of ownership in areas of the home and aspects of daily life beyond activities spent in their personal rooms, we took an opportunistic diversion from our probe methodology when Grace talked about being able to crochet. We asked her if she would teach us and she happily agreed. Armed with wool and crochet hooks, our third creative session was led by Grace, and the dynamic altered significantly through this; rather than residents completing things that we had made (probes), Grace was sharing a skill and *teaching*. Care staff quickly noticed and wanted to know what she could do.

Conversation changed as a result, and the usually chaotic environment of the room in which we all met for our sessions (noise of staff talking to one another, preparing cups of tea for residents, vacuuming and interrupting residents for toilet breaks), which in previous sessions had proved a challenging place for focused conversations, didn't disturb our group concentration for this time. Grace clearly enjoyed teaching us and the interest that members of staff were showing. The act of making something provided a relaxed backdrop to the session. The women's thoughts on questions that we had already asked either through probes or conversations began to be naturally expressed and this change in dynamic lasted for the remaining creative sessions (five in total) over the next few weeks.

4.5.2. Potential of technology as portals to other places

A second diversion to the original probe methodology arose following our conversations prompted by the *Chair* probe with Grace and Emily. The women talked about places where they had lived and both Grace and Emily revealed that they had lived in famous locations when they were younger (one in a house which is now a museum and the other next to a famous theatre in another part of the country). Neither had ever returned to these places. Using 'Google Street View' on a laptop we were able to *go for a walk* in a manner of speaking around the streets where they had lived. Both Grace and Emily were fascinated by this and directed our journey, taking us to key sites around their old homes and describing what had changed since they lived there. Emily remembered how "The opera singers (from the theatre next to her home) used to come out where the gardens were, and my mother had a canary, and it always used to sing lovely. We used to hang on the wall, and they used to hang them outside the window. And we used to say, "Why do they keep coming?" But they were listening to the bird!"

4.6. Making a Personal Object with the Women

The conversations that the probes prompted showed how objects that recall the past can open up new avenues of conversation, and they highlighted the pleasures to be gained from belongings and rooms that are a personal ideal of home. Yet they also raise issues of compromise in life in residential care, whether related to living in a smaller personal space, having to leave personal belongings behind, or wanting people to respect your space. While the women had a keen sense of ownership of their own rooms, this showed a stark contrast with their feelings towards communal areas within the home. It seemed that they had little sense of control over these spaces, or the ways in which they spent their time when within them.

Based on these observations, we decided to make an object with each of the residents (Lily, Emily and Grace) that reflected things of importance to them and that they could use in the shared spaces of Green Oaks. As a starting point, we made personalised mugs, in order to explore whether the conversations that occurred through the creative sessions would result in a meaningful artefact, and how it would be received.

We purchased plain white mugs similar to those that the residents already used, liked and could easily handle to drink from. We then worked with the residents to make personal decal transfers that stemmed from things they had shared with us. Images on the final mugs were a mix of photographs of things that were personally significant, signifiers of personal aesthetic taste and images that were illustrative of stories from their lives.

Figure group 9. Lily's mug.

Lily's mug (Figure 9) showed photographs of dolls representing her collection and as homage to the dolls that had not accompanied her into Green Oaks, countries where she had lived and patterns from décor that she had loved in her previous home.

Emily had mentioned that in her fantasy dream room there would be fine china. As a starting point we looked at photographs of decorative teacups together and discussed which features she most appreciated. Emily's mug (Figure 10) depicted some of these aesthetic details, but also told two stories: the first about the opera singers who used to sit under her window on their breaks at the theatre, and the second about finding ancient coins in an imagined garden outside her dream room.

Figure group 10. Emily's mug.

Grace asked us to make copies of photographs of her granddaughters for her mug (Figure 11). She also showed us a box of drawings and cards that they had made for her and selected her favourites. These were arranged on the mug with images of favourite flowers and a sample of crochet.

Figure group 11. Grace's mug.

Once completed, the mugs were objects of pride to the women and of great interest to staff, who were unaware of many of the women's experiences that were alluded to by the images on them. The women were reticent to show off the mugs at first saying that no one would want to know about them, but when staff showed a keen interest the women clearly enjoyed retelling the stories and also seeing that their experiences were appreciated by staff. The making of the mugs was in many ways an extended probe activity; a conversational object and natural progression from making probes to complete with the women to making a fully usable object with them. It afforded different types of conversation and a way for the women to capture some of the most important things that they had discussed with us over the five weeks.

4.7. Discussion

The probes encouraged the residents to reflect upon places where they had lived, possessions they had owned, and pointed to some of the complexities of living in care, where 'home' becomes a medley space that is 'private', shared with, and controlled by, others. For care home residents, placing in age meant adapting to this: to a loss of cherished possessions, to a lack of control over routine, and to a set of social dynamics in which activities and use of communal space are shaped by care home staff. If we once again consider the three aspects of home highlighted by Oswald and Wahl [2005], we can see how maintaining continuity in all three is difficult. *Personal* objects bound up with legacy and identity often need to be relinquished; *physical* routines are taken on by others (e.g. cooking) and limited to personal spaces; and *social* norms are reworked as maintaining relationships with staff and adapting to communal living.

We saw a marked contrast between the communal spaces, which offered a pastiche-like homely atmosphere, and the residents' private rooms, which had to serve a number of purposes throughout the day, but over which they had a stronger sense of ownership. This sense of control was lacking for shared spaces, in terms of choices relating to fixed elements such as furniture, but also transient aspects such as the music that was playing, and the activities undertaken within them. They were principally a space for communal activity, organised by care home staff; in other words, they were a resource for the running of the home rather than a space to be appropriated by residents. These findings resonate with prior work, for example, Gaver et al. [2011] note the passive and sedentary nature of life in the care home that they studied, observing how residents submitted to the rhythms and activities suggested by carers. Friendship seemed to be demonstrated through allowing access to private rooms, rather than through spending time together in communal spaces. Indeed, this is not so surprising; participants could choose who to allow into their own rooms, but they had little control over who they might encounter in a communal space, or what activities might be unfolding there. Put simply, the 'doing' of friendship and the demonstration of trust is easier when it involves inviting someone into one's own space, and this has less to do with privacy than it does choice.

However, our findings also point to ways in which a sense of ownership over shared spaces might be better realised. Over time, the nature of the sessions transformed from activities that the women participated in to ones that they had more direct control over, and that were tailored more personally to their skills, interests and histories. It is important to unpack why this occurred. At a simple level, we could point to the introduction of the laptop and internet, which enabled the women to explore topics that were genuinely valuable and captivating to them. But this does not seem sufficient. More fundamentally, we highlight the use of probes over time, to support a dialogue of giving and receiving between ourselves and the participants [cf. Gaver et al., 1999; Boehner et al., 2007]. Reciprocity was evident in the ways in which participants responded to our initial set of probes by teaching us a new skill, an exchange that culminated in our making a bespoke object with them. This dialogue, which unfolded over time, was reflected in the changing nature of the sessions; although residents repeatedly returned to topics suggested by the first set of probes, the character of their responses altered, becoming richer but also more comfortable. The linking of sessions across time, each one being shaped by the last, meant that expectations shifted and with this a more shared ownership of the ways in which time was spent developed. It was interesting to see that this shift also encompassed the participants' interactions with staff: they too were included when the residents shared their skills and stories.

5. SUPPORT FOR PLACING IN AGE

In this paper we have explored the notion of placing in age in two circumstances: downsizing to a smaller home and living in a care home. What it means to work towards being in place in these two settings is quite different, and this meant that we had to adopt different methods for the two studies. While for downsizers, relocating was quite conscious, and done with a view to engineering what a new phase in life might be like, moving into a care home is often framed by some form of crisis, such that household disbandment may not be planned or prepared for. Our findings demonstrate that downsizers planned for this next phase of life, considering what new opportunities it might offer as well as how it might continue important aspects of home. In contrast, it was more common for care home residents to be faced with the need to adapt to a new and quite different situation, in which living spaces are shared and daily routines are entwined with those of staff. In this final section, we draw on both sets of data to reflect on how 'placing in age' is accomplished, and how technology might be used to support it. In doing so, we hope to shift focus from designing technology to support ageing in place, to that which might support placing in age. Below, we present two aspects of placing in age that run throughout our data, followed by some opportunities for design.

5.1. Support Continuity through Change

The central theme in the analysis of the downsizing study was continuity through change. Placing in age was underpinned by a continuation of some of the personal and physical aspects of home, through keeping possessions bound up with identity and familiar practices. Maintaining a sense of continuity is more challenging for care home residents, where control over household disbandment may be handed over to others, where resultant space and possessions are limited, and where routines become shaped by a radically different set of social dynamics to that of a private home. However, in both cases, people need

to deal with the prospect of change. This is an area that has received little attention in HCI and calls for a different focus to that aimed at supporting ageing in place: rather than supporting stability, how can we support continuity through change?

The compromises of moving in later life were clear in both studies; both highlighted instances of cherished possessions that were relinquished, and the need to appropriate the reduced amount of space available. Downsizers attempted to alleviate the loss of cherished belongings by documenting them (for example by making a list of concert programs) and by ridding in a manner that fulfilled a sense of obligation, while care home residents who were not able to do this told stories of lost objects (such as Lily's doll). Downsizers used spare rooms to spend time alone in, as well as to host visitors, while for care home residents, personal rooms served these purposes and more; everything from socialising to sleeping and bathing was done in these small spaces.

Downsizers chose to move despite having to make these compromises; the desire to remain self-reliant over the coming years was incentive enough. However, the strain of doing so was revealed in some of their accounts, especially around the ridding of furniture and possessions that one feels obligated to keep. The difficulty of ridding suggests various possibilities for design, including technologies that enable people to tag sentimental artefacts with stories [cf. Tales of Things and Kalnikaitė and Whittaker, 2011], systems that enable people to mediate their relationship with shared possessions following a bereavement or a relationship breakdown [Sas and Whittaker, 2013], and services that could enable downsizers as well as family members dealing with household disbandment to photograph and archive artwork or collections. While digital copies could not replace the originals, they may have a role to play in supporting the memory of relinquished objects. Tending to possessions [Odom et al., 2012], keeping them safe [Kirk and Sellen, 2010], and placing them amongst other treasured things are all ways of treating cherished belongings, and technologies that support the memory and honouring of relinquished possessions could be valued in the same way that Lily valued the mug that represented her lost doll. Much as Drazin and Frohlich [2007] observe that photos represent an obligation to remember as much as they do the memory itself, such technologies could reduce the mental burden tied to ridding cherished possessions, reintroduce the possibility that they serve as a ticket to talk, and perhaps even enable them to form part of a family legacy [Wallace et al., 2013] through the telling of stories about them.

Much of the above implies the role technology might play in dealing with the loss of personal possessions, but a further challenge faced in care homes is how to integrate personal objects into shared spaces. We draw on Augé's [1995] distinction between place and non-place here. He argues that while place is defined as relational, historical and concerned with identity, 'non-places' do not integrate earlier space or elements of the old in any meaningful way. He uses the supermarket as an example of a non-place, devoid of local identity, similar wherever it is found, and characterized by 'instructions for use' that are addressed to the 'shared identity' created for customers. The same argument applies to motorways and their drivers, airplanes and their passengers, and so on. Augé does not refer to care homes as non-places, nor are we suggesting that they should be conceived of in this way. However, the notion of 'instructions for use' (seen in reminders to wash one's hands) and the concept of shared identity (in this case of 'residents'), both have applicability to the care home environment. Further, the shared spaces within Green Oaks did little to integrate aspects of any one individual's past; like Augé's non-place, residents were treated equally at the expense of any person deriving identification. The lack of atmosphere seemed to be underpinned by the disconnect between the rooms and the residents themselves, and is not atypical of care homes. Blythe et al. [2010] have also noted the presence of empty cabinets in care home spaces, describing them as "the copies and fakes of a "real" or lived home" [p. 164].

This suggests the need to make communal spaces in care homes 'relational, historical and concerned with identity', indeed, to make them 'lived'. One of the homes we visited early on in our research attempted to integrate pieces of the residents' own furniture into shared areas, where they might serve as tickets to talk [Sacks, 1992] and act as anchor points for residents, linking to their personal lives from within the shared spaces of the home, and enabling them to connect with these spaces in more personal ways [Wapner et al., 1990]. In the research reported here, the mugs that were created for residents served to introduce the personally meaningful into shared spaces of the home, and by doing so they enabled the telling of new stories and suggested a means of cultivating relationships between residents and staff. However, our findings also highlight the complexities bound up with situating personal possessions in shared spaces. While the women showed delight in receiving their mugs, they were reluctant to leave them in communal areas and wished to keep them unused, lest something should happen to them. This of course needs to be caveated by the fact that their introduction was special (they were novel objects that had been individually designed), but it also highlights the tension of leaving personal possessions where they may be used by others or worse, become damaged or lost. Indeed, such concerns may be magnified for persons who have few belongings. In the section on opportunities for design, we reflect on whether technology, which can be personalized but does not have to be personal, could be used in place of bespoke or cherished possessions, to reflect the identities of different residents, and to enable them to personally alter shared spaces.

5.2. Support the 'Design' of Everyday Life

A second aspect of placing in age that we wish to emphasise relates to what Shove et al. [2007] have described as 'the design of everyday life'. Downsizers showed considerable purpose in 'designing' how they wanted this new phase of their lives to be, recognising that it would have certain features such as more time spent at home, and ridding sentimental artefacts if this meant being able to keep those that supported key interests or activities. Shove et al. have noted the role of possessions in 'the balance between having and doing', and this raises the following question for placing in age: if 'having' is compromised, how can technologies support 'doing'? Again, it is worth emphasising the shift from viewing possessions as a crutch to reminiscing about the past, to something that underpins action in the present and future.

As we saw in the study of Green Oaks, a lack of possessions coupled with a lack of control over daily routines made it difficult for participants to 'design' the ways in which their everyday lives might unfold. Nevertheless, it took little persuasion, simply the provision of some wool and a crochet hook, to enact a change from a stance of 'what's being put in front of me now?' to Grace showing us how to crochet and then bringing her own creative materials to the sessions. Of course, the task of providing activities for older people who are sufficiently frail to be living in a care home is particularly challenging, and it is not surprising if activities in care homes primarily focus on passing time and providing entertainment, rather than facilitating the demonstration of skill and knowledge sharing. Yet our findings point to the value of activities that allow residents to demonstrate expertise. For persons who have had to give up most of their possessions, including those that they have invested in over time, demonstrating skills that have also been nurtured may be especially important, and will likely have positive consequences for self-efficacy and self-esteem. For downsizers too, building a new social network in a new location could be supported by the practice of learning new skills, or teaching them. The University of the Third Age works on this principle, and technologies may play a role in supporting skill-swapping where locations do not have such organizations.

Finally, it is worth noting that both downsizers and care home residents needed to adapt and integrate themselves into a new social environment, indeed for downsizers this was perhaps the most significant aspect of placing in age post-move. Studies in HCI have looked at how our friendships are maintained through a residential move [Shklovski, Kraut and Cummings, 2008], but understanding how people settle into new neighbourhoods has received little attention. The cultivation of positive relationships between care home staff and residents is of course essential to both, and it should therefore come as no surprise that Green Oaks staff were readily drawn into residents' story-telling and skill-sharing activities. However, the dialogue that was underpinned by the probes contrasts with other typical ways in which staff might find out about residents, such as 'This Is Me' books [Alzheimer's Society, 2013], which are often created by family members rather than older people themselves, and are used to learn about someone by reading about them, rather than as a resource for interaction. We argue that our research presents a strong case for activities that are fundamentally reciprocal. Indeed, triggers for dialogue do not need to be complex, as evidenced by the way in which Street View was used by residents to describe how things used to be, while taking a genuine interest in what was different. Underpinning reciprocity in relationships between staff and residents might also be accomplished in other ways. For example, in Green Oaks calendars were organised by staff with little input from residents, and care home residents indicated a lack of control and awareness over the ways in which their time was organised. Digital shared calendars could be used to shift this dynamic, whilst making a distinction between the ability of staff to set appointments (perhaps from a staff room computer) and residents, who might simply be able to see appointments via situated displays. While simple, changes such as these could help engender some of the self-reliance that emerged as essential in the study of downsizers.

5.3. Opportunities for Design

In the above two sections we have highlighted two aspects of placing in age that we feel are fundamental to it, and that could usefully benefit from the careful design of digital technologies. While we have alluded to possibilities for design, in this section, we provide more detailed descriptions of the role such a technology might play. What we present is of course speculative, but can serve to illustrate how technologies can support continuity through change, and a more active approach to the 'design' of everyday life. We have chosen to focus on technologies that, broadly speaking, could transform spaces, as this has resonance for both downsizing (for example in the appropriation of spare rooms) and life in a care home (where both personal and communal spaces could usefully be made more flexible), but of course drilling down into either scenario would reveal further opportunities.

5.3.1. Support for hosting

Both downsizers and care home residents noted the need to host guests and the implications this had for space. Hosting others was important for both groups, and is associated with a certain responsibility, one that is bound up with making others feel 'at home' and entertaining them. The flexibility and large storage capacity of technologies allows them to play a number of roles here, from altering the spare room in a downsized home to make it more welcoming, for example by tailoring digital artwork, to creating photo displays in the living room that reflect a particular guest [cf. Durrant, Frohlich and Sellen, 2009]. Notably, the use of technology could make this a realistic prospect in a care home as well as a downsized home; being able to flexibly

alter digital wallpaper in a personal room or the living room, even if only for an hour, could open up a space that Grace, for example, could use to host groups of family members and display the large quantity of drawings, photographs and cards associated with those visitors, rather than having to display photographs of all of her grandchildren in equal number, for fear of offending certain of her children. Looking into the future, a space that could be adapted by Grace to represent the family as time goes on could also give her new ways to maintain a different texture of continuity with family than the care home and her small personal room currently affords due to lack of space and flexibility. More generally, visual and audio content could be curated by a resident to reflect personal taste or personal photographs, or conversely be themed to represent a particular kind of décor and environment: a cinema space, a themed room for a party, a favorite gallery or a particular vista. This may provide new ways to personally connect residents to shared spaces by providing not only tickets to talk or anchor points, but also a stronger sense of ownership of and presence in the care home.

5.3.2. Access to relinquished possessions

The above draws on the fact that technology can be used to store the equivalent of multiple material resources and produce it when relevant. This quality could be drawn upon in enabling access to relinquished possessions more generally, and these could support the continuation of prior practices or the building of new routines. As a straightforward example of the former, technologies could support access to music libraries that have been given up, although we follow Whittaker and Hirschberg [2001] here who, based on an analysis of the sorting of paper during an office move suggest the need for *personal* copies of publically available data. There is an experiential difference between accessing one's own music library and accessing a general music streaming service. As an example of the latter, technologies could be used to represent possessions that have been relinquished, either by providing a means for their archiving (the online service Tales of Things is a nice example of how this might be accomplished), or by dealing with their loss retrospectively. For example, a space for Lily could enable her to show her collection of dolls by combining those she still owned with representations of those that were lost in the move to the care home. This could be supplemented by digital content that reveals the stories connected to them, how they were made, and perhaps content about other dolls from renowned collections, or ones she hoped to still collect. Used in this way, technology might relieve some of the burden of remembering the lost dolls, whilst also provide access to a wealth of content in which to situate her own pieces and enable the continuity of her interest. Furthermore, as dolls in Lily's collection served as conduits to previous times and countries where she had lived, supporting the collection could help convey a sense of who she is whilst creating a social setting through which staff and other residents could learn more about her.

5.3.3. Making, showing and sharing

A final opportunity builds on the use of technology to make new content. As a simple suggestion, technology could support creative activities that require material resources that are difficult to acquire, such as in producing digital art, or that draw on relinquished possessions, such as the production of music playlists from digitised music libraries. In care homes, this content could then be used to reflect the persons who tend to use communal spaces, representing them within it even when they are not there, so as to give them a stronger presence. Simple possibilities include transitory displays of photo collages and artwork, while more complex opportunities include projected libraries of books or records, or the production of a care home radio station featuring interviews with residents, the telling of their stories and the making of playlists. From digital sketching to photo editing, technology can support creative activities that could be more meaningful to residents and could consequently open up dialogue between themselves, as well as with staff. Such initiatives could be an antidote to the lack of choice given to residents in both the appearance and events that occur in the care home, and could be used to set an alternative tempo to that of meal times, whereby what is being shown in the communal spaces changes regularly.

Opportunities for design such as these are not, of course, simple to implement, and even if they were all successfully realized, the transition to care may continue to be perceived by older people with apprehension. However, it seems probable that care homes will increasingly cater for personal computing in the future, and this presents a design space that we believe could have transformative potential with regards to how older people can negotiate placing in age. The move to care especially would benefit from being more strongly positioned as another chapter of new experiences in the lives of older people, rather than a period of time that is foreshadowed by compromise and a sense of life being less than what has gone before. This is an important space in which technology could have a real impact, a space that we have begun to explore here but that needs both more thought and more action. Of course, this needs to encompass the role of staff in enabling new practices for residents and indeed a model of care that enables staff to become comfortable with new technologies and take creative ownership in how they are used. Our proposals have a social texture to them, and would potentially only be successful if staff maintained support and enablement; each one would need to be interwoven into the (potentially new) fabric of staff practice and daily life in the care home. This introduces a further set of challenges: it may, for example, require a restructuring of the ways in which activities are organized, or how the flexibility of space is considered. However, as older generations increasingly adopt technologies such as tablet computers, it seems possible that ICT will come to have a more prominent role in care home environments, and so building creative activities around technology may become a more realistic prospect. While what we

are describing is challenging, we believe that now is the time to look forwards, and ask how we might design for this difficult, but very commonplace, life transition.

6. CONCLUSION

This research was undertaken in an attempt to open up a little-explored space in HCI: placing in age. A good deal of HCI research has considered how to cater for 'ageing in place', with a focus on the stability that might be supported through the development of assistive technologies. We have argued that this needs to be balanced with attention to the problem of relocation in later life, be this through downsizing or a move into sheltered accommodation or care. This paper represents a first attempt in this endeavour. We have described findings from two studies, one that focused on downsizing and one that used creative sessions with care home residents. We used different methods to suit these two very different contexts and show how, while in downsizing the means to build a sense of home is often proactively established during relocation, a move into care often disrupts personal, physical and social aspects of home. Nevertheless, we suggest here that the forward-facing attitude associated with downsizing can also be applied to life in care. Rather than positioning possessions as a crutch for reminiscing about the past, we emphasise their role in supporting action, now and in the future. Given the disrupted balance between having and doing [cf. Shove et al., 2007] that can challenge placing in age, we suggest that technologies, which are flexible, adaptable, and personalizable, could be used as a means of redress. In making these suggestions, we are mindful that there is not a straightforward relationship between space, possessions, action and meaning. Ciolfi [2005] has argued that augmenting a space with technology means not just changing its physical features, but also affecting experience through modifying activities, supporting new chances for social interaction, and impacting the culturally influenced qualities of an environment. A sense of place, and of being 'in place', must be forged by persons; it cannot be an inherent aspect of a system. However, we suggest that technology may be used alter the experiences that are had within a space, enabling it to become invested with new meanings, including those that are, in Augé's [1995] terms, 'relational, historical and concerned with identity'. Placing in age is not static but dynamic; it is not about preserving a home but about creating a new one. By changing the way that a place is experienced, new relationships may be formed, new memories underpinned, and a stronger sense of ownership and belonging forged.

ACKNOWLEDGEMENTS

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