

Perceptions of landscape continuity and change

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Abstract

Perceptions of landscape continuity and change

Interest in derelict, underused and neglected (DUN) sites has grown in recent years in both the academic and public domains. This interest is not only theoretical and landscape professionals are experimenting with new ways of designing landscapes on DUN sites. This research finds that designers incorporate the histories of these sites into the developed landscapes through their uses of new and recycled materials, through symbolic and metaphorical references and by revealing the relationships between material, spatial and temporal layers and processes. However there has been little research into the visitors' perceptions of such developed DUN landscapes. I show that their responses to these landscapes are not always straightforward and predictable. They are often contingent and influenced by imagination and memory. The temporal and material layers in the landscapes are valued for the ways in which they juxtapose, what visitors perceive as, the natural and the cultural worlds. Individuals' responses are dependent on external factors such as prior knowledge and experiences, and on perceptions of the wider landscape as well as on immediate sensations and observations within the site. I argue that these diverse ways of perceiving the landscapes contribute to a sense of continuity. However continuity in this context is not about permanence or a desire for things to remain static. For some it can be understood as a sense of the passage of time that does not necessarily exclude the possibility of future change. I suggest that an understanding on the part of professionals of these varied perceptions and responses can inform the design of the relationships between the semi-natural and cultural layers and enable a better understanding of the effects of creating temporal and material palimpsests in former DUN landscapes.

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Acronyms

AWRE: Atomic Weapons Research Establishment
CTRL: Channel Tunnel Rail Link
DCLG: Department for Communities and Local Government
DUN: Derelict, underused and neglected
LDA: London Development Agency
LVRPA: Lea Valley River Park Authority
MOD: Ministry of Defence
NLUD: National Land Use Database
PDL: Previously Developed Land
RSPB: Royal Society for the Protection of Birds

PART 1 – MY RESEARCH IN CONTEXT

1. Introduction

In recent years there has been a reassessment of what constitutes landscape beauty and a discussion of the different ways in which we might value landscapes. This in turn has influenced the development of thinking and discourse about landscape. The European Landscape Convention (Council of Europe, 2000) defines landscape as ‘an area, perceived by people, whose character is the result of action and interaction of natural and/or human factors’ (p.3). This definition includes not only the countryside but also the urban and urban fringes and everything in between. The Convention also affirms that landscape is important to people’s sense of identity and a part of their heritage both natural and cultural. This applies to landscapes in ‘degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas’ (Council of Europe, 2000, p.2).

This concept of landscape as being about everyday places carries with it the implication that these sorts of landscapes have particular characteristics that are worth examining and this is my starting point for researching redeveloped derelict sites and wastelands. I have chosen to focus my research on landscapes that were once under industrial or military use and have then, after a period of abandonment, been developed as green spaces. Policy makers and the public commonly refer to these as brownfield sites and they are often seen as a blight on their surroundings. With this label comes a set of expectations about their future; the removal of blight is usually considered essential to regeneration and there is often pressure to sweep away all evidence of the histories of these places as part of the development strategy for the local area. However if we consider that derelict sites are also formed through a mix of natural processes and human interventions and, as the Convention says, are a valued part of people’s heritage, then it is important to explore the ways in which these processes and interventions can inform the future of these landscapes and the resulting perceptions of the people who visit these places. Recent discourses focusing on the industrial ruin are often theoretical, making claims in support

of the industrial aesthetic and the social ramifications of derelict sites. Yet these landscapes are in flux and they might, over the course of years or decades, be used for a range of purposes and be subject to varied development proposals. Local people, politicians, developers and designers often have conflicting demands, expectations and hopes for their future. Therefore I suggest that the time is right to examine the effect of both minor and extensive interventions in the derelict landscape on user perceptions.

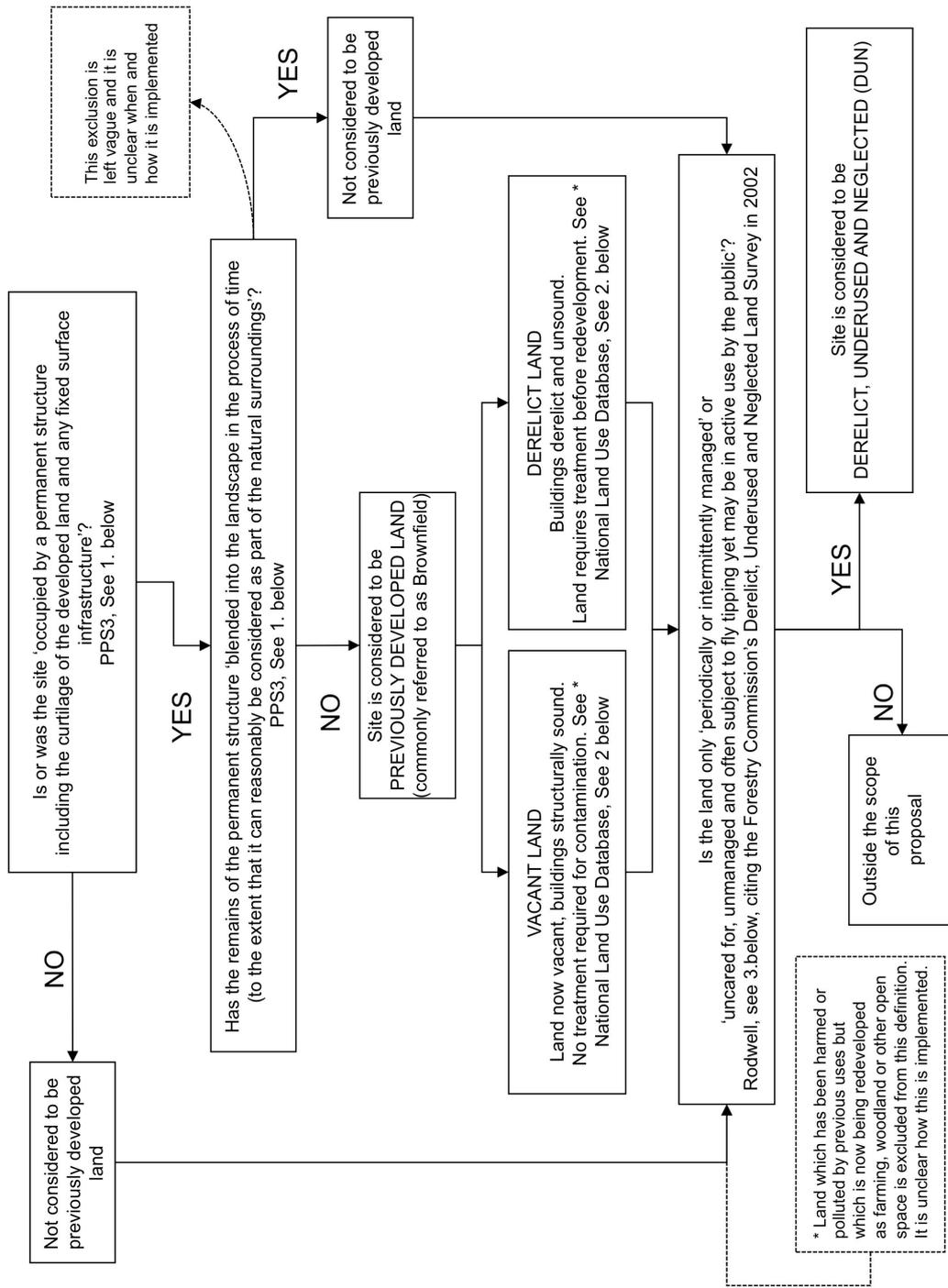
Both the present Coalition and the previous Labour Governments have stressed the importance of protecting the green belt around our cities and thus there has been a drive to site new developments, in particular housing, on previously developed land. Expediency and economic considerations have usually ensured that the *tabula rasa* approach is the preferred option for such redevelopments, (English Partnerships, 2006a). The result of these policies has been that in many cases all evidence of the previous industrial site has been erased and thus evidence of landscape change is lost or hidden. In drawing attention to the past, present and futures of these landscapes I hope to demonstrate their importance and the contribution they can make to the lives of local people.

The broad aims of this thesis are to examine the ways in which landscape professionals approach the development of these derelict, underused and neglected sites. I will analyse visitors' responses to these developed landscapes to determine how they perceive landscape continuity and change. I aim to provide information of use to professionals with an interest in the design and development of such sites to show how future users might respond to particular approaches taken to the incorporation of evidence of the pastness of these landscapes.

Although the key focus of this thesis is to propose a set of implications for practice, I also intend that my research will contribute to landscape architectural discourse by drawing together the relevant multidisciplinary theory in this field. Jorgensen (2014) suggests that the European Landscape Convention's broad definition of landscape leads to an understanding that it 'is integrative ... combining diverse processes and calling for diverse perspectives

and disciplines in its interpretation and understanding' (pp.2,3). She goes on to point out that this necessitates taking a holistic approach to landscape research and usually entails a multidisciplinary focus. Research into places and peoples' responses to them has been the realm of social scientists, anthropologists, philosophers and cultural and human geographers as well as ecologists, environmental aestheticists, urban planners, architects, archaeologists and landscape architects. Patterson and Williams (2005) expound in detail on the diversity of research traditions in the field of place research and as Fairclough (2012, p.83) points out 'inter-disciplinarity is now a commonplace aspiration'. I will show in Chapter 2 the range of academic theory that can be applied to research into place, space, time and memory and how this can be interpreted in the light of landscape architectural discourse.

There is a range of terms in official and common use to describe the types of sites I will select as case studies in this research; brownfield, previously developed land, derelict, wasteland, to name a few. I have elected to call these sites DUN sites, standing for derelict, underused and neglected. The category of derelict, underused and neglected land encompasses both previously developed land and brownfield sites and also addresses the concept of care, thus reflecting a common public perception of wasteland as uncared for. The flow chart (Fig.1) demonstrates how this definition is arrived at. The references are taken from the previous Labour Government's planning documents, as these were the policies in use when I commenced my research. However although the Coalition Government has made many changes to these policies (Department for Communities and Local Government, 2012), the core concepts remain as shown.



1. (Department for Communities and Local Government, 2006b, p.26)
2. (Harrison, 2006, p.41)
3. (Rodwell, 2007, p.3)

Figure 1 The definition of a DUN site

I also use other key terms in this thesis:

- Qualities** I have chosen this word to describe those aspects of the DUN site which allude to the pastness of the landscape or to the passage of time, and thus contribute to the special nature of these landscapes.
- Palimpsest** Definitions of the noun palimpsest usually describe it as paper or parchment where the old writing has been scraped off to make room for the new layer, sometimes leaving traces of the initial writing behind (Shorter Oxford English Dictionary, 1993). In my research I define a palimpsest landscape as one that is composed layers that make reference to its past histories.
- Development** I use this term to refer to DUN sites that have been changed in some way to create public open spaces. The change usually involves some element of intervention by designers or landscape architects.
- Public open space** I use this term to describe my case study sites. They are all open to the public and contain elements of green space. Some charge entrance fees and others do not. A few are always open, most are closed at certain times of the day.
- Regeneration** Defines the actions that take place when a DUN site and the surrounding areas are changed specifically for the purpose of improving visual and economic aspects of the area.
- Form** I define form in landscape architectural terms as the visible shape or configuration of an object or combination of objects. It can also refer to the topography of the landscape,

Finally I outline here the structure of my thesis. It is divided into four parts; these sections broadly reflect the order in which my explorations proceeded. However, as I explain in Chapter 3, my research process was iterative and I cycled back and forth, particularly between Parts 2 and 3. *Part 1 - My Research in Context*, includes this chapter, my literature review and my methodology. My wide-ranging literature review informed my thinking about

the research questions and by the conclusion of Part 1 I have I described my research strategy and methods and finalised my research questions.

In *Part 2 – Landscapes and Practitioners* I ask how landscape professionals approach the design of DUN sites. I examine 15 landscapes that together form the phase one case studies. I then turn to the people who visit such sites in *Part 3 - Landscapes and Users*. Here I select three of the phase one sites as the phase two case studies and examine the perceptions and responses of people who visit the developed site. In conclusion *Part 4 - Landscapes, Theory and Practice* draws together my findings from Parts 2 and 3 with the theoretical discussion of Chapter 2 to consider the practical and theoretical implications of my research.

I start this thesis with a discussion of a range of multi-disciplinary literature that I consider relevant. I draw on discourses from geography, anthropology, philosophy, archeology and the social and environmental sciences, and show how these impact on and are impacted by landscape architectural theory. The chapter starts with a summary of the governmental policies that I have touched on here and the implications these have for DUN sites. I then discuss the body of literature that has grown up around these landscapes over recent years. The remainder of the chapter is broader in scope, examining the range of theoretical approaches to place and space, and their relationship with temporality. In particular I am concerned with the materiality of place and how these theories take this into account. I also examine the phenomenological embodied approach to understanding our relationship with landscape. History, heritage and memory are inescapable aspects of any discussion about pastness and I discuss the literature with reference to both embodied memories and the materiality of places. This leads to thinking about the material forms of landscape and their relationship with temporality. Finally I broach the subject of imagination and how this might impact on ways we think about the past in the present, and also the future of the sites.

In Chapter 3 I begin by explaining my reasoning for situating my research within a critical realist framework and outline the theoretical underpinning to

my research strategy and methods. I introduce the two-phase approach to the case studies that I have mentioned above and reiterate my research questions. I discuss in detail the methods I used and in particular the ways in which I approached the interview process. I finish this chapter with a discussion of my analysis and show how this leads to my results and findings that will form the basis of subsequent chapters.

The next section of the thesis covers *Part 2 – Landscapes and Practitioners*. I describe each of the 15 case study sites in Appendix A and my findings are detailed in Chapter 4. I introduce the concept of material, spatial and temporal qualities in detail and examine the ways in which this evidence of the pastness of the landscape is incorporated into the developed sites. I discuss the different approaches taken by the landscape professionals together with an assessment of the management implications. I finish by outlining the ways my findings in Part 2 impact on my selection of the phase two case studies.

Chapter 5 introduces the three case studies I have chosen for phase two of the research and describes the history of these sites together with details of the material, spatial and temporal qualities that are evident in each site. My intention is to give the reader an understanding of the background of these sites in order that the results and findings that follow can be seen in context.

I have divided Part 3 into three chapters examining the interviewees' responses to the phase two case study sites. These responses were wide-ranging and overlapping in their content and I am aware that there is sometimes a crossover between the findings and discussions across the three chapters. In each chapter the first half examines the responses - the results of the interviews and the analysis – whilst the second half takes the form of a discussion. In Chapter 6 my findings focus on the ways the participants relate to the pastness of the site through the material and spatial qualities. In Chapter 7 I look at how the temporalities of the landscape relate to an understanding of the past, present and future of these sites. Finally in Chapter 8 my findings focus on the role of memory in these landscapes. In each chapter I also include a contemplative

interlude where I become a research participant and examine my own responses in the spirit of my critical realist approach.

Part 4 comprises Chapter 9 in which I draw together my findings from Parts 2 and 3 to outline the practical implications of this research for landscape professionals. I re-examine the ways in which designers incorporate qualities into the landscape and reflect on the impact this has on visitors' perceptions of the case study site. I also examine my discussion in Chapter 4, with reference to the management and maintenance of these landscapes, in the light of my findings around perceptions of temporalities in Chapter 7. Finally I refer back to the relevant parts of the literature I discussed in Chapter 2 to contribute to the landscape architectural discourse that surrounds these very particular landscapes.

2. A review of the literature

2.1 Brownfield sites in policy and literature

2.1.1 Brownfield sites and recent Government policy

Abandoned buildings, derelict sites and wastelands often remain boarded up behind security fences until their redevelopment becomes a profitable opportunity. Mah (2010) describes these sites as ‘the footprint of capitalism’ (p.399); they are places left behind, no longer useful, waiting for regeneration. However in the last decade derelict and vacant sites have become increasingly identified as potential sites for the construction of new housing. In 2006 Baroness Andrews, (Department for Communities and Local Government, 2006a) stated that ‘suitable brownfield land must be a priority for any new development’ (para. 6 of 7). Throughout the 90s the percentage of new houses built on previously developed land (PDL) was a little over 50%. This proportion quickly rose to 78% in 2008 and the latest figure available in 2011 is 64% (Department for Communities and Local Government, 2013, table P211). The demand for new housing combined with the desire to preserve green belt land led the Labour Government in 2003 to commission its National Regeneration Agency, English Partnerships, to carry out extensive consultation and research into the development of brownfield land. The resulting publication, *The Brownfield Guide*, (English Partnerships, 2006a) gave detailed information for practitioners, local councils and developers. In this case the term brownfield refers to previously developed land (Fig.1). The Labour Government’s response *Securing the Future* (Department for Communities and Local Government, 2008b) outlined their strategy in their planning policy statements. PPS3, Housing (Department for Communities and Local Government, 2006b) stated that local planning authorities should ‘include a previously developed land target and trajectory...and strategies for bringing previously developed land into housing use’ (p.16). The Government target was for at least 60% of new homes to be built on PDL (Department for Communities and Local Government, 2008b, p.6). Local authorities were

expected to identify 'latent brownfield' land - sites with a potential that had not so far been recognised (Department for Communities and Local Government, 2008b, p.8). The National Land Use Database identified all PDL sites in Britain; in 2007 (Department for Communities and Local Government, 2008a, p.5) it was estimated that there were over 62,000 hectares of PDL in England.

More recently the Coalition Government has made radical changes to planning policy with the aim of reducing regulation. The National Planning Policy Framework (Department for Communities and Local Government, 2012) states that:

'planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value. Local planning authorities may continue to consider the case for setting a locally appropriate target for the use of brownfield land' (p.26).

This effectively removes the target of 60% of housing to be built on brownfield sites set by the previous government. This removal provoked organisations with interests in the countryside, such as the National Trust (The National Trust, Not known), to protest that green belt sites would come under threat of development. There has since been a reiteration on the part of the Government that brownfield sites are expected to be the first option when considering housing development (Select Committee Publications Community and Local Government, 2011, para 143). In addition local councils are expected to sell such sites to developers and prior to early 2014 the Government had sold more than 430 sites across the UK (Hopkins, 2014). However reviews of the planning decisions taken over the 12 months since the implementation of the policy have shown that local authorities are coming under pressure to agree applications for developments on green belt sites as the development of brownfield sites is not always economically viable (Campaign for the Protection of Rural England, 2013).

In 2007 the UK Biodiversity Partnership, (2007, p.54-55) (now known as the UK Post-2010 Biodiversity Framework) identified 'Open Mosaic Habitats on Previously Developed Land' as a habitat type for the first time (Department for

Communities and Local Government, 2008b, p.14). These habitats were defined as consisting of small areas which become colonised with different groups of pioneer species depending on the substrates on the site. This category of habitat now appears in the Biodiversity Planning Toolkit (Association of Local Government Ecologists, 2011). As well as the unusual assemblage of vegetation found on these sites the unmanaged nature of the habitats is seen as an asset and the toolkit suggests that these, often fragile, ecological mosaics can be damaged if there are attempts to tidy up and improve their visual appearance.

However I can find no mention in the recent National Planning Policy Framework of the value that brownfield sites might have, either as habitats or indeed as resources for local people, apart from the reference above to sites that can be considered to be of high environmental value. Brownfield sites are more usually referred to as a 'blight' on local communities: Caroline Flint MP wrote, (Department for Communities and Local Government, 2008b) 'the greening of previously developed land removes blight and brings with it important social and health benefits' (p.3). The implication, which continues with the present Government, is that the policy of redeveloping brownfield sites will be of benefit to the local community and will also benefit wider society by indirectly protecting the green belt.

2.1.2 Brownfield sites, literature and theory

Throughout the 20th Century a grand narrative of progress, in which the old is destroyed and the new takes its place, has been the driving force, see for example (Harvey, 1990) (Berman, 1983). A by-product of this is the production of waste, and it is waste in the form of derelict buildings, neglected strips of ground and overgrown vegetation that is the starting point of this research. These post-industrial sites, left over when industries close, remain in a state of dereliction until it becomes profitable to redevelop them. The cultural and social value of the spaces to local people who might use them for recreation or see them as reminders of past histories of the area is usually not considered. Instead, as I mentioned above, the sites are more often perceived as

a blight on the local area. Bales (1985), writing in *Human Ecology*, shows that qualitative research into blight suggests it is ‘durable, visually demeaning, and somehow aesthetically depressing’ (p.371). In his research he questioned whether rundown buildings were a problem and 63% of respondents reported in the affirmative. However when presented with the statement ‘people who try to save old and historic buildings from being torn down are wasting time and money’ (p.376), 65% disagreed. More recent research in the UK into the public perception of derelict landscapes supports the official view that these sites are usually disordered and chaotic and may be seen as dangerous places where gangs of youths congregate, they may be full of litter and subject to flytipping, buildings may be dangerous and waste products are hazardous (Jorgensen and Tylecote, 2007 citing, Ward-Thompson *et al.*, 2004).

Recently however this view of derelict sites has been challenged and there is a body of literature, both academic and popular, that discusses the value of such sites. As early as 1967 the artist Robert Smithson (1996b) wrote in *A tour of the monuments of Passiac, New Jersey* that ‘Passiac seems full of “holes” ... and those holes ... are monumental vacancies that define, without trying, the memory-traces of an abandoned set of futures’ (p.72). In 1995 the philosopher de Solà-Morales Rubió (1995) postulated the concept of the *terrain vague*; the indefinite, indeterminate and forgotten sites in the urban landscape where ‘the memory of the past seems to predominate over the present’ (p.120). Marion Shoard (2002a) has long called for an appreciation of the edgelands of our cities, describing the untold value of these landscapes that many have written off as wastelands. She (Shoard, 2002b) writes of how the diverse and frequently chaotic and disordered nature of these areas can inspire when compared with the homogeneity of our towns, and even the agricultural landscapes of the countryside, and decries the obsession for developing brownfield sites in preference to other options. This interest in edgelands has recently been taken up by poets Farley and Roberts (2012) who extol the virtues of allotments, wastelands, ruins and landfill sites on the fringes of our towns and cities.

Running alongside this interest in wastelands is the more specific discourse around the industrial ruin. Geographers Edensor (2005b) and Garrett (2011), and Doron (2007) describe its many positive aspects: spaces that can be used for informal activities, often by minority groups; habitats for opportunist wildlife; intermediate spaces between the public and private; places of fantasy and freedom of movement. Recently DeSilvey and Edensor (2012) have brought together the growing body of academic discourse in this field and in particular consider the ways in which the derelict industrial ruin might enable us to explore the past in non-traditional ways.

One factor they examine is the relationship between the visitor and the materiality of a derelict site that is always in process (DeSilvey and Edensor, 2012) (Edensor, 2005c). As the material structures and artefacts decay they become disengaged from the surrounding buildings and infrastructure, and from their original functions and purposes (Edensor, 2005c). The resulting loss of meaning contributes to the pervasive sense of disorder and indeterminacy that is seen as a fundamental part of the attraction of the derelict site (Doron, 2007) (Jorgensen and Tylecote, 2007). The possibility for sensual engagement with these decaying materials is an important aspect of the experience of these sites (Edensor, 2005c), and the jumble of ruined materials can create a sense of the abject that may, for some, also be a part of the attraction (Armstrong, 2006). The changes in the normal spatial arrangements in the landscape present possibilities for unstructured playfulness (Armstrong, 2006) and encourage visitors to experience different ways of moving around the site (Edensor, 2005c). This embodied relationship can facilitate diverse ways of relating to the site's past history (DeSilvey and Edensor, 2012). Ghosts of past workers on the site and narratives about their lives may be imagined and there are possibilities for other forms of recollection, remembering and story-telling (Garrett, 2011), (Edensor, 2005a).

As well as discussing the positive aspects of interaction with ruined sites, Edensor and DeSilvey also point out the danger of indulging in what has come to be termed 'ruin porn'; an interest in the ruin that 'privileges the aesthetic

charge of ruination thereby ignoring the contextual economic and social devastation' (2012, p.6) that is an inherent factor in its evolution.

I discuss later in this chapter the way space and time interweave; the ruin is a microcosm of these relationships where decay can reveal previously unseen material layers whilst at the same time obscuring or destroying others (DeSilvey, 2006). The possibility the ruined site affords for engaging with multiple temporalities leads to the creation of diverse stories rather than a predetermined narrative:

Ruins foreground the value of inarticulacy, for disparate fragments, juxtapositions, traces, involuntary memories, uncanny impressions and peculiar atmospheres cannot be woven into an eloquent narrative. Stories can only be contingently assembled out of a jumble of disconnected things, occurrences, and sensations' (Edensor, 2005a, p.846)

Indeterminacy is also enhanced through the temporal qualities: the processes that are made visible in the successional vegetation; the crumbling stone; the entanglings of nature and culture and the action of agencies on the fabric of the site (Edensor, 2005c), (Jorgensen and Tylecote, 2007). The combinations of layers of material and visible processes, create time-layers that are open to a diverse range of readings and understandings (Armstrong, 2006), (Garrett, 2011), (DeSilvey, 2006), (Swanton, 2012), (DeSilvey and Edensor, 2012). The importance of this connection between nature and culture within the context of city life is recognised by writers in the field of landscape architecture, notably by Jorgensen and Tylecote (2007) who call for an understanding on the part of planners and designers of the temporal dimension of these urban wildernesses and the possibilities they hold for experiencing freedom, discovery and a sense of adventure. Jorgensen and Lička (2012) suggest that it is the lack of intervention that is significant; such places 'have not had 'local identity' imposed on them, they are just themselves: the palpable result of a set of interactions and processes over a period of time' (p.232).

Although wasteland is usually referred to in a negative context it features in contemporary spatial theory as the converse of a controlled and controlling

homogenous urban space. The lack of any rules to prescribe behaviour in the derelict site can justify a comparison with the liminal spaces described by the sociologist Rob Shields (1992); spaces on the margins or edges where different behaviours can take place. More recently Doron (2007) describes derelict sites as being with 'no official programme or usage and as such they trigger and embody limitless choice and desires' (p.17). In the derelict space spatial and temporal controls are loosened. Franck and Stevens (2007) refer to spaces characterised by an absence of specific rules of usage as 'loose space' and as such they engender other possibilities; 'activities not anticipated ... activities that have no other place' (p.17). They acknowledge however that the qualities which open up such possibilities are the very opposite of those most valued by the public namely, 'certainty, homogeneity and order' (p.17). Ruins are often perceived as places where illegal or anti-social behaviour takes place; they may also be places where people, excluded from the mainstream, can live, explore, play and even work (Franck and Stevens, 2007), (Schneekloth, 2007), (Edensor, 2005b).

In 2006 the Greater London Authority published a series of essays as part of the East London Green Grid framework to promote the development of green infrastructure and green spaces in East London. Ken Worpole's (2006) essay addresses the issue of the urban fringes and the forgotten spaces and wastelands where nature has taken over, and points out that although many people appreciate the inclusion of nature and wild spaces in their cities there are others who are fearful, seeing such places as 'unruly, unmanaged and visually disruptive' (p.11). He goes on to call for education, pointing out that 'one can either change the landscape (to the point of eradicating it), or change people's perceptions of the landscape' (p.11). Research shows that even minor interventions in disordered landscapes can cause changes in public perception. The ecologist Oliver Gilbert (1989, chp. 17) outlines the benefits of education and of simple edge treatments such as mowing a three metre strip around the disordered site. This suggestion is also discussed by Professor of Landscape Architecture, Joan Nassauer (1997), who describes such practical interventions as 'cues to care' (p.78); these act a framing device, signalling that we should value what is within the frame.

Landscape architect, Peter Beard (2006) also calls for a reassessment of the value of wastelands; he describes how the contamination of a large area of land that was the Beckton gas works has prevented housing development with the result that new habitats and wild spaces have been permitted to exist on the fringes of London. Similarly, in another area of East London, at Barking, ash heaps are home to rare orchids. Beard not only advocates protecting selected areas of landscape, but like Worpole, calls for greater education when he suggests that landscapes should be transformed to 'develop a new creative and regenerative understanding of ecology and landscape which is rooted in place, memory and local history of settlements' (p.7). Accompanying the aforementioned Green Grid essays is a series of photos by Jason Orton (2006) some of which show abandoned car tyres exposed on muddy river banks, pylons, a disused power station, a fireworks factory and rotting piers together with working industrial sites and expanses of green fields and a golf course. All are to be found on the fringes of East London and many of these brownfield sites are at risk of redevelopment. As Orton commented in 2006, 'there is some concern that developers see these 'post-industrial' landscapes as blank canvasses which can be cleared or levelled flat, depriving future communities of any sense of what has gone before' (p.16).

In parallel with, and in some cases pre-dating, this growing body of scholarly literature there has also been a move on the part of landscape architects to incorporate industrial buildings and artefacts into the developed landscape. One of the first examples is Richard Haag's Gas Works Park in Seattle, which opened in 1975, and more than 15 years later Peter Latz and Partners started work on the Duisburg Nord Landscape Park. I will discuss both these landscapes in Chapter 4. The Duisburg site has been admired around the world and much has been written about the regeneration strategy of the Ruhr Valley in Germany. However this form of development is not well-theorised in the UK and although the Latz philosophy is sometimes referred to in the initial stages of redevelopment, (Thurrock Council, 2004), it still often appears to be an alien idea to some policy-makers and developers. There is also a paucity of research into the ways the people who live near these developed post-industrial

landscapes experience them, and I intend to address this deficit in the discourse in my research.

There has however been some research into landscape preferences with groups of people in post-industrial areas of Belgium (Ruelle *et al.*, 2013). The researchers used photos of the Duisburg Nord landscape as one of their examples of possible landscape styles and found that there was a strong relationship between preference for this landscape style and the age of respondents. Those between the ages of 18-28 expressed the most satisfaction with this type of landscape and those over 60 expressed dislike. Of those who preferred the Duisburg-like landscape 38.7% gave the presence of green nature and 25.8% heritage conservation as reasons for their preference (pp. 90-4). Ruelle *et al* suggest that the sight of nature recolonizing such sites may be attractive to this group of people¹. A further finding showed that respondents were less likely to appreciate such landscapes when evidence of industrial pollution was still widespread in their own local area (Ruelle *et al.*, 2013, p.93). Sociologist, Alice Mah's (2010) research into memory undertaken with residents of the Walker shipbuilding area of Newcastle also notes generational differences in responses and suggests that these may be due to the fact that, for older generations, memories of the industrial history of the area are still relatively recent and their associations with this history are deep-rooted.

De Waal and de Wit (2012) studied local residents' opinions about the regeneration of large areas of land in Germany that had been devastated by opencast mining and found that people preferred to erase the evidence of this industrial history. In this case there was a difference between the views of local people who wished for a return to a green, pre-industrial landscape and tourists who were interested in the layers of history that might remain in an alternative form of redevelopment (p.108).

Some people say that industrial ruins have value, whilst others find them an unwelcome reminder of a lost past but what are implications of this for the redevelopment of these sites? What should be preserved and how? This relates

to the broader questions of place, space and time, and below I examine the literature around these concepts.

2.2 Place, space and time – how Massey’s theories contribute to this research

2.2.1 The relevance of Massey’s theories to this research

After much deliberation, analysis, selection and rejection of a range of texts, I have chosen to examine the theories of the geographer Doreen Massey that consider aspects of space, place and time. I was aware of the significance of Massey’s theories and found them relevant for my MA dissertation, however I did not at first consider them for this research and instead began reviewing the literature around place attachment and identity. This led me to explore theories of place that draw on phenomenology and the embodied subject. In parallel with consideration of these theoretical texts about place I also examined discourses about the ruin and wastelands and the recent writings of the geographer and social scientist, Caitlin DeSilvey. DeSilvey is interested in material change and it was her insights into change in landscape and the interrelations between the natural and the cultural that seemed most relevant to my research. I grew to understand the full significance of the materiality of place to my research and returned to theories of space and place that gave primacy to the material. However I was aware that I was researching sites that were about time and pastness, as well as about place, and therefore I was interested in discourses that also took account of temporality. I was skeptical about theories that see place as fixed, timeless and bounded; the nature of DUN sites would appear to be counter to these concepts. This process finally led me to Massey’s theories and below I show how she tackles questions about the fixity and specificity of space and place, the interaction of space and time and the role of the local, regional and global in the conceptualisation of place.

I suggest that Massey’s understanding is particularly suited to an examination of the post-industrial sites included in my case studies, with their conflicting and contingent histories, the openness of meaning and uncertain identities of these landscapes, the multiple temporalities that such sites display and the possibilities they raise for future change. As I have outlined in Chapter 1, my

research is situated in a multidisciplinary context. In particular I draw on the work of geographers, anthropologists and social scientists, and to a lesser extent on that of archeologists, philosophers, ecologists, urban planners and historians. I intend to demonstrate how these discourses can inform and be informed by landscape architectural theory and I show below that there are connections between Massey's thinking and discourses in both landscape architecture and the work of Edensor and DeSilvey based around derelict sites. Although Massey's theories are intended to be applicable to all forms of space and place, I suggest they are particularly suited to derelict and post-industrial sites, which demonstrate a high level of heterogeneity, with processes of decay and succession contributing to their inherent instability. In addition her theories consider the action of both human and non-human agencies and factors that exist outside the temporal and spatial boundaries of the site; thus justifying my consideration of historical influences and developments in the wider landscape outside my case study sites. The concept of place as a simultaneity of 'stories-so-far' (Massey, 2005, p.130) also encourages me to take into account a diverse range of voices, many of whom may not previously have been considered as having contributions of any value to make to discussions of place and landscape. The theory gives weight and validity to all elements of a site and demands that attention be paid to both the material and the temporal. It also challenges the scales at which a site would usually be considered, to include, both the small and large scales. The theory also demands consideration of a range of temporal scales, allowing me to examine narratives from the near and more distant past.

I suggest below that Massey's theories also provide a conceptual framework to the discussions within the landscape architecture profession that centre around the meaning of place, the idea of place as process, and the relational nature of place. In turn the very materiality of the sites I am studying must necessarily ground Massey's theories into specific places, albeit ones that are always changing. Massey herself concedes that she is thinking conceptually, writing that 'of course, in the practical conduct of the world we *do* encounter 'entities', there *is* on occasion harmony and balance; there *are* (temporary) stabilizations'

(2006, p.40). However this cannot lead to a rejection of change purely because of the ‘eternal, essential (‘natural’) character of place’ (Massey, 2006, p.40).

2.2.2 Space and place

Massey has developed her theories of space, place and time over several decades, and I will here attempt to demonstrate why this discourse is useful when thinking about the concept of place within landscape architecture. The idea of the specificity of place is problematic; the understanding of place as local, bounded and with a fixed identity implies that place must be defined in opposition to something that is outside it, and therefore place becomes both exclusive and excluding (Massey, 1994, p.5-8). For Massey, this reactionary way of defining place leads to the possibility that places are created that:

‘lay claim to some particular moment/location in time-space when the definition of the area and social relations dominant within it were to the advantage of that particular claimant group’ (Massey, 1994, p.169).

She asserts that this understanding of place as having a single essential identity leads to inward looking and bounded histories (1994, p.152).

Other writers also challenge this way of describing place; they reject the heritage approach to history and the ways in which this approach leads to the development of landscapes to tell a particular story - one that is determined by those in power. The geographer Relph, in his 1976 book *Place and Placelessness*, (1976, p.137), suggests that landscapes have become expressions of an idealised past, and promise a similarly ideal future; they are seen as concrete expressions of the narrative of progress that epitomises the modern era. The archeologist Kevin Walsh (1992, p.79) also discusses how in the late 20th Century conceptualisations of heritage and conservation were selective and partial and the approach did not consider the valuable and varied heritages of a range of local people and communities. What resulted was the commodification and sanitisation of both place and history. Walsh sites open-air museums in particular that ‘produce representations of life-styles that are devoid of conflict and antisocial behaviour’, where ‘the visitor is placed in an

environment of nostalgia-arousal' (1992, pp.97-98). Dicks also discusses this form of cultural consumerism from the sociologist's point of view, and in particular examines place-based regeneration strategies based on a premise of 'salvaging the past and presenting it as a visitable experience' (2003, p.119), but one that is static and predetermined.

More recently academics, notably Emma Waterton and Laurajane Smith, have started to examine heritage from the standpoint of ordinary people within local communities and to suggest new ways of understanding heritage landscapes. Waterton and Smith question the approach to heritage that 'emphasises the authority of expertise to act as stewards for the past and its heritage' (2010, p.12) and have challenged the understanding that heritage is universal and unchanging – that it must always be preserved for future generations. This has given rise to a more nuanced understanding of the connections between heritage and place, see (Hawke, 2010), (Lien and Davison, 2010), (Summerby-Murray, 2007), (Corsane *et al.*, 2008), (Swensen *et al.*, 2013). However my research does not examine sites that have been created with the prime purpose of displaying a particular heritage narrative, although in some cases consideration is given to interpretation of the history of the site for visitors. Edensor and DeSilvey (2012) describe how derelict industrial landscapes are open to a multiplicity of meanings and narratives - in contrast with the fixed and often partial narrative of the heritage site - and in my research I am interested in exploring whether these attributes of the derelict site can persist into the developed landscape.

Massey (1994) suggests that for place to escape from the constraints of fixity and selectivity, it must be considered as process, as a set of unique interactions; 'the identity of place does not derive from some internalised history. It derives, in large part, precisely from the specificity of its interactions with the outside' (1994, p.169). I discuss below anthropologist and archeologist Christopher Tilley's phenomenological theories of place (2006a), (1994), however it is worth pointing out here that they can also lead to an understanding of places as processes, as constantly changing rather than remaining as static points in the landscape, and he too describes how 'their qualities and character can only be

understood relationally, with reference to other places' (2006a, pp.21-22). Massey and Tilley are asserting that places can be understood through their relationships, which might extend far beyond any apparent physical boundary. Writers other than geographers and anthropologists also speak of the importance of relationships in an understanding of place. For example, Lucy Lippard (1997), the writer and art critic, describes place as having 'width as well as depth' (p.7) going on to say, 'it is about connections, what surrounds it, what formed it, what happened there, what will happen there' (p.7). International designer, George Hargreaves is partly known for his innovative work with post-industrial and military sites such as Byxbee Park and Crissy Field. Anita Berrizbeitia describes how, for Hargreaves, relationships between the landscape and its surroundings are fundamental to an understanding of the landscape:

'The corollary of open-endedness is the externalization of *meaning*. Hargreaves proposes that the meaning of the work is not to be found within it, but relocated to the outside, to those things and attributes of the surrounding world that explain the work and give it its logic and poetics.' (Hargreaves *et al.*, 2009, p.62).

Landscape architectural theory also examines the concept of place as relational and Hough (2002) and Woodward (2002b) both write of the importance of relationships on the regional scale, rather than considering only the local. For Hough 'the reuse and integration of the old into the new without fanfare while avoiding the temptation to turn everything into a museum because it's old' (Hough, 2002, p.210) can create links with the past, forming part of the identity of place. Woodward calls for recognition of the relationships that exist in regional landscapes that might then form the basis for new designs, thus contributing to a sense of regional identity. She explains that such relationships can be recognised as patterns in the landscape, 'inextricably linked to the ecological, cultural and economic processes that shape them. '(2002b, p.214). In a similar vein Corner also suggests that:

'the spatial interrelationships of cultural and natural patterns that constitute a particular landscape mean that places are interwoven as a densely contextual and cumulative weave. Every place is unique and special, nested within a particular *topos* or "topography"' (2002, p.147).

Raxworthy (2008) also examines the idea of place being formed through relations between the human and the non-human in both space and time. However rather than looking at existing relationships in the landscape, he shows how landscape designers create relationships in order to give meaning to their designs. He describes the ways visitors to a site are put into relationships with material objects in order to understand or create narratives about the history of the landscape. I will discuss this further in Chapter 4 with reference to two of the sites Raxworthy identifies, Duisburg Nord and Ballast Park Point.

The writings of Corner, Hough, Woodward and Raxworthy, all landscape architects, appear to closely align with Massey's theories, however landscape designers might, in practice, wish for places to be unique and special, something that at first might appear contentious for Massey. In fact she does not deny the existence and the importance of a sense of place, and emphasises its specificity. However this is something that is in constant flux, continually being renewed and developed; it is not merely a result of a linear internalised history (Massey, 1993). Sources of specificity are to be found in the distinct mixture of wider and local social relations reacting with the history of a place – a history that can be understood as as layers of linkages both with the local area and the wider world (Massey, 1993, p.68). 'It is a sense of place, an understanding of its character, which can only be constructed by linking that place to places beyond' (p.68). Anthropologists, Bender (2001) and Tilley (2006a) both agree that any understanding of place is dependent not only on the local but also extended into the global world: 'people's sense of place and landscape ... extends out from the locale and from the present encounter and is contingent upon a larger temporal and spatial field of relationships' (Bender, 2001, p.6).

Massey stresses that she is not arguing for a rejection of the specialness of places, however she describes this as formed by the relations and interactions taking place - an 'event of place':

'what is special about place is not some romance of a pre-given collective identity or of the eternity of the hills. Rather, what is special about place is precisely that throwntogetherness, the

unavoidable challenge of negotiating a here-and-now (itself drawing on a history and a geography of thens and theres); and a negotiation which must take place within and between both human and non-human (Massey, 2005, p.140).’

It is therefore clear that place is not part of a coherent narrative, it is unfinished, it is open, it is woven together out of multiple on-going stories (Massey, 2005). Its character is a product of these stories and their interaction with the wider setting. It is also a product of the exclusions, the relations not established; these all contribute to the specificity of place. Individuals revisit the places in their lives, picking up where they left off, finding out what has happened whilst they have been away, weaving together stories (Massey, 2005, p.130). Massey’s conception of place puts a responsibility on the individual, who becomes implicated in both the lives of others and in relations with the non-human agencies; it challenges us in our everyday interactions to ask ‘how we shall respond to our temporary meeting-up with these particular rocks and stones and trees’ (Massey, 2005, p.141).

In some ways this appears similar to Corner’s thinking, when he asserts that ‘meaning in a given landscape can only occur when the subject is present, moving through it, open to sensation and experience’ (2002, p.148). Marc Treib, Professor Emeritus of Architecture at Berkeley, California, also suggests that ‘meaning accrues over time’ (2002, p.99), it ‘results from a transaction between people and the landscape’ (2011, p.xii). For Corner, this way of understanding landscape owes much to the phenomenological approach; he is describing the experience of an embodied visitor as they move through the landscape. He questions how design can contribute to habitually used landscapes and suggests that there should be an emphasis on engagement and emotional involvement; ‘performance and event assume conceptual preference over appearance and sign’ (Corner, 1999, p.159).

However, although both Corner and Treib are acknowledging the temporal and the relational in their discussions of meaning, they are also envisaging specific physical landscapes; they are a ‘concrete and substantial medium composed of elemental matter’ (Corner, 2002, p.148). There is therefore an implied, and

also common sense, assumption that these landscapes are there already and it is our embodied engagement with them that produces meaning. Corner writes that we experience the landscape over time, and the everyday events and actions that take place add to that experience, (2002, p.148). Massey (2005, p.141) wants us to go further and to understand that every time we experience the ‘throwntogetherness of place’, we must also be open to the challenge of negotiation with others and with the non-human. It is the challenge to engage with the non-human that is perhaps most interesting in the context of my research and I will return to this below.

In her discussion about process and the event of place, Massey is troubled by the seeming timelessness of landscape, and asks herself the question, ‘if everything is moving where is here?’ (2005, p.138). The historian, Arif Dirlik, (2001) is especially critical of Massey’s approach to place, challenging the concept of place as being socially constructed and suggesting that nature needs to be brought back into the picture (2001, p.22). He conceives of place as ‘where the social and the natural meet’ (Dirlik, 2001, p.18), and goes on to use this to emphasise its fixity. Massey however rejects the way in which nature is called upon to give a sense of groundedness to places (2006), and although sympathetic to Dirlik with regard to the importance of nature’s role, does challenge the assumption that nature is stable now, or indeed that at some time in the past all things in the natural world were in balance. She resolves the apparent inconsistency between a landscape that appears unchanging and a theory that insists on the event of place, by considering the changing geology of the landscape; ‘this ‘natural’ place to which we appeal for timelessness has of course been (and still is) constantly changing’ (Massey, 2005, p.133). The rocks laid down many millennia ago may have originated on the other side of the earth, perhaps making a mockery of the concept of an unchanging ‘here-ness’.

There is therefore an interrelation between space and time that I discuss further below, and for Massey place is the here and now, conceived of as an intertwining of histories, ‘where spatial narratives meet up or form configurations, conjunctions of trajectories which have their own temporalities’

(2005, p.139). It is the returning, the meetings and the accumulation of encounters that lend continuity to place. The possibility of continuity being found in the sense of time passing, with its attendant possibilities for constant change, is suggested by Ignasi de Solà-Morales Rubió (1995) in his discussion of *terrain vague*. For him, *terrain vague* are the forgotten places in cities, on the margin, ‘indeterminate, imprecise, blurred, uncertain’ (p.120). Worpole suggests that our urban fringes and green spaces are often ‘hybrid landscapes thrown up by history, twentieth century development and decay’ (2006, p.6); these semi-wastelands are possibly another form of the *terrain vague*. De Solà-Morales Rubió asks how such sites should be approached in the development of the city, suggesting that it is continuity that provides the answer, ‘not the continuity of the planned, efficient and legitimated city but of flows, the energies, the rhythms established by the passing of time and the loss of limits’ (de Solà-Morales Rubió, 1995, p.123).

I have shown how Massey’s (2005) theories impact on an understanding of a sense of place and how this thinking necessitates an understanding of places as ‘integrations of space and time; as *spatio-temporal events*’ (2005, p.130). I single out here three of Massey’s (2005, p.9) propositions about space itself that I consider are of particular relevance to landscape architectural discourse, namely: that space is formed by interrelations and interactions; that it is about multiplicity, and that it is being continually formed and reformed. These propositions imply that space can be defined as being about ‘relations which are necessarily embedded material practices which have to be carried out, it is always in the process of being made’ (Massey, 2005, p.9). Massey is not only stressing the materiality of space but also emphasizing the processes of space-making. Landscape architecture is concerned with making places and I suggest that it is important that the physicality of material practices is not lost in any discussion of place.

However if places are also about processes, there is always a temporal element involved. The urban planner, Kevin Lynch also refers to the links between space, time and our experiences of places; ‘space and time, however conceived, are the great framework within which we order our experience. We

live in time-places' (1972, p.241). The implication of this understanding of place being in the process of becoming is that place must also be unfinished (Massey, 2005, p.141). In practice this may be harder for some to conceive of; designers are challenged to respond to processes and there is an inbuilt implication in this that places will not last forever. This idea that places will change and eventually vanish, is taken to its logical conclusion by DeSilvey (2012) who suggests that rather than conserving or preserving artefacts and landscapes, one might consider how they can tell the story of their history in a way that also presages their future. Below I outline her concept of an 'anticipatory history', one aspect of which is the idea of a negotiation between the human and the non-human (DeSilvey, 2012), (DeSilvey, 2006).

2.2.3 The relationship between nature and culture

I have discussed above how Massey conceives of nature's role within her conceptualisation of space and place and the importance of relationships between both the human and the non-human. Traditionally landscape architectural theory has examined the relationship between the human and the non-human in terms of the binary categories of nature/culture and human/nature (Meyer, 2002). However, as Meyer points out, this 'fails to accommodate the in-between quality of landscape. Theories of the object or thing must give way to theories about the relationships between things' (2002, p.31). Tilley (2006a, p.19) echoes this with his assertion that 'landscapes ... are 'quasi artefacts', part nature, part culture'. Bender (2002) too writes of the way in which landscapes 'make a mockery of the oppositions we create between ... nature (science) and culture (anthropology)' (p.S106) and she goes on to echo Massey's theories about the multiplicity of space when she asserts that 'a person may, more or less in the same breath, understand a landscape in a dozen different ways' (p.106). Treib also asks whether there is a difference between the natural and the constructed, calling for the creation of landscapes 'that will develop from a deeper understanding of natural systems and the human as one element' (2005b, p.226). In the field of landscape architecture, Simon Swaffield (2002) also suggests that the nature/culture binary has shifted

and that instead of focusing on how landscapes might express the relationship between nature and culture there is now emphasis on ‘the conceptualization of landscape existing within a field of relationships, involving both nature and culture’ (Swaffield, 2002, p.73).

Swaffield, Meyer and Treib all agree that the role of landscape architecture is to create relationships between a nature and a culture that are not separate and opposed, but are already intricately woven through the multiple relationships that go to make up a landscape. There is the understanding that humans are one part of these relationships, but they are not seen as outside and in opposition to them, rather it is as Massey has postulated, the human is in negotiation with the non-human. As Anne Whiston Spirn, Professor of Landscape Architecture, explains, ‘nature is a continuum, with wilderness at one pole and the city at the other. The same natural processes operate in the wilderness and the city’ (2002, p.174). This understanding, although it might appear obvious, is particularly relevant when approaching my case studies, many of which were originally highly constructed landscapes in urban or urban fringe sites. Yet when abandoned, it is the agency of non-human factors that create much of their atmosphere; the action of natural processes on the built structures moves the landscapes along the gradient towards wilderness in a way that many find disturbing and unattractive, and yet for others this is part of the attraction of these places. Woodward (2002b, p.215) calls for an understanding of the relationships between the ‘geomorphic, climatic, biotic and cultural processes’ that are operating on and shaping landscapes, suggesting that this is the challenge for landscape design in urban sites. Although Woodward is not discussing derelict sites but is looking at wider regional landscapes, these processes are very evident in the derelict site and are a factor to be considered when discussing its redevelopment.

The concept of a gradient between nature and culture rather than an opposition, is also suggested by Treib (2005a) in his paper on inflected landscapes. He describes how buildings might aspire to merge into the landscape or may be designed to be distinct from it. Landscapes of inflection lie on the gradient between these two extremes, towards the merger end, and are conceived of as

‘places that retain in part the natural order of indigenous materials while articulating an arrangement distinct from the prior form of the landscape’ (Treib, 2005a, p.46). One can conceive of the derelict landscape moving along the gradient towards merger. Whilst it was an industrial site, nature was kept at bay as much as possible, the buildings and infrastructure standing out as distinct, and then as it is abandoned the site becomes one of inflection, natural processes start to take over and gradually it moves towards merger, before disappearing completely. The state of inflection is an ambiguous one where the boundaries between the natural and the built ‘seem to shift and change under differing environmental or temporal conditions’ (Treib, 2005a, p.46)

I have suggested that the concept of nature as part of the multiplicity of trajectories that make up landscape is useful when considering the work of non-human agencies in the derelict site or wasteland. As Whatmore and Hinchcliffe (2002) point out, the urban environment is an ‘articulation of multiple networks connecting cities to other sites and trajectories through the comings and goings of materials, organisms and elements, as well as people’ (p.44). DeSilvey (2006), (2012) and Edensor (2005c), and Jorgensen and Tylecote (2007, p.459) write of the temporality of derelict sites and wastelands and of the juxtapositions of the natural and cultural, the human and the non-human, that contribute to the attraction of these landscapes. As Jorgensen (2012) points out, these sites with their interweaving of ruined buildings and opportunist vegetation cannot easily be categorised, but instead ‘confound accepted boundaries between nature and culture’ (p.5).

Qviström (2012b) describes the blurring of these boundaries in his essay discussing Gyllin’s Garden in Sweden. This garden was once a plant nursery and when it was abandoned local residents slowly began to appropriate it as a space for recreation, growing, harvesting and foraging. This gradual process has allowed an ‘inhabited natureculture’ to develop; to understand the garden it must be conceived of ‘*historically*, as a generative process, rather than *spatially*’ (Qviström, 2012b, p.199).

It is the potential of these sites that is important, their emerging properties, and the relationships between the human and the non-human, and in this research I will examine how visitors perceive these forms of relationships in the developed landscape. There is also a growing awareness of the need to understand how both the expert and the non-expert engage with nature in the city; it may be that certain types of on-the-ground knowledge are as valuable as scientific facts or ecological requirements (Whatmore and Hinchcliffe, 2002).

Qviström (2012a) suggests that the examination and development of industrial ruins in particular, are a way of critiquing the ‘nature-culture divide embedded in the fabric of contemporary cities and modern planning’ (p.256) . He suggests that developments like the High Line and Südgelände, sites I will discuss in Chapter 4, have ‘emphasized the complexity and nature/culture hybridity of the ruin’ (p.258). For Qviström it is important to consider the wide-ranging relationships, or ‘networks’ that exist between the ruin and its surroundings. These include the local, regional and global links that once extended from the industrial site to the outside world and also the relationships between the ruin and visitors who used it after its abandonment, and between the ruin and the vegetation that may now be engulfing it. Development proposals should therefore consider the cultural heritage of the extended site in combination with nature, whilst also focusing on the discontinuities and inconsistencies that ruins can display. As Qviström (2012a) writes:

‘industrial ruins do not simply crumble, but are dismantled, reassembled and reinterpreted ... The way these ruins are reinterpreted and regenerated is decisive for the character and qualities of the urban nature of tomorrow’ (p.273).

2.2.4 Spatio-temporal events

There is an extensive body of literature that examines concepts of time, and earlier in this chapter I touched on the significance of temporality in an understanding of space and place. Here I confine myself to examining discourses that focus on the relations between space and time that have relevance to landscape architectural theory. One of the grand narratives of

modernity concerns the concept of progress, giving primacy to ideas of time and assuming that progress takes a linear course, each step being a move on the path towards an ever more modern and better future (Malpas, 2003) (Massey, 1999). Thinking of time in this way foregrounds ideas of progress and movement, with the result that a dynamic time is contrasted with a static space (Massey, 1993), (May and Thrift, 2001). Tilley (1994, p.9) explains how in the 1970s and 80s geographers and anthropologists understood space as an abstract 'surface for action'; activities, events and the space itself were seen as discrete and separate. More recently the collapse of many of the grand narratives of modernism led to a move away from a discourse that privileged time, and with the emergence of postmodernism and the questioning of the concept of a linear historical progression, some writers even began to discuss the idea of the end of a sense of history (Jameson, 2003) (Jameson, 1998, pp.73-92).

The background to this dualism between time and space is summarised by Massey (1999) with particular reference to Bergson who was influential in arguments advocating the primacy of time. He conceived of time as duration or a continuous flow between past and present (Bergson, 1959, p.1331) cited in (Massey, 1999, p.5) rather than a series of instants, which he viewed disparagingly as being a scientific way of thinking, (see also (May and Thrift, 2001, p.22)). Massey explains that this privileging of time over space results in an understanding that change is always governed by time and space becomes static, unable to be a part of the creative process. Rather than conceiving of change as difference in time, Massey (1999, p.5) sees change as the 'simultaneous existence of a multiplicity of things'. She therefore calls for an understanding of time-space where 'time and space are born together' (Massey, 1999, p.8), and this is expanded on by May and Thrift (2001, p.3), who coin the term TimeSpace to describe 'a multiplicity of space-times', thus allowing them to conceive of heterogeneous and partial processes that serve to 'amplify the presence of the now, to make the present habitable and visible by remaking what counts as past and future, here and there' (May and Thrift, 2001, p.37).

However although Massey (1994) calls for space and time to be considered together, I do not believe that she is suggesting they should become one entity.

As I have shown above, Massey has sought over the course of her writings to posit a space that is made up of interrelations - multiple, diverse, unbounded and full of possibilities. A common-sense approach to space and time suggests that they are irrevocably interrelated and yet we can still conceive of them separately. Thrift and May (2001, p.37) hope that the idea of TimeSpace will allow us to 'inhabit the present as if it were a place, a home rather than something we pass in a mad scramble to realise the future'. However we are all aware of how our minds work, thinking of what has happened in the near or distant past, wondering what will happen in the future, whilst within our bodies we are often rushing forward to the next engagement, rarely fully 'inhabiting the present'. Accepting Massey's (1999) premise that space is a set of interactions, be they on a global or a micro scale, allows us to posit that it is in a physical, experiential interaction that we can become aware of the present. At its simplest this could be the touch of a hand on the bark of a tree, or the sight of sunlight on a wall, it could be a word exchanged between passers-by or the sound of a car backfiring, we might learn of a bomb dropped on the other side of the world or be aware of the ping of an email arriving in our inbox. There is always the potential in the multiple interrelations in space for something to happen - space is always in the process of becoming something new and cannot ever be understood to be completed (Massey, 1999, p.3) - and it is in those interactions that we can briefly experience the present. Once we lose concentration or start to think about what we have just experienced however, we begin again to revisit the past and imagine the future until we become part of some other interrelation pulling us again into the present. In this way we experience multiple temporalities; some interactions can engender memories, which in turn encourage us to reflect on present experiences, or we may use our experiences to imagine possible futures. As Massey (1999, p.8) maintains, space 'is the source of production of *new* trajectories, *new* stories'.

Trajectory is perhaps not the most appropriate term for Massey to use, as it appears to refer to a forward movement, reminiscent of the linear concept of time outlined above. Crang (2001, p.187) describes TimeSpaces in terms of this linear movement, as the 'paths and trajectories that individuals and groups make through the city'. This is similar to Corner's (2002) conceptualisation of

temporality as a 'serialistic and unfolding flow of before and afters' (p.147). However Crang also proposes an alternative to the directional flow of time, describing instead 'loops and recursivity, and fractures and folds in the space-time fabric of the city' (Crang, 2001, p.205). Picturing the interrelations of time and space is a challenge. Pile (2002), who attempts to draw relationships between the structure of the city and the mind, describes the flow of time as more 'like a series of threads which shoot off in several (perhaps opposite) directions at once' (pp.115-116). May and Thrift (2001) use a similar analogy describing time in space as 'various (and uneven) networks ... stretching in different and divergent directions' (p.5).

Strands of time through space form a compelling picture, however it still gives the impression of a series of paths that a subject might or might not follow through a static space. I prefer to imagine space and time as randomly folded layers on, in, between and through which we might form relationships. Hillier (2011, p.869) describes the changes in the composition and understanding of place in terms of relationships which 'fold and unfold, compose and decompose' and suggests that understandings of place are fluid and dependent on interactions, much as Massey conceives of the interrelations of space. In this way we can imagine chance interactions, unforeseen juxtapositions, multiple timeframes and also possibilities of recollection and remembering, much as Benjamin describes the city as an accumulation of historical traces experienced through 'chance associations of the present with dreams and memories of the past' (Nead, 2000, p.6).

The concept of space being composed of multiple temporalities is more than merely an understanding of how various actions occurring in different timeframes leave marks on the landscape. At its simplest one can imagine the landscape as a palimpsest of past interactions that have left traces to be read by the visitor (Lynch, 1972); each of Lynch's physical layers or traces is part of a particular timeframe. Bender (2002) puts this another way; '*landscape is time materializing*: landscapes, like time, never stand still' (p.S103). However an understanding of the interlinking of space and time is more than a discussion of spatial change in different timeframes. The embodied and phenomenological

relationships we have with landscapes can include perceptions of processes, rhythms of change, continuity and discontinuity, together with cognitive and intuitive responses to the physical site, such as recollection, reflecting on the past through the present and expectations of future change. These latter responses are concerned with memory, which I discuss in more depth below, and can in effect transport the individual (or group) to another timeframe as part of the spatial experience. Thus several timeframes can co-exist and or be brought into existence by interactions in space. This leads Bender (2002) to stress, like Massey, that the subjective nature of landscape and time ‘means that the engagement with landscape is historically particular, imbricated in social relations and deeply political’ (p.104).

We experience the interweaving of the spatial - with its potentialities - and the temporal through the medium of our cognition, imagination and experiences. It is not necessary to invent a new word to describe this interweaving of space and time, as Massey (1999, p.11) points out, ‘a refusal to temporalise space ... both opens up our stories to multiplicity and recognises that the future is not already written’. Nor do we need to revisit the dualisms that set time against space, prioritising one over the other.

This way of approaching space and time is useful to my research in two ways. The first I have discussed in detail above; it is in the possibilities it raises for understanding place as unfixed, unbounded and unfinished. This is important as I would suggest that all landscape design is about creating places, whether the designer thinks of their creations as finished with defined meanings or as a canvas ready for interactions and new diverse understandings (Treib, 2002) (Treib, 2011). Massey’s (2005) conceptualisation of the interrelation of space and time would maintain that only the latter construction of place is valid. Nevertheless concepts of ‘place-making’ are high on the agenda of developers and politicians, and place is often spoken of in planning and landscape architectural contexts as something finite and definable with little allowance being made for relational and process-based aspects.

The second way in which this theory is relevant is when thinking about the meaning of temporality in the derelict and developed sites discussed in this research. The presence of very visible and conflicting temporal layers raises challenges for designers, as Langhorst explains:

‘Brownfield and postindustrial sites are particular because collisions and overlaps between human and non-human processes occur in an extremely condensed manner, layering issues of cultural, social, economic and ecological construction and fragmentation in their interdependences, hinting to more fundamental questions of human existence and interrelations with the environment.’ (Langhorst, 2004, p.6).

2.3 Phenomenology, materiality and place

Research into place attachment and place meaning lends itself to a phenomenologist approach (Lewicka, 2011) and geographers, anthropologists and others follow a phenomenological methodology in their work including Tuan (1990), Relph (1976), Seamon (2000), Patterson and Williams (2005), Twigger-Ross and Uzzell (1996), Tilley (1994). Phenomenology emphasises the embodied engagement through sensory experiences with the materiality of landscape; ‘we comprehend both things and persons through our embodied being in a lived world which we share with others’ (Tilley, 2006b, p.8). We are able to see, touch, smell, hear and taste things as we move around in the world and it is through these senses that we perceive the world. Merleau-Ponty (1962, p.131) suggests that perception always precedes reflection and thinking; it is a ‘living system of meanings which makes the concrete essence of the object immediately recognizable’. Thomas (2006) explains this further, ‘sight, touch and movement provide quite particular ways of entering into relationships with things, and none of these can be achieved by a disembodied mind’ (p.48). He justifies this by giving the example of how we might spontaneously say, “my leg is itchy” rather than engaging our mind and analysing what is happening to our nerve endings. However we bring to this embodied relationship with the world, multiple and diverse contexts, different relationships and our cultural values (Thomas, 2006, p.46) and therefore ‘phenomenology will tend to lead towards more extensive reflections’ (Thomas, 2006, p.48). Tilley (2006b) sums up why the phenomenological perspective is so relevant to a study of landscape and the material things within it:

It enables ‘a detailed description and analysis of things as we directly experience and perceive them, from a distinctively human and sensuous perspective. This is to stress material forms as encountered through the multiple sensuous and socialized subjective apparatus of our bodies (sight, sound, touch, smell, taste)’ (p.8).

Tilley includes the word analysis in his explanation of the phenomenological process. Discussions of embodied experiences, in their concern with removing the distinction between mind and body, often appear to downplay the action of the mind in the form of reflection or of prior understanding and knowledge.

However Thomas (2006) points out that any ‘engagement with a particular entity leads us into an expanding web of relationships’ (p.48). Thus, reflection is part of the embodied experience. The phenomenological approach, however, stresses that the body is ‘itself a source of knowledge and subsequently agency’ (Pink, 2009, p.24). Pink’s (2009) writings are helpful when thinking about research methodology and I will discuss this further in Chapter 3. She advocates a way of working that ‘attends to the question of experience by accounting for the relationships between bodies, minds and the materiality and sensoriality of the environment’ (p.25), and she stresses that our sensory experiences must be understood in the light of our previous knowledge and understanding. This approach is relevant for my research as, in asking people questions about their perceptions of the world I am immediately taking a step away from a purely sensory response and asking them to reflect on their responses. However in taking a ‘walking with others’ (Pink, 2009, p.78) approach I, and my interviewees, are part of the embodied experience, as I will discuss in Chapter 3.

It is clear therefore that any embodied experience is complex, involving: sensual responses; reflection; prior knowledge and understanding; the material forms we encounter; the other people around us; relationships to the wider world and the context we are in. This takes us back to Massey (2005) and an understanding of place as a coming together of multiple, dynamic relationships that people form a part of at any one moment in time. As Tilley (2006a) says, ‘the backgrounds of a thing are constituted out of a whole network of past experiences and future expectations’ (pp.27-8). I have chosen to approach my research from this angle, examining the embodied relationships (in the senses discussed above) between my interviewees and the materiality of the landscape, rather than from an explicit consideration of place attachment or place identity. After much reading on these subjects I have come to the conclusion that in an examination of the case study sites and their material, spatial and temporal qualities, it is more useful to look to the discussions of embodiment, of material culture and interrelations described above. The materiality of landscape is fundamental to my research; as Bender (2006) says ‘although our engagement with the land is subjective, the land itself, because

of its materiality, ‘talks back’ – it sets up resistances and constraints’ (p.303). In my research I intend that my results will make suggestions about the effects the material and temporal qualities have on the interviewees and their experiences that will prove useful to designers and landscape architects when making decisions about the development of these types of site. It is clear that these effects will contribute to people’s sense of place attachment and place identity. However, there is extensive research in these areas but little into the types of material, spatial and temporal qualities that people respond to, or into how the ways in which such qualities are incorporated into the designed landscape affect these responses².

I will however mention here Manzo’s (2005, p.74) paper, in which she asserts that meaning is created by ‘experience-in-place’ – both the experience itself and the location in which it took place. One of the themes that emerge from Manzo’s research concerns continuity; people identified places as significant to them when they ‘acted as bridges to the past’ (p.74). She asserts that this takes two forms; places are the enabling factor by which memories can emerge, whilst the reverse is also true, memories ‘enable places to emerge as significant’ (Manzo, 2005, p.78). Manzo points out that a sense of continuity is mentioned in the work on place by both Gustafson (2001) and Twigger-Ross and Uzzell (1996). Gustafson explains how the temporal plays an important part in people’s understanding of the meaning of place; places might be meaningful because they are a part of an individual’s life story or they may be seen as meaningful for their historical attributes³. Twigger-Ross and Uzzell (1996) discuss continuity with respect to place identity – how places contribute to the construction of a self-identity. This might lead them to create attachments to specific places that remind them of their past lives or they might seek out places that have certain generic attributes that reinforce their sense of themselves as a certain sort of person. The ability of material forms to construct identity is also noted by Tilley (2006a) who states that they ‘may act as key metaphors of embodied identities, tools with which to think through and create connections around which people actively create identities’ (p.23). However, as I discuss below, there is controversy around whether it is possible to **intentionally** use material forms to create meaning in landscapes. These

differing aspects of continuity with relation to place are perhaps best summed up simply by evoking the embodied approach to experience in place; 'by moving along familiar paths, winding memories and stories around places, people create a sense of self and belonging' (Bender, 2006, p.306).

2.4 History, memory and place

2.4.1 Situating my research within concepts of heritage and memory

There is an extensive literature around the concept of memory and in this section I limit my discussion to an examination of the theory around the interaction between place and individuals' recollections and memories. My research is examining the responses of users to the case study sites and the intention is that my results will contribute to theory and practice in the field of landscape architecture. I therefore detail here the theories that pertain to spatialising and emplacing memory and the embodied experience of memory, with the intention of exploring whether what is predicted in these theories, and perhaps intended by the landscape designers, is in fact observable on the ground by my interviewees.

There are two opposing views as to whether buildings, landscapes and artefacts can have memories embedded in them, almost as if the memories are lying dormant, waiting to be reactivated by the user into a fully fledged memory. The boundary between what is defined as history and what is spoken of as memory can sometimes become blurred. People often speak of the importance of preserving historical artefacts so that we can remember, however the remembering is not usually in these cases a personal memory about our own life history, but rather an awareness of a past that we might already know about or might choose to find out about in more detail. It is worth mentioning here the various understandings of the term heritage that are used to describe historical and memorial landscapes. At one extreme a heritage site is one that is specifically created to display a particular aspect of cultural history. These stories are presented at a particular point in the site's history in order to support a certain cultural identity, whilst ignoring other pasts and other stories (Tilley, 2006a). At the other end of the spectrum, heritage can describe the everyday history and memories of local communities. This latter understanding of heritage stresses the importance of community but in doing so assumes that all

members of the community agree, that there are no differences and nobody is excluded, however this is not always the case, as Waterton and Smith show (2010). They also point out the inequalities in the accepted discourse around traditional heritage practice where ‘communities of expertise have been placed in a position that regulates and assesses the relative *worth* of other communities of interest, both in terms of their aspirations and their identities’ (p.13).

The derelict industrial and military sites I am focusing on in my research are often held up as examples of landscapes where engagement with the abandoned physical objects can give rise to diverse involuntary memories in contrast with the fixed meanings of the traditional heritage site (Swanton, 2012). None of my research sites have been designed specifically as heritage landscapes, and yet they all make reference to their history to a lesser or greater degree. However my research focuses on individuals’ responses to the case study sites and therefore I consider the discourse around memory and history discussed below to be of more relevance than that specifically focusing on heritage.

2.4.2 The entanglement of history and memory

Riegl (2004, p.56) writing in 1928 defines the concept ‘age-value’ to be the value put on an artefact in view of its appearance of aging and decay and that ‘the cult of age-value ... stands in ultimate opposition to the preservation of monuments’ (p.59). For Riegl, this sense of the passing of time that is written on the surface of the artefact or monument enables the visitor to have a sense of memory, but nothing more; they are not able to bring to mind information about the event the monument is commemorating (Otero-Pailos, 2009, p.250). Nora (2004) in contrast, in his 1989 work *Les Lieux de Mémoire* asserts that memory has been eradicated by history⁴. For him history is about a linear progression and a set of relationships between things with the purpose of ordering the past, whereas memory ‘takes root in the concrete, in spaces,

gestures, images and objects' (p.236). For Nora the result of our loss of memory is an increased interest in the museum and the archive.

However other writers also point out that there has been an increased interest in the historical artefact towards the end of the 20th Century. This is a reaction, suggests Huyssen (1995), to the sense of constant change, the celebration of the new and the rejection of the obsolete that characterises the modern world. The result has been an awakening of interest in preserving local ways of life and conserving objects that might previously have been seen as worthless (Huyssen, 1995, p.28). The expectation that everyday objects might tell the story of people's lives long after they are gone (discussed by Kuchler (2006, p.328)) is not, however, a recent development, as evidenced by our museums overflowing with artefacts and remains from past cultures. However Huyssen is right that recently there has been an increased interest in local history and the personal and quotidian objects that tell the stories of this history. Till (2005, p.13) and Lowenthal (1985) suggest that this interest is driven by the need to confirm that the past existed and to validate our sense of self through our memories; there is a desire to preserve objects, 'reaffirming memory and history in tangible format' (Lowenthal, 1985, p.191).

Christine Boyer (1996) is an urban historian and in her book about the city and memory she comprehensively examines and attempts to untangle the links between the city, history and memory. She describes how in the 19th and early 20th centuries there was the expectation that 'place and monuments [would] transfer meaning and knowledge across generations', (p.17), and that thus these buildings and artefacts would be the source of memories. From the industrial revolution onwards, the writing of history has been a linear process that describes a progression whereby the future is always an improvement on the past (Boyer, 1996, p.21-22), (Till, 2004, p.75), (Sharr, 2010, p.515)⁵. Boyer (1996) posits an alternative 'City of Collective Memory' that is composed of layers of history that may remind us of forgotten memories or, because we no longer know or understand the original purpose of the artefacts we encounter, may allow us to 'substitute invented traditions or imaginary narrations' (p.19)⁶. This conceptualisation of the city is much like Schama's (1995) description of

how a greater understanding of landscape might be gained by ‘digging down through layers of memories and representations toward the primary bedrock’ (pp.16-17). Similarly in his paper on the industrial landscape of the Ruhr in Germany, Swanton (2012, p.267) suggests a that a ‘montage of fragmentary encounters’ with the wastelands and derelict landscapes left behind after the regeneration process can contribute to a multiple and diverse memories, allowing space for stories about the lives of the people who worked there.

However, Boyer’s city is one where history and memory are opposed; memory is as de Certeau (1984) suggests ‘a sort of anti-museum; it is not localizable’ (p.108), whereas history is concerned with fixing things and processes ‘within newly erected frameworks’ (Boyer, 1996, p.133). For Boyer, as for de Certeau, memory cannot be localised and as such the city that she is envisaging is one where memory can be activated through the creative connecting of disconnected events that might come about as a result of the ‘randomness, disturbances, dispersions and accidents’ that happen in the city (p.68). Boyarin (1994) too sees memory as a creative and experiential act of ‘collaboration between present consciousness and the experience or expression of the past’ (p.22).

2.4.3 Embodied and emplaced memories

Boyer’s creative and indeterminate ways of remembering contrast with the philosopher Edward Casey’s (2000) ideas of how memory can be embodied in place; he explains that ‘concrete places retain the past in a way that can be reanimated by our remembering them’ (p.x). Casey believes that the memory is in some way emplaced in the landscape, ready for us to remember as we, as embodied beings, move through a specific place (pp.182-194). Tilley (2006a) also suggests that ‘places and landscapes anchor memories because we do not remember in a disembodied placeless manner’ (p.25). This results, says Casey, in a place that is bounded and specific and can thus become a way of holding memories that we can then connect with through our bodies as we re-experience the place. Place is conceived of as an enclosure for our memories,

and it is in the things we encounter within place that we can emplace past memories (Casey, 2000, pp.205-212).

There are two problems with this conceptualisation of memory and place. The first is political; if place - and the material objects therein - becomes a way of containing the past, then problems can arise when the memories associated with this place are contested and appropriated for particular purposes (Till, 2005). I also have difficulty with the importance Casey puts on the specificity of both place and memory; we have all experienced how a particular sensory experience can lead to a memory that might be unrelated to the place we are in. This is most evident in the case of the sense of smell; for me it is a particular combination of fresh coffee and hot porridge that can transport me to my grandparents' breakfast table as a child. This is an example of what Connerton (1989, p.21-22) would call, a personal memory, one in which I reflect on my life history; this form of memory requires a context or centres on a particular experience. In my case the context is the breakfast table, but the sensory perception that brings the memory to mind is a chance experience that may occur in a very different context from the original experience.

Casey (2000, p.206), like many of the academics who write about memory, quotes Proust (1981) to support his argument:

‘As soon as I had recognised the taste of the piece of madeleine soaked in her decoction of lime-blossom which my aunt used to give me ... immediately the old grey house upon the street, where her room was, rose up like a stage set to attach itself to the little pavilion opening on to the garden ... house ... town ... errands ... country roads ... flowers ... sprang into being, town and gardens alike, from my cup of tea’ (p.51).

However this quote makes clear that although the memory is emplaced in the madeleine, it opens the mind to a wealth of different experiences and places; the memories run from one to another like relay racers passing the baton between them. As Küchler (1999) explains, the madeleine ‘does not stand in for, and thus assist in the recollection of forgotten events, but effects a synesthetic experience of remembering’ (p.54). Proust, although interested in the ways in which a thing might spark a memory, stresses, as do Forty (1999,

p.16) and Crinson (2005, p.xv), that this process is one of chance and cannot be predicted or depended upon.

Forty (1999) puts forward the counter argument to the belief that objects can retain memories. He is particularly scathing in his rejection of the idea that buildings can ‘provide a complete and satisfactory analogue for the mental world of memory’. Forty refers to the architect Rossi (1981) who believed that it was possible to design using universal forms that people could relate to. Boyer (1996, p.196) mentions such forms as the lighthouse, the coffee pot and columns as examples of the elements that Rossi suggested should be used. For Rossi (1981) these forms had the potential ‘to be the way back to experience, to memory, and awakening’ (p.23). In some ways this is similar to Lynch’s (1972) suggestion that parts of the city are retained as ‘psychological anchors’ whilst change is taking place around them. There is the expectation that people will recognise the form of the preserved element and gain a sense of continuity from the feelings and memories that it engenders. Crinson (2005) suggests using the phrase ‘urban memory’ to encompass this idea of the city as both a landscape and ‘collection of objects and practices that enable recollections of the past and embody the past’ (p.xii).

Küchler (1993) does not totally reject the idea of a connection between landscapes and memories, but attempts to distinguish between two types of memory landscapes; ‘landscapes of memory’, created for the purpose of remembering, and ‘landscapes as memory’, lived in and constantly changing. Bender (1993, p.11) summarises these respectively as: ‘landscape as inscribed surface from which social and cultural relations can be read’ and ‘landscape as process’. Küchler is an anthropologist and is concerned with the social memories of non-Western societies, however the concepts of landscape as inscribed surface and landscape as process fit well with discussions within the discipline of landscape architecture.⁷ The difference between the two landscapes in terms of the emplacing of memories appears to be to do with intention and change. The landscape of memory is contrived to create a permanent historical record, whilst the landscape as memory is a place ‘where

new experiences and memories can be formed and re-visited' (Millman, 2011, p.35).

The idea of memory landscapes is also examined from an environmental psychological perspective by Lynne Manzo (2005), who suggests that there are two ways of looking at the interrelation of memory and place. In one the memories allow places to emerge as significant, whereas in the other the contrary is true and place enables memory to emerge. She sees both of these aspects of landscape as 'bridges to the past' and ways of maintaining continuity and I discuss continuity in more detail below. The idea of creating a bridge to the past through place and memory implies that there is fluidity between the past and the present and that the flow can go in both directions. This is not quite the same as thinking of landscape as an *aide memoire*, but rather it acknowledges the interrelation of memory and place and of past and present; as I have discussed previously, place is in the process of becoming.

Perhaps the best description of how memory and place are interrelated is given by Till (2005, p.11) who cites Benjamin (1972):

'memory is not just information that individuals recall or stories being retold in the present. It is not layered time situated in the landscape. Rather, memory is the self-reflexive act of contextualising and continuously digging for the past through place. It is a process of continually remaking and re-membering the past in the present rather than a process of discovering objective historical "facts"' (pp.486-7).

Till is drawing on the idea of place as process that I have discussed above; memory is a process of reflection that is informed by the materiality and temporality of place, within the context of the knowledge and past experience of the individual. It is not an unchanging artefact that stimulates remembering but 'the process that slowly pulls the remnant into other ecologies and expressions of value' (Crinson, 2005, p.xv). Place can stimulate a train of associations that extends beyond any apparent physical boundary (da Costa Meyer, 2009, p.180).

The question arising from the ideas discussed above is not only whether places can be designed to engender memories but also, if they can be, what is it that 'should be brought to mind' and are there certain characteristics of place that encourage the production of memories (Lyndon, 2009, p.63). Lyndon believes that places become memorable through the combination of 'formal structures with special coherence or power' (p.64), and the events and experiences that happen there. The concept of incorporating formal universal structures within architecture is similar to that advocated by Rossi, however Lyndon suggests the more abstract forms of the dome, pyramid and colonnade as examples. He describes the dialogue that is set up in architecture between the stabilising form – the encompassing formal structure - and the sensory experience of moving around and thus experiencing different visual effects (Lyndon, 2009, p.72). Lyndon is suggesting that places can be created that both allow for individual experiences and retain elements that speak to a common understanding; 'we need places where we can lodge hooks that can be used to secure common ground' (p.83). His hope is that certain forms can be universally read and understood, however the possibility of these being comprehended in a collective fashion diminishes as our cities and urban environments become more and more socially diverse in their makeup. The people using these spaces are not only from different cultures but also from different educational backgrounds and the intended meaning may be indecipherable or misunderstood (Treib, 2011). Nevertheless Lyndon is attempting to create architecture that both makes links with our past and also makes us aware of our 'saturation in the natural and constructed worlds'. He is calling for an architecture that offers something more than the physical experience in the present; it should afford opportunities for 'reflection and association' and make links with the 'history and ecology of the territory, and to the imaginations of the immediate community' (Lyndon, 2009, p.82).

Sharr (2010) also describes how architecture can make reference to past histories and create possibilities for recollection whilst also remaining open to new possibilities and new memories. He suggests a form of 'sedimentary archaeology' as a way of designing that makes possible the 'embodiment of memory in architectural form' (p.512). According to Sharr, the Chapel of

Reconciliation in Berlin achieves this through the way it incorporates new materials, such as a rammed earth wall, to metaphorically suggest archeological layers of past buildings and landscapes, whilst also working with historical materials that can draw attention to the tensions between absence and presence (p.503). For Sharr it is the material elements of the Chapel, both new and old, that embody memories.

Lyndon and Sharr, both with an architectural background, focus on the role buildings can play in remembering and recollection. In their examples they examine what could be considered to be significant and important buildings. My research takes account of a range of projects; from the designed landscape - with high levels of intervention on the part of the designer - through to more natural and everyday landscapes. Rishbeth and Powell's (2013) recent research explores the relationship between everyday, habitually used landscapes and the role of memory for first generation migrants from diverse backgrounds. They conclude that these landscapes are 'overlaid with memories and emotions associated from other places and moments in the participants' pasts' (p.174). These users were able to gain a sense of continuity from the connections they made between their memories of other landscapes and their experiences of their new environment. However the research found that it was not the visual similarity of landscapes or of particular structures within the landscapes that stimulated memories but rather the recognition of 'natural objects and patterns' (p.169) and also the experience of being outside or of moving through the landscape.

Mah (2010) also explores everyday landscapes in her discussion of memory with relation to the changes caused by the closure of the Swan Hunter shipbuilding industry. She uses the term 'living memory' to describe the memories of the people who are experiencing the process of destruction of their industry, jobs and livelihood, and are facing the regeneration of their local area. Mah suggests that living memory is experiential - a part of the process of industrial decline (p.403) - and it takes different forms for different people. The shipyard workers spoke of the politics that was the background to the closure of their industry, and their memories were of loss and sadness, combined with

resignation, however Mah also details accounts of community life played out against a background of the industrial history. Many wanted to protect the memory of their industrial and communal past from the forces of regeneration, understanding that in some way this was a threat to their memories. Mah concludes that when finally all trace of the industrial past is erased, living memory will also end (p.411).

Casey's phenomenological approach taken to the embodied experience of place and memory is developed by Vergunst (2012) and Ingold (2012), both anthropologists, who describe how spaces can be understood through movement and gesture. Vergunst gives the example of a ruined house and describes how the act of crossing the threshold brings the memory of other thresholds crossed, even though the house is barely more than the threshold and a few ruined stone walls. Similarly he describes how he found an abandoned quarry containing several worked stone lintels left on the hillside, and yet now 'embody[ing] those absent workers' (Vergunst, 2012, p.32). Memory is thus understood as evoked through the physical recognition of certain movements – stepping over the threshold or following in footsteps along a path; it is the combination of the bodily experience and the physical object. This way of understanding the links between memory and place is also discussed by Edensor (2005a), who describes how one might encounter the ghosts of the industrial workers in abandoned buildings and the fragments and artefacts left behind.

2.4.4 Memory and forgetting

I have mentioned briefly above the tension that can arise between absence and presence in architecture (Sharr, 2010), and it is clear that the concepts of absence, loss and forgetting are relevant to a discussion of memory in relation to derelict sites. The ruin has traditionally been seen as a symbol of loss and a reminder that all things will eventually decay and return to nature; it is a physical embodiment of the passage of time (Roth, 1997a) (Merewether, 1997). A ruin is also an *aide memoire*, it 'grants a sense of history to new

construction and can prevent us from forgetting' (Treib, 2009, p.197).

However Treib also questions whether the industrial ruin, when incorporated into a developed site, can be understood by people who did not know the site when it was operational. He comments that 'buildings are ... stubbornly inarticulate and the stories they have to tell are latent rather than overt' (pp.209-10). Those interested in the discourse around industrial ruins would disagree however, and point to the experiential qualities of the ruin that can conjure up forgotten memories, the traces of workers lives that stimulate the imagination and the embodied memories that are experienced when moving through the derelict site (Edensor, 2005b) (Edensor, 2005a) (DeSilvey and Edensor, 2012) (Garrett, 2011).

The decaying ruin, although a source of memory and recollection, is very different from a monument designed specifically to engender memories. However as Crinson (2005, p.xvii) points out, monuments are often in danger of becoming a part of everyday life something to walk past and ignore. It is only by re-remembering, for example at an anniversary, that monuments can retain their mnemonic power. Tilley (2006a) suggests that although monuments can help to preserve memories, they do so in 'a selective manner, simultaneously erasing part of it' (p.24). DeSilvey (2010) points out that research into the memories engendered by preserved and displayed historical artefacts shows that such memories cannot be controlled. It is not always possible to contain 'the practice of memory with any precision' (p.492). It was this understanding that led to a move in the late 20th Century to find ways of bringing the temporal into the creation of monuments – thus the counter-monument was conceived⁸. Young (1993) writes of how 'the countermonument asks us to recognize that time and memory are interdependent, in dialectical flux' (p.47). Their creators hope that the changing, temporary and ephemeral aspect of these monuments can help memories endure (Stevens *et al.*, 2012). However Stevens *et al* (2012, p.968) suggest that although counter-monuments can be successful in the ways they engage with personal memory they face the same problems as traditional monuments when the memory of a group or nation is considered⁹.

The idea of the disappearing monument can inform thinking about the derelict and the ruined. Is it possible that the absence of an object or structure can provoke memories as well as the presence? The artist Sophie Calle visited the former East Germany and singled out empty plinths where monuments to the leaders of the communist regime had once stood. She asked passers-by to describe the objects that had once occupied the plinths and ‘photographed their absence and replaced the missing monument with their memories’ (Kaernbach, not known). Calle found that the memories of the residents were not only contradictory, but it appeared as if the monument ‘had been detached from people’s memories’, and yet the memories were emotional and demonstrated the enduring links between residents and their history (Kaernbach, not known). Nevertheless such memories sparked by absences must eventually fade as the people who had once known the monument die or move away; then the plinth may become the source of new memories unrelated to its political history.

2.5 Form and materiality

I have described how an embodied individual can experience the materiality of landscape and here I want to consider the subject of material and form in more detail. Embodiment necessarily implies a relationship between the individual and the materiality of the landscape. What results is unpredictable, as Spyer (2006) explains:

The material complexes, networks, bodily conducts and sensescapes extending out from and accommodating the exchanges among embodied subjects and sensuous things ... are invariably contingent, unstable and dynamic, and not necessarily, or exclusively human-centred or derived' (p.125).

Spyer describes the sensory nature of exchanges between people and things; however it is important to remember that the intertwining of the temporal and the material also impacts on any discussion of place. Tilley (2006a) explains this link between the material and the temporal in terms of context, a context that is subject to temporalities:

'The diachronic aspect of context constantly affects the way we perceive figures and grounds. Thus things have culturally emergent properties. So material forms always have meanings and relationships extending beyond themselves. ... They are always more than themselves: in a process of *becoming* rather than a static state of being' (p.28).

This interlinking of the material, temporal and contextual sets a challenge for landscape designers. I have mentioned how some of those writing about landscape architectural theory stress the importance of relationships on a regional scale, with reference to both the cultural and the natural histories of the area (Hough, 2002) (Woodward, 2002b). Thayer (2002) also considers the relationships between landscape and nature and the form of the designed landscape. He suggests that sustainable landscapes could be designed using a version of the modernist edict of form following function. However in this case:

'form will follow a highly complex, evolving notion of the core interrelationships of nature, and will be expressed uniquely in the surfaces of local landscapes as experienced by local cultures' (Thayer, 2002, p.191).

I have also shown earlier in this chapter how place and space are always in the process of becoming and thus an understanding of temporality and process are considered key to an understanding of landscape. How then are designers to approach ideas of form and the materiality of landscape? Corner (1999) emphasizes the importance of experiential engagement with landscape and suggests this must lead to an interest in the ‘processes of formation’ rather a focus on the appearance of objects (p.159). However Olin (2002, p.77) maintains that forms are the basis of landscape architecture and that new meanings are created in the transformations designers make to a known set of forms. He goes on to suggest that ‘new material consists of the re-presentation or recombination of material that has been forgotten or has been deemed banal or out-of-bounds’ (pp.79-80). This idea of the forgotten or rejected material becoming the basis of new ideas is particularly interesting for my research.

However the challenge still remains, to consider both temporal context and relationships when working with forms. Cathy Dee’s background is in fine art and landscape architecture and in her paper (2010), examining the teaching of design, she puts forward the suggestion that designers should ‘treat landscape forms as *trajectories*’ (p.28). Within landscapes, forms change - ‘form has the potential to speak of multiple timeframes’ (p.28). These changes may be natural seasonal and climatic changes, or they may be wrought by individuals. Dee sets a challenge to designers to work with forms, maybe in exaggerated or abstract ways, to ‘throw into relief time, whether of cosmological, geological, hydrological, vegetative, or human lifespan’ (p.29).

I suggest that this prioritising of forms in the creation of landscape echoes Massey’s theories of place and space as I have discussed in detail above. Dee is calling for a reassessment of the role of form in landscape design and suggesting a way of integrating this with the temporal and relational context of the place.

The concept of forms as trajectories in time is one that is discussed in detail by DeSilvey (2006), however she approaches the idea from the standpoint of one

challenging traditional ideas of curatorship and heritage. She points out that ‘in conventional terms, in order for the object to function as a bearer of cultural memory it must be held in perpetuity in a state of protected stasis’ (DeSilvey, 2006, p.326), and suggests that there might be an alternative to this museum-style approach to heritage; one in which the object is seen as ‘a dynamic entity that is entangled in both cultural and natural processes’ (DeSilvey, 2006, p.324). This way of approaching the concept of heritage can be useful when thinking about the materiality of derelict sites and the ways in which such sites can be designed and developed.

However DeSilvey goes further, relating this concept to landscape and asking:

‘might it be possible to experiment with other ways of storying landscape, framing histories around movement rather than stasis, and drawing connections between past dynamism and future process?’ (DeSilvey, 2012, p.31).

She advocates bringing together a combination of historical and recent data so people might understand the process of landscape change and this might then suggest alternative futures. DeSilvey calls this approach an ‘anticipatory history’; a history that points to possible futures. She refers to Lynch’s (1972, p.168) call for designers to make visible reference to historical events by means of a ‘temporal collage’ in which different material elements are juxtaposed in ways which give new meaning whilst still ensuring that each ‘layer’ is understandable (Lynch, 1972, p.173). Lynch describes in detail this way of integrating the history of the site into the new landscape:

‘We need not be so concerned about perfect conformity to past form but ought rather to seek to use remains to enhance the complexity and significance of the present scene . . . to make visible the process of change. The achievement of the aim requires creative and skillful demolition, just as much as skillful new design. We look for a setting that, rather than simply being a facsimile of the past, seems to open outward in time’ (Lynch, 1972, p.57)

DeSilvey and Lynch’s ideas when combined with Dee’s suggestions of how to change the ways in which form is conceived, are particularly useful when considering ‘in-between’ sites that have had a period of dereliction that is evidenced in the developed landscape. They necessitate an approach that takes

account of material and temporal aspects whilst also requiring an understanding of processes such as decay and succession, and the effects these might have on the site and its future.

Discourse around the derelict site is also useful in understanding how individuals might respond to decaying material objects and structures. DeSilvey and Edensor (2012) describe the ways in which the ruin can make visible multiple timeframes but they also suggest that the disorder and decay of the ruin can foreground the materiality of objects leading to new engagements with the past and with our memories. Edensor (2005c) explains how when a factory is abandoned the material elements become removed from their ordered relationships, and their meanings and uses are obscured. In addition to this loss of a contextualising structure, objects decay and disappear or are recombined with other things, and thus ‘teeter on the edge of intelligibility’ (DeSilvey, 2006, p.336). This raises the question of how we might understand these things in their new states (Edensor, 2005c, p.324). Edensor also goes further suggesting that all material things are subject to processes that may be indecipherable and unexpected and therefore they become ‘impossible to narrate in any totalising fashion’ (Edensor, 2011, p.250).

DeSilvey’s re-evaluation of the decaying artefact and reassessment of what it might mean to preserve a historic site or a landscape is particularly relevant to the sites I am examining in both phase one and phase two of this research. The inevitable result of allowing material things to decay without intervention is that they take on new forms and indeed eventually disappear. However DeSilvey points out that all conservation strategies makes choices as to what is worth preserving and what can be lost, and she suggests that ‘decay itself may clear a path for certain kinds of remembrance despite its (because of its?) destructive energies’ (DeSilvey, 2006: p326). These choices are already being made; the National Trust (2005) already takes an approach of managed retreat to some of their coastal properties.

However these policies are controversial and even on a small scale the sight of decaying artefacts can be deemed unattractive and unacceptable. The

anthropologist Mary Douglas (1995, p.36) famously describes dirt as ‘matter out of place’. She asserts that until dirt becomes part of an undifferentiated mass, it is perceived as dangerous. When it is still recognisable, we fear it. If it does not fit into a recognisable category, it is neither waste nor thing; ‘their half-identity still clings to them and the clarity of the scene in which they obtrude is impaired by their presence’ (Douglas, 1995, p.160-161). DeSilvey points out that traditionally in preserving the artefacts we ‘neutralize these ambiguous perceptions through a set of value judgements that render materials into distinct categories of ‘artefact’ and ‘waste’ (2006, p.320).

Lynch’s (1972) temporal collages serve to recycle waste in new patterns and designs and thus give it order again. It is this that links a discussion of waste and decay with the idea of temporal forms and it will be interesting to examine my case study sites in the light of these ways of thinking about the materiality of landscape.

2.6 Imagining the past in the present

DeSilvey and Edensor (2012, p.3) suggest that ruins have value because they can ‘challenge dominant ways of relating to the past’. I have explored the importance of the ruin in detail above and discussed the differences between an approach to the past which encourages the visitor to engage with the site and its history in varied and diverse ways, with that of the heritage landscape where the past is packaged and displayed for our consumption and often focuses on one approved historical narrative. In this section I introduce Ingold’s (2012) discussion of how we might relate to the past through landscape, as an alternative way of thinking about the past and consider whether it is useful in a discussion of derelict landscapes.

Ingold takes a phenomenological approach and his understanding of how an individual engages with the landscape focuses on the concept of embodiment, as I have discussed above. An embodied experience is a mutual relationship between landscape and person, and between bodily perception and reflection. Ingold uses the example of the artist Richard Long’s walks through the land as a way of apprehending landscape as a ‘never-ending, contrapuntal interweaving of material flows and sensory awareness’, going on to assert that when we embodiedly engage with the landscape through our senses we can be considered to be ‘imagining the landscape’, ‘we are *alive* to it’ (Ingold, 2012, pp.16-17). For Ingold, this way of imagining is a creative act that happens as we move through the landscape and engage with it. (Ingold, 2012, p.7). However Tuan (1990) points out that an individual’s perceptions are mediated through their prior knowledge and memories and their personal, cultural and social background. Treib (2002, p.93) coins the term ‘frame for reading’ to describe this background context in which we perceive and engage with landscape. Ingold’s focus on an existential and embodied experience of the world is much the same as that of Merleau-Ponty (1962, p.203) and of Thomas (2006), and is designed to challenge the historian Simon Schama’s (1995, p.16) suggestion that the perception of landscape is a matter of recollecting rather than an embodied experience. Ingold’s theory that perception and imagination

are one entity leads him to propose at least three ways of imagining the past in landscape:

‘the *materialising* mode, which turns the past into an object of memory, to be displayed and consumed as heritage; there is the *gestural* mode, in which memories are forged in the process of redrawing the lines and pathways of ancestral activity, and there is the *quotidian* mode in which what remains of the past provides a basis for carrying on’ (Ingold, 2012, p.8-9).

Ingold is attempting to understand the different ways in which we might engage with the past in the present, and this might therefore be a useful way of thinking about sites such as wastelands and derelict landscapes, that do not display conventional representations of past histories. Is it possible to interpret the different ways in which individuals engage with the ruin in the light of Ingold’s three modes for imagining the past in landscape? The decrepit and decaying buildings and the material artefacts found in a ruined site are certainly ‘objects of memory’ (Ingold, 2012, p.8-9) but they are very different from artefacts selected for their heritage potential. As they decay they become more and more unrecognisable and their original functions are obscured (Edensor, 2005c). This process allows the materiality of the object to come to the fore, rather than its history, which is left to the imagination of the visitor. They may ascribe it with meanings and memories of their own much as DeSilvey suggests when she writes about how ‘degraded artefacts can contribute to alternative interpretive possibilities even as they remain caught up in dynamic processes of decay and disarticulation’ (2006, p.330). This is a more fluid version of Ingold’s materialising mode; one in which the functionality and meaning of the object can change over time and is dependent on who is doing the perceiving.

The ruin can also be understood within the context of the gestural mode; Vergunst (2012) describes how the action of stepping over a threshold into a ruined building immediately brings with it certain feelings and expectations; the bodily gesture of stepping into a house is inscribed in our memories and actions. In a similar way the explorer in the ruin might, by following the actions and routes taken by the workers on the site, remember these past actions through their own bodies, (Garrett, 2011), Edensor (2005a), (Edensor,

2005b). Again though, as the ruin disintegrates, ways of moving through the site become more random and less structured until ultimately many of the original pathways of activity are hidden or forgotten and instead the visitor might drift or wander in indeterminate ways (Armstrong, 2006) or revert to a childlike quality in their movements through the site (Edensor, 2005a).

Ingold (2012, p.7) gives as an example of the quotidian mode, the way in which local people in Lewis perceive the traditional blackhouses of their near ancestors. These houses were gradually superseded by more modern dwellings but they are still used as parts of other structures or as barns. Poller (2012) describes the matter-of-fact way the inhabitants treat these remnants of the past, 'part of a taken-for-granted backdrop for mundane activity' (Ingold, 2012, p.8). In the ruin this quotidian mode is evidenced in the temporary and opportunist uses to which it is put (Schneekloth, 2007); visitors build campfires out of debris, use the walls for graffiti or carry out illegal transactions, hidden from public view (Swanton, 2012). Or it can be seen in the ways young people, unobserved by adults, find a place to engage with the natural world in urban settings (Ward-Thompson, 2012). As Lynch (1972, p.44) says, 'one may loot the ruin or live in it or put one's name on it.'

This suggests that Ingold's modes of imagining can be used as a starting point in understanding the ways in which we relate to the past in my case study sites, particularly with relation to the sense of embodied interaction between individual and landscape. However it is clear that these modes do not sufficiently describe the extent of the engagements that an individual might have with the derelict site. I will examine whether they prove a useful analysis tool later in this thesis. Although the modes are compelling as a theory I question whether they can be applied in the form in which Ingold describes to new designed landscapes and to individuals who are experiencing the landscape for the first time.

2.7 The literature review and my research strategy and questions

I have drawn on an extensive body of literature from a wide range of different disciplines in order to best set my research into a broad context that I feel supports and challenges the issues and ideas that I am examining. My decision to examine theory from different disciplines is also in line with recent thinking about research into place (Fairclough, 2012) (Jorgensen, 2014). I have focused on Massey's theories in order to think about place and space outside their more usual context of the phenomenological perspective. In so doing I seek to reclaim the importance of materiality to this discourse and re-examine these theories in a practical landscape architectural context. However as I have shown, the literature around place and memory traditionally draw on a phenomenological understanding of an embodied relationship with place and this also informs my research strategy. In this chapter I have endeavoured to make connections between the theory across a range of disciplines, with landscape architectural theory and practice. This is important, as my aim is primarily a practical one: to propose a set of implications for practice for landscape architects and designers

Interest in ruins is not new, however, as I have shown above, the discourse around the industrial ruin and other wastelands has become more extensive over the last decade. Similarly I have demonstrated how the discussions around the public perceptions of urban wastelands have developed over the years since Gilbert (1989), and subsequently Nassauer (1997), raised these issues.

Discourse around the derelict site is obviously fundamental to research of the subjects that I am proposing, however my in-depth reading and discussion of wider reaching aspects of place and landscape research ensure that I approach my research with a greater understanding and am not confined to discussion of ruin and wasteland alone. My intention is to contribute to these developing discourses around urban wastelands and derelict sites.

I have also established that there is a need for research into understanding visitors' and local peoples' responses to developed post-industrial landscapes.

Much of the literature focuses on theoretical or aestheticised approaches to these landscapes or examines theories of place attachment and place identity. I intend to explore individuals' experiences of these landscapes and to understand how they respond to particular physical attributes of the place. The range of literature concerned with aspects of memory, with the relationships between nature and culture and with ideas of how the pastness of landscape might be experienced in the present, provides a useful framework for my interview questions and my further analysis in this field.

In practical terms my review of the literature suggests ways of setting up and carrying out the interviews and informs my thinking about the types of site that might prove appropriate case studies. I will discuss this in more detail in Chapter 3, where I will also examine specific theory that is relevant to the development of my research strategy and methods. The literature review also provides a theoretical framework within which to analyse the data. Although I propose taking a grounded theory approach to my analysis - one in which the themes emerge from the data - a common-sense approach suggests that the literature also informs the iterative coding and analysis processes as I will discuss in Chapter 3. I will also discuss the theoretical background to my research strategy and methods in Chapter 3.

It was only when I completed my literature review that I finalised my research questions. I had a clear idea of the general aims of my research throughout, as I outlined in Chapter 1, firstly:

- To provide practical information of use to landscape professionals with an interest in the design and development of DUN sites.
- To show how users of such sites might respond to particular approaches taken to landscape change.

I also intend to draw together the multidisciplinary theory that I discuss above, in order to contribute to landscape architectural discourse.

The specific research questions have evolved throughout my examination of the literature. I have defined them as follows and in Chapter 3 I will show how the research strategy aims to answer these questions:

- What characteristics and qualities of DUN sites do designers and landscape architects use when developing the site as public open space?
- What approaches do design professionals take to the inclusion in the developed site of these characteristics and qualities?
- How do these sites approach the management of change?
- How do users of the developed DUN sites perceive and respond to the material, spatial and temporal qualities when they are incorporated into the new landscape?
- How do users perceive change and continuity in these sites?
- How do users attempt to understand these landscapes and landscape change?

3. Methodology

3.1 The theoretical background to the research methodology

3.1.1 Introduction

This chapter is in two sections; in the first I explain how the theory has informed my research strategy and methodologies and in the second I explain my research design.

The section below begins with an explanation of the philosophical approach I have taken to my research, namely critical realism. I then outline the theory behind the case study approach and my thinking behind the decisions I have taken concerning the different interview methods. Finally I address the theory that underpins my analysis methodology. It is said that research that is attempting to extract in-depth details about people's feelings and thought processes is best carried out using a qualitative methodology, (Strauss and Corbin, 1998, p.11). Qualitative methods are also well suited to research aimed at understanding 'complex interrelationships' (Stake, 1995, p.37), and local and temporal events and phenomena, as well as speculating about their causes:

it can 'cycle back and forth between *variables* and *processes* – showing that "stories" are not capricious, but include underlying variables, and that variables are not disembodied, but have connections over time' (Miles and Huberman, 1994, p.147).

It is for this reason that I have chosen to take a qualitative approach to my research.

3.1.2 Phenomenology and Critical Realism

One of the earliest phenomenologist researchers into theories of place was Relph (1976) and as I discussed in Chapter 2, phenomenology has remained the conceptual background for many researchers of place over the following 30 years. Lewicka (2011) explains that the phenomenological, qualitative method of research is particularly useful in place-based research when studying an

individual's reactions and responses and 'helps identify universal properties of places that give rise to aesthetic appreciation, meaning and place-related emotion' (p.233). More generally Seamon (2000) explains the value of the researcher as phenomenologist, who examines the

'specific instances of the phenomenon with the hope that these instances, in time, will point toward more general qualities and characteristics that accurately describe the essential nature of the phenomenon as it has presence and meaning in the concrete lives and experiences of human beings' (p.159).

The main alternative to the phenomenological based approach in place-based research is a psychometric paradigm, (Patterson and Williams, 2005). In this case the researchers' focus on measurement usually results in the prioritising of a quantitative research methodology with 'theoretical concepts with definitions that are narrow and precise' (2005, p.369). The quantitative research method has traditionally been applied to research into landscape preferences (Patterson and Williams, 2005), however more recently the value of a qualitative approach to studying the ways in which people perceive and appreciate landscapes has been shown to have value. Qualitative methods not only enable the researcher to elicit the users' own thoughts and feelings (Strauss and Corbin, 1998, p.11) but also allow examinations of the reasons behind particular preferences for landscapes and allow these preferences to be set in context, thus taking account of both the context in which the landscape is perceived, and the background and life experiences of the research subject (Scott *et al.*, 2009) (Ruelle *et al.*, 2013) (Stake, 1995).

I have shown in Chapter 2 how the phenomenological concept of the embodied subject is relevant to my research and my methods acknowledge this by ensuring, wherever possible, that I interview visitors in the landscape whilst they are walking around outside, engaging in their everyday activities. My research also seeks to acknowledge the materiality of the landscapes themselves and the ways in which they have been affected by historical and social influences. It is for these reasons that I take a critical realist approach which:

‘acknowledge[s] the ways individuals make meaning of their experience, and, in turn, the ways the broader social context impinges on those meanings, while retaining focus on the material and other limits of “reality”’ (Braun and Clarke, 2006, p.81).

A critical realist approach allows that social phenomena can exist both in the mind and in the objective world, (Huberman and Miles, 1994) and therefore lends itself to a study of physical elements of the landscape as well as people’s understanding of these material interventions. The critical realist ‘acknowledges the *reality of the thing known, as something other than the knower*’ (Wright, 1992, p.35) whilst still recognising the phenomenological view that ‘all knowledge is mediated’ (Stewart, 2003, p.154).

3.1.3 The Case Study Approach

Deming and Swaffield (2011, p.84) outline the challenges faced when studying the complexities of landscape, involving multidimensional material and ecological relationships as well as people and socio-political issues, and suggest that the case study approach is a valuable one for such situations. Robert Stake (1995) describes a case as ‘a specific and complex functioning thing’ (p.2) and I found his discussion of the case study approach of particular relevance to my research, especially his focus on qualitative studies and the examination of cases from an ethnographic and phenomenological standpoint, (pp.xi-xii). His assertion that ‘the qualitative case researcher tries to preserve the multiple realities, the different and contradictory views of what is happening’ (p.12) would appear to reinforce the critical realist approach I am taking to this research.

My research falls into Stake’s (1995) category of a collective case study, where each site is one case and ‘each case study is instrumental to learning’ (Stake, 1995, p.3). Therefore I have selected case studies with contrasting properties for both phases of the research thus allowing me to compare results across the range of cases and to consider alternative theoretical propositions when analysing my findings (Deming and Swaffield, 2011).

3.1.4 Walking and talking and photographic methods

Much early landscape preference research was undertaken off-site using supplied photographs as experimental stimuli (Porteous, 1996), (Kroh and Gimblett, 1992), (Pocock, 1982). Although studies have found that photographs are an acceptable surrogate, Kroh and Gimblett's (1992, p.68) research shows that the landscape preference results obtained from on-site research vary from those which result from a simulation; a difference which is explained by the multi-sensory dimension of being present in the landscape. More recently there has been an acceptance that the physical experience of being in the landscape is important to an understanding of meaning. Corner (2002, p.148) writes 'the disclosure of meaning in a given landscape can only occur when the subject is present, moving through it, open to sensation and experience'. Rishbeth and Powell (2013) explain in detail the value of understanding people's embodied experiences in order to further research in the field of landscape architecture and particularly with respect to the relationship between people and place. They point out that even qualitative research has sometimes 'marginalise[d] the experiential, temporal and sensory qualities of place' (p.161). Their solution was to develop a research method where interviewees recorded their thoughts whilst walking.

The idea of walking whilst interviewing or recording has been discussed by Pink (2007); in her case recording the walk on video. She points out that when conducting an interview we must be aware that this is not merely an 'aural encounter or event but one that also involves the materiality of the environment and of artefacts' (Pink, 2009, p.85). An approach that interviews the visitor whilst they are experiencing that landscape has the potential to produce varied and interesting data, 'heightened reflections and new ways of knowing' (Pink, 2009, p.86-7) and as Pink (2007) explains, when she presents this method to audiences at conferences they 'have nodded in apparent agreement. The method ... has 'made sense' to them.' (p.243). Deming and Swaffield (2011, p.154) also suggest that people can begin to articulate their feelings about landscapes whilst sharing activities with the researcher.

It is for these reasons that I decided to interview users of the phase two sites during a walk around the site. As Riley (1990, p.157) states by ‘studying a few informants in depth in as near as possible to their normal settings, you have a good chance of producing ideas that are close to reality’. She contrasts this with quantitative research methods in which there is a separation in time and place between the interview questions and the event that is being discussed. Pink (2009) also suggests that a ‘place achieves concrete reality when our experience of it is total, that is through all the senses as well as with the active and reflective mind’ (p.15). The semi-structured interview walk allows people to experience the site through their senses whilst reflecting on their responses. They are able to choose the route around the site and/or to sit within the site at certain points. Millman (2011, p.47), when researching the responses of groups of students, found that this method enabled participants to fully experience the landscape through their embodied progress through it. As a researcher using a critical realist methodology, my role is to enable the interviewees to respond as spontaneously as possible to the site whilst walking, and also to reflect on their responses through our talking (Rishbeth and Powell, 2013, p.164).

A variant on the walking and talking interview is one in which the interviewee takes photos of the site or landscape that are then discussed with the researcher. Beckley et al. (2007, p.926) assert that this approach is a useful way of engaging the participants in thought-provoking conversations and Williams and Patterson, whilst criticising the analytical approach of Beckley *et al*, do concede that participant photography can provide a ‘potentially useful tool for studying the nuances and complexities of place relationships, meanings, and attachments’ (2007, p.936). I explored the possibility of using the photographic interview in order to allow interviewees more time to engage with the site and to reflect on their experience. I hoped that this method would be particularly useful for interviewees on their first visit.

3.1.5 Thematic Analysis and Inductive Analysis

When undertaking research, it is important to choose an appropriate theoretical framework and methodology for the research questions (Deming and Swaffield, 2011). Researchers must ‘acknowledge these decisions, and recognize them as decisions’ (Braun and Clarke, 2006, p.80). My research questions examine the characteristics and qualities of the DUN sites, the designers’ approaches taken to their redevelopment, and users’ responses to these landscapes, with the aim of outlining a set of implications for practice and shaping theory.

I have outlined above the critical realist approach I am taking to the research, which leads to an understanding of ‘reality as being interdependent between the researcher and the world’ (Deming and Swaffield, 2011, p.3). The materiality and temporality of the site, designers’ intentions, historical and social factors, and the visitors’ perceptions, responses and reflections can be considered together in the light of the critical realist framework, in order to develop as full an understanding as possible of the landscape. Wright (1992) writes that the critical realist’s attempt to understand reality involves, ‘fully acknowledging that the only access we have to this reality lies along the spiralling path of *appropriate dialogue or conversation between the knower and the thing known*’ (p.35). In this research I move towards an understanding of the reality of the site (the case) through the analysis of my conversations with users of the site and through my own dialogue with the site itself - the ‘thing’ I am endeavouring to ‘know’. This dialogue takes place throughout the research process and may include my bodily engagement with the site, both when alone and in conversation with the interviewees, and also my cognitive and reflective engagement with the findings.

The intention is that an inductive approach should be taken to the analysis of the data, ‘to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies.’ (Thomas, 2003, p.2). However the idea that themes

can simply *emerge* from the data is challenged by Braun and Clarke (2006, p.80) who assert that the role of the researcher is crucial in selecting or rejecting themes that are interesting and significant and then continuing to analyse and interpret them further. Braun and Clarke use the term thematic analysis to describe this process. Within this analytical framework, themes can be either driven by theory (deductive) or by the data itself (inductive), (2006, p.88). This recognition that thematic coding can proceed from either direction – theory or data – is useful in that, in keeping with a critical realist approach to this research, I will consider theory and previous literature, particularly when analysing the social and historical factors which might affect an understanding of the site. This approach necessitates an iterative research process; the theory and my results and analysis inform each other throughout the research, leading to my findings and theoretical conclusions. Deming and Swaffield refer to this feedback between inductive and deductive strategies as reflexive research in which the researcher can develop and refine research methodology and process in the light of their findings, ‘modifying their theoretical propositions in the light of the evidence, revising their understanding of the evidence ... in the light of theoretical concepts’ (Deming and Swaffield, 2011, p.8).

An interpretive approach to theory building is advocated by Corner (1991, p.126), who points out that theory in landscape architecture should be specific and should be clear about the context in which it takes place. As Meyer suggests, any theoretical understanding emerging from this form of research must be situational, grounded in engagement with the particular case study sites and finding ‘meaning, form and structure in the site as given’ (Meyer, 1997, p.71). Such ways of thinking about theory and knowledge within landscape architecture enable me to focus on the ‘historical, contingent, pragmatic and ad hoc’ nature of my case study sites and allow me to propose a way of theory building that enquires into ‘the immediate, the particular and the circumstantial’ (Meyer, 1997, p.71). A straightforward way of describing theory building that encompasses Corner and Meyer’s propositions is that it is about drawing out ‘plausible relationships between concepts’ (Silverman, 2005, p.98) and setting those concepts within their ‘historical, geographical and social contexts’ (Deming and Swaffield, 2011, p.37).

3.2 The research design - a two-phase approach

3.2.1 Introduction

In this section I explain in detail my research design. I have separated the research into two phases each with separate research questions. In phase one I examine fifteen sites before selecting three of these to explore in more detail in phase two. It is in this second phase that I begin the interview process with visitors to the sites. This two-phase approach allows me to gain understanding from the range of phase one case studies before finalising my choice of the stage two sites and proceeding with my interviews of users of these sites. However the two phases are not intended to run as separate research projects and each phase informs the other as part of my iterative research process described above. In Fig.2 I illustrate this iterative approach and indicate the relationships between phases one and two, and between the different stages of the research process.

It is important to point out that the research methods, whilst being appropriate to the theory, have been chosen with a common sense approach in mind. They are methods that will work on a practical level on the site with people who might for example be walking through en route to somewhere else, walking their dogs, playing with their children, birdwatching or sitting relaxing.

In the following sections I give details of each stage of the research process.

3.2.2 Obtaining ethics approval

I applied for and was granted ethics approval from my university department prior to commencing my research. I obtained informed consent from all interviewees as part of the process of recruiting them to take part in phase two of my research, see below. I explained the reasons for needing to complete a consent form and ensured that they understood the implications of agreeing to be interviewed. As part of the process of obtaining consent, I described the research project and ensured they had time to read the information sheet that I had drawn up giving details about the project. Occasionally an interviewee would ask not to be digitally recorded and I agreed and explained that I would therefore take notes. I emailed copies of the completed consent form and information sheet to the interviewees on returning to the office.

3.2.3 Phase one methodology

3.2.3.1 The research questions

In phase one of the research project I sought to build a collection of descriptive case studies of developed DUN sites in order to answer the following research questions:

- What qualities of DUN sites do designers and landscape architects use when developing the site as public open space?
- What approaches do design professionals take to the inclusion in the developed site of these qualities?
- How do these sites approach the management of change?

As I discussed in my conclusion to Chapter 2, I changed and refined these questions as I examined the literature. Below I show how I structure the first phase of my research in order reach answers to these questions.

3.2.3.2 Selection of the phase one case study sites

I selected the sites over the period 2010-2011 by reviewing journals, academic papers, photographs, websites and through personal recommendation. Many of the sites were also known to me. The primary criterion for choosing the particular sites was the opportunity to examine a range of different approaches to the redevelopment of DUN sites. Stake (1995) states that researchers should find the ‘best persons, places and occasions ... [to] help us understand the case’ (p.56). He also stresses that the selection of cases should not be undertaken with a view to ‘sampling of attributes’ but rather they should be chosen for their variety (1995, p.6). The practical considerations outlined in Fig.3 below were also taken into consideration when selecting case study sites.

The lack of many suitable sites in Britain made it necessary to select sites from around the world as phase one case studies; historically in Britain the concept of the *tabula rasa* has often been the preferred method of development and it was important to select a range of sites with different approaches to the use of the qualities of the DUN site.

<p>Access to site and information</p> <p>Publicly accessible site Information in English/translation available Case studies existing Other documentation available</p>	<p>Developed site</p> <p>Public open space Landscape architects involved Development on-going or completed Habitats or historical elements included in design Draws on elements of past use in design</p>
<p>Original DUN Site</p> <p>Derelict/Neglected/Under-used In industrial or military use prior to redevelopment Derelict structures or waste tip on site Qualities of derelict site in evidence/or site selected for <i>tabula rasa</i> approach</p>	

Figure 3 Factors determining selection of the phase one case studies

The fifteen sites chosen from Britain, Europe, USA and Australia were:

- Armada Green
- Ballast Point Park
- Carl Alexander Park
- Cockatoo Island
- Duisburg Nord Landscape Park

- Gas Works Park
- The Hidden Gardens
- The High Line
- Middlesex Filter Beds
- RSPB Rainham Marshes
- The Riverbanks of Bordeaux
- Südgelände Nature Park
- Thames Barrier Park
- Turning the Tide
- Vintondale, The Litmus Garden

3.2.3.3 Sources of evidence

Descriptive case studies of landscapes can be a valuable way of exploring existing knowledge and opening up new areas of investigation (Deming and Swaffield, 2011) and I primarily adopted a descriptive research strategy that looked at secondary description (Deming and Swaffield, 2011, pp.71-2). The sources of evidence examined necessarily varied from case to case. Some sites, which were chosen for their interesting and innovative approaches, have not been extensively reviewed or documented (The Riverbanks of Bordeaux, The Litmus Garden in Vintondale, Carl Alexander Park), however they were considered important as they fulfilled Stake's (1995) criterion that they contribute to answering the research questions. The proposal for the Riverbanks of Bordeaux remains at the planning stage as far as I can establish. I visited nine of the sites, some prior to this research: the Middlesex Filter Beds, Thames Barrier Park, Turning the Tide, Gasworks Park, Armada Green, The Hidden Gardens, Südgelände Nature Park, Duisburg Nord and Rainham Marshes. Colleagues gave me comprehensive photographic evidence to examine three further sites: the High Line, Ballast Point Park, and Cockatoo Island.

I examined a range of evidence:

- Peer-reviewed journals
- Other journals and articles including professional and trade journals
- Newspapers and magazines
- Grey literature and web sites relating to the site, the landscape architects, academic commentators and bodies, commissioning bodies, local and district councils, local and national newspapers, local user

groups, government bodies, agencies such as CABI and Design for London, museums, public and governmental proceedings and talks, tourist information

- Photographs – online, in published articles, taken in person and by colleagues
- Maps, plans and drawings – online and in articles
- Satellite images of the site in context
- Personal communication and discussion with colleagues
- Conference presentations
- Online record of conference proceedings
- Books

I conducted semi-structured interviews by phone and email with the designers of three of the sites; the Hidden Gardens, Rainham Marshes and Ballast Point Park. The designer of Ballast Point Park was also involved in initial work on Cockatoo Island and this was also referred to in the interview. I also conducted a phone interview with the facilitator of the consultation process for the Hidden Gardens and with a writer with a special interest in Rainham Marshes. Two employees of Design for London who were involved in the development of three of the London sites, Thames Barrier Park, Rainham Marshes and Armada Green were interviewed in person providing useful data of an overarching nature which subsequently helped me to make choices about sites for the phase two case studies. A video interview with the designer of Gas Works Park, Richard Haag, was also found online. A list of the experts consulted during the research process can be found in App. B. When I refer to evidence gathered from these experts I cite them in the bibliography as personal communication.

I also examined these sources of evidence for the three sites chosen for phase two of my research.

3.2.3.4 Analysis

For each case I extracted information relevant to the research questions from the various sources outlined above. I examined the data for information about the sites when derelict and for indications of the types of qualities that might have been present in the DUN site. I then explored the types of qualities that designers incorporated into the developed landscapes. An iterative process of

analysis, descriptive summaries, further examination of the data and referring back to the literature resulted in a list of qualities. As shown in Fig.2, at this stage I was beginning the interview and coding process for the phase two case studies and this informed my analysis of the phase one sites, adding to the list of possible qualities.

I devised semi-structured interviews in order to further understand several of the sites and to explore how the qualities in the DUN site were incorporated into the developed landscape. Analysis of the interviews also produced further information about the qualities themselves, leading me to gradually refine my ideas and definitions. My resulting typology of qualities answers the first research question and I will discuss these findings in Chapter 4.

Stake (1995, p.25) suggests that the identification of common topics and themes at an early stage in a collective case study is useful when undertaking cross-case analysis and therefore, after collecting the descriptive information and producing the typology of qualities, I began to examine the ways designers approached the incorporation of qualities across the case study sites. At this stage I also drew on the literature to inform my analysis and again the process was an iterative one as I show in Fig.2. I will discuss the resulting categories for incorporation of the qualities - my second research question - in Chapter 4.

The third research question became more defined as the analysis process proceeded. My findings and discussion suggested that the ways these sites approached the management of change was fundamental to an understanding of the qualities and their incorporation. I therefore pursued this further, returning to the data and the literature in order to answer this question.

3.2.4 Phase two methodology

3.2.4.1 The research questions

In phase two I examine three case study sites in detail in order to answer the following research questions:

- How do users of the developed DUN sites perceive and respond to the material, spatial and temporal qualities when they are incorporated into the new landscape?
- How do users perceive change and continuity in these sites?
- How do users attempt to understand these landscapes and landscape change?

I refined these questions throughout my examination of the literature and below I show how I designed phase two of my research to best answer these questions.

3.2.4.2 Selection of the phase two case study sites

My analysis of the qualities of the DUN sites and their use in the developed landscapes informed the second phase of the research as I show in Fig.2. I intended using my understanding of the diversity of approaches to the development of DUN sites to select suitable case studies for further research.

Stake (1995, p.4) suggests that the most important factor to consider when choosing which cases to study is whether they have the potential to produce data which will enable us to answer the research questions. My study of the fifteen phase one case studies produced a list of DUN site qualities and an analysis of their role in the developed site, and the phase two case studies were selected because they incorporate as wide a range as possible of these qualities, thus giving varied opportunities for stakeholders to respond. Schwandt (1997) states that ‘a case is typically regarded as a specific and bounded (in time and place) instance of a phenomenon selected for study’ (p.12) and in addition to the potential for multiple qualities to be considered across the three sites, each site chosen has taken different approaches to the incorporation of these qualities as I will show in Chapter 4. Finally in order to ensure as great a range of responses to the site as possible it was important to choose sites that gave access to a wide range of diverse stakeholders. I selected three sites for phase 2 of the research, the Middlesex Filter Beds, RSPB Rainham Marshes and the Hidden Gardens in Glasgow. In Chapter 5 I will discuss the background to the sites in more detail.

3.2.4.3 The pilot interview walk

The first phase two case study site chosen was the Middlesex Filter Beds on the River Lea in Hackney, London. A simple questionnaire was devised purely in order to collect basic biographical and demographic information about the participants. This questionnaire was revised over the course of the project as and when it was determined that additional information was required. The pilot interview was carried out with a colleague who volunteered to walk around the site and be interviewed and recorded. She also took photos of parts of the site that particularly interested her. Initially my approach was to regard the interview as a spontaneous conversation. However after the pilot walk I decided there was a need for a more focused approach to elicit information about the issues I was interested in. I therefore prepared interview questions as 'jumping off points' for people to talk about their feelings and experiences using a 'free-association narrative interview' method of research. This is based on the premise that 'spontaneous association' can be used to access the underlying meanings of narratives and dialogues as discussed by Hollway and Jefferson (2007, p.152). Subsequent interviews followed this approach. I used open questions, allowing interviewees to consider their replies and to avoid, as far as possible, directing their answers towards a particular response, whilst also allowing for the framing of follow-up questions to elicit further narratives (Hollway and Jefferson, 2007, pp.35-6).

A second outcome of the pilot walk concerned the use of photographs. The interviewee found it difficult to remember to take photos whilst we were concentrating on the interview and I quickly realised that a separate research method, see below, was necessary to include the taking of photographs. I also established that it was not possible to physically hold all the equipment necessary when interviewees often had dogs or bags to look after.

3.2.4.4 Selection of research participants

It was important to ensure that a diverse range of research participants were chosen for interview in order to gain as much insight as possible into the research questions (Deming and Swaffield, 2011, pp.154-5). Initially I recruited people for interview by visiting the sites at different times of the day and asking people at the site if they would be prepared to take part. This method was particularly useful in providing a selection of habitual visitors to the site – a group whose views are important when attempting to understand the meaning of place. Corner (2002, p.148) writes ‘the experience of landscape *takes time*, and results from an accumulation of often distracted events and everyday encounters’. Regular users included dog walkers, retired friends socialising, volunteers, walking for health groups, mothers and children meeting for coffee, birdwatchers and artists, depending on the site. I also put up flyers in the Tramway, (attached to the Hidden Gardens) and wrote a piece for the RSPB’s weekly email bulletin asking for anyone interested in taking part to contact me. These approaches were not successful, resulting in only one person coming forward.

In order to extend the group of interviewees to those who were not necessarily regular visitors to the sites, I asked people who had already participated, if they would pass on details of others who might be interested and I made contact with the staff at the three sites to ask them to pass on details of any potential interviewees. Consideration was given to contacting people who had no prior knowledge of the sites, however it was not obvious how I would select a group of interviewees from the wide range of diverse groups that lived in the surrounding areas and therefore I restricted myself to seeking out additional people for interview who could be considered to have a close interest in the site. As Stake (1995) stresses, the primary factor to consider in the choice of interviewees is the ‘opportunity to learn’ (p.57). At the Filter Beds there is a boat mooring outside the site and I therefore contacted and interviewed two canal boaters. The Hidden Gardens is situated behind the Tramway Arts Centre and I ensured that I also interviewed people whose primary aim was not to visit

the gardens. At Rainham Marshes the expert interviews of volunteers at the Purfleet Heritage Centre also falls into this category of special interest groups.

In addition to recruiting members of the general public I also made efforts to find people who lived in the area before the sites were redeveloped. At the Hidden Gardens I contacted volunteer groups who worked regularly in the gardens. These users were often referred to the garden by occupational therapists or social workers, and included many people who had lived in the area all their lives. Volunteers were also contacted at the RSPB Rainham Marshes and again these were mainly local people, some of whom had prior knowledge of the site. In the case of the Middlesex Filter Beds, attending the Lea Valley Regional Park Authority user group yielded valuable contacts who were able to put me in touch with other possible participants.

I also selected a group of people for ‘the expert interview’. These included staff at the three sites and volunteers at the Purfleet Heritage Centre. In phase one I had already interviewed landscape designers involved in the development of the site.

The strategy for selecting interviewees resulted in differences in the cohorts at each site; rather than attempting to select people from a range of demographic groups I chose to focus, in part, on people who were visiting the site in their everyday life. This, together with the recruitment of volunteers, resulted in the large number of retired participants. In order to address my research questions it was also important for me to interview people who had known the site prior to development and this too contributed to the number of interviewees in the older age groups. However for all the sites I continued to recruit participants until I reached saturation, see below. A list describing the interviewees, broken down by site, can be found in App. C. At the Hidden Gardens a large proportion of the interviewees were local people, some of whom had known the Tramway when it was the Transport Museum. A second group were younger parents with small children who had started coming to the garden when their children were born. At Rainham Marshes there was also a large group of local people who had known the site when it was occupied by the

military and many of these people had used the site during this period and after the military left. In contrast, at the Filter Beds I only interviewed a small number of people who had been brought up in the area and, because secure boundary walls protected the site, no one had visited the site when it was in operation, and few remembered it when it was abandoned.

Interviews at the Middlesex Filter Beds started in July 2011 and proceeded throughout the remainder of 2011 and into 2012. From May 2012 and into 2013 I began interviews on the other two sites, The Hidden Gardens and RSPB Rainham Marshes, and these were concluded in late 2013. During the data collection and analysis process it became clear that for each site there was a point at which no new information was being obtained from the interviews and I had reached theoretical saturation. My aim was to ensure that I chose interviewees who would enable me to answer my research questions rather than attempting to obtain the ‘numbers needed to make a generalizable claim’ (Hollway and Jefferson, 2007, p.107). The total number of interviewees at the Middlesex Filter Beds was 21, at RSPB Rainham it was 22 and at the Hidden Gardens it was 24.

3.2.4.5 The interviews

3.2.4.5.1 The accompanied walk

Each interviewee was taken through the ethics approval procedure and I usually completed the questionnaire before starting the walk. The direction and speed of the walk was dependent on the site, the weather, the purpose of the interviewees’ visit and where we started. Where possible I let the interviewee dictate where we walked, however in some cases it was necessary to direct the walk to ensure we included particular parts of the site. This applied mainly to Rainham Marshes, which is a larger site than the other two case studies; usually it was not possible to walk around the whole site with the interviewees, a walk of between 45 – 60 minutes, as they had other commitments and limited time. Sometimes I sat with interviewees at different places in the sites and the

interview continued whilst seated and looking over the site. In practice it was sometimes necessary, if the weather was very bad, for the interview to take place inside, overlooking the site, and a number of the volunteers interviewed at Rainham were working in the visitors' centre whilst being interviewed. There is no visitor centre at the Filter Beds but at the Hidden Gardens the café borders the garden with a good view of the central area and the chimney, and at Rainham the visitors' centre is raised above the site with a view across the site and over the Thames.

The interviews were recorded, unless the interviewee requested otherwise - in which case notes were taken - and questions were asked as prompts whilst walking around the site. Walks varied in length from 15mins to an hour; the length of the walk was not necessarily a result of the size of the site, but was dependent on how much the interviewee had to say. In a small number of cases I interviewed two, and in one case three, people together.

3.2.4.5.2 The photographic walk and interview

The photographic walk and interview was devised to enable people to visit the site and walk around it in their own time. It was especially suited to the larger of the case study sites, where participants who were not regular visitors to the site, needed time for reflection before answering the interview questions. The Hidden Gardens site was the smallest of the three case studies and it was easier to take the time to explore the whole site in one short walk. In addition the industrial remnants present comprised only a small part of the garden and, as the site is in Glasgow, it was difficult for me to spend long periods of time there. It was for these reasons that the photographic interview walk was confined to the Filter Beds and Rainham Marshes.

The research participant was provided with a camera, or used their own, and asked to take a walk in the site recording things which interested them, things they liked or disliked and things that summed up what the place meant to them. The semi-structured interview, which included the same questions as the

interview for the accompanied walk, took place shortly afterwards, using the photographs as a prompt to stimulate discussion and conversation.

Interviewees were asked to look through their photographs on a computer, mobile phone or as printed copies, and to talk about why they had chosen to take that particular photo. The interview questions were often covered within the discussion around the photographs and any questions not addressed were asked at the end. Unfortunately this method of gathering data was not very successful, due to the difficulty of recruiting participants. It required more commitment from the interviewees, as they needed to be available for two sessions, one to walk and take photos and the other to be interviewed. In some cases I interviewed them directly after the walk but this also took up a large amount of time.

At the Filter Beds in addition to the pilot interview, four interviewees participated in the photographic walk. At Rainham I interviewed three people in this way. However two were long-term volunteers who insisted on producing photos taken over the years they had known the site. Nevertheless as my approach to this research methodology takes the view that all data is valid if it can help to answer the research questions, I have used their interviews as another part of my data.

3.2.4.5.3 The expert interview

This semi-structured interview usually took place in the expert's place of work. The interviews were usually recorded and recordings transcribed, although sometimes it was not possible to record the interview, in which case notes were taken. Interview questions followed the same general format as for the two other interview methods. However additional questions were included which were dependent on the expert's role in the project. The workers at the Purfleet Heritage Centre were included in this methodology as amateur experts in the military history of the RSPB site.

3.2.4.6 Additional sources of evidence

In addition to the sources of evidence I describe above for the phase one case studies, I also collected secondary descriptive data (Deming and Swaffield, 2011) for each site from the following sources:

- Archival materials from the LVRPA, RSPB and Thames Water
- Weblogs and other web-based sources
- Photographs, personal, taken during the interview walks, in web-based archives.
- Historic and OS Maps
- Plans and drawings
- Satellite images
- Local council strategy and planning documents
- Management plans
- Pamphlets produced for visitors to the site
- Interpretive panels
- Artworks
- Field notes
- Researcher's walking notes and photographic diary

I will describe the history of the phase two sites in detail in Chapter 5. My aim is to place the sites in context; for the reader of this thesis, as part of the framework for my analysis of the interviews and in order to better understand the data I was collecting. The resulting history of each site in Chapter 5 is not intended to be a complete overview, but it allows me to address those historical and social aspects of the site that are relevant to the analysis of the data and thus contribute to my own dialogue '*between the knower and the thing known*' (Wright, 1992, p.35).

3.2.4.7 The analysis

3.2.4.7.1 Transcription of the recordings

Interviews were transcribed and the transcriptions read through several times before beginning the coding process. Bazeley (2007, p.45) explains that it is necessary to take a common sense approach to the transcribing of data, whilst ensuring that it remains an accurate account and reflects the conversation. In

thematic analysis the level of detail required in the transcription need not necessarily be as great as that required for methodologies such as narrative analysis. However it is important that the information required to answer the research questions is extracted and that it is done so ‘in a way which is “true” to its original nature’ (Braun and Clarke, 2006, p.88). The following rules were adhered to when transcribing the data:

- Shortened forms of the interviewer’s questions were transcribed in order to assist in analysis where the meaning of the response was not clear.
- In some cases part of the interview were not relevant to the research objectives and this part was therefore not transcribed (Thomas, 2003, p.5), (Bazeley, 2007, p.45), although it was retained in case it was required in the future. A note was made in the transcription where this occurred.
- An attempt was made to transcribe the ‘ers’ and ‘umms’ or to include ‘.....’ where they occurred.
- Repetition of words and phrases such as ‘you know’ were included
- If the person stopped speaking for a length of time this was indicated by ‘.....’
- Full stops and commas were used where they seem to fit with the phrasing used by the interviewee.
- Where the words were unclear this was indicated in [].
- Comments were made in [] to indicate when the interviewee laughed or was forceful or angry.

3.2.4.7.2 The ethnographic approach

An ethnographic approach to research recognises that the ‘researcher becomes an actor *through whom* knowledge about the world is found’ (Deming and Swaffield, 2011, p.153). This positioning of the researcher in relation to knowledge and understanding again highlights the validity of my critical realist approach. In all my dialogues with interviewees and experts I was aware of the fact that the collection of data is a cooperative effort; as an interviewer, I will always influence the responses given (Hollway and Jefferson, 2007, p.44) and in addition all my interpretations of the data are personal (Riley, 1990, p.69), (Deming and Swaffield, 2011, p.152).

It is for these reasons that I employed a reflexive approach when analysing and interpreting the data, asking questions such as, why do I notice this and how can I know that my interpretation is valid? Deploying subjectivity ‘can serve both to guard against bad interpretations and to assist with good ones’ (Hollway and Jefferson, 2007, p.55). Analysis of the data involved listening for inconsistencies and contradictions whilst also considering the broader context of the evidence (Hollway and Jefferson, 2007, p.65). Although much of the initial coding of the research data was undertaken using *Nvivo*, as I detail below, I also regularly returned to the complete transcripts to ensure that I always held, ‘the whole in mind’ (Hollway and Jefferson, 2007, pp.56-9). This approach is consistent with the critical realist framework underpinning my research, acknowledging that I have an incomplete understanding of the reality of the case, whilst at the same time endeavouring to approach understanding through a dialogue between me and the case study site (Hollway and Jefferson, 2007, p.69).

3.2.4.7.3 The interludes

During the process of interviews and analysis at the Middlesex Filter Beds I decided to reflect on my thinking about specific material structures and artefacts in the site. I call this reflection the interlude and I include three interludes in Chapters 6,7 and 8. This free-flowing and more informal way of thinking and writing about the sites and the evidence, proved useful in my subsequent analysis. Through this method I was able examine ideas about the material and spatial qualities, in particular with reference to memory and history, and to look at the way I perceived the temporalities at play in a landscape. The interlude was an informal element of my critical realist approach suggesting to me a new way of approaching the data and played a part in the iterative approach I was taking to the analysis.

3.2.4.7.4 An outline of the analytic process

I discuss the iterative nature of my research above and this extended to the analytic process as I outline in Fig.4. For the initial stages of coding I decided to use a database program, *Nvivo*, to organise and manage the large volume of data obtained from the interviews, which I anticipated collecting throughout the duration of the project (Bazeley, 2007). I did not autocode the text but rather examined codes which suggested themselves from the transcribed text; Bazeley (2007) comments that ‘automated coding or keyword searches cannot substitute for interpretive coding’ (p.10). I then used an inductive, thematic analysis (Braun and Clarke, 2006, p.87), to develop categories ‘into a model or framework that summaries[ed] the raw data and convey[ed] key themes and processes’ (Thomas, 2003, p.4), (Deming and Swaffield, 2011). The structure underlying the analysis process stems from Strauss and Corbin’s discussion of grounded theory (1998). However the thematic and inductive analysis method is simpler and more straightforward in its terminology and is appropriate when working within a critical realist framework (Thomas, 2003, p.2).

The idea of the ‘pit stop’ in Fig.4 is taken from Bazeley, (2007, pp.155-177). The data collection and analysis phases of the research are iterative processes, (Braun and Clarke, 2006, p.86), and interviews continued and data was collected whilst analysis was taking place. In some cases themes found in the coding process suggested changes be made to the interview questions.

The final phase of the analysis process progressed from a descriptive understanding of the case studies to an interpretive theorising, which seeks to add to the theory in a way which ‘enhances understanding of meaning and context’ (Deming and Swaffield, 2011, p.30).

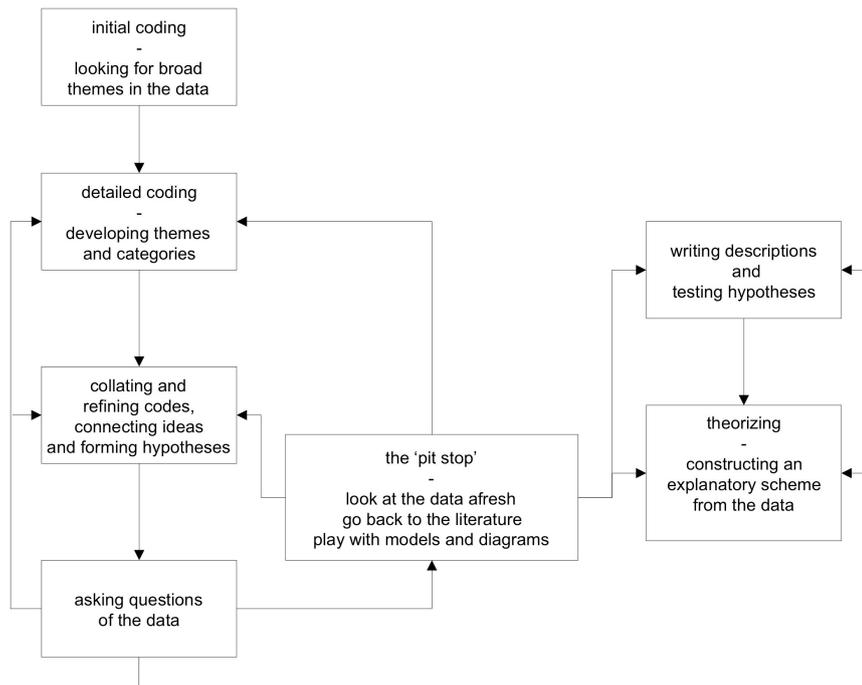


Figure 4 The analytic process

3.2.4.7.5 Assigning structure to the interview data

I explain above the iterative process that formed the basis of my analysis. I began coding the interviews from the first case study site whilst continuing to interview participants. My initial coding was undertaken using *Nvivo*; I examined the transcripts first in broad detail looking for themes that might contribute to answering the research questions. This produced a diverse range of initial codes. I then read through the transcripts again several times to familiarise myself with them and to begin the process of exploring the fine detail. Through this coding process I gradually developed my themes and categories and began to make hypotheses, to ask myself questions and to write summaries of my findings and ideas.

I discuss above my approach to the thematic and inductive analysis of the data; in some cases these themes and categories arose directly from the interview data and the voices of the respondents – the inductive approach - whilst others were suggested through reference to the literature and the theoretical framework of the research, and to the historical and archival data collected for

each site. This iterative method of coding that can proceed from either direction – the theory or the data – allowed me to develop abstract concepts. On a practical level I refined my system of computer and manual coding, using *Nvivo* for the interview transcripts and manual systems for the remainder of the data. As part of the analysis I also used a range of tools from computer applications to analyse word counts, to create spider diagrams and other brainstorming methods.

As I collected the data from the other two sites, the body of themes grew and I collated, excluded and combined themes in order to develop abstract concepts about the participants' perceptions and understandings of the landscapes. Through a constant reflexive process of comparison between the three sites, I extracted and explored unusual and complex factors, which helped me to interpret my findings.

Throughout the analytic process I was always aware of the iterative nature of the research process in general and this impacted on my analysis. It was sometimes difficult to stand back from the data and the results and to question whether the direction I was following was one that could fruitfully help to answer the research questions. Therefore the idea of the 'pit stop' was a helpful one; this encouraged me to pause and go back to the transcripts and other sources of evidence to look again at the broad picture rather than focusing on the detail and on abstract concepts. I could ask myself questions about whether my conceptual ideas really explained the evidence that I was gathering in the site and from the participants.

The pit stop also gave time for me to re-evaluate my concepts and themes and to consider whether I had achieved saturation in my interviews. I used the pit stop at several points throughout the analytic process to check the validity of my interpretations.

Finally I began to construct explanatory theories from the refined groups of themes, categories and hypotheses. I suggested relationships between concepts that could provide answers to the research questions and examined these

relationships in the light of cultural, social and historical contexts of the case study sites. I referred back to the literature and in particular examined the ways my research results could contribute to the multi-disciplinary discourses that influence landscape architectural theory. I also returned to my findings and discussions about the phase one sites and evaluated these in the light of my thinking in phase two and produced a set of practical suggestions for landscape designers with an interest in the development of DUN sites.

This chapter completes Part 1, an in depth examination of the background to my research project; in Part 2 I will explore how practitioners respond to the qualities of the DUN sites and I begin with Chapter 4 in which I will present the results, findings and discussion that are the outcome of phase one of my research.

PART 2 – LANDSCAPES AND PRACTITIONERS

4. How do practitioners respond to the qualities of DUN sites?

4.1 Introduction

In part 2 of my research I examine the ways practitioners approach the design and development of DUN sites. In the two chapters that follow I will consider both the phase one and the phase two case studies.

I outlined in Chapter 3 the sources of evidence and the methodology I have followed in drawing up descriptions of and analysing the fifteen case study sites for phase one of this research. I chose to research a diverse selection of sites from Europe, the USA and Australia (Fig.5) in the expectation that these would demonstrate a range of ways in which designers have incorporated the qualities of the DUN site in the developed landscape. In order to best address the research questions I also selected a wide range of sources (Stake, 1995). This has resulted in variations in the extent of evidence for each site; for example it has not been possible to interview all the designers involved.

Appendix A is a synthesis of the information I have extracted from the data sources outlined in Chapter 3. My focus is on those elements of the DUN site that designers incorporate in the developed landscape and I outline the ways in which these elements have been used in the design. For each site I include photos together with a sketch of its location with some indication of key features in the surrounding area. The intention is to give the reader background information about each site in order to set what follows in context.

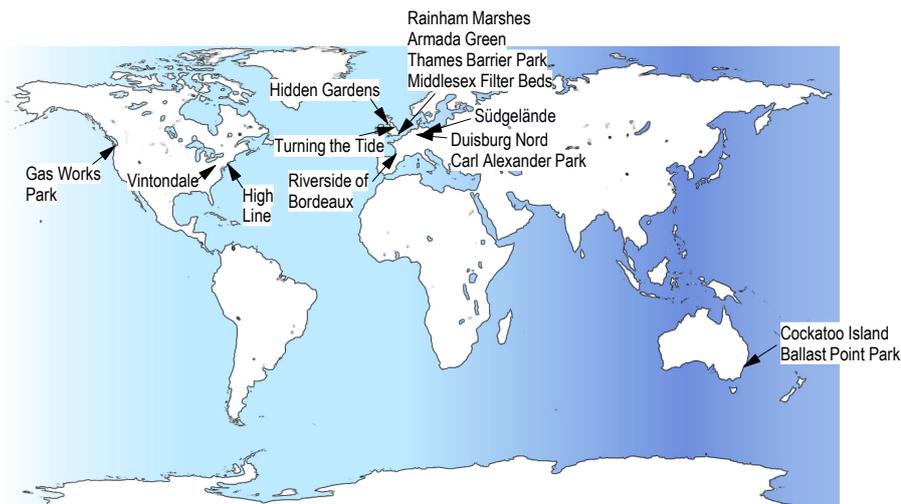


Figure 5 Location of the 15 phase one sites

In this chapter I introduce the term ‘quality’ to describe those aspects of the DUN site which allude to the pastness of the landscape and thus contribute to their special nature. My findings, from an examination of the literature in Chapter 2 and other sources of evidence outlined in Chapter 3, have led me to identify a range of material, spatial and temporal qualities that are incorporated in the developed landscapes. Close study of the qualities gained from the initial coding of the data from the phase two case studies¹⁰ also informed my thinking about the qualities that might be present in the phase one sites and in particular about the ways in which it would prove useful to categorise these in phase two of the research. This resulted in the creation of a typology of qualities that I discuss in section 4.2 below.

In further analysis I examine the ways landscape architects approach the inclusion of the qualities. As I mentioned in Chapter 2 the *tabula rasa* approach is often the easiest option when faced with highly polluted landscapes and I discuss this first. However I found that designers incorporate qualities in diverse ways and in any one site they may take a range of approaches. I determined the categories of incorporation that I discuss in 4.3 and 4.4 below through close examination of the data sources and with reference to literature in the field of landscape architecture. This included Treib’s (2002) discussion

of whether places can have meaning, Lynch's (1972) suggestions for referencing the history of a landscape and Raxworthy's (2008) concept of the relationship approach to designing landscapes. Where I was able to speak directly to or read interviews with the designers I gained an understanding of how they approached the design of the DUN site and I also experienced many of the sites myself and drew conclusions about the ways the qualities have been incorporated.

I found that designers attempt to reveal the pastness of the landscape through the ways they include the material and spatial qualities as well as by drawing attention to temporal processes. In some cases they make symbolic and metaphorical references through the reuse of material qualities such as structures, artefacts and surfaces. In others they use an industrial palette of materials to reference the site's history. They also highlight processes at work in the DUN site, sometimes permitting continuing decay and ruination or more often working with the successional vegetation that was part of the previous landscape. Designers are familiar with ideas of metaphor and symbol but I also found that the concept of the palimpsest, perhaps more commonly used by archaeologists, is an important one. Decisions are made about whether to leave, to reveal or to exclude past layers of the landscape. I suggest that these categories of incorporation raise questions of meaning in landscape and introduce Dee's (2001) concept of revealing process and change through form. Finally I examine the ways designers draw attention to the history of the landscape with reference to Raxworthy's (2008, p.76) 'relationship approach' which uses 'engagement with existing site materials as the organisational logic, with circulation putting people into different physical relationships with the industrial relics'.

My findings concerning the qualities, and design decisions taken about their inclusion in the developed landscapes raise questions about the future of these sites, hence the final section in this chapter concerns the management of change in the phase one sites. Here I synthesise my thinking about how the material, spatial and temporal qualities are handled and address the

implications for the maintenance of the qualities and of the vegetation and/or planting.

During this process of analysis I was also conducting interviews at the phase two sites and beginning the initial coding of these transcripts. The thematic analysis approach I described in Chapter 3 is based on an understanding that theory, data and the active engagement of the researcher all contribute to the development of themes, and the knowledge obtained from the first stage of analysis of the phase two sites allowed me to gain insights into possible categories of incorporation of qualities for the phase one sites that I may not otherwise have found. Sites usually have examples of more than one of these categories and I believe it would be possible for others to examine this data and find different themes that describe the ways the qualities are incorporated. However, as I explain in the final section of this chapter, the categories I have identified provide information for the next stage of analysis of the phase two sites and in the concluding chapter of this research I will examine their usefulness in the light of my results.

4.2 What qualities do practitioners incorporate in the fifteen phase one case studies?

The typology of qualities that I have drawn up below is the result of my detailed analysis of the phase one sites. As I explain above this was also informed by my interviews and the coding of responses in the phase two case studies. Qualities fall into three categories, material, spatial and temporal, and categories are also connected: when discussing qualities in the temporal category reference is made to the material and spatial qualities through which the temporality is made visible. In my typology below I subdivide the qualities into practical categories that make sense when applied to landscape architecture and also relate to the discourse around the derelict industrial site that I discussed in Chapter 2.

The material qualities are straightforward descriptions of objects that were once part of the DUN site. These can be structures and buildings or railtracks and surfaces that become a visible reminder of the pastness of the site. There are also smaller material artefacts, relics and fragments evident in most derelict sites that are incorporated in some way into the new landscape. A further category describes objects that have been made of materials from the DUN site; either reused as they are or repurposed. The final category of material quality relates to the vegetation or planting; this is closely linked to the temporal qualities, as successional vegetation is indicative of the processes that take place when a site is abandoned.

I have included the use of an industrial palette of materials and textures in the typology; this quality differs from the others in that it does not explicitly take something from the DUN site for use in the new landscape. However the textures and patinas of these materials echo those found in the industrial and DUN landscapes; rusty and galvanised metals and meshes, broken concrete and exposed aggregates, chunks of wood that were once beams or structures. Often designers who use these materials also recycle materials from the site as part of their palette.

Spatial qualities concern the topography of the landscape and the relationships between the landscape, the visitor and the surroundings. Often landscapes were changed dramatically and violently; cliffs were blasted away and huge waste tips were created. Past usage also dictated the ways in which the site related to its surroundings: some were enclosed and access was forbidden; others changed the surrounding infrastructure; many contributed to the pollution of the local area. In the theory discussed in Chapter 2 the topography of the DUN site is described in terms of the breakdown of structures and infrastructure that results as ruination progresses, and the corresponding freedom of movement that is experienced by visitors (Edensor, 2005a), (Armstrong, 2006). Although I found that designers work with existing landscape forms, the new designs necessarily impose restrictions, and there is no obvious correlation between the freedom of movement suggested in the literature of the derelict site and the uses made of topography in the new landscape.

I arrived at the categories for the temporal qualities by returning to the literature around the derelict site and examining whether the ways in which temporality is discussed could be applied to the phase two landscapes. Processes and rhythms of change are temporal qualities found in derelict sites and evidenced in the decay of the material artefacts and ruination of buildings and infrastructure, and in the growth of successional vegetation combined with the action of external agencies. Ruination and successional change is part of a gradual process and can be seen as evidence of a sense of continuity. All abandoned sites display these qualities to some extent, and in Chapter 2 I discussed their importance in the discourse around the industrial ruin. There are also processes that highlight the discontinuities in the history of the landscape. I am thinking here of the Litmus Garden (Kapusta, 2005); the dramatic discontinuity caused by the extreme contamination of the landscape, is referenced – and potentially healed – in the new design, where the process of water purification is made explicit.

As sites become ruined and derelict, layers and juxtapositions of materials become more chaotic. I have identified this juxtaposition or layering of

materials and plants as an important temporal quality of the derelict site, which can be intentionally or unintentionally incorporated into the designed landscape. More difficult to identify as qualities specifically incorporated in the new landscapes are concepts such as indeterminacy and disorder, aspects of the derelict site that figure prominently in the theory (Doron, 2007) (Jorgensen and Tylecote, 2007) (Edensor, 2005c). I suggest that these qualities can, however, be perceived through the quality of juxtaposition.

The final two temporal qualities I identify are those that refer to concepts of remembering and recollection and those that look towards future change. These temporal experiences are mediated through material and spatial qualities and as I show in Chapter 2, both occur in the discourse around the derelict site (Garrett, 2011), (Edensor, 2005a).

Finally I should mention here one aspect discussed extensively in the theory around the derelict site that is not specifically incorporated in the new landscapes; the potential for temporary and possibly illegal activities (Franck and Stevens, 2007) (Swanton, 2012). By their very nature such activities are seen as alternative and out of the mainstream; if a site is designed in order to incorporate these sorts of engagements there is by definition an element of control or intention, and as a result the possibility for alternative activities is undermined. I therefore do not directly consider this aspect of the derelict site in my research, although it is addressed indirectly in a discussion of the heterogeneity and indeterminacy of the new landscapes.

The following typology gives the reader an indication of the range of qualities found in the phase one sites. It is not an exhaustive list and detailed exploration on site would I am sure produce further evidence.

A Typology of Qualities		
Material qualities	Site	Examples of qualities incorporated in the developed landscape
Structures and footprints of buildings	Ballast Point Park	Footprints of oil tanks planted with grass, concrete bund walls
	Cockatoo Island	Buildings, footprints of structures, walls
	Duisburg Nord	Many including blast furnaces, bunkers, water cooling systems, walls
	Gas Works Park	Three gas towers
	Hidden Gardens	Chimney, wall, tramway façade
	The High Line	The elevated railway line
	Middlesex Filter Beds	Six filter beds, brick walls, collecting well, boundary wall
	RSPB Rainham Marshes	Shooting range, cordite and ammunition stores and lookout tower
	Südgelände	Boundary wall
	Vintondale	Footprints of buildings
Relics and artefacts	Ballast Point Park	Found objects and fragments used in gabions, pottery from Villa Menevia
	Duisburg Nord Landscape Park	Many including pipes, iron plates forming Piazza Metallica
	Middlesex Filter Beds	Pipes, sluices, hopper
	RSPB Rainham Marshes	Benches and pieces of unidentified metal
	Südgelände	Steam engine
Tracks and surfaces	Carl Alexander Park	Slag
	Cockatoo Island	Many different surfaces in disrepair including brick and rock
	Duisburg Nord	Many including paths following railway tracks and walkways
	Hidden Gardens	Tramtracks
	High Line	Railtracks
	Middlesex Filter Beds	Cobbles, tiles, broken concrete, metal tracks
	Südgelände	Paths follow existing railtracks
Reused and repurposed materials	Armada Green	Timber benches
	Ballast Point Park	Skin of oil tanks cut and formed into a replica with wind turbines and artworks
	Duisburg Nord	Water cooling systems repurposed as ponds
	Hidden Gardens	Cobbles for paths, bricks in gabions

Reused and repurposed materials	Middlesex Filter Beds	Granite foundations form artwork
	RSPB Rainham Marshes	MOD bicycles as artworks, blocks of timber as benches, shipping containers as hide and education centre
	Turning the Tide	Pit cage memorial
Industrial palette of materials and textures	Armada Green	Concrete and aggregate, timber sleepers
	Ballast Point Park	Polished and rusty metal, rough and worked concrete, exposed aggregate, gabions, meshes
	Carl Alexander Park	Steel suspended walkway, meshes and steel rimmed slag heap
	Cockatoo Island	Steel walkway, metal meshes
	Hidden Gardens	Cor-ten, metal, concrete, gabions, timber
	The High Line	Steel, concrete, wood, mesh, consolidated gravel
	RSPB Rainham Marshes	Metal, shipping containers, wood
Vegetation and planting	Südgelände	Metal and mesh raised walkway
	Carl Alexander Park	Successional vegetation
	Cockatoo Island	Planting palette informed by existing vegetation
	Duisburg Nord	Successional vegetation
	Hidden Gardens	Birch trees retained
	The High Line	Planting evocative of spontaneous vegetation
	Middlesex Filter Beds	Successional vegetation
	RSPB Rainham Marshes	Existing marshland now managed as a grazing marsh
	The Riverbanks of Bordeaux	Developing forest
	Südgelände	Successional vegetation
	Thames Barrier Park	Waves of formal planting make reference to the Thames and watery nature of the local docks
Turning the Tide	Meadow planting	
Vintondale Litmus Garden	Autumn colours of trees reference the water treatment process	
Spatial qualities		
Topography	Ballast Point Park	Cut and blasted sandstone cliffs of the Sydney Harbour and concrete bund walls used as layers in new landscape
	Carl Alexander Park	Slag heap is the basis for the designed landscape
	Cockatoo Island	Walkway attached to and traversing existing structures and landscape forms

Topography	Duisburg Nord	Existing infrastructure used as layers in new landscape
	Hidden Gardens	Spatial layout of nursery and of factory floor inform design
	The High Line	Existing infrastructure (the elevated railway) retained
	Middlesex Filter Beds	Spatial layout of the beds and paths retained
	RSPB Rainham Marshes	Walkways follow old paths and tramtracks
	The Riverbanks of Bordeaux	The existing spatial layout of the industrial infrastructure informs tree planting
	Südgelände Nature Park	Pathways follow existing railway lines dictating the site layout
Thames Barrier Park	The 'green dock' references the history of the docks in East London	
Spatial relationships	Armada Green	Views of the neighbouring disused Beckton Gas Works
	Ballast Point Park	Views through the cut sandstone and the concrete walls to the Harbour, visitors brought into contact with past landscape layers
	Carl Alexander Park	Suspended walkway and slag heap allow views of the waste and of the wider landscape. Visitors look down on and walk upon the slag and are surrounded by the successional planting
	Cockatoo Island	Clip-on walkway allows visitor access to decaying and ruined parts of the site
	Duisburg Nord	Access to blast furnaces, vista to surrounding infrastructure and landscape, views from walkways into bunkers, pathways follow existing routes and infrastructure
	Gas Works Park	Gas Towers are fenced to prevent access
	Hidden Gardens	Views of wasteland that was once part of site
	The High Line	Linear structure of park and materials make reference to transportation history. Phase 3 runs through adjacent railyards towards the river.
	Middlesex Filter Beds	Boundary wall and river enclose site, paths around site allow visitor access whilst discouraging access to beds
	RSPB Rainham Marshes	Views into and out of the site to surrounding landscape, especially transport infrastructure
Südgelände	Enclosed nature of the site during abandonment resulted in undisturbed successional vegetation taking hold	
Temporal qualities		
Processes and rhythms of change	Ballast Point Park	Reuse of found materials and wind turbines on replica oil tank reference the changes in energy production

Processes and rhythms of change	Carl Alexander Park	Successional vegetation
	Cockatoo Island	Decaying structures remain on site
	Duisburg Nord	Decaying structures, successional vegetation, complex water treatment systems
	The High Line	Seasonal and ephemeral planting design
	Middlesex Filter Beds	Successional vegetation and decaying and crumbling structures
	RSPB Rainham Marshes	Decaying structures and artefacts, vegetation managed for bird habitats
	The Riverbanks of Bordeaux	Trees follow the existing industrial layout, planted randomly over a 30 year period and in different periods of growth
	Südgelände	Examples of successional and managed vegetation
Vintondale Litmus Garden	Autumn colours of trees reference the water treatment process	
Juxtapositions	Armada Green	Views of the disused Beckton Gas Works contrast with designed site
	Ballast Point Park	Layers of past landscapes, sandstone cliffs, concrete bund walls, old and new materials
	Carl Alexander Park	Sleek new structures constructed on waste slag
	Cockatoo Island	Old and new materials and structures
	Duisburg Nord	Successional vegetation and industrial structures
	Hidden Gardens	Old and new materials and structures
	The High Line	New materials, reused railtracks, ephemeral planting, views into the city
	Middlesex Filter Beds	Vegetation and decaying structures
	RSPB Rainham Marshes	Vegetation and decaying structures, old and new materials
Südgelände	Railtracks and successional vegetation, graffiti within a nature park	
Possibilities for recollection	Ballast Point Park	The reliquary to the Villa Menevia, found objects in the gabion walls, views to the Harbour
	Carl Alexander Park	Retention of the slag heap and vegetation, views from summit of slag heap
	Cockatoo Island	Structures and artefacts retained and walkway allows access
	Duisburg Nord	Structures and artefacts retained
	Hidden Gardens	The Tramway Arts Centre was used as the Museum of Transport
The High Line	Linear nature reminiscent of transportation system, designed linear surfaces, moving sunbeds	

Possibilities for recollection	RSPB Rainham Marshes	Military structures and artefacts
	Südgelände	The graffiti wall, artefacts and the new walkway as a metaphorical reminder of the railtracks
	Turning the Tide	The artworks make reference to the industrial history
Expectation of future change	Armada Green	Apparent temporary nature of the landscape
	Carl Alexander Park	Vista from summit of slag heap takes in surrounding industry and other green spaces
	Cockatoo Island	Temporary nature of walkway to allow further development
	Duisburg Nord	Vista from blast furnace to the river encompasses the industrial nature of surrounding landscape
	Middlesex Filter Beds	Obvious decay and encroachment of vegetation is undermining the structures and walls
	RSPB Rainham Marshes	Vista along boardwalk out of site to wind turbines
	Vintondale Litmus Garden	Visible remediation of the polluted water systems

4.3 A discussion of the ways in which designers incorporate the qualities in the phase one case studies

4.3.1 The *tabula rasa* approach

The need to remove or contain contamination and pollution often leads to the clearing of a DUN site before development; in the UK in the latter part of the last century a ‘dig and dump’ approach predominated as is made clear in the case studies described in the Brownfields Guide (English Partnerships, 2006a, annex B). Although more recently advances in technology have enabled remediation to take place on-site rather than removing the problem elsewhere, English Partnerships in their National Brownfields Strategy document touch on the difficulty of meeting the expectations of developers whilst still conforming to government policy in the fields of planning and environmental regulations (English Partnerships, 2006b, p.4). It is evident that the ability to deal with contamination successfully *in situ* does not always lead to a change in attitude towards the qualities of the DUN site; the Olympic Delivery Agency, a public body responsible for all development on the high profile Olympic 2012 site in London coined the slogan ‘DEMOLISH, DIG, DESIGN’ (Marrero-Guillamon, 2011), thus implying the designer must start from the point of erasure¹¹ (Fig.6).

The sheer scale of the site, the contamination, and the size of the industrial buildings may also dictate how the regeneration process proceeds; the Turning the Tide project was required to address the problem of massive pollution from several mines over a large area. In County Durham in the UK, when coal mining was at its peak in 1920s there were around 300 mines (Durham Mining Museum, 2008); it would obviously be undesirable to retain remnants of the mining industry across so many sites. The removal of all evidence of both the industry and the pollution may also be dictated by a desire to forget; Connerton introduces the idea of ‘prescriptive forgetting’ which can be seen as a positive decision for the general good of society (Connerton, 2008, pp.61-62).



Figure 6 The demolish, dig, design hoarding at the 2012 Olympic site in East London

In addition to the contamination of the site the degree of ruination is also a factor which can dictate the future of the buildings on the site; the blast furnaces which were retained at Duisburg-Nord Landscape Park had only recently been decommissioned and the railway lines were still operational (Pirzio-Biroli, 2004). In contrast to this at the Thames Barrier Park all structures on the site had been removed prior to development and the extent of pollution necessitated remediation works and the capping of the bulk of the contamination beneath a layer of crushed concrete (CABE, 2011a). Such was the concern about the effects of the pollution that the new houses around the site were designed without gardens (Holden, 2001, p.82).

4.3.2 Revealing the past through the use of materials and processes

4.3.2.1 Using new and recycled materials – references, metaphors and symbols

Beard (2011) described to me his philosophy for working with DUN sites;

‘if you’re talking about derelict buildings you just let them get on with what they do, [there are] other places where you make obviously new gestures, other places where you modify or adjust or seek to repair’.

The case studies demonstrate this range of approaches to the material qualities and in this section I examine the ways new and recycled materials are used to make reference to the pastness of the site.



Figure 7 The Marshland Discovery Zone at Rainham formed from shipping containers



Figure 8 Remnants and recycled materials in the gabion walls at Ballast Point Park © Maggie Henton

At Armada Green (Adams and Sutherland, 2010) timber sleepers found on the site are reused as one component of a palette of new materials that includes exposed concrete aggregate (Fig. 120). The stark nature of these materials references the industrial history of the area. In a similar fashion the landscape architects at Ballast Point Park explained that they ‘aimed to have all the detailing be fairly raw...in the vein of the Caltex engineering solutions.’ (JMDD, 2011). This informed the decision to introduce a combination of new and recycled materials; shiny metals are contrasted with rusty steel and broken and exposed concrete with polished surfaces to create a juxtaposition of textures (Figs. 123, 124). Remnants and artefacts found on this and other industrial sites are recycled in the gabion walls (Fig. 8) displayed for visitors to find amongst the rubble and other waste (Harding and Hawken, 2009), much as explorers of abandoned sites search out artefacts in the debris (Edensor, 2005b), (Garrett, 2011). On a tour of Ballast Point Park led by Phillip Coxall informal feedback about the park confirmed that visitors appreciated the historical elements made visible through the use of materials and in particular liked the gabions, but could not relate in the same way to the severity of the concrete bund walls that surround the site (Figs. 13, 16) (Anderson, 2010).



Figure 9 New and recycled materials at the Hidden Gardens

This referencing of the history of the site through the selection of materials is demonstrated in many of the case studies; Cockatoo Island (Hawken, 2009b, p.59), The Hidden Gardens (Coulart, 2010) (Fig.9) and Rainham Marshes

(Worpole, 2009) all draw on an industrial palette and the Hidden Gardens uses gabions filled with bricks from the demolished buildings (Coulart, 2010). Designers of the High Line had hoped to recycle the timber and ballast from the old railway tracks but found it to be so contaminated with asbestos that it needed to be removed from the site and washed before being made safe so they made the decision to use new stone and timber (Martin, 2009, p.43). Nevertheless rather than using wood chippings as a mulch they have chosen a volcanic stone to echo the qualities of the original ballast (Ulam *et al.*, 2009, p.103). In phase 3, the most recently opened section of the site, a consolidated gravel surface merges with the bespoke planks (Fig10) and the railtracks are incorporated in places as part of this linear walkway.



Figure 10 Railtracks, mulch and consolidated gravel on phase 3 of the High Line © Stephen Walker

Designers also create new features to symbolically reference past uses (Treib, 2002). This is evident at Ballast Park Point where remnants of the skin of one of the oil tanks has been recycled and cut then used to build an alternative representation of the tank. The small wind turbines set on its upper level (Simon, 2010), make reference to the changes in production of energy from oil to wind (Fig.123). In a similar vein at Südgelände a metal walkway (Fig.149) has been

designed to run through part of the site and is reminiscent of the original railway lines that can be glimpsed amongst the vegetation on either side. Many of the design decisions at Duisburg Nord also involve the repurposing and recycling of materials and just one is singled out here to illustrate Latz's concept of 'physical nature' (Kirkwood, 2001, pp.150-161). The Piazza Metallica is formed of a square of forty-nine iron plates found on-site in the pig-iron casting works (Fig.11). These plates have been eroded by the processes imposed on them in the works, withstanding temperatures of 1,600 degrees Fahrenheit, and the intention is that natural processes will now continue the erosion process (Kirkwood, 2001, pp.150-161).



Figure 11 Cast iron plates form the surface of the Piazza Metallica at Duisburg Nord

Designers also repurpose material structures, tracks and artefacts for more playful uses. The sunbeds designed for the High Line are intended to move along the existing railtracks (Pearson *et al.*, 2009) (Fig.140) and the third phase of the project includes a children's play area constructed by exposing the steel structure supporting the rail track and encasing the girders in a colourful, plastic play material (Fig.12) (David and Hammond, 2012). The granite foundations of the pumphouse at the Middlesex Filter Beds have been transformed into the artwork *Nature's Throne*, known to locals as 'the Hackney Henge', a stone circle much used by visiting children for climbing. At Duisburg Nord Latz explains that he allows 'the existing abstract structures to function in new ways' (Kirkwood, 2001, p.151), going on to describe the ore bunker walls which have become

‘rock faces of a mountain scenery’. As well as adding climbing holds to the walls of the bunkers he encourages free-climbers to ascend using just the ‘cracks and scars formed by the ore ripping the surfaces of the concrete’ (Kirkwood, 2001, p.151).



Figure 12 The plastic-wrapped steel frame of the High Line © Stephen Walker

4.3.2.2 Including processes

Vegetation and decaying material structures and artefacts are also used to make reference to the site’s history and this is particularly evident in those sites that retain the vegetation that established during the period of abandonment. In sites such as Südgelände, the Middlesex Filter Beds and Carl Alexander Park the temporal qualities of process and rhythms of change in the DUN landscapes are made visible to the visitor through the retention and management of the

successional vegetation. The Filter Beds in particular also strive to maintain a balance between the decaying material qualities and the encroaching vegetation and I will discuss below the implications that this approach to temporality entails.

An unexpected example of process made visible through vegetation can be found at Duisburg Nord, where seeds, brought in from South America with the iron ore, established themselves to form an important element of the ecology of the site (Pirzio-Biroli, 2004).

Designed planting can also make reference to these temporal qualities; on the High Line Piet Oudolf evokes the wild communities of the original DUN site; ‘nature appears in a seemingly random and untamed fashion’ (Ulam *et al.*, 2009, p.92). As James Corner explains, ‘he sort of dismembered the original meadow ... and then put it back,’ (Martin, 2009, p.42).

New processes are also evident at the Riverbanks of Bordeaux and the Litmus Garden at Vintondale. In the latter the remediation system is a reminder of the contamination of the site, and the autumn colour of the trees is a subtle metaphor for the clean-up process (Kapusta, 2005, p.73). Along the Riverbanks of Bordeaux, Desvigne describes how ‘plantings will gradually replace construction and traces of industrial activity’ (Desvigne, 2005, p.26). Corner (2009, p.7), discussing Desvigne’s work explains that his designs are about ‘cultivation, process and change over time’¹². For Desvigne (2009) this approach is paramount for the regeneration of derelict landscapes; ‘the showcasing of traces is not enough. ... To commandeer these traces, to invert or distort them – therein lies the innovation’ (p.13).

4.3.2.3 Incorporating time-layers – the palimpsest approach

Lynch (1972, p.171) suggests that one way of making the history of landscapes visible is through the incorporation elements of a site’s past within a temporal collage or as layers within a new landscape. The idea of landscape as a

palimpsest is not a new one but it is perhaps ideally suited to a discussion of derelict brownfield sites as it can refer to not only the physical layers of history which may be present on the site but also to the cultural traces and narratives, (Langhorst, 2004, p.6). Several of the designers of the sites I examine here use the concept of the palimpsest as a framework in which to include material, spatial and temporal qualities of the DUN site.

For the archaeologist the geological layers of a landscape are read in order to understand the history of the area; by their nature these layers are usually hidden beneath the surface. The designer also has to consider which layers to make visible and which to leave hidden. There may also be a question, when restoring a landscape, of how far back to go; which layer of history is the one of value that should be displayed? At Duisburg some have questioned whether the new landscape has effectively erased, or at the very least selectively avoided, that part of the history of the Thyssen steelworks that links with the Nazi era. Alan Berger has alluded to the use of Jewish slave labour at the works, (Berger, 2009) (Hargreaves, 2007, p.165) and Fritz Thyssen is known to have provided finance for Hitler during the thirties before falling out with him in 1941 (Aris and Campbell, 2004).

However the design of Duisburg-Nord clearly demonstrates the use of time-layers; the blast furnaces are reminders of the past history of the site and the water recycling and natural successional processes are revealed. New gardens have been planted in some of the bunkers and others have become climbing walls. Langhorst describes how the park could be interpreted 'as a condensed palimpsest, representative of historic and possible landscapes in Germany's industrial north' (2004, p.5). He goes on to suggest that it is also a landscape open to change, to new ideas of 'human-nature interactions and interrelations and their results' (Langhorst, 2004, p.5) much as Lynch advocated. Latz also describes the palimpsest nature of his work when he says, 'landscape is composed of a wealth of selectable information layers covering one another up and presenting themselves as coincidental images only to the beholder,' (Pirzio-Biroli, 2004).



Figure 13 The concrete bund wall and footprints of gas tanks © Maggie Henton

At Ballast Point Park the aim of the designers was to ‘use the site’s identifying components and work with them to keep the entire history of the site visible for patrons’ (McGregor + Coxall, 2011). Working with the idea of the palimpsest allows the designers to create relationships between the material, spatial and temporal qualities and new layers in the landscape as I discuss below. The concrete foundations of structures and buildings on the site and the cuts in the sandstone cliffs of the harbour are exposed (Hawken, 2009a, pp.47-8) reminding the visitor of the changes wrought by the industrial past. In another part of the site the footprints of the oil tanks have been outlined with steel rings and simply planted with grass (Fig13). The reliquary holds material remnants and artefacts from the Villa Menevia displaying the past in an almost museum-like fashion (Fig.19), whilst the replica oil tank with its wind turbines signals the changes that have taken place and suggests future change and thus new layers to the palimpsest.

However the creation of this palimpsest landscape at Ballast Point Park has not been without controversy. Former Prime Minister Paul Keating, a strong voice in planning issues concerning sites around the Sydney Harbour, believes that rather than revealing the relatively recent history, sites should be taken back to their pre-European forms. In a speech in 2007 he says:

‘In my view, the policy should be to take every opportunity to return those parts of the foreshore, following the century-long

industrial sterilisation, to that which most approximates the natural environment as it might have obtained before 1788...I believe there's only one compelling heritage interest...the natural topography - the pre-colonial configuration of the foreshore.' (DHub, 2007).

Harding responds by asking 'do we want these sites to be sanitized – or are we interested in all of the competing truths of their history?' (Harding and Hawken, 2009, p.44). The choice of which time-layers and which material, spatial and temporal qualities should be included in the new landscape becomes a choice of which stories to tell and which histories to reveal. Even by choosing to leave the artefacts and structures to decay gradually, the designer is impacting on the 'stories-so-far' (Massey, 2005, p.130).

I found that designers create these palimpsests in two ways: I call these natural and abstracted palimpsests. In the former designers choose to leave time-layers from the DUN site *in situ* and create the new landscape around them. Natural palimpsests include those at the Middlesex Filter Beds, Rainham Marshes and Südgelände where the topography of the DUN site and the material structures and artefacts are largely unchanged. These sites most closely relate to the derelict landscape, where the material structures gradually decay and there is a merging of the natural and the cultural worlds. I also place Cockatoo Island and Carl Alexander Park into this category but here walkways are constructed as an explicit new layer on top of or adjacent to the existing spatial qualities and material structures of the industrial landscape, again leaving them relatively unchanged. In Massey's (2005) terms these natural palimpsests contribute to the possible stories that comprise place at any one time. However as the sites are subject to processes of decay and succession, evidence of pastness is obscured and even eventually lost, thus the possible stories also change, vanish, and are replaced and invented anew.

In creating an abstracted palimpsest the designer makes a choice about which material, spatial and temporal qualities of the DUN site to use within the new design, creating juxtapositions between the old, the new and the invented, sometimes making these contrasts explicit and at others blurring the boundaries

of the time-layers. As I have mentioned above they are also making a choice about the inclusion of possible stories that might then contribute to an understanding of the place. I suggest that Ballast Point Park exemplifies the abstracted palimpsest and the High Line also falls into this category with its combination of existing infrastructure and new interventions. In phase 3 the steel beams that support the track are exposed making the palimpsest explicit. The planting on the High Line is an abstracted version of the successional vegetation in the DUN site, in places designed to wind in and out of the recycled railtracks. The designers have used the spatial qualities of the derelict site - the linearity and the way in which the landscape is raised above the city - as the basis of a creative and innovative landscape design, ‘a place that is wild and cultivated, slow but animated, intimate and gregarious’ (Gerdt, 2009, p.22).



Figure 14 The abstracted palimpsest of the High Line © Stephen Walker

Duisburg Nord straddles both categories of palimpsest; successional planting, rusty buildings and walkways over existing bunkers all seem to fall into the category of the natural palimpsest (Figs.130,131). However there are new

interventions that blur the boundary between the time-layers: the metal plates at the Piazza Metallica; the mix of new gardens and successional planting; the grid of ornamental trees planted in recycled rubble.

In contrast with the palimpsests I describe above where the material, spatial and temporal qualities play an integral part in determining the forms in the new landscape, I suggest there is evidence of a simplified use of time-layers in those sites where a specific material quality becomes a focal point in the design. Examples include the towers at Gas Works Park (Fig.134) and the chimney at the Hidden Gardens. In these cases the artefacts function symbolically as reminders of the site's history, however I suggest that the way in which they have been included in the site is similar to the way a pot or piece of sculpture is displayed in a museum and I do not consider these to be complex palimpsest landscapes of the types I describe above.

4.3.2.4 Form, process and meaning

I have outlined the ways in which designers have made reference to the industrial history of the sites through the use of materials and vegetation both symbolically and as metaphor. However I have found little research into how users of these landscapes make sense of them and indeed whether symbolic representation conveys meaning. Treib (2002) questions whether landscapes can be designed with the intention that they mean and Dee (2010) agrees with Treib's position. She points out that 'representational approaches enable students to bypass the abstraction so necessary in design' (p.26). However the landscapes I discuss above do not rely solely on symbols; in some cases the materials and vegetation are used in an abstract way to signal processes in the landscape. Again some might ask whether these processes are understandable to the visitor (Mozingo, 1997) and again little research has been undertaken in this area. In Chapter 9 I will revisit this question in the light of my findings.

I discussed in Chapter 2 how Dee (2010) suggests that designers should understand 'landscape forms as trajectories' (p.28). She advocates

designing with forms that are dynamic, revealing processes through their materiality. I suggest that the landscape architects at Duisburg, Ballast Point and Cockatoo Island make reference to the temporality of the site in this way, through interpretation of the existing material forms of the landscape (Dee, 2010), and they draw attention to these time-layers by means of the relationship approach. This interpretation and integration of existing forms is also evident at Rainham Marshes, Carl Alexander Park, the High Line and Südgelände. However I suggest that it is the Vintondale Litmus Garden that best epitomises this approach; the trees are an integral part of the design, their colours changing with the seasons and echoing the remediation process. There is also an implied trajectory into a future where the land is free from pollution and has taken on new forms and new processes. However I do not suggest that all visitors to the Litmus Garden will recognise and understand this process through form. For the local community this is part of their history and as such is one stage on a continuous trajectory, but for people visiting the area for the first time it may be understood as a beautiful and natural landscape. Both responses are valid; as Massey (2005) (1999) points out, place is the coming together of multiple interrelations.

4.3.3 Revealing the past through relationships

Massey's understanding of place is also relevant to a discussion of the relationships evident in the phase one case studies; relationships between the site and its surroundings, between visitors and the site and between different elements within the site. This idea of attributing meaning to a landscape through its relationship with its surroundings is an important one for regenerated DUN sites. It allows the designer to create a framework through which the visitor can 'read' the history of the site (Treib, 2002). In many of the sites I examined there is evidence in the wider landscape of the economic and technological or industrial history of the area and also markers that might serve to emphasise a new, present-day context. At Rainham Marshes the horizontal marshland and estuarine landscape makes it impossible to avoid noticing the surrounding

landscapes and the linear boardwalks reflect the forms of the surrounding transport infrastructure. The vista along one of these long straight walkways seems to draw elements of the 21st century into the RSPB site. Rising in the west is a landfill site formed of much of the waste of north London and to the north, above the reeds, is the busy A13 and the Channel Tunnel Rail Link (Fig.15). The sound of trains and trucks is a constant backdrop to the birdcalls. The future is also visible further beyond the marshes to the west in the form of a group of wind turbines.



Figure 15 The boardwalk at RSPB Rainham Marshes with the CTRL in the background

I suggest that the incorporation of material, spatial and temporal qualities in landscapes such as Rainham Marshes can be understood in terms of Raxworthy's relationship approach. He explains how some designers working with sites in Sydney Harbour have made 'design decisions relating to designed organisations of sites and how people move through them, thus engaging users with specific, hybrid site histories.' (Raxworthy, 2008, p.69). This approach is evident in the High Line, Ballast Point Park and Cockatoo Island as well as at Duisburg Nord (also mentioned by Raxworthy). At Ballast Point the designers have sliced through the existing bund walls of the industrial site to reveal their construction and to create entrances and access routes (Hawken, 2009a). By this means the visitor experiences the juxtaposition of old and new materials and the relationship between the site and the wider landscape of Sydney

Harbour and I discuss this approach in my chapter *Buried Narratives* in the 2012 book *Urban Wildscapes* (Heatherington, 2012).

At Duisburg the relationship between the site and its surroundings tells the story of the history of the area. The views from the top of the blast furnace make clear how the rail tracks running through the site traverse the landscape, connecting with the River Emscher (Latz and Latz, 2001). In places close to the site the tracks form the new cycle paths and walkways leading into and through the park; in the distance they clearly point to the industrial history of the area - on the horizon there are still working factories and furnaces. To ensure that the railtracks continue to contribute to the narrative, Latz has instructed that they should be mown and kept clear of opportunist vegetation (Weilacher, 2008, p.122).



Figure 16 Approaching Ballast Point Park from Sydney Harbour with the gabion walls in the foreground and the new oil tank in the background © Maggie Henton

The designers of the walkway on Cockatoo Island also acknowledge the importance of relationships between the visitor and the old and new layers in the landscape, explaining the philosophy behind their approach to such projects as seeking to:

‘maintain the scale, eccentricity and matter of factness of these spaces. The journey through these spaces then becomes very important, how one interacts, moves through, over and around these spaces is the way in which we can allow the sites to reveal their qualities and that is how we gain meaning from [them].’ (JMDD, 2011).

The relationship between the visitor and the site at the Middlesex Filter Beds and at Södgelände is also dictated to some extent by their spatial qualities (Fig.17). The managed decay of the Filter Beds and the minimal use of railings to prevent access, (LVRPA, 1987, p.3) contribute to the site’s indeterminate nature and encourage diverse uses. However the topography of the site works against this, dictating the routes taken by the visitor and discouraging entry to the beds themselves in order to protect the vegetation and wildlife. Decisions were also taken to maintain the site’s sense of being enclosed and hidden and the boundary wall was repaired early in the development of the project (LVRPA, 1988).



Figure 17 At the Middlesex Filter Beds paths follow the existing walkways above the filter beds

Södgelände and Rainham Marshes have similar issues; both place the visitor in relationships with the temporal processes and material qualities through the design of pathways and access routes that in places follow the existing topography of the DUN site. At Södgelände it is important for the protection of the different habitats that the public do not enter the more sensitive areas of the

site (Langer, 2012). The raised metal walkway allows the visitors access to these habitats whilst in the less sensitive parts of the park they can walk on the existing railtracks (Kowarik and Langer, 2005, p.292). At Rainham Marshes the paths and decked walkways proscribe the route around the site and it is not possible to venture into the centre of the marsh. The walkways run close to material qualities such as the shooting range and lookout tower but they do not appear to have been designed to draw attention to these material qualities and it is only the roofless enclosure of the cordite store that is accessible to the visitor.

In my final examples at the Riverbanks of Bordeaux and the Litmus Garden, the designers draw attention to the relationship between the past and the future; temporal processes both reference past uses of the landscape and reveal the possibilities of future change. Desvigne, in particular, aims to create a coherent landscape that remains open to change and transformation; he refers to his designs as 'intermediate natures' (Desvigne, 2009). The future of these spaces is always uncertain and he accepts that new buildings and infrastructure may eventually infiltrate or even replace these forested landscapes.

4.4 Managing change

4.4.1 The management of the material and spatial qualities

It is not unusual for designers and developers to create heritage landscapes in which buildings and machinery are restored and remain *in situ*, preserved at a certain point in their history and telling a particular narrative. In Chapter 2 I discussed how these landscapes are designed primarily as a historic resource and visitor attraction (Dicks, 2003). This approach to the pastness of landscapes is very different from that of many of the phase 1 case studies where artefacts, structures and surfaces, rather than being preserved and conserved, are subject to changes wrought by external agencies or by encroaching vegetation. Latz talks of his philosophy when working with an abandoned site, trying to signal it as something more than simply derelict whilst also maintaining ‘its sense of “natural” wilderness’ (Beard, 1996, p.35). Beard goes on quote Latz in more detail:

‘Destruction has to be protected so that it isn’t destroyed again by re-cultivation. New places have to be invented, new places at the fault lines between what was destroyed and what remained, between structures still recognisable as cultural landscape and those that are historically devastated’ (p.35).

This raises the question of how the derelict structures, artefacts and surfaces that are evidence of these cultural landscapes¹³ are intended to be maintained in the future. In my research I found the material and spatial qualities were treated in a ways that range from elimination through preservation to allowing them to crumble, rust and decay. Fig.18 is a synthesis of my thinking about how the qualities in the phase one sites are handled and below I detail the implications of this thinking for the future of these landscapes. I have placed the case studies at points along a gradient on the basis of conclusions I have drawn about the present management of their material and spatial qualities. I have included the *tabula rasa* approach here indicating those sites with no material or spatial qualities, and hence no management implications.

MANAGEMENT OF MATERIAL AND SPATIAL QUALITIES



Categories allocated on the basis of the material and spatial qualities of the site

Tabula rasa: starting from a blank canvas

Stasis: elements of the landscape are restored and subsequently preserved at that point in time

Arrested decay: the decay and ruination of the landscape is halted at a certain point

Managed decay: the decay is an ongoing process but is managed to ensure it does not become total

Complete decay: decay and ruination are allowed to proceed and eventually the industrial landscape disappears

If a site occurs more than once this indicates that a variety of approaches are in use

Figure 18 The management of the material and spatial qualities in the phase one case study sites

I use the term stasis to describe material artefacts, structures and buildings that have been restored and are subsequently preserved, as far as is possible, in their restored state. There is a subtle difference between stasis and arrested decay. DeSilvey (2005) describes arrested decay as an approach to management whereby the decay and ruination proceed to a certain point and are allowed to go no further. There is evidence of both approaches in some of the phase 1 sites and sometimes it is unclear to what extent restoration has taken place. However I suggest that the chimney at the Hidden Gardens and the restored engine at Südgelände are examples of stasis (Fig.20). I also consider the reliquary at Ballast Point Park containing the historical fragments of pottery from the pre-industrial landscape of the Villa Menevia is an alternative type of stasis (Fig.19). In this case the remnants are preserved in a display case as if in a museum.

Stasis is also evident in inclusion of the pit cage artwork at Easington Colliery in the Turning the Tide project (Fig.155). Here the artist has repurposed a section of restored machinery and sited it in an open space on the clifftop (Durham County Council, 2002); however what was once a moveable cage for transporting miners deep underground has now been shorn of all moving parts and stands as a static memorial. Preserving an industrial structure in stasis impacts on the stories told about the site. I suggest this is particularly

noticeable in this artwork at Easington where all elements of dirt, contamination and danger have been removed leaving little more than a sanitised version of the history of the area¹⁴.



Figure 19 The reliquary to the Villa Menevia © Maggie Henton



Figure 20 Stasis at Südgelände

I have placed the sluices and hoppers (Fig.21) at the Middlesex Filter Beds and the gas towers in Gas Works Park at a point on the gradient between stasis and arrested decay; they do not appear to have been restored, however the intention was to preserve them so that they might remain unchanged into the future. At

the Filter Beds the LVRPA recognised the importance of the material qualities both aesthetically and as a part of the interpretation of the site (LVRPA Countryside Officer, 1989) and unobtrusive signs now explain the former uses of these artefacts. Haag intended that the gas towers at Gas Works Park should be both preserved and open to the public (Fig.134). They were seen by some as monumental artworks, described in the New York Times as Seattle's 'pre-eminent piece of public sculpture' (Weems, 1980, p.23). In fact the towers were fenced off shortly after the park opened (Hester, 1984) resulting in them 'function[ing] more like 'follies'' in a park where 'change is treated as a historic phenomenon, expressed in the juxtaposition of the strange and sublime industrial ruins and the green park lawn.' (Langhorst, 2004, pp.3,5).

The High Line also bridges the gap between stasis and arrested decay. The infrastructure, rail-tracks and the supporting structures were contaminated and it was necessary to carry out major remedial work; each rail-track was dismantled, logged, removed and repaired before it could form a part of the new landscape (Martin, 2009, p.43).

Duisburg Nord and Cockatoo Island both incorporate structures, infrastructure and artefacts from the derelict site in a state of arrested decay. In the case of the latter, the decaying buildings are assets to be celebrated and present issues to be resolved (Fig.22). The Sydney Morning Herald sums up the dilemmas faced by the executive director of the Sydney Harbour Federation Trust (SHFT) when dealing with such a significant site as Cockatoo Island; SHFT 'promotes "adaptive re-use" of old buildings, old sites, both as a means of creating public activity on degraded, deserted land and, unashamedly as a way of raising revenue' (Huxley, 2006, p.2). The aim for the designers at Cockatoo Island was to ensure minimal intervention in the existing industrial fabric whilst still allowing the public access (JMDD, 2011).

Carl Alexander Park is the only example of a case study where the pollution produced by heavy industry is celebrated; the waste products of the mining industry create the slag heap which both informs the topography and the spatial layout of the park and is its main feature (Leppert, 2009). Although decay is

perhaps not a word that can be associated with a slag heap, the surface must remain safe and fit for purpose whilst allowing the continuation of the successional processes that are part of the attraction of the landscape.



Figure 21 The sluice in a state of arrested decay at the Filter Beds © Interviewee FB17



Figure 22 Cockatoo Island with its reused buildings, remnants of surfaces, sandstone cliffs and clip-on walkway © Maggie Henton

The term managed decay is used by DeSilvey (2006) to describe the concept of management of the on-going processes of decay to ensure that material structures and artefacts do not ultimately fall into complete decay. The management of the military remains at Rainham Marshes falls at some point along the gradient between managed and complete decay. There were discussions between English Heritage and the RSPB over which elements of the military occupation of the site should be preserved and this then formed part of the bid to the Heritage Lottery Fund for money to develop the site (Beard, 2011). I will discuss in Chapters 6-8 the approach taken by the RSPB to the military artefacts, however it is clear when walking around the site that the remaining sections of the shooting range are in danger of falling into irreversible decay and I was told that the RSPB felt that it was not in their remit to preserve military remains (Beard, 2011).

The Middlesex Filter Beds and Südgelände are similar in their approach to the material and spatial qualities, in that both sites are designed around the existing material forms and spatial layout of the industrial site – the filter beds themselves and the railway tracks respectively – both of which remain *in situ* with little intervention from the designers. At the Filter Beds the LVRPA wanted to ensure that there was as little formal design as possible, leaving the beds much as they were when they were functioning (Fig.23). However they did stress the importance of removing any trees which were threatening to undermine to fabric of the walls (LVRPA, 1988, pp.58-9). Interventions in the Südgelände site are described in more detail below but Langer (2012) highlights the need for a flexible approach to maintenance to ensure that natural succession is balanced with other objectives for the site. However Noel Kingsbury (2011) feels that recently the successional flora has been allowed too great a prominence which detracts from the cultural elements; in places the rail-tracks are becoming completely subsumed by vegetation thus approaching the complete decay end of the spectrum (Fig.24).



Figure 23 Managed decay at the Middlesex Filter Beds

The decision of where to situate qualities on the management gradient is necessarily contingent on safety requirements, finances, the workforce available, and social and political constraints and therefore it is subject to change. Designers may envisage that material artefacts will be treated in a certain way but this does not preclude decisions being taken in the future to allow some structures to decay completely or conversely a change of plan or policy might necessitate a more conservationist approach, (DeSilvey, 2012), (Morris, 2013). I will consider this further in my discussions about the future of the Middlesex Filter Beds in the phase 2 case studies.



Figure 24 Managed decay at Südgelände

4.4.2 The relationship between management of the qualities and planting approach

It is clear from my research and from my discussion above that the ways in which the vegetation is managed has implications for the management and maintenance of the material and spatial qualities. I examined the types of planting or vegetation in the phase one sites and the second output from my research in this area is shown in the management of vegetation and planting gradient in Fig.25. This gradient extends from traditional horticultural methods that make design decisions about the forms of plant combinations and are intensive in their maintenance regimes, through the design of naturalistic perennial planting and meadows, to planting schemes based around providing habitats or working with native plants, and finally to natural succession. I have placed the sites along this gradient, sometimes indicating that they take a range of approaches. As with the gradient in Fig.18 I intend that the boundaries between the approaches are blurred and I found that in some sites the vegetation management was gradually modified over time. In sites towards the natural successional end of the spectrum the need to provide particular habitats was often a significant factor; at the Middlesex Filter Beds and Südgelände, for example, I found that decisions were taken about the extent to which the vegetation could be left to be purely successional. In other sites the planting design changed as new staff took over; at the Hidden Gardens they planted a meadow during the course of my research.

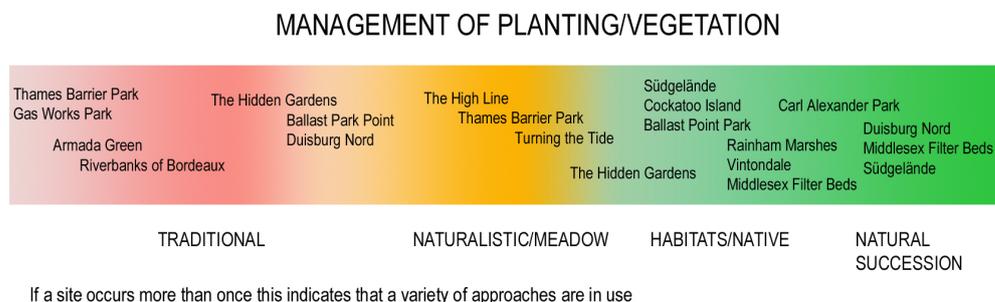


Figure 25 The management of the vegetation and planting in the phase one case study sites

I found that the decisions taken about the management of the material and spatial qualities outlined above are often linked to the approaches designers take to the vegetation management or planting design. Landscape design involves decisions about how to exploit the combination of materials and plants in gardens and parks to create interesting and dynamic juxtapositions. In the DUN site these combinations usually occur spontaneously and contribute to the appeal of the landscape as I discussed in Chapter 2. These juxtapositions can serve to emphasise the temporal qualities of the DUN site, at its simplest illustrated by opportunist buddleia growing through the cracks in concrete or on the rooftops of derelict buildings, and thus contributing to the further decay of the site.

Peter Beard (2011), talking about the Rainham Marshes site, explains his design ethos, how he works with the vegetation and the existing cultural landscape and how he:

‘tries to identify different characters according to different locations within the site so that at some point you might choose to make very deliberate interventions that are outside the derelict landscape, the landscape as found, and then there are other areas where you may recognise dynamics that are in place within those landscapes for instance certain qualities of vegetation such as reed growth and what you do is that you do things that point up or manage that natural feature of the site’

I found that in the case studies there is a link between the intended levels of decay of the material and spatial qualities and the approaches taken to the planting and I illustrate this in Fig.26. Sites such as the Middlesex Filter Beds and Südgelände allow natural succession to proceed in places and are managed for habitat creation and both fall towards the end of the decay spectrum. At Südgelände initial surveys of the derelict site indicated that if left unchecked, succession would soon result in a completely forested area, therefore it was decided to ‘combine both natural dynamics and controlled processes’ to ‘demonstrate the transformation from railway yard to wilderness over time’ (Langer, 2012, pp.155-6). Designers ensured that different stages in succession are present at the same time in different sections of the site, enabling visitors to

experience these processes (Grosse-Bächle, 2005) whilst also leaving the railtracks as visible reminders of the site's history.

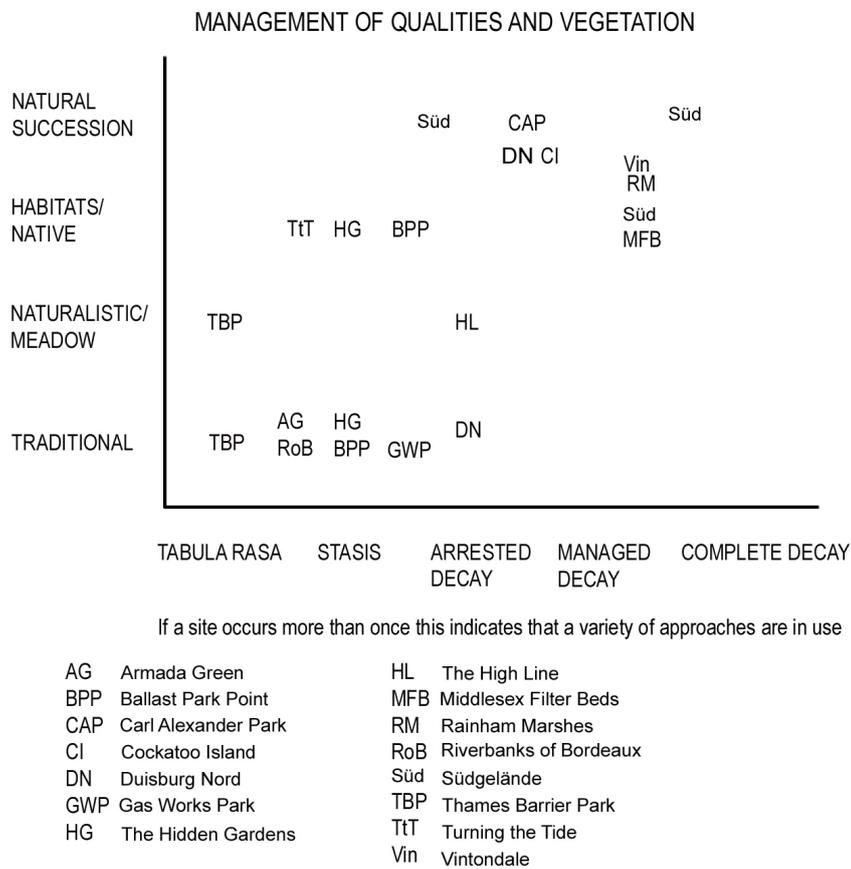


Figure 26 The relationship between the management of the material and spatial qualities and the vegetation management approach in the phase one case studies

Rainham Marshes (Beard, 2011), Cockatoo Island (Hawken, 2009b, p.59) and Carl Alexander Park (Havemann, 2010, p.18) are designed to ensure that habitats present on the DUN sites are preserved and enhanced in the new landscapes whilst the material qualities are maintained in a state of arrested or managed decay. At Ballast Point Park designers have taken a range of approaches to the planting design including native planting from local genetic stock (Hawken, 2009a, pp.46-51). However here plants are managed to ensure the abstracted palimpsest is maintained in a state of arrested decay.

Duisburg is known for the silver birches self-seeded high up on the blast furnaces and on the waste substrates of the former coke plant (Kirkwood, 2001,

p.156) creating juxtapositions reminiscent of the DUN site but also entailing careful maintenance to ensure that any structures do not approach the complete decay end of the spectrum. Juxtapositions are not only evident in the combination of a more natural style of planting and decay but also occur in the contrasts between derelict structures and more traditional planting designs. At Duisburg, grids of trees (Fig.27), *Ailanthus altissima*, are planted in the now open space outside the blast furnaces, signalling a disruption or discontinuity in the process of change. This area was once a sintering plant that had to be demolished due to contamination. Any resulting rubble that was clean enough, was ground up and reused to create the surface and substrate for the trees (Kirkwood, 2001, p.156).



Figure 27 The grid of ornamental trees at Duisburg Nord

These juxtapositions (of planting, vegetation, material and spatial qualities) can be used by designers to draw attention to temporalities in the landscape and to

highlight the processes of succession and decay. I have mentioned above that Södgelände is specifically designed to make the stages of succession clear to the visitor, and in other sites, especially those which incorporate naturalistic planting, such as the High Line, the processes of growth, decay, death and renewal are manifested in the planting. Robert Hammond of Friends of the High Line, is quoted by Ulam (2009) saying, ‘one of the special things about the High Line is that it was constantly changing. And that [change] is really about the planting’ (p.101) (Fig.139). These different juxtapositions can be used by designers to blur the boundaries between the natural and the cultural as I discussed in Chapter 2, or to make explicit the edges or disjunctions between the past landscape and the present and I will discuss this in more detail in Chapter 7.

4.5 Implications for the phase two case studies

I described in Chapter 3 how I used the research results from phase one to inform the selection process of the phase two sites. From the fifteen case studies I chose three sites that include many of the material, spatial and temporal qualities described in the typology above and also demonstrate the range of categories of incorporation. The Hidden Gardens is an example of a design that makes use of recycled materials and an industrial palette to reference the past use of the site and artefacts are incorporated as symbolic focal points in the new design. At Rainham Marshes there is evidence of the recycling and repurposing of materials, and new materials reference the industrial history of the area. Military artefacts remain on the site and these together with the new interventions are evidence of the palimpsest approach. Although it is not explicitly stated in the data I suggest that a relationship approach has been taken to the design, particularly in terms of the links between the site and its surroundings and the ways in which the visitor can experience these connections. The third case study, the Middlesex Filter Beds, demonstrates how material artefacts, structures and surfaces can be left untouched in the landscape and also how they can be recycled into new features. There is evidence of processes of decay and of the juxtapositions of vegetation and material qualities. Although the ways visitors move around the site is predetermined by the existing topography, I suggest that it functions in the same way as a site designed with the relationship approach in mind. In Chapter 5 I will explore the background and history of these three sites in more detail and expand on my typology of qualities for each.

During my research into the phase one case studies I found that often diverse and conflicting narratives had grown up around the industrial sites, both whilst in operation and when derelict. Although I do not consider these to be qualities that could be incorporated into the new site, they have some bearing on the development of the landscape, and may persist and become part of new narratives in the future. Local communities can feel ambivalent about these often contested landscapes; they may have worked on the site, the mines at

Vintondale and County Durham are examples, or alternatively have been excluded by the former owners such as at the Middlesex Filter Beds and the Hidden Gardens. As Julie Bargmann, designer of the park at Vintondale, points out, there is often a conflict between the pride they feel in their family and community history and their awareness that the industry they were a part of has had such a devastating environmental impact on the landscape (Kapusta, 2005, p.72). In many of the case studies people have lived with the derelict site on their doorsteps for decades, a contested space, fought over by developers, planners, conservationists and environmentalists and this informs the identity of the site and contributes to the narrative surrounding it. This knowledge has helped me to approach the interviews in phase two with a greater awareness of the conflicting and sometimes contradictory feelings some participants might be feeling about the history of the landscape.

I mentioned above the way in which the initial coding in phase two provided data to help me to extract and identify the qualities in the phase one sites. These qualities form part of the iterative process of the first stage of my coding of interviews in phase two. It would not be credible to suggest that I forget all knowledge of these qualities during the coding process for phase 2, however I ensured that I considered the early interview transcripts in detail. I then referred back to my typology of qualities in the phase one sites to see whether there were themes, particularly around temporality, that suggested further scrutiny of the phase two transcripts would prove fruitful. As coding and analysis proceeded the focus became more concerned with the phase two data as I will discuss in the following Chapters 6-8. I will return to the categories for incorporation of the qualities discussed in this chapter and will consider their implications for this research in Chapter 9.

5. Phase two – a history of the three case study sites

5.1 The Middlesex Filter Beds, London

5.1.1 The background to the Filter Beds

The Middlesex Filters Beds lie in a triangle of land bounded on two sides by the River Lea and the Navigation, and adjacent to the Hackney Marshes (Figs.28,118). In the distance across the marshes is the 2012 Olympic site, now the Queen Elizabeth Park, and just beyond the North West corner of the site is the Lea Bridge Road. On the far side of the Navigation is Millfields Park. Two sets of filter beds, the Essex and the Middlesex, were built on opposite banks of the River Lea by the East London Waterworks Company in 1853 following a cholera epidemic in London. The Middlesex Filter Beds site covers six acres and comprises of six separate beds arranged around a circular collection area. The sloping sides of the beds were constructed of brick and concrete and the water was filtered through gravel and sand and then passed through a network of brick pipes before collecting in the central well. The sand at the top of the beds accumulated impurities and dirt and was continually skimmed off and replaced by a team of 20 men. It took between six and eight weeks to ‘sand a bed’ and one worker, Bill Whitehead, explained that the process left such a smooth surface ‘you could roll a billiard ball across [it]’ (Pike, 1991).

I have outlined key details from the history of the site in the timeline (Fig.32). Much of the information is taken from the website *the view from the bridge* (Lea Bridge Heritage, 2012a), which draws on various sources to bring together information about the history of the Lea Bridge area.

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 28 Location of the Middlesex Filter Beds © Crown Copyright and Database Right 2014. Ordnance Survey (Digimap Licence). An Ordnance Survey/EDINA supplied service

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 29 Map showing the Middlesex Filter Beds with the Essex Filter beds above 1870 © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1870). An Ordnance Survey/EDINA supplied service

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 30 View over the Middlesex Filter Beds to the south in the 1920s. The Navigation is visible to the right of the picture © Thames Water

In the 1940s Professor Abercrombie produced the Greater London Plan, a blueprint for the future of London; he radically suggested that the Lea Valley should become a green corridor connecting Essex and Hertfordshire to the slums in the East End (Elks, 2008). However it was 1967 before the Lea Valley Regional Park Authority was formed.

In 1971-72 the waterworks at Lea Bridge Road were closed and the site gradually fell into disrepair. The LVRPA leased the Filter Beds from Thames Water in the 1980s. During this period access to the site, which had been impossible due to the impressive brick wall which ran along the towpath beside the Navigation, became easier. Photographs in the LVRPA archive show that the wall was in part non-existent and the LVRPA's management plan (LVRPA, 1987, p.2) commented that 'in places the boundaries of the site require attention in order to achieve greater site security and increased controlled access'.

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 31 Arial view of the Middlesex Filter Beds, with the pumping house at the bottom of the picture. The beds on the right are in the process of being sanded. © Thames Water

THE MIDDLESEX FILTER BEDS, LONDON, (Lea Bridge Heritage, 2012a)

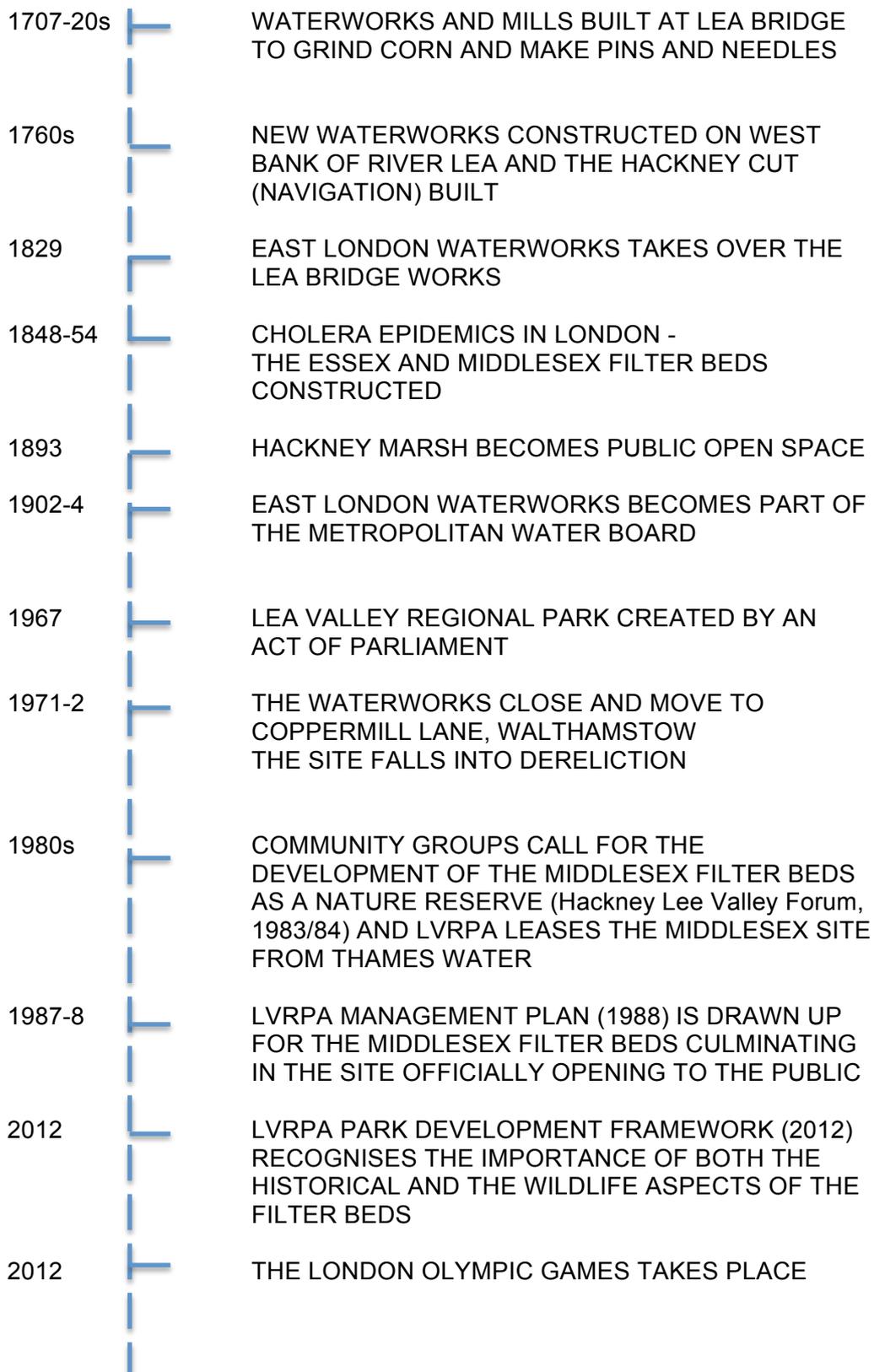


Figure 32 Timeline showing key details in the history of the Middlesex Filter Beds

During the period of dereliction the site was used by a diverse range of people; the LVRPA wrote that ‘guns are not uncommon, dogs and children run in and out of the beds, fires are occasionally set’ (1988, p.17). The site was also used by both amateur and professional naturalists and ecologists, dog walkers and anglers taking a short cut to the river, (LVRPA, 1988, p.5) as well as for a ‘number of harmful or potentially more damaging pursuits:- barbecuing, egg collecting, glue sniffing’ (LVRPA, 1988, p.12).

The walls and buildings on the site were gradually falling into disrepair and although community groups such as the Hackney Lee Valley Forum commented forcefully in their report (1983/84, p.9) that ‘it is scandalous that Thames Water Authority is seeking to demolish the fine old pump house’, the main buildings on the site were in fact demolished before the LVRPA took over. In 1988 it appears that rubble from demolition remained on the site and was already being colonized by ruderal plants and trees, (LVRPA, 1988, p.7). There was also extensive colonization of the beds themselves, each one taking on a different appearance dependent on the depths of sand and gravel retained in each. The walls of the beds were beginning to crumble and there was a ‘patchwork of plant growth, with species colonizing the cracks and joints in the concrete’ (LVRPA, 1988, p.5) (Fig.33). Photographs from the LVRPA’s archive contrast the beds in 1972 and 1984; over the twelve years an open site has become completely overgrown with what appear to be mature trees growing from the beds.

The LVRPA recognized that the future of the Filter Beds was of concern to local people and that the site should not be seen in isolation but should be considered in the context of the area around the Lea Bridge as a whole (LVRPA, 1988). Their management plan in 1988 indicates that they consulted with local and London-wide public bodies and community groups. From an early stage they recognized that the aesthetics of the derelict site had value and discussed their concerns about ‘balancing public safety against maintaining the undoubted attractive appearance of the area ... It is suggested ... that fencing around individual beds should not be undertaken’ (LVRPA, 1987, p.3). In particular they highlighted the attractive appearance of the various materials in

use on the paths and open spaces (LVRPA Countryside Officer, 1989). This memorandum to a landscape architect also identified the central circular area as an important feature, perhaps as a focal point or viewing area. The industrial artefacts were considered an ‘important part of the appeal of the site to the public and are an important interpretative resource’ and it was noted that the cost implications of making safe the artefacts and preventing them from decaying further would not be prohibitive (LVRPA Countryside Officer, 1989).



Figure 33 The central collecting well with the power station in the background, during period of abandonment in 1986 © Berris Conolly

Ideas of education and interpretation were a central feature of the Management Plan but it also recognized the site would need to be managed to retain the diversity of flora and fauna (LVRPA, 1988, p.16). In order to protect the beds from further damage they were adamant that any trees threatening the fabric of the walls would need to be removed, in spite of protest from an eminent local botanist who responded that ‘the wider environmental perspective of the site cannot be stressed too strongly ... Complete removal of trees, even where growing out of walls is undesirable’ (LVRPA, 1988, pp.58-9).

In 2012 a Park Development Framework (LVRPA, 2012) indicated that thinking about the Filter Beds remains largely unchanged. It is included in a section of the report covering heritage which states that the Filter Beds should be ‘protected and promoted through interpretational guides, trails and physical links to other sites of interest’ (LVRPA, 2012) whilst also remaining an area for landscape conservation.

5.1.2 The qualities of the Filter Beds

The table below outlines the material, spatial and temporal qualities found in the Filter Beds and the photos and sketch plan (Fig.34) indicate their location in the site.

Qualities at the Filter Beds		Comments
Material Qualities		
Structures	Brick walls through and around filter beds	Birches and other trees grow out from the brickwork. Maintained periodically to ensure they remain structurally sound. Coping bricks have fallen off in places and concrete render is crumbling.
	Central collecting well	Central focal point for the site, approx. 30m in diameter - kept free from weeds as part of the accessible areas for visitors.
	Covered bridge across Lea, outside the site	Not accessible but visible when looking across the Lea. Rusty patina.
	Pylon plinth beside path	Left after the pylons were removed and used as a makeshift seat.
	Boundary wall along the towpath	Repaired and maintained. One entrance to the site is through a gate in this wall.
Relics, artefacts	Sluices around central well	Painted black and maintained.
	Hopper at end of channel	Painted black and maintained.
	Rusty pipes running across the Lea and into one of the beds	Rusty patina. Railings prevent access.
	Concrete and brick structures at side of the beds at the lower levels	Appear to have once been open structures that have now been sealed to prevent access.
	Small signs and stains on surfaces	At points in the different surfaces, some show the initials of the various water companies.
Surfaces and tracks	Cobbles, terracotta tiles, concrete and bricks	Sections of surfaces, including some from inside buildings that were once on the site, form a collage of textures on the paths.
	Tracks on main path to the central well	Forms part of the accessible walkways.

Surfaces and tracks	Concrete channel with walls at end on main path to the central well	Forms part of the accessible walkways.
Reused materials	Parts of the granite foundations of the pumphouse now form the artwork 'Nature's Throne'	Colloquially known as the 'Hackney Henge'. This is the name used by my interviewees. Traces of ground out holes, apertures and rusty pieces of metal contrast with the texture of the granite.
Vegetation/planting	Successional vegetation	Successional vegetation differs in each bed depending on the depths of sand and gravel that were left when the site was abandoned.
Spatial Qualities		
Topography	Spatial layout of beds and paths	The topography of the original beds dictates the way people move around the site: the beds are at a lower level than the walkways, adding an element of protection for the vegetation community and the wildlife habitats.
	Six filter beds	The beds radiate out from and below the central collecting well.
	Steps down into beds closed off with railings	Easy to circumnavigate. People do venture down into the undergrowth as evidenced by the informal tracks through the reeds.
Enclosure and permeability	Boundary wall	Imposing boundary wall along the towpath with the Navigation has been repaired. There was no access to the site when it was operational although there appears to always have been an entrance here. The gate does not stand out and it is easy to pass by without entering the site. There is little sense of arrival.
	Vegetation along River Lea	Vegetation along the Lea encloses the site in summer.
	Views to the decommissioned power station	This is visible across the Navigation.
	Views to industrial site across River Lea	Clearly visible when the vegetation is cut back and in the winter. Always audible.
Temporal Qualities		
Processes	Successional vegetation, decaying structures and artefacts	The vegetation is managed to maintain the different habitats that grew up on the site when it was derelict. Some maintenance takes places to protect the material qualities.
Rhythms of change	Seasonal and managed changes to vegetation	Maintenance is sometimes dramatic. Working parties sometimes cut down all the vegetation in one bed over a weekend. Changes in the seasons open up views across the site.

Juxtapositions	Vegetation and structures, decaying material artefacts and structures	Although maintenance is ongoing the vegetation often appears to be engulfing the structures and brickwork is crumbling. This results in a mix of textures and patinas.
Indeterminacy	Light touch to management of successional vegetation and decay	There is a sense of decay and ruination and the appearance that nature is taking over some of the structures and surfaces.

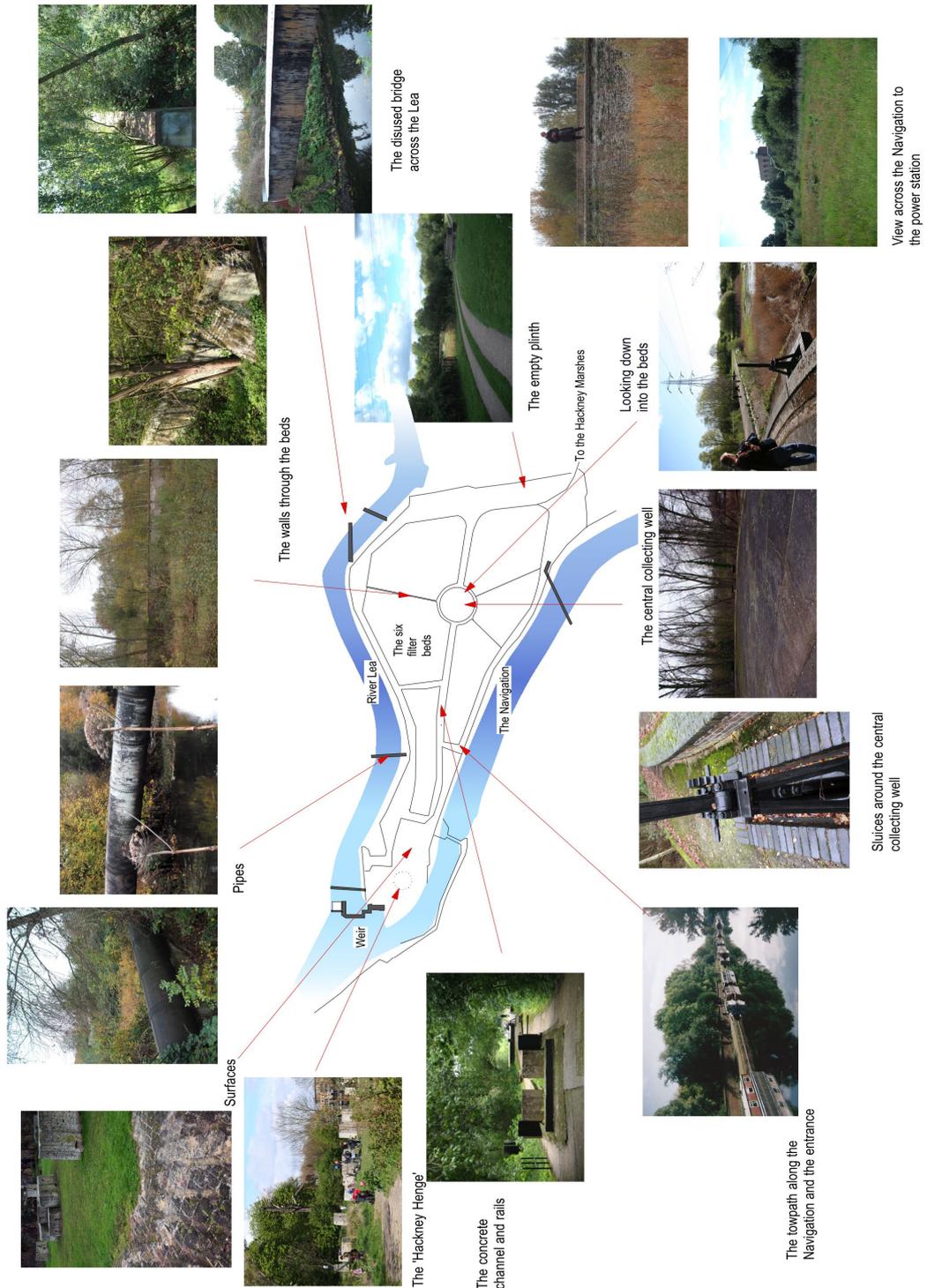


Figure 34 Sketch plan and location of qualities at the Middlesex Filter Beds © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

5.2 The RSPB, Rainham Marshes, Purfleet

5.2.1 The background to the RSPB site

Although the RSPB has given the bird reserve the name Rainham Marshes, it is in fact closer to the village of Purfleet and is sited on Aveley and Wennington Marshes on the north bank of the River Thames, east of London (Figs.35,118). Aveley, Wennington and Rainham Marshes together form an area of marshland of over 400 hectares that has existed since medieval times. The approximate extent of the public section of the reserve is shown on the sketch plan (Fig.118) however the RSPB also manage other areas of the marshes to the west. The CTRL runs along the north of the site and the Thames is to the south. To the east is a landfill site that has traditionally served North London and there are numerous industrial complexes in the area. Purfleet and the Thames estuary has long been home to industry and the Tilbury Docks are only a few miles downstream. The area is used to changes; ‘farmlands were erased to allow for industries and now industries are being erased to allow for housing’ (Thurrock Council, 2004).

I have outlined the key details in the history of the RSPB Rainham Marshes site in the timeline below (Fig.38). The Rainham Marshes Nature Reserve is on the site of the former Ministry of Defence site, the Purfleet Rifle Range established in 1909. The site was used by the military during WWI and II and for National Service training in the 1950s (Beard, 2011) and by the army and other organisations as a shooting range (Fig.37). I found anecdotal reports of life on the ranges online in the *Great War Forum*. In 1914 soldiers arrived to find that they were billeted in tents, ‘there were not enough blankets to go round; the food was coarse, there were no recreation huts, no dining halls, no canteens’. The writer comments that the site was ‘no more than marshland alongside the river’ (Great War Forum, 2004, post 3 of 7). The RSPB archive contains a postcard sent in 1917 (Fig.36) showing the lines of tents and entitled ‘musketry camp’ (Vaughan, 2011). Another former army member on the forum commented that he had visited the site in the 1980s when in the Territorial

Army and it was also pointed out that the Metropolitan Police used the site for target practice (Great War Forum, 2004, posts 4 and 5 of 7).

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Figure 35 Location of the RSPB Rainham Marshes. Note this map shows the correct names for the Rainham, Wennington and Aveley Marshes © Crown Copyright and Database Right 2014. Ordnance Survey (Digimap Licence). An Ordnance Survey/EDINA supplied service



Figure 36 Postcard of the Musketry Camp at Rainham sent in 1917 © RSPB archive



Figure 37 Dagenham Gun Club practicing at Rainham in the late 1940s-50s © RSPB archive

It is difficult to be specific about when the military finally left the site; another writer on the forum talks of visiting in the 90s; ‘my recollections of the ranges were it always rained and was windy, a right miserable place’ (Great War Forum, 2004, post 6 of 7). Nevertheless as I will discuss later interviewees described the site falling into dereliction and in use for various alternative practices throughout the 90s.

Although the MOD owned the Rainham Marshes site the Purfleet Heritage Centre has information about a Scottish shepherd who arrived in the 1930s and stayed on the marshes with his dogs and a herd of sheep (Beard, 2011). I was told he used the US Airforce WW2 billets as shearing sheds. There was also a herd of cows on the marsh (Beard, 2011). Access was permitted to the site when the red flags were down signalling that shooting was not in progress and I will describe later the uses the birders and the local community made of the site during the latter part of the 20th Century.

THE RSPB RAINHAM MARSHES, PURFLEET

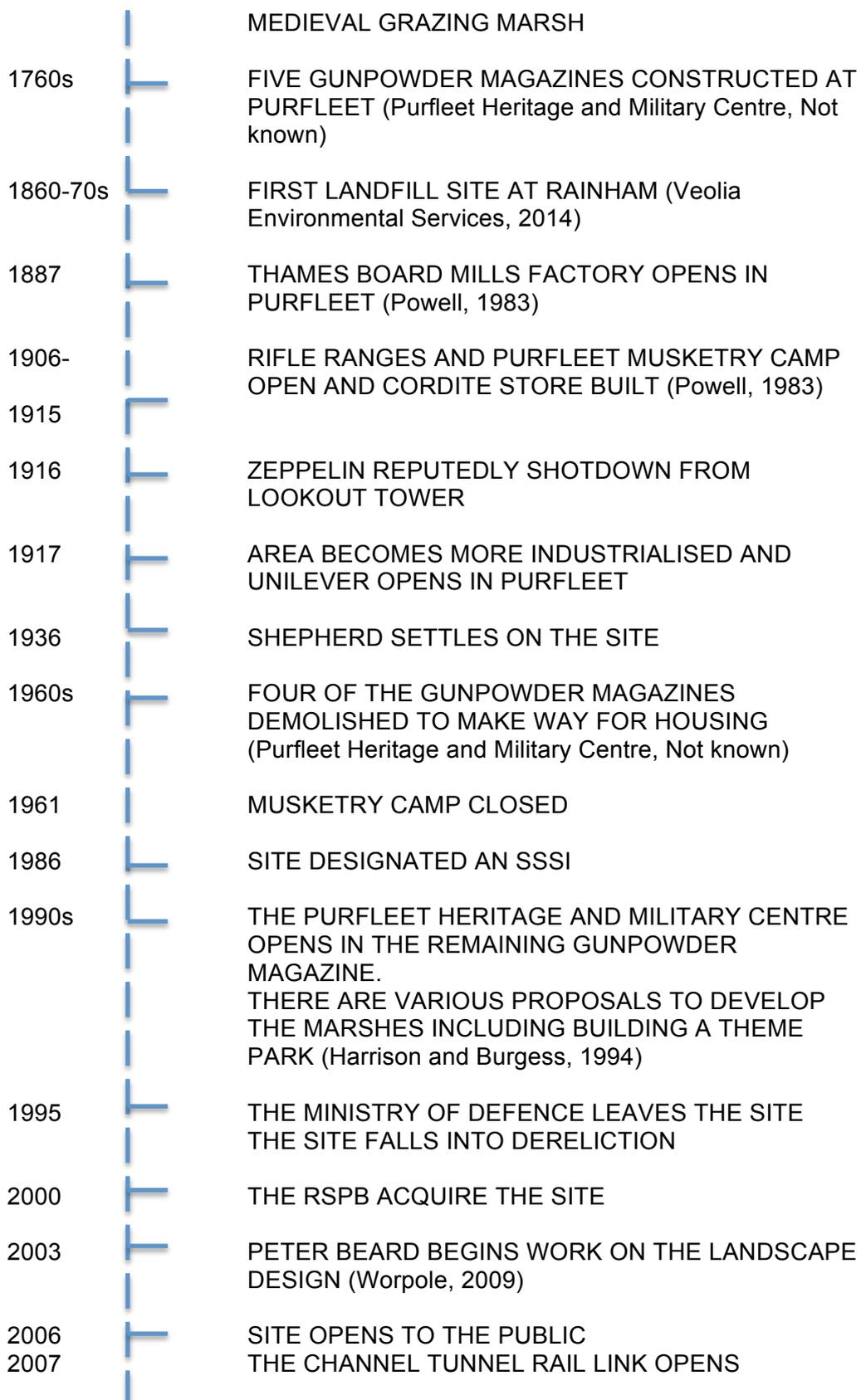


Figure 38 Timeline showing key details in the history of the RSPB Rainham Marshes site

The Rainham, Wennington and Aveley Marshes were designated an SSSI in 1986. However this did not prevent the Music Corporation of America, (MCA) from attempting to build a theme park on the site (Harrison and Burgess, 1994, p.292). It was only in 2002 when the Mayor of London, Ken Livingstone, designated the area a Site of Metropolitan Importance for Nature Conservation that its future was finally determined (Furniss, 2002, p.255). The early proposals for Rainham Marshes seem to have barely considered the opinions of the local community. The rhetoric of an MCA press release proclaims:

‘we shall together be taking a derelict landscape, suffering from pollution and decay in the natural habitat and transforming it into a community where people can live and work in harmony with the environment’
(quoted in: Harrison and Burgess, 1994, p.300).

In 2000 the RSPB acquired the site and its future seemed assured. However there was still conflict with some local residents; I was told by interviewees how the RSPB suddenly fenced off the site causing protests from people who had previously had free access. However staff and volunteers at the RSPB explained that this was essential due to the fact that the site had become a free-for-all with motorbiking and car dumping two of the many antisocial activities. Before the site could open to the public large quantities of spent ammunition and unexploded bombs had to be removed or made safe (Beard, 2011) and RSPB staff told me that access to Wennington Marshes remains dangerous due to the unexploded ordnance on the site. There are also still occasional reports of finding unexploded bombs (Moss, 2013).

The RSPB states that their main objectives (RSPB, 2011) are to create an accessible site for everyone whilst maintaining their conservation priorities. There is also a need to accommodate the continuing commercial silt dredging operation that utilises lagoons to the west of the marshes. The site is managed to restore and develop various important habitats to ‘transform a former wasteland into an important natural asset’ (RSPB, 2011). I found that there was ambivalence amongst RSPB staff about the preservation of the military structures and will discuss this in detail later. However they have worked with English Heritage (Beard, 2011) with the aim of protecting the archeological

heritage at the reserve and in the past have offered guided walks of the military remains (RSPB, Not known).

In 2003 the landscape architect, Peter Beard, began working with the existing topography of the site to create a series of boardwalks, footpaths, bridges and seating areas together with the rusty shipping containers that form the Marshland Discovery Zone (Worpole, 2009). I discussed Beard's approach to the Rainham Marshes project in detail in Chapter 4 but perhaps it can be summed up in this comment, 'generally speaking in lots of cases we try and do as little as possible and try not to brand things' (Beard, 2011). The importance of light touch intervention was reiterated by designers I spoke to at Design for London (2011) who advised on this and other projects on the marshes and explained, that with these types of landscape they try 'to have a bit more of a straight forwardness and a simplicity ... to reveal what's there, to make the most of what's there'.

In addition to Beard's design interventions there is an award winning Visitor Centre designed by van Heyningen & Haward and completed in 2006 when the site opened to the public. Since I began this research new hides have also been commissioned including one that rises up over the mantlet bank and is decorated with target numbers to echo those on the shooting butts.

5.2.2 The qualities of RSPB Rainham Marshes

The table below outlines the material, spatial and temporal qualities found in the RSPB site and the photos and sketch plan (Fig.41) show the general location of some of these qualities. The diagram (Fig.39) explains how the stop butts and mantlet banks worked.

Qualities at Rainham Marshes		Comments
Material Qualities		
Structures	Stop butts and mantlet banks	An archeological report commissioned by Essex County Council ¹⁵ (Field Archeology Unit, 2010) notes the main military features on the site 'were three lengths of stop butt with targets and protective mantlet, primarily constructed of concrete and brick' (p.3) (Fig.39). The butts stretched across the marsh for 500m (RSPB, Not known). A small section of the butts remain, just outside the public area of the reserve. Long sections of mantlet banks gradually rotting into the marsh are visible from the path. It is not now possible to see the relationship between the mantlet banks and the stop butts (Fig.39). Staff at the Purfleet Heritage Centre described many of the buildings on the site that were destroyed by the MOD before they left and RSPB staff told me that others were taken down for health and safety reasons.
	Cordite store	The cordite store is enveloped in ivy and surrounded by trees. It is still possible to walk inside and it has become an important habitat for the RSPB. Maps show the cordite store and the railtracks that supplied it (Figs. 40,97)
	Ammunition store	The one remaining ammunition store is gradually being colonised by vegetation and separated from the public by a short stretch of water.
	Lookout tower shown on maps from 1920s as the blockhouse	The WWI lookout tower is inaccessible and only viewed across the reedbeds.
Relics, artefacts	Unidentifiable bits and pieces under the mantlet banks	The mantlet banks were lined with 2.5cm thick metal to protect the soldiers sitting beneath. Remnants of equipment remain lying amongst the water and vegetation (RSPB, Not known).
	Benches under the mantlet banks	These are fixed at intervals to the frame of the mantlet bank.
	Closed off 'shed' at the end of the mantlet bank	Dilapidated with no indication of what this was used for. I was told it was a toilet for the soldiers.
Surfaces	Rectilinear concrete surfaces	These occur at regular intervals along the mantlet banks.
Reused materials	MOD bicycles recycled as dragonfly and kingfisher artworks ¹⁶ .	Several sculptures are sited in ponds and at the discovery centre. There are no interpretation signs to say what these are made from.
Industrial palette of materials	Wooden boardwalks and screens, wood and metal handrails and recycled wooden timbers as benches.	Peter Beard uses a limited and restrained palette of materials in his interventions in the site.

Industrial palette of materials	Rusty shipping containers recycled as an education centre.	
Vegetation/planting	The RSPB is recreating a medieval grazing marsh	The marsh is managed by the RSPB for particular habitats and wildlife. Cows graze the drier sections.
Spatial Qualities		
Topography	In places the path follows the tracks of the railway that ran from the mainline to the cordite store and the garrison. Other paths trace the lines of the tramtracks.	Design of boardwalks and paths dictate the ways that visitors can walk around the site, structuring their interactions with the material artefacts.
	100 yard ridges	Maps show the lines of stop butts with 10 rows of ridges at one hundred yard intervals (Fig.40). The soldiers lay behind the ridges when shooting at the targets. The ridges are visible on satellite images of the site and I was told by RSPB staff that they are protected by English Heritage.
Enclosure and permeability	Open, flat and exposed marshland is visible from the road and railway.	The site is visible from the CTRL and the A13 and was visible from the local trains when it was used by the MOD. There are now panoramic vistas from the Visitor Centre across the site to the A13 and railway, the surrounding industrial sites and to the Thames and London Docklands. Locals could access the site during the MOD's occupation when the red flag was down.
	Entrance and visitor centre	Entry to the site is through the visitor centre. There are metal steps and a 'drawbridge' that is raised when the site is closed for security. This gives a sense of arrival to the site but also a sense of exclusion.
Temporal Qualities		
Processes	Decaying structures and artefacts	The site is managed to create habitats for specific species of wildlife. Some of the structures have themselves become habitats.
	The vegetation and water levels	These are managed for key wildlife species. Cattle graze the site as part of this management process.
Rhythms of change	Seasonal changes to vegetation and wildlife. Visible changes to the surrounding areas. Movement of traffic on road, rail and river.	This is very visible due to the permeability of the site.

Juxtapositions	Vegetation, wildlife and structures, new and old materials, within and outwith the site.	There appears to be little maintenance of the material artefacts and boundaries are blurring between decaying structures and vegetation. The permeability of the site means that there are opportunities to observe juxtapositions between the site and the surroundings.
Possibilities for recollection	Even when under MOD control the site has always been used by local people.	The Purfleet Heritage Centre has a collection of artefacts from the MOD site. There is also evidence that bird watchers used the site prior to its abandonment.
	Murals and paintings on walls of a brick building near the mantlet banks and hanging from the mantlet banks.	These depict military life as it might have been on the marshes and include an image of the signal box that once stood at the nearby Purfleet Rifle Range Halt.
	Purfleet Rifle Range Halt sign	This is affixed to the brick building next to the mantlet banks, but not close to the original signal box.
Expectation of future change	Visibility of the surrounding area.	The permeability of the landscape means that visitors can see the local industrial sites as well as infrastructure such as the CTRL. There are also wind turbines visible in the distance.

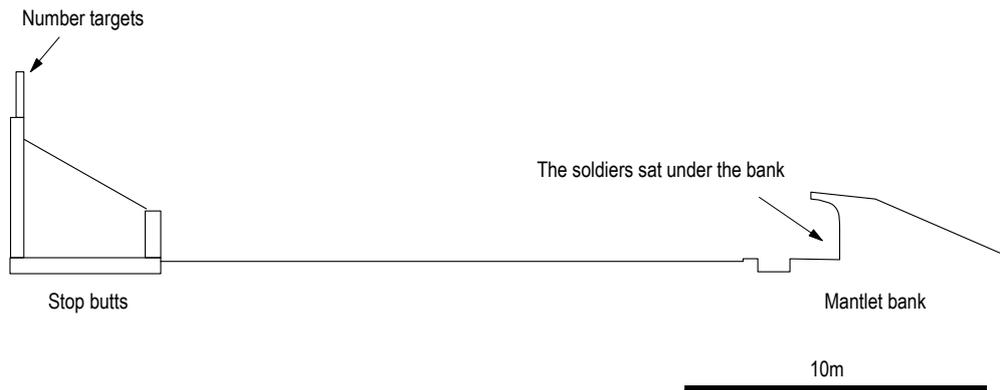


Figure 39 Sketch showing the original relationship between the stop butts and the mantlet bank

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Figure 40 The MOD site in the 1960s. Note the 100yard ridges running across the site © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1960). An Ordnance Survey/EDINA supplied service

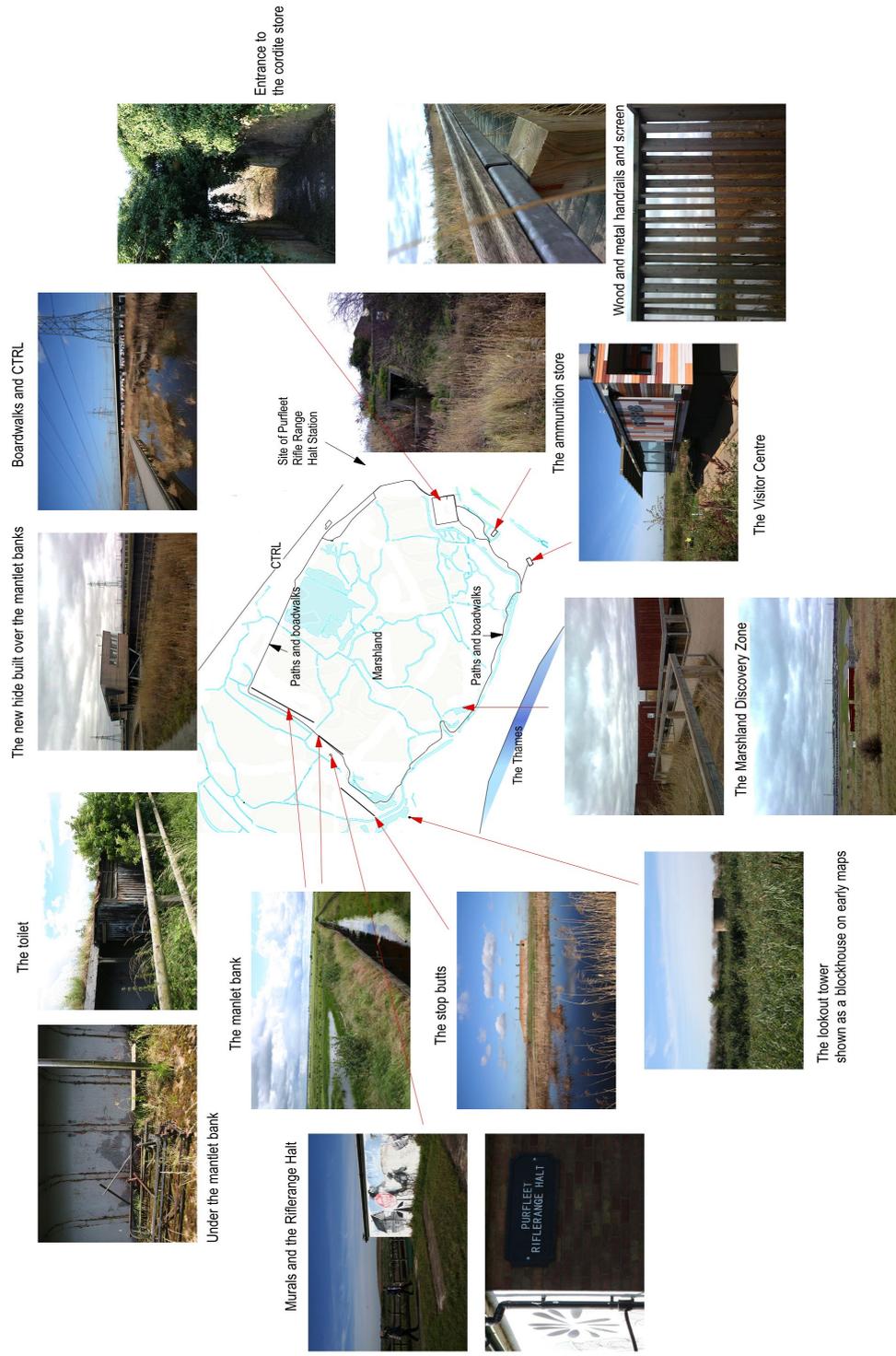


Figure 41 Sketch plan and location of qualities at RSPB Rainham Marshes © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

5.3 The Hidden Gardens, Glasgow

5.3.1 The background to the Hidden Gardens

Railway lines and two main roads bound the site of the former Coplawhill Tramworks in Govan, on the South side of Glasgow (Figs.42,135). Parts of the original buildings have been converted into the Tramway Art Centre and the new building for the Scottish Ballet School adjoins this. The 5000 square metres that now encompass the Hidden Gardens are behind the arts centre, overlooked on one side by high-rise housing and on the other adjoining what was the final derelict section of the Tramworks site. This is now being redeveloped and a Sikh Temple constructed. The surrounding area is now mainly residential and includes Victorian housing stock and tower blocks.

I have outlined the key details in the history of the Hidden Gardens site on the timeline below (Fig.47). Much of the information is taken from the information panels on display in the Tramway and from the websites of the Transport Trust (Not known) and Scotland's Places (Not known). From 1820-1862 the site that was to become the Tramworks was partially occupied by a 40 acre market garden (Scotland's Places, Not known). The Coplawhill Tramworks (Transport Trust, Not known) were constructed during the latter half of the 19th Century and opened in 1899 shortly before the electrification of the tramway system, although it appears that there were buildings used for the repair of horse-drawn trams on the site for several years prior to this date (Semple and Semple, 2014) (Scotland's Places, Not known). In 1902 it was noted that at the Coplawhill works the tramways department had built around 400 electric cars (as trams were known) and converted about 100 horse drawn cars to electric, making the works reputedly the largest of their kind in the city (Semple and Semple, 2014). By 1910 the works were being further extended and in particular a new paint shop was added with six tracks able to accommodate 30 cars at a time (Semple and Semple, 2014). A plan of the site from 1959 (Fig.45) shows the extent of the buildings including the paint shop, a body shop, overhaul shop,

machine shop, brass foundry, smithy and stores (Semple and Semple, 2014) (Fig.44).

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Figure 42 Location of the Hidden Gardens © Crown Copyright and Database Right 2014. Ordnance Survey (Digimap Licence). An Ordnance Survey/EDINA supplied service

The Tramworks were closed in 1962 and parts were converted into the Glasgow Museum of Transport. An aerial photo taken in 1966 (Fig.46) shows the intact rooftops of the works (Transport Trust, Not known). However, in the 80s, after the transfer of the museum to Kelvinhall, the site fell into dereliction and was threatened with demolition. It was in the late 80s and 90s that parts of the building were taken over as arts venues and in 2000 the Tramway Arts Centre opened (Scarcity in abundance, Not known) (Glasgow Architecture, 2014), however much of the site still remained derelict and there was no public access to the section of the site that now forms the gardens. I have however found photos online taken in the 80s of the derelict buildings and blogs (Royal Commission on the Ancient and Historical Monuments of Scotland, 2014) (PaulK, 2011) (Glass, 2006b) also imply that some people did access the site.

One blogger who visited some of the still un-renovated buildings in 2006 wrote that they ‘had to wear overalls and masks because of the pigeon droppings’ but went on to say that ‘there wasn’t much to see’ (Glass, 2006a, post 12 of 15). I also spoke to the consultant (Hunter, 2011) employed by the team developing the gardens, to undertake consultation and outreach work. She spoke of a group of youngsters from the Govan Hill area, ‘they were using it as a den and to hang out. They just got in over the fence’.

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Figure 43 The Coplawhill Tramworks 1890 © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1890). An Ordnance Survey/EDINA supplied service



Figure 44 The smithy in the 1920s © CSG CIC Glasgow Museums Collection

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Figure 45 Plan of the Coplawhill Works in 1959 © The Transport Trust

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Figure 46 Aerial view of the Coplawhill Works after closure in 1966 © The Transport Trust

The idea for the garden (The Hidden Gardens, 2011b) was conceived of by the arts charity, the NVA, and implemented by a team of landscape designers, artists and consultants (Roscher, 2011) (The Tramway, 2011). Hunter (2011)

describes how the incorporation of the history of the site was one of the aims of the project. It was an:

‘underlying thing from the very, very start, without it being something that is being achieved in any specific way, in order to give resonance to that history, people could still experience aspects of that history without even being aware of it’.

This is confirmed by one of the landscape architects working on the project who explained how they aimed to ‘weave various influences and elements together into a coherent whole’ (Roscher, 2011). The history of the site remains an important aspect of the garden and one reiterated to me in my interviews with staff, however the main ethos of the garden ‘is to embrace different ideas, rituals and forms from different cultures merging these ideas through the designers' and artists' work’ (The Hidden Gardens, 2011b). The programming of the garden reinforces these themes with workshops, events and volunteering.

THE TRAMWAY AND THE HIDDEN GARDENS, GLASGOW, (Transport Trust, Not known), (Scotland's Places, Not known)

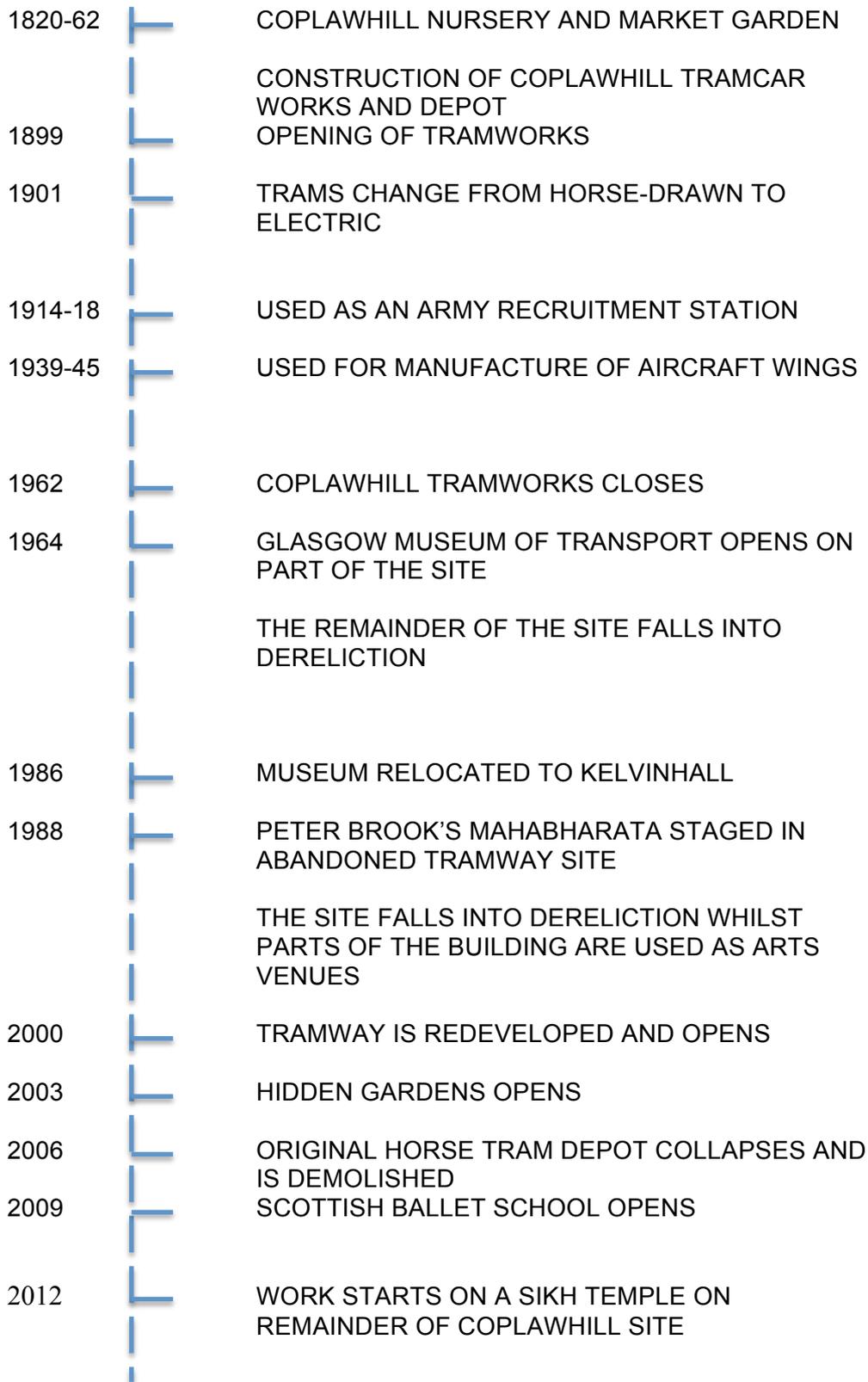


Figure 47 Timeline showing key details in the history of the Hidden Gardens

5.3.2 The qualities of the Hidden Gardens

The table below outlines the material, spatial and temporal qualities found in the Hidden Gardens and the photos and sketch plan (Fig.48) give an indication of where some of these qualities are located in the garden.

Qualities at the Hidden Gardens		Comments
Material Qualities		
Structures	Chimney	Many of the original buildings on the site behind the Tramway were already removed when the site was developed (The Hidden Gardens, 2011a) (Royal Commission on the Ancient and Historical Monuments of Scotland, 2014) and any remaining were demolished due to contamination with the exception of parts of the wall and the chimney of the boiler house (Roscher, 2011). A blog laments the destruction of the finishing and repairing shops that were on the site where the Sikh Temple will eventually stand and photos from the 80s show these still standing but derelict (PaulK, 2011). The sheer size of the chimney ensures it is a focal point of the site.
	Boiler house wall	A short section of brick wall remains and now forms the wall to the area called The Boiler House and is covered with ornamental planting.
	Façade of Tramway	There are traces of former buildings, doorways and windows on the brick wall of the Tramway.
	Horse ramp in Tramway	This is part of the redeveloped Tramway art centre.
Surfaces and tracks	Tramtracks	Only a small run of tramtracks remains in undergrowth at the end of the garden in a section not often open to the public. Original cobbles and several runs of tracks are visible in the entrance to the ballet school next to the gardens.
	Concrete – possibly factory floor	It is unclear if this is original floor. A concrete slab was used to cap any phytotoxic material remaining on site and soil brought in and the garden built above this (Roscher, 2011).
Reused materials	Cobbles, possibly bricks in gabions, possibly section of wood to create bench.	Cobbles are one of the materials used in the paths and they may have been recycled. The gabions that form the raised beds are filled with bricks and again these may come from the site. The extent of recycling that was possible is unclear.

Industrial palette of materials	Cor-ten, galvanised metal, timber, gabions, concrete	The City Design Cooperative have used a mix of metal and wood to create textural contrasts and to echo the Tramway building and the other material qualities.
Vegetation/planting	Regenerating birch trees	The designers retained the birch trees and these formed the starting point of the woodland section of the site.
Spatial Qualities		
Topography	Layout of factory floors. Layout of nursery that was on the site prior to the Tramworks.	The designers make reference to the early woodland cover of the site and the N-S arrangement of planting in the former nursery in the layout of the new design.
Enclosure and permeability	Until 2013 there was an area of wasteland along one side of the garden, visible through a chain link fence	This was part of the original Tramworks and is now being developed as a Sikh Temple.
	The Tramway Arts Centre	The Tramway building forms the entrance to the Hidden Gardens, ensuring that it is indeed hidden.
	Railways and roads	The trains can be heard running close to the garden and there are sounds from the busy roads that run along the other two sides of the site.
Temporal Qualities		
Juxtapositions	Juxtapositions between old and new materials and structures	The material qualities are maintained and decay is not a factor in the juxtapositions of old and new. The Tramway contributes to the mix of old and new that is a fundamental part of the site. The small section of cobbles and tracks is gradually being covered with mosses and vegetation.
Possibilities for recollection	The Tramway Arts Centre	After the site closed as a Tramworks it became the Museum of Transport before being developed as an arts centre. Many local people know it from this period.
	The rill and other artworks.	Collaboration with artists was an important aspect of the design brief. Alec Finlay's Xylotheque is sited on the mound in the wooded area of the garden. This wooden structure represents a library of Scottish woodland and is reminiscent of Japanese architecture (The Hidden Gardens, 2011-2014). The circular rill by Julie Brook is a reference to water channels in traditional English and Islamic gardens, however on my first visit I interpreted this as a symbolic reference to a tram turntable.
Expectation of future change	The area of wasteland beside the garden is now being developed as a Sikh Temple.	This development began during 2012 and continues.

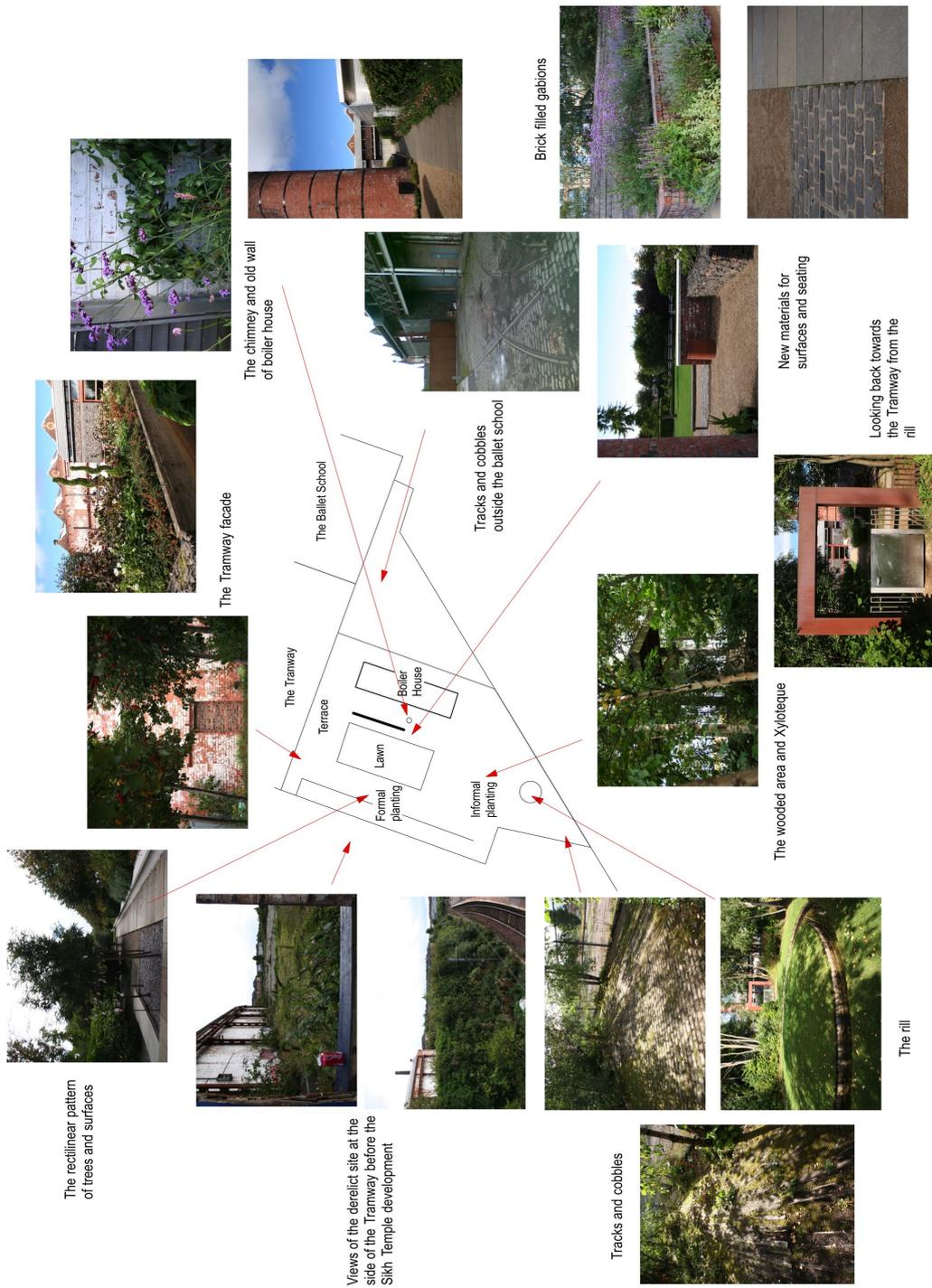


Figure 48 Sketch plan and location of qualities at the Hidden Gardens © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

PART 3 – LANDSCAPES AND USERS

6. How are the material and spatial qualities of DUN sites perceived when they are incorporated in developed landscapes?

6.1 Introduction

In part 3 of my thesis I move from discussion and analysis of the practitioners', and indeed my own, understandings of these types of landscape, to examine the perceptions of interviewees' who use and experience the sites. In this and the following two chapters I will explore their responses to the material, spatial and temporal qualities described in Chapter 5 and I will discuss the recollections and memories these sites evoke. I described in Chapter 3 my critical realist approach to this research in which the materiality of the world is acknowledged whilst also accepting that people can engage with and begin to understand this reality through both a cognitive and a phenomenological engagement with the world and showed how this approach informed my evidence gathering and analysis. The iterative nature of my analysis has also influenced the structure of the chapters in this section. In each I commence with sections that draw on the interviewees' own words to illustrate the points I am making. These sections can loosely be described as my findings. I then continue my analysis with discussions that explore the interviewees' responses in more detail with reference to the theory.

In this chapter I examine visitors' interactions with and responses to material and spatial qualities and explore whether these qualities of the DUN site when retained in the developed landscape give rise to similar forms of re-engagement with the past as those described by DeSilvey and Edensor (2012). I also consider what this means for Ingold's (2012) modes of imagining the past through landscape.

I begin by outlining interviewees' experiences of the pastness of the landscape with reference to the material and spatial qualities. I also include an interlude describing my experiences of three linked artefacts at the Filter Beds and demonstrate how the critical reasoning approach aided my thinking in this area. I then turn to examine how the participants perceive and interact with recycled and new materials. Finally I explore how the interviewees' perceptions of the DUN site and other wastelands affect their responses.

In the second section I discuss interviewees' responses in the light of Ingold's three modes of imagining the past – materialising, gestural and quotidian – described in Chapter 2, and question whether these modes can provide a satisfactory way of describing these interactions. I suggest that in the case of the Filter Beds, the ways of imagining the past are similar to those experienced in the derelict site (DeSilvey and Edensor, 2012). Finally I examine the ways in which the participants make sense of these landscapes. Here I draw on Treib's (2002) 'frame for reading' and show how interviewees grapple with the sensory evidence together with their prior knowledge and experience to create their own coherent understanding of the landscape.

6.2 Perceptions of the roles the material and spatial qualities play in signalling pastness

6.2.1 Relating to the past - mystery and matter-of-factness

In this section I examine the interviewees' responses to specific material and spatial qualities in the case study site including topography, structures, artefacts, surfaces and tracks. At the Filter Beds I found that a sense of mystery was an important aspect of participants' perceptions of these objects. For some the sense of not knowing what had happened in the site or the purpose of the material artefacts was part of the attraction, whereas for others it was the first step to delving more deeply into the history of the site in order to come to an understanding about its past. One local artist commented, *I really don't know anything about ... except that it is something to do with water filtrations ... and I kind of quite like the mystery of it actually* and a first-time visitor closely examined the Hackney Henge whilst musing about its purpose; *the holes have rust stains – it implies they were definitely in use for something*. Another interviewee on the photographic walk questioned the original purpose of the mosaic of surfaces asking, *was there a building or a house or something over there?* The entrance and the Victorian boundary wall contributed to the sense of a site with an important historical past; one woman on her first visit mused that it was obviously *something precious as it has significant walls and gates* and a habitual visitor commented that, *a lot of effort went into that wall*.

Whilst some of the interviewees specifically remarked that they liked the sense of discovery and of not knowing the purpose of the artefacts¹⁷ there were others who wanted to know more and who had read the interpretive signs. A mother described her children's reactions to the tracks and concrete channels, *first they played on it then it was like oh what's it for and then we'd go out and find what it's for*. However there were also several participants who admitted that even though they read the signs or had been told about the site, they quickly forgot most of the information. One interviewee on the photographic walk and on his first visit summed it up: *I did read a notice board that*

explained how they worked ... it says the water went in here and then it went out again ... But I wasn't really that interested anyway.

In contrast with interviewees' perceptions of mystery at the Filter Beds, at Rainham and the Hidden Gardens interviewees had a more matter-of-fact response to the structures and artefacts. They barely referred to the historical remains unless asked specifically and there was little mention of their mysterious nature, no sense of discovery or wonder about their purpose. At Rainham some interviewees already had a detailed knowledge of the site's history and explained how the structures were used and how they related to the functioning of the MOD site as whole, but there was little indication that they imagined alternative narratives about the past. Several of the interviewees did however describe their memories of the site both during the MOD's tenure and whilst it was derelict, as I will discuss in Chapter 8. A bird watcher who had been coming to the area since he was a child summed up this sense of matter-of-factness, *I mean all of this is what I grew up with; it's all very natural to me.* For him, and many of the other interviewees, the site was a part of his everyday life.

The most conspicuous structure remaining at the Hidden Gardens is the chimney and opinion differed as to its importance, with most people saying that it was a significant landmark and reminder of the history of the site. However interviewees were unclear about its original function and one of the volunteers seemed to be rather tired of answering visitors' questions. This elderly woman, who otherwise expressed interest in the history of the site, asked, *how you could be surrounded by all this and worry about a chimney?* Most interviewees only commented on the remnants of the tramlines, the cobbles, façade and chimney when asked, and were then usually appreciative of their presence as reminders of the past. A few interviewees did question whether the spatial layout of the central section of the garden followed the original tramlines and footprints of buildings and a volunteer who had trained in landscape design went further, *I suppose they've used the original base – the tramway/the trams - the straight lines of the design hint at this.*

In contrast to the participants' responses to the material qualities in the gardens, there was evidence that the Tramway building itself engendered imaginings of an historical past and this was mainly demonstrated in the memories that were recounted and which I will discuss in Chapter 8.

6.2.2 'Musing on the tracks' – the first interlude

I describe above how I found the function of the artefacts at the Filter Beds was often unclear and this sometimes led to misconceptions and uncertainties. This was particularly evident in relation to the tracks, which some referred to as railtracks and others assumed were for transporting sand to fill the beds. I decided to examine the process of my own thinking and engagement with the tracks and the following interlude is the outcome.

My memory of the Filter Beds from some time in the early 1990s was of a causeway with a concrete channel and tracks running down the centre and surrounded by vegetation, and it was that memory that sent me back to the Lea Bridge to see whether this would be a suitable case study site (Fig.49).



Figure 49 Tracks and concrete channel © Interviewee FB17

From the start I was puzzled by the tracks but initially I didn't question them; they were railtracks weren't they? That's what they looked like to me and they

led along the central causeway and perhaps with a bit of imagination, they could extend to run outside the site. The proximity of the Navigation (the Hackney Cut) also lent weight to the idea that the tracks were for bringing in something – I knew the Navigation was a transport link, canal barges travelled up and down from the Thames. So the tracks must be to do with that mustn't they?

'But there were loads and loads of different barges dropped off stuff in Hackney ... my recollection for instance of Hackney Cut would be from Lea Bridge to Old Ford ... the barges bringing in coal and taking out rubbish' (Space Studios, 2011, p.6)

There were inconsistencies with the account that I told myself, why were the tracks so narrow? It must have been a narrow gauge railway then. What was the concrete channel? Why was there a concrete barrier at one end of the tracks? (Fig.50). These questions were too hard to answer; perhaps parts of the infrastructure had been removed and if they had remained, all would be clear.



Figure 50 The concrete barriers and a view along the tracks to the central collecting well

Then people started to comment on the tracks; a woman interested in local history, who I interviewed early on, asked me:

Have you looked at historical maps for the filter beds? ... You should, if you get hold of a copy of you know pre 1900 maps you'll be able to see the railway lines.

So they were railway tracks then ...

Other people questioned what they were for, asking if they were railway or tram tracks and one told me, *it's like all the railway lines, I've been told about that a couple of times, but I couldn't tell you about them.* Obviously they were confusing for others as well as for me, but for some it was obvious; *train tracks to bring in the sand*, one told me. Another reinforced my first impressions:

I thought there was a bit of track that I was interested in on the towpath ... there was a little bit of railway track, I think there was a small narrow gauge railway, probably just trucks, rather than a train and it used to meet the canal and I think it's where they unloaded and loaded from the canal ... They obliterated it when they put the new path in, which was annoying.



Figure 51 The Navigation and towpath in the 1980s. The wall and entrance to the Filter Beds are on the left. © Berris Conolly

That sounded convincing to me and yet when I looked at photos of the towpath taken in the 1980s, there was no sign of a railway track (Fig.51).

I then came across photos from the LVRPA (1988) archive showing the causeway in 1972 and 1984 to demonstrate the extent of plant colonization. When I first looked at these I was not thinking about tracks but about successional vegetation; I succeeded therefore in overlooking what was staring

me straight in the face – a sand washing machine on tracks in the middle of the filter beds. And so I went on for another period, ignoring the tracks.

An interviewee explained why he had taken a photo (Fig.52); *because of the tracks, which you know look original, I think*. He went on to imagine uses for the hopper fixed at one end of the concrete channel; *this is almost like ceremonial ... it's like well, what happens in that? Something, a process happens in that, in that... trough there, er ... some sort of ritual maybe*



Figure 52 View along the channel to the hopper © Interviewee FB12

A mother described her children's reactions to the tracks and concrete channels, *first they played on it then it was like oh what's it for and then we'd go out and find what it's for*. But what was it for? I looked at the interpretation signs but they didn't really explain it (Fig.53).

A young woman liked them because *every time I'm here they always play on those bits ... it's nice how it's turned into a little playground* and a father pointed to the channel explaining, *this is quite nice ... my kids think this is a train ... they would sit in there*.

A train again - time to examine the historical maps of the area. The OS map from 1894 (Fig.54) showed no evidence of the tracks, but one from 1966 (Fig.55) had two lines, either side of the central collecting well, which could indicate the sections of concrete channel and tracks.

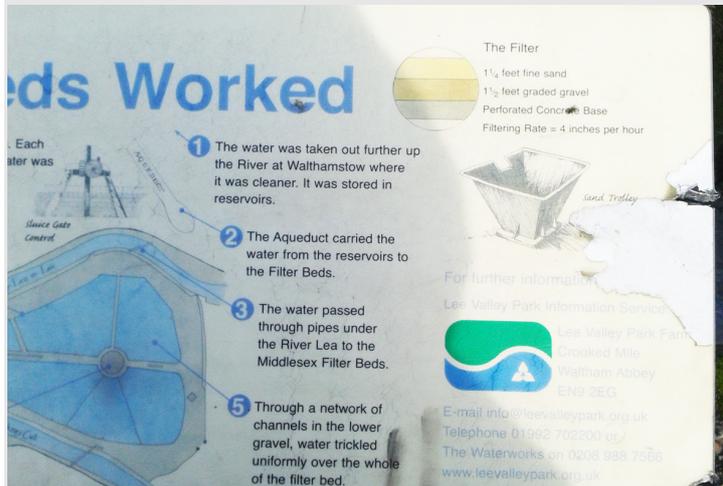


Figure 53 Part of the interpretive sign explaining the workings of the filter beds

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 54 OS Map from 1890s showing the Middlesex Filter Beds © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1890). An Ordnance Survey/EDINA supplied service

But there were no other tracks leading out of the site. So maybe these were not train tracks at all. In that case, what were they?

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Figure 55 OS Map from 1960s showing possible channels or track on the paths leading to the central collecting well © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1960). An Ordnance Survey/EDINA supplied service

A few interviewees saw the tracks, concrete and hopper as aesthetic forms (Fig.56). One explained that they *reminded me of the sort things that they might have at Chelsea [the Flower Show], the kind of rill type thing ... [it] has a got little dog leg in it for some reason and I don't know why. But that makes it better I think.*



Figure 56 The channel and concrete barriers as aesthetic forms © Interviewee FB17

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Figure 57 Sandwashing machine 1940 © Thames Water

I contacted Thames Water to ask to see their archive and spent some time looking through their photographs and glass plate negatives. At last I found a new explanation (the one I should have noticed earlier); two photos dated from the 1940s, of different sand washing machines running on narrow tracks in the Essex Filter Beds (Figs.57,58).

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Figure 58 Sandwashing machine 1940 © Thames Water

Finally I had an idea of the real use of the tracks and also I suddenly had real people in my imaginings of the history of the site; one, in long coat and official cap, stands to attention beside the machinery whilst other photos from the archive show workers with their sleeves rolled up as they shovel new clean

sand across the beds. And these photos show two different types of hopper, one of which looks very like the fixed hopper at the end of the tracks (Fig.52). Ah, I thought judgmentally, they have just concreted a hopper there as a static, preserved artefact! But I was wrong. I found another photo from 1941 (Fig.59) which shows the hopper already in position and looking through the LVRPA (1988) archive produced a second image from the 1970s of the abandoned hopper, labelled as a 'sand trolley', and surrounded by the beginnings of successional vegetation. I still have no idea what it is doing there. Nor do I yet know how the sand was brought into the site.

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 59 View to the hopper 1941. The bed on the right is in the process of being sanded © Thames Water

I thought that my exploration was finished and I had come to some conclusion but a few weeks after writing this I found an annotated diagram of the Middlesex beds with the words, 'Fuel was delivered by barge and rail which branched off the Great Eastern Railway into the Essex works' (LVRPA archive, Not known). Around the same time, I was also looking at a new website about the history of the Filter Beds which showed a video of a narrow gauge train. The video was not taken at the Middlesex or the Essex beds but was included on the website as an example of the trains that were in use in waterboard properties (Lea Bridge Heritage, 2012b). It seems there was a railway line into the Essex Beds, but so far I can find no evidence of one on the Middlesex side of the Lea.

In this interlude I demonstrate my critical realist approach; I am working towards gaining a deeper understanding of answers to the research questions through an iterative questioning process. Writing ‘musing on the tracks’ helped me to understand how visitors might also engage with and explore the meaning of the material qualities of the site and demonstrates the multiplicity of imaginings that a group of material artefacts might generate. It also indicates the uncertainty that results when experiencing and attempting to understand such a site as the Filter Beds and the ways in which these sites resist fixity.

6.2.3 Bringing the past into the present

As well as imagining a past for individual material and spatial qualities at the Filter Beds the indeterminacy of the site allows for diverse ways of bringing the past to play in the everyday present experiences of the interviewees. They spoke of creating their own stories about possible presents; the rusty pipes that could *burst open and make loads of stuff come out of them* and the track and concrete channel that *my kids think is a train*. This idea of creating a personal narrative for the site was also expressed by an artist in her sixties who spoke of how the story could change; *I think I prefer that it just sort of is suggestive and you can write your own ... which you can rewrite every time you come*. Several interviewees likened the site to *The Secret Garden*, a children’s book about a place with a mysterious past - gradually uncovered as the story progresses - and the promise of a future for the book’s young characters, expressed metaphorically through the seasonal regrowth of the garden.

Some interviewees expressed their imaginative engagement with the material qualities in a physical way; they were a place to play with a *reverting to childhood quality*. A young woman on the photographic walk took several shots of the huge rusting pipes and was tempted to walk across them saying, *they do look quite inviting ... but I was being on my best behaviour*. The stone circle and the central collection well were both seen as performance spaces and places where rituals might take place and although few interviewees admitted

climbing over the railings and down the steps into the filter beds themselves, it is clear from the unofficial tracks through the undergrowth that this happens.

I also found that spatial qualities contributed to experiences of the past in the present; the layout of the site, with the paths raised above the filter beds, enhances the sense of mystery and discovery. A musician (Johnson, 2010) and contributor to a web-based artwork about the Filter Beds writes; *the raised paths around the beds circle an inaccessible wood ... it would be easy to go down into it, but I never have ... there is a perilous mystery that I unconsciously preserve for myself* (para. 4 of 6). Others also alluded to the ways in which they might move through and around the landscape. One man in his 40s, a photographer, experienced the whole site as a space with a *little story inside* and a young woman spoke of the *journey through it and the different bits and the way they link*, an opinion echoed by another interviewee who explained, *this is one object and that's another and it gives you a feeling of progress through the space*. The layout also impacts on its present incarnation as a nature reserve; successional vegetation is dependent on the different substrates that remained in the filter beds when it was abandoned. An LVRPA ranger described the habitats in detail, summing up with *it's almost like enclosures for wildlife*.

The development of the Filter Beds included the reinstatement and restoration of entrances and boundaries creating, for some interviewees, the sense of an arrival at a significant, separate and secret place, a *sneak preview of another world* seen from over the wall. It was the canal boater who encapsulated the possibilities this sense of arrival had for future mysteries and storytelling: *I think for me ... it's to do with that idea of the gate being a sort of portal ... a separation, a distance. I think when you go through that gate you're somewhere else*.

I suggest above that interviewees at Rainham take a more matter-of-fact approach to the decaying structures and artefacts, nevertheless most of those interviewed felt that it was important to retain a reminder of the local history, although it was only the two retired volunteers at the Purfleet Heritage Centre

who expanded on this in any detail. They felt that the military remains should have been saved and one described how he would like to have *people over there simulating what is was used for, muskets, rifles, not even firing, simulating*. One retired local woman on a walking for health session was more nuanced in her replies, explaining the importance of a sensual interaction with the material artefacts; *it actually means something, it's better than the picture, it's better than someone talking on the television, you can actually see it, for yourself*.



Figure 60 The thick walls of the cordite store enveloped in ivy

A few interviewees did create imaginative stories relating to the people who had worked for the MOD during the war. One volunteer who took visitors on historical walks around the site, spoke of the cordite store (Fig.60); *it's huge. I mean if you've moved through the walls. The walls are about 3, 4 foot deep. You put your hand on them, they're so cold. You can feel, I don't know, you can feel history*. He described to me in vivid detail how the women would have worked at night during the war loading up shells while bombers flew overhead.

Another interviewee on her first visit explained why she liked the cordite store in much the same terms as visitors to the Filter Beds spoke about their material qualities, *it's that sense you have here of, of hidden places, when you were children, that you can lose yourself*. It was also the cordite store that engendered discussion about its present value; the huge ivy-clad walls create a microclimate with its own ecology and it is the place to come to see butterflies, insects and songbirds. Similarly the mantlet banks are now a habitat for rare bees and used by nesting shelduck.

At the Hidden Gardens two interviewees brought the past into the present with their stories about the chimney. One an elderly volunteer made up stories for the children about *wee Albert* who lived in the chimney and a young man expanded on the concept of the landmark with his reference to the Superman stories: *it's like a bat-signal, ... so now when I'm going to be in the Southside, whenever I look at that, ... I'd be drawn here*.



Figure 61 Tracks and cobbles outside the Hidden Gardens where the Pollokshaws Road entrance used to be

However there was also a suggestion from one elderly woman, who remembered the site as the Transport Museum, that the Hidden Gardens should

give the historical context greater attention. She explained how, when it was first opened people entered through a separate entrance from Pollokshaws Road where *it's all the old cobblestones, it's all your old tramway lines ... it's amazing* (Fig.61). Nevertheless, if the whole of the Tramway itself is understood as an entrance to the garden then it is clear that the history is well signposted; there are large interpretive boards with photos and a timeline in the foyer, although many of the interviewees did not appear to have read them. The building itself is also resonant of the past as a professional woman described:

for me there's certainly a resonance of the kinda heavier industries, particularly around the transport museum and things, so it would feel ... you just need to go inside there and you can see, you know the whole history of the trams, you can just feel it in the building and you know, just the way in which it's such heavy-duty building, they don't build buildings like this now.

6.2.4 Using materials to reference the past

The sections above examine interviewees' responses to specific material and spatial qualities that have remained *in situ* since the sites were in operation. Here I look at how participants perceived new materials and materials that have been recycled and repurposed. The degree to which recycling has taken place varies between the three sites as I outlined in Chapter 5. I found that there was little comment from the interviewees about any of the materials, either new or recycled, used at Rainham or the Hidden Gardens, unless questioned directly. At the Hidden Gardens the assumption was that, because of the ethos of the gardens, recycling had been part of the design process and they approved of this approach. Their comments about both the recycled and the new materials included statements such as; *it's got the urban, gritty thing going on*. Similarly at Rainham, when asked about the materials and in particular the reclaimed shipping containers, most people liked them and the fact that some had been recycled. A participant in the photo walk showed me a photo of a wren sitting on a galvanised steel handrail (Fig.62); *it was the colours I thought, you know you've got the patterning of the corrugated underneath*. One woman, visiting for the first time, thought the hide looked a bit decrepit but then questioned her reaction; *why shouldn't it look decrepit?*

That's an urban bias isn't it you know? This response brings to mind Smithson's (1996a) comments about rust, 'in the technological mind rust evokes a fear of disuse, inactivity, entropy and ruin' (p.106). However for many, rust was not a problem or something out of the ordinary, the containers just blended in, *it doesn't have to be painted red or yellow does it?* The exception was a mature student of garden design, who as might be expected, appreciated the considered approach taken to the choice of materials; *it's the way they've linked it all to the containers. And you know, again it's that sense of this landscape that no one's taken or hidden away these things, they're part of it.*

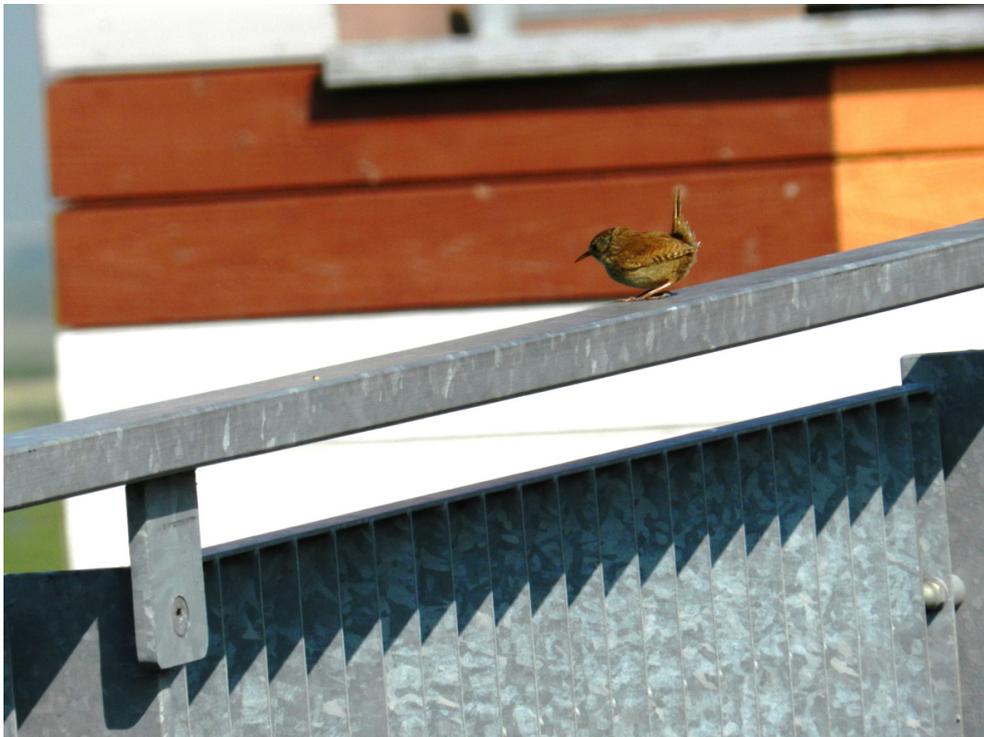


Figure 62 Wren on galvanised steel handrail © Interviewee RM12

Two participants at Rainham did make observations about the links between the materials and the industrial surroundings. One young woman volunteer spoke of the containers referencing the industrial history of area, *bringing in the industrial bit into the natural wildlife*, and a local birdwatcher, also referring to the containers, explained that *it's great having it, cos' this was really a brownfield site that's been reclaimed.*

The artworks at Rainham and the Hidden Gardens also received little attention. At the Hidden Garden a woman in her forties who was interested in the visual arts felt that more could have been done to make reference to the history of the site through the art and explained:

you don't necessarily have to sort of spell things out or, but I think obviously you can sort of like, by sitting on these [wooden bench that appears to have been made from reclaimed sleepers] you're kind of indirectly referring back ... So I mean I'm, it's a balance isn't it?



Figure 63 Murals depicting military life

A few interviewees mentioned liking the military paintings at Rainham and one likened them to graffiti (Fig.63), but other than this, interviewees made no links between the artworks and the history of the site and the wildlife sculptures were rarely commented on. These responses contrasted with the perceptions of and engagement with the Hackney Henge in the Filter Beds. Although not all the interviewees liked the artwork, a large number did engage with it; as one older volunteer said, the stones *can be whatever they want them to be*. One young playworker expressed her dislike of the work until I explained that the granite had been recycled (Fig.64), when she changed her views, appreciating the fact that it now had a new use, not so much as an artwork, but as an exciting place for children to play. Another woman felt it had a sense of danger about it; *you could do yourself a little bit of injury if you tried ... and that sense of danger without actually being really dangerous is an important part of childhood I feel, I seem to remember that*. This sense of danger is for some seen as an attribute of the derelict site and yet here it is

moderated and in this way contributes to the more playful aspects of the Filter Beds.



Figure 64 Drilled holes, metal remnants and rust stains on granite stones that form the Hackney Henge

6.2.5 Perceptions of wasteland

In the sections above I discuss the specific material and spatial qualities of the case study sites, however I also found that interviewees made reference to the DUN site and other wastelands when attempting to understand the pastness of the landscape. These observations occurred more often in the perceptions of participants at the Hidden Gardens and at Rainham, than they did for those interviewed at the Filter Beds. Interviewees at the former two sites commented in detail about the ways in which wasteland had been transformed into something new. At the Filter Beds there was no concept of transformation, probably because it is still perceived as being, at least partially, derelict. At Rainham interviewees, who had known the DUN site, described in material terms the sense of abandonment and danger that gradually took hold of the area. The RSPB spent several years cleaning up the site before it was opened to the public and this involved the removal of material artefacts, structures, ammunition and accumulated rubbish. Except for the two interviewees from the Heritage Museum, who were more ambivalent, all saw the transformation of the site as a positive action. For some, especially the RSPB staff and

volunteers, this transformation also ensured that the history of the site could be told. This official history is one that returns the landscape to Medieval grazing marsh and there is pride in the fact that it now looks *how it should have done*.

The transformation of wasteland at the Hidden Gardens engendered different responses, possibly due to the fact that interviewees had no experience of the site when derelict. They therefore drew on their knowledge of other wastelands when commenting on the changes, using phrases such as *make a difference* and *put to good use*. The responses demonstrated an appreciation of the importance of retaining some reference to the history of the site and they liked the way the industrial remains had been used as a backdrop for the new design, although there was again little discussion of how the history of the site could be read through these connections between old and new. There was only one young man who thought this relationship was expressed in symbolic terms in the design of the garden:

The one thing that stands out is that sort of shed thing there [the xyloteque]. It's built around a tree, like the big hole in the middle. That sort of sums up what it's like building something around something ... I can't really put it into words but it sort of sums up this wee place ... that could just have been a tree on top of a hill but they've built something ... to make it more and they've accommodated what had originally been there in the first place.

In Chapter 7 I will discuss time-layers in the landscape in more detail.

6.3 A discussion – ways of relating to the past through the material and spatial qualities of the site

6.3.1 Function, history and imagination

In both the Filter Beds and Rainham Marshes the structures, artefacts and surfaces are in a state of decay and their original function is partially, or completely, obscured. The tracks and the granite blocks that form the stone circle artwork at the Filter Beds, and the cordite store, stop butts and mantlet banks at Rainham Marshes are examples of artefacts and structures that have become divorced from their original uses, resulting in them having no clear or understandable purpose. I noted in Chapter 5 that there is no longer any spatial relationship between the mantlet banks and the stop butts and it is therefore difficult to understand their purposes. In fact there is a mantlet bank in front of the remaining stop butts but this was only evident when I climbed over the perimeter fence and found myself standing on top of the bank (Fig.65).



Figure 65 This photo of the stop butts is taken outside the perimeter fence standing on the mantlet bank that runs up the left side of the picture

I discussed in Chapter 2 how the process of dereliction can obscure the original function and purpose of things (Edensor, 2005c). This, together with the

breakdown of the contextualising framework that once surrounded them, leads to uncertainty (DeSilvey, 2006, p.336) and a struggle to understand or imbue the objects with meaning (Edensor, 2005c, p.324). In heritage landscapes such artefacts are contextualised, displayed and labelled to conform to an official historical narrative. This is Ingold's (2012) materialising mode; some form of interpretation ensures that meaning is stabilised, leaving no space for the mystery and speculation that can occur when encountering such objects in ruined sites (Edensor, 2005c). None of the case studies in this research takes such a conventional heritage approach to the inclusion of the material qualities and only two interviewees, one at the Hidden Gardens and the other at Rainham, suggested that such an approach to consuming the past could be suitable for these sites.

I found that at the Filter Beds the individual artefacts revealed and stumbled across when walking, do not contribute to a coherent historical narrative. They can be seen as fragments divorced from the whole, and as such they hold out possibilities for speculation and questioning. In some cases visitors read the interpretation signs to try to understand how the filtration system worked, but for others this was also an opportunity to use their imagination and create their own stories, much as explorers describe in a ruined site (DeSilvey and Edensor, 2012) (Garrett, 2011). As one of the interviewees said, *it's not just a kind of historical narrative, it's a place that you could make up any story, isn't it, there's a real kind of mystical fantasy narrative that could go with it*. In this sense the Filter Beds can be understood in Massey's terms as a collection of stories-so-far, stories that are open to change or might only be perceived in one specific interaction with the place – one particular 'conjunction[s] of trajectories' (Massey, 2005, p.139).

Walking around the Filter Beds is not akin to a curated trip around artefacts from history, instead, from the moment they first glimpse the site from over the wall or through the gate, visitors are free to choose how they might engage with the apparently randomly-placed material qualities of the landscape. Understanding the original functions of these objects is not necessarily the important factor and as I have shown in 'musing on the tracks', it was evident,

at least in the case of the tracks and hopper, that there was confusion and misconception leading to a sense of uncertainty. However a few interviewees were interested in the fact that the stories they told themselves about the site could change from visit to visit as the original purposes of the artefacts and structures became unrecognisable. The sense of not knowing, coupled with discovery was an important factor in the attraction of the site and the diverse range of material qualities allowed ‘the viewer to substitute invented traditions and imaginary narrations’ (Boyer, 1996, p.19).

There is no overt attempt in the design and management of the landscape at Rainham to create a historical narrative of the recent past; structures are encountered seemingly at random at wide-spaced points around the site, although each artefact has an interpretation board and there is sometimes a leaflet available, which guides walkers around the military history¹⁸. The ways in which visitors can engage with the material qualities differ from those at the Filter Beds; most structures are behind fences or inaccessible with the exception of the cordite store, the visible remains of which consist of two wide entrances in the thick ivy-clad walls. People walk past the mantlet banks however a simple fence keeps them apart (Fig.66), and they can only view the ammunition store, stop butts and lookout tower from a distance. The sense of engagement with the material qualities is very different at the Filter Beds, where one interviewee commented; *it really feels you are involved in it. You can touch and walk on things*. This may account for the difference in the responses of the two groups of interviewees and for the fact that at Rainham there was little mention of alternative narratives or of imagining, nor was there the sense of playful engagement that some interviewees spoke of at the Filter Beds. The two interviewees who spoke of imagination and mystery did so mainly in relation to the cordite store, the one structure that is accessible to the public.

However there are other reasons that could explain the differences in response between the two sites. The Filter Beds is a wooded site where seasonal and maintenance changes impact on visibility. This is conducive to experiences of ‘stumbling upon’ artefacts. Rainham Marshes in contrast, is an open, horizontal

landscape where changes of vegetation have less impact. The wider landscape forms a permanently visible backdrop to the site and, when within looking out, the boundaries are unclear (Fig.67). This also applies to views from the A13; the site merges into one panoramic vista, as was pointed out by one interviewee who had often driven past but not registered its separate existence. Rainham is perhaps perceived on the large scale, whereas the Filter Beds lend themselves to the detailed scale; perceptions of the remains differ depending on the context. However, although the artefacts at Rainham can hardly be ‘stumbled upon’, they do merge with the landscape when viewed from a distance, only becoming distinct when approached.



Figure 66 View along the top of the mantlet banks. The area in which the soldiers sat is now flooded and vegetation is growing on the roof



Figure 67 Panoramic view across the flat horizontal planes of Rainham Marshes

Another reason for the differences might be the intentions of the owners and managers of the sites; Rainham is primarily designed and marketed as an RSPB reserve¹⁹. However there are schemes to attract visitors who may not necessarily be interested in bird watching; some of my interviewees were not visiting with the primary aim of seeing birds, but used it as a place to walk, to keep fit or just to wander. In contrast, at the Filter Beds the aim of the LVRPA (2012) is to balance the historical significance of the site with its role as a nature reserve. A further reason for the difference between the two sites could be due to the fact that the majority of the interviewees at Rainham were local people who were very familiar with the history of the site; the past was an integral part of their present lives.



Figure 68 Remnants of tramtracks at the Hidden Gardens

The way in which the material qualities are incorporated at the Hidden Gardens is very different from the other phase two sites; most of the qualities are in a state of arrested decay and they appear to be placed in fixed positions as part of the design of the gardens, rather than giving the impression that they occur

randomly. It is therefore more difficult to stumble upon a material quality - the chimney and the façade are visible from most of the site - and I usually had to ask interviewees direct questions about them. Unfortunately the small section of tramway track that still remains is in an area that was closed to the public during my interviews (Fig.68). This track is confined to the very end of the garden and appears to have been almost forgotten and unconsidered during the design process and although most of my interviewees were frequent visitors and had had access to this part of the garden, few mentioned these tracks. When asked for their thoughts about the chimney, interviewees referred to it as a landmark or a reminder. Lynch (1972, p.198) describes commonplace landmarks as ‘psychological anchors’, creating stability whilst change continues around them and in Chapter 7 I will look in more detail at the role of change in the phase two sites. An interviewee at the Filter Beds spoke of his experience of a similar landmark - a solitary chimney that had been preserved alongside a housing development further down the Navigation (Fig.69). He makes clear the difference in his perceptions between a symbol that in effect stands in for the totality of the industrial landscape and the actual site itself:

it doesn't necessarily give you a bigger picture of the chimney stack, I think the nice thing about this [the Filter Beds] is it's got a sense of scale and it's got a sense of erm...you know you can understand that it was a big job and you can see that it used to do a lot, so you don't get that from a little chimney stack, a token chimney stack left on the side of the canal.



Figure 69 The chimney on the side of the Navigation

It was clear from the comments of my interviewees at the Hidden Gardens that removing the chimney from its surrounding systems and framework resulted in a loss of understanding of its original function and only a few interviewees questioned its past history. However, some were more responsive to the façade of the Tramway, pointing out the visible traces of doors and windows that hinted at the other buildings that must once have existed on the site.



Figure 70 View towards the Tramway. The chimney is on the left and the boiler house wall on the right

The incorporation of the material qualities in the three phase two sites can be partly understood in relation to Ingold's (2012) materialising mode; the artefacts, structures and surfaces are reminders of a past that is over and to some extent lost and forgotten. This is particularly true at the Hidden Gardens; the material qualities are described in the interpretation panels as part of the heritage narrative of the Tramway, and the design of the garden is conceived as

a ‘celebration of a specific, given landscape ... plant nursery, chimney and factory floor’ (The Hidden Gardens, 2011b). Many of the interviewees’ responses show that their perceptions of the structures and artefacts follow the materialising mode; they are seen as belonging to the past, as a ‘foreign country’ (Lowenthal, 1985).

At the Filter Beds and to a slight extent, Rainham, the ways in which participants relate to the past through the material qualities is similar to experiences of derelict sites described by Edensor (2005a) (2005b) and Garrett (2011) that I outlined in Chapter 2. It is clear that there is a difference between these artefacts that have the potential to engender imaginings that bring the past into the present and suggest possible futures, and Ingold’s definition of an object that is displayed purely as part of a heritage landscape with a clearly defined, and usually official, narrative. The most obvious difference is their state of decay, and I will discuss the temporality of these sites in more detail in Chapter 7. However as I have shown at Rainham, many of the structures, although decaying, do not engender diverse responses and although I have noted several possible reasons for the differences between the two sites, it is possible that the physical engagement with the artefacts at the Filter Beds is a contributory factor in the imaginative responses of the interviewees, particularly with respect to the imagining of possible futures. The separation of the visitor at Rainham from most of the mantlet banks, the look-out tower and the stop butts results in a museum-style presentation. It would be contentious to say that by following the materialising mode, the RSPB are ensuring that the artefacts gradually become invisible, however the official narrative of the landscape is one that stresses the history of the ancient grazing marsh rather than the more recent past of the MOD firing range. In spite of being told that the MOD artefacts are an important part of the RSPB site, over the years that I have been visiting some of the interpretation signs have disappeared, the history walks have been suspended and the history leaflet no longer exists.

I described in Chapter 4 how Rainham and the Filter Beds can both be thought of as taking a relationship approach to their design, and it might therefore be possible to view the ways in which visitors relate to the past in terms of

Ingold's (2012) gestural mode; they interact with the landscape following historic routes and paths. In the case of the Filter Beds the spatial arrangement of the boundary walls, the entrance and the paths, remain exactly as they were when the site was a working filter beds.

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 71 Diagram of the Filter Beds at Lea Bridge Road in 1947 © Thames Water

At Rainham some of the new paths and boardwalks follow the original access routes and the railtracks on the site and least one of the entrances to the cordite store was originally the route of a small railway that connected with the main line to bring explosives into the site. However there is no visible evidence of this railway line and only a small number of visitors were aware of how the topography of the site was dictated by these historic structures. One interviewee who did have the prior knowledge of these parts of the site, imagined stories about the past that could perhaps be said to 'retrace the path of predecessors' (Ingold, 2012, p.9) when he eloquently described the women working in the dark moving between the cordite and ammunition stores:

How frightening that must be? They had wooden trucks, and they had to manhandle the explosive kegs onto the trucks and then they had to pull them all the way to the little explosive store, glass roof one, to fill up the bullets, ready for the men to use the next day for the target shooting. Whilst the bombers were literally flying over the top.

However in spite of describing the steps, movements and emotions of the women, the interviewee is telling a story, rather than having an embodied experience. I suggest this response falls into the category of the materialising mode of imagining the past rather than the gestural. In general the cordite store and the other material qualities at Rainham are more easily understood in terms of the quotidian mode. Poller (2012) describes how inhabitants on the Isle of Lewis relate to the ruins of the blackhouses that were the homes of their ancestors and which had become ‘part of their contemporary everyday life, not often consciously distinguished as separate places of the past’ (pp. 51-2) . Although the ruins at Rainham can hardly be described as part of everyday life in the way a house can, they did indeed form a background to the lives of many of my interviewees, whether they were bird watchers or local residents. During the period of dereliction these structures became part of the landscape of recreation and now they are places for wildlife, and this has informed the ways many of my interviewees viewed and engaged with them.



Figure 72 'Diving into a pond' © Interviewee FB17

In the Filter Beds, in spite of the relationship approach to its layout, it is difficult to see how the gestural mode can account for visitors' responses to the

site. Although they are following what could be described in Ingold's terms as "ancient" routes, none of the interviewees had been to the site when it was a working filter beds and nor did they have experience of what working there would have entailed. In fact I found that interviewees showed very little interest in the working lives of those who had been employed there. This is in contrast with Edensor's (2005a) descriptions of retracing the movements of the vanished workers in derelict sites. For some however, the relationship approach to the spatial layout of the site led to embodied and imaginative responses that helped them to make sense of what they were seeing. One example was an interviewee on the photographic walk who described a photo he took looking down into one of the filter beds; *I deliberately included my feet. It was like diving into a pond.* The composition of his photo referenced the history of the beds whilst including himself and his experience in a new imagining (Fig.72).

I suggest that at the Filter Beds Ingold's modes of imagining only tell part of the story of how people relate to the past. The engaged interaction with the materialising mode creates the potential for diverse and personal imaginings of the past. However the gestural mode does not satisfactorily explain the diverse ways in which participants engage with the past through the spatial qualities in the present. In 'musing on the tracks' I demonstrate the diverse interactions possible with just one grouping of material artefacts - the tracks, concrete channel and hopper. There is the interpretation sign that tells an official story about the filter beds – the materialising mode - and I have an engaged interaction with the materialising mode, as do several of the interviewees quoted, who imagine the past in diverse ways. Then there are also the games children play and the talk of possible rituals and processes that might take place there, bringing the past into the present and imagining possible different presents and potential futures. It is also clear from 'musing on the tracks' that prior knowledge is a significant factor in my and the interviewees' embodied perceptions; maps and photographs play their part in the possible imaginings, as do past perceptions and understandings of the history of the wider landscape surrounding the site.

The fluidity and contingency of the interviewees' imaginings at the Filter Beds demonstrate in practice the relevance of Massey's concept of the 'throwntogetherness' (2005, p.140) of space; a space understood as a 'simultaneity of stories-so-far' (p.130). Imagining the past contributes to the range of possible stories that, for Massey, contribute to the specificity of place. This seems to me to be a more useful way of describing the forms of engaged interaction with the materialising mode that I discuss here. In fact I suggest that Ingold's materialising mode can be seen in Massey's terms as a way of controlling the selection of stories and attempting to dictate meaning.

As with the other two sites, Ingold's (2012) quotidian mode is also present in the Filter Beds; 'the immediacy of the present eclipses the past as the latter sinks into the inconspicuous and unremarked ground of the everyday' (p.9). On one visit I observed an example of this. Someone had rearranged a broken section of coping stone to form a step down into one of the filter beds, where an old mattress was dumped (Fig.73). The quotidian mode is also present in the imaginative playfulness that is a part of visitors' experiences in the Filter Beds. Edensor (2005c) explains how a sensual engagement arises between the body and the materiality of the ruin; visitors are 'playfully drifting, even risking encounters with the unpleasant, in contrast to the re-assuring promenades created by planners and designers' (Armstrong, 2006, p.119). The spatial layout of the site, emphasised through the relationship approach gives visitors the freedom to playfully and imaginatively interact with the material qualities, including sometimes taking the risk to venture down into the beds themselves.



Figure 73 Dumped mattress below the central collecting well © Interviewee FB17

6.3.2 Frames for reading the past

The concept of ‘framing the story’ (Potteiger and Purinton, 1998, p.42) when we ‘read’ the landscape has been used to describe the boundaries of the site that mark the beginning and end of the ‘story realm’, but here I take the phrase a ‘frame for reading’ from Treib (2002, p.93) to describe the context in which we perceive a landscape. This wider term encompasses both cognitive and sensory experience, and also allows consideration of the surrounding landscape rather than focusing on the bounded site. Treib asserts that ‘we are formed and circumscribed by our culture and our times, but we make interpretations based on our experience and our knowledge’ (2011, p.132) and my research results support this statement. I found that visitors use multiple frameworks to help them to read the site, and more specifically for this research, its history. These layers of linkages and interactions support the theoretical standpoint taken by Massey that I discussed in detail in Chapter 2. Her theories suggest that frameworks for reading are open to change with every visit and my findings support this possibility. However it is also evident that official narratives can dominate and sometimes close down alternative stories about a site. Nevertheless interviewees’ prior knowledge together with perceptions of the wider landscape form a general contextualising structure and added to this, in some cases, are memories of the site prior to development. I will discuss the time-layers in the landscape in more detail in Chapter 7 and here focus on the ways in which the interviewees used the site’s surroundings and its material and spatial qualities as a frame for reading.

I found evidence that some interviewees in all three case studies draw on the surrounding landscape as a way of conceptualising the sites. There was an understanding that industry played a significant part in the history of these areas and this was particularly true of Rainham where it was noticeable that without my asking any specific questions, industry and transport were often mentioned, in contrast with responses about the military history of the site. The flat landscape and visual permeability of the boundaries give a clear view of the transport infrastructure, the light industrial complexes and the breakers’

yards surrounding the marshland, and there is the regular sound of trucks visiting the landfill site broken intermittently by the “whoosh” of the high speed trains against a backdrop of other mechanical noises. This is perhaps one reason why, for many of the interviewees, it was natural to refer to the industrial connections between the site and the wider surroundings. However this industry is also part of the social fabric of and stories told about the local area; as one retired local volunteer remarked, *they always say that Thurrock is one big landfill site.*



Figure 74 Boardwalk and transport infrastructure at Rainham Marshes

At the Filter Beds there is an awareness that the site is surrounded on two sides by water and the sounds of the city are a constant presence. Although in summer it feels quite separate and enclosed, in winter there are vistas into the surrounding, partially industrial landscape, and interviewees spoke of the industrial history of the area and the importance of the River Lea and the Navigation as communication routes to the Thames. Even at the Hidden Gardens, where the surrounding area is more residential, there was an awareness expressed by some that the transport system had played a part in the history of the area with one professional woman commenting, *you can still hear the railway line for instance and that's nice, they're still about transport in some ways.*

Another factor in the framing of the sites was the treatment of the entrances at the Filter Beds and the Tramway as the entrance to the Hidden Gardens; both contributed to the understanding that something important had happened there and a sense of the scale of these sites also generated an awareness of their historical significance.

I have explained above how the official narrative of the Filter Beds is one that seeks to balance the demands of a nature reserve with the story of the historical remains, and there is a continuing commitment by the LVRPA (2012) to the preservation of the industrial artefacts. Although interpretive signs make an attempt at education, it is clear from some interviewees' responses that they do not take much notice of these, preferring to make their own stories and come to their own personal understandings about the site. At Rainham the RSPB's narrative also encompasses education about the military remains but it stresses the continuation of a natural landscape, with its narrative of reverting to Medieval grazing marsh. Many interviewees understand and embrace this story and this might in part explain why the responses to the site were very different from those of interviewees at the Filter Beds.

The brief for the designers of the Hidden Gardens was primarily 'to create a space that would have spiritual resonance with the surrounding communities' (Roscher, 2011), whilst consideration of the historic layers present and hidden within the landscape was of secondary importance. This emphasis has continued in the ways in which the site is viewed by its employees and by many of the interviewees I spoke to, who see the garden as a safe and peaceful place. However, as I have discussed above, in the interviewees' responses the historic narrative is often overlooked and only read at a superficial level. The exceptions are those visitors who knew the site prior to its redevelopment and have memories of when it was a Transport Museum. I will discuss this in more detail in Chapter 8, where I will show that it is the building itself - now the Tramway - that serves as a frame for reading, and the historical references in the garden itself play only a minor role.

Treib (2002) (2011) describes how some designers make reference to the vernacular through the appropriation of materials and discusses how, in fact, the reframing of these materials in a new context divorces them from their original meanings. This problem of recontextualisation appears to also apply to the recycling of industrial materials and the referencing of a history through an industrial palette. Interviewees at the Hidden Gardens and Rainham rarely saw the rusty metal, concrete and gabions as being a reminder of the previous history of the site. Instead they had a sensual engagement with the materials in their new context, in some cases enjoying the contrasts between materials and the plants or the natural landscapes, and in others appreciating the ways in which they blend in with their surroundings. Far from being a frame for relating to the historic layers of the landscape, these materials have become an integral part of a new design, engendering new sensual responses. This relates to Ingold's quotidian mode; for many the materials are simply a part of the new landscape, to provide walkways and structures, seating areas and planting beds. For others they become a way of creating something new and beautiful in their juxtapositions with the temporal elements of the landscapes, whereby 'the very immediacy of the present eclipses the past' (Ingold, 2012, p.9). This quotidian approach is also evident in interviewees' appreciation of a recycling ethos; sensibilities about the importance of recycling and expectations that, particularly in the Hidden Gardens, there would have been recycling, resulted in a matter-of-fact acceptance of the incorporation of the materials.

The few interviewees who understood the materials as a way of relating to the history of the site tended to be those with a background in either art or landscape design. In these cases their prior knowledge and expertise, together with their perceptions of the materials, contributed to their frame for reading.

An alternative frame for reading was also evident in the ways some interviewees at the Hidden Gardens and Rainham referred to derelict sites and wastelands. As I have discussed, the evidence in the present of the past dereliction of these sites was often unremarked upon, however some interviewees had memories of, and opinions about wasteland, that influenced the ways in which they read the sites. Fairclough, discussing landscape from an

archaeological viewpoint writes, ‘the remains, traces or influence of the past do not always need to be visible, but our knowledge of their hidden existence ... is an important aspect of perception’ (2012, p.94). For some interviewees the ‘hidden existence’ of the DUN site in their memories affected their present understandings of the new landscape and for others it was their imagination that conjured up this hidden existence from other experiences rather than any specific engagement with the site during abandonment.



Figure 75 New materials at the Hidden Gardens

Between the Hidden Gardens and the railway track there was, until 2012, a large area of derelict land that was originally part of the Coplawhill Tramworks (Fig.76) and this together with the knowledge of nearby wastelands standing empty beside new developments, led interviewees to the generic conclusion that wastelands had little value. As Lynch (1990, p.26) explains, there are wastelands that encourage exploration and inventiveness whilst others appear to serve no purpose and have no potential as ‘loose space’ (Franck and Stevens, 2007). In contrast at Rainham the interviewees’ concept of wasteland was specific and referred to the derelict state of the site during the time it was abandoned and awaiting redevelopment. In this case the value of the site was affirmed by the birders, who had visited when it was MOD land and now wanted safer access and the removal of, as they saw them, undesirable elements. Others in the local community also stressed the importance of the

site; they had trespassed there when it was operational and used it as their playground whilst it was derelict.



Figure 76 The remains of the Coplawhill site beside the Tramway and the Hidden Gardens

At Rainham, valuing the derelict site provides a frame for reading that leads to two opposing understandings. One reinforces the official narrative by stressing that the landscape has been saved, restored to its former state prior to the MOD's residency and its subsequent abandonment, whilst also acknowledging that without the MOD's protection, it might have been lost completely to housing or industrial development. The other also sees the period in which the site was derelict as a problematic one, and accepts that some, but not all, of the activities that took place were detrimental to the area. However this unofficial narrative draws on memories of the wildlife on the site both before and during its wasteland period, to counter the RSPB's claim that they have saved the site. This is epitomised in the story of the meadow ants, recounted to me by advocates of both narratives to strengthen their position. The mounds present across the site indicate the presence of generations of ant colonies, thus demonstrating that the landscape must have remained for tens or hundreds of

years in much the same condition as it appears today. As frames for reading, both the official and the unofficial narratives can be described in terms of Ingold's materialising mode; the physical landscape and its wildlife are portrayed as emblematic of the site's history, it is who is perceived as the guardian and champion of that history that is contested. In fact these materialising modes for relating to the past, both lead ultimately to the same understanding of a quotidian future that allows the landscape 'to carry on' (Ingold, 2012, p.9), safe from development, a valued green space for the local people. However the differences between the two views remain evident in the ways in which local people speak about the site and the uses they make of it; there are still some older residents who cannot forgive the RSPB for, as they see it, taking their land. Watts (2012, p.59) describes how futures are 'inseparable of the landscapes of their making' and the quotidian futures for Rainham are indeed informed by its military and industrial past, and by the perceptions and understanding of the local people, both of this site and of others in the wider landscape.

At the Hidden Gardens there is an appreciation of how the site, rather than being saved, has been renewed. Although the material artefacts present in the gardens can be seen as examples of the materialising mode of thinking about the past, the concept of renewal and growth suggests the quotidian mode. However this is a quotidian mode that is creative and holds possibilities for different and exciting engagements with the landscape in much the same way as I suggested when discussing the reuse and recycling of materials.

Treib (2002) (2011) asserts that in a plural society where we come from diverse backgrounds with multiple cultural reference points, it is not possible for a designer to imbue a landscape with meaning. Instead, he states, meaning is always personal, and I will discuss this further in Chapter 9. It is clear from the discussion above that interviewees have multiple individual ways in which they might understand the meaning of a site, however there is also evidence of a general understanding of the relationship between the site and its surroundings that makes reference to its past history, and is used as one strand of a frame for reading. Interviewees perceive interconnections between the site

and the city and between the site and the history of the area. These understandings also form part of an imagining of what might happen in the future to the landscapes. Ingold asserts that imagining is not ‘the work of mind alone but of one’s entire being’ (2012, p.7) and it is this form of imagining that results from an embodied engagement with the landscape. The different ways of contextualising the site that I describe above demonstrate that prior knowledge has a bearing on our perceptual engagement with the landscape, whether we are visualising a fixed history, an imaginative reconstruction of the past or a creative imagining of the past in the present. However the interviewees’ responses also show that their experience of other local landscapes is an important factor in how they make comparisons and draw conclusions about a site. For a few interviewees this knowledge is gained from familiarity with the immediate surrounding area whilst also drawing on experiences of other landscapes from further afield, and even, in the case of the Filter Beds, from literature. As Tilley (1994, p.27) remarks, ‘places are always ‘read’ or understood in relation to others’.

Watts (2012, p.62), describing life in the Orkneys writes that ‘knowledge is embodied, is made in practice, and is particular to a place’. Her concern is with the way that the future of a place is ‘inseparable from the landscape’ and how, for the people of the Orkneys, the landscape past becomes the basis for possible futures. It is evident from my research that interviewees perceive the case study sites as having their own attributes and meanings. However it is also the case that relationships with these places are tempered with multiple other experiences, memories and references, made through engagement with other landscapes both real and imaginary. Although I am in agreement with Watts about landscape informing its future, her stress on the particular, with relation to the Orkneys, does not appear to be as important in these urban landscapes. This accords with Massey’s (1994) understanding of the particularity of place as being:

‘constructed not by placing boundaries around it and defining its identity through counterposition to the other which lies beyond but precisely (in part) through the specificity of the many links and interconnections to that beyond’ (p.5).

A retired local volunteer at Rainham expressed this concept in his own terms when talking of how the site related to its surroundings, *you can't separate one from the other. It's all got to be part of the team ... It's all got to be carefully managed, so each one has it's own er, freedom to expand and manoeuvre, and be.*

7. How are the temporal qualities of DUN sites perceived when they are incorporated in developed landscapes?

7.1 Introduction

One way of understanding temporality in the landscape is to imagine a palimpsest of past interactions and interventions that have left traces to be read by the visitor. In the context of the sites I am examining these layers or traces might include the industrial remains, decaying artefacts, industrial infrastructure, evidence of planning and development policies, informal activities, opportunistic practices, spontaneous interaction and natural succession. However as I show in Chapter 2, temporalities can be conceived of in multiple ways, not merely thought of as a set of different timeframes physically present in the landscape. Hence when I talk of the temporal qualities of a derelict site which might be incorporated in the developed landscape I am referring, not only to processes of decay and succession, but also to those interrelations with material qualities that might engender awareness of different timeframes.

Relph (2004) describes temporality in much the same way as I have discussed above, as ‘the lived-experience of time ... the dense association of memory, present awareness and expectation’ (p.113). He goes on to explain that landscapes are ‘simultaneously the contexts of temporal experiences and subject to temporality’. It is to be expected that interviewees at all three research sites engaged in a range of temporal experiences: recollecting past visits; describing stories and memories; engaging in habitual daily and weekly events such as dog walking and playing with their children; experiencing the changes that occur with the seasons and with the maintenance of the site; planning future visits; campaigning for or against future changes; imagining new possibilities, and many more. However the landscape is not only a place to engage in temporal experiences, but it also contributes its own temporalities in the form of seasonal changes, decaying structures and successional vegetation, and these in turn impact on interviewees’ awareness of the passage of time.

Temporality is also evident in visitors' recollections and reminiscences and I will discuss this in Chapter 8.

In this chapter I look at the roles nature and the material and spatial qualities play in interviewees' sense of the passage of time. In the first section I outline the ways in which interviewees perceive and value these temporal qualities and the ways they respond to the intertwining of the natural and the cultural worlds. I use the terms nature and natural here in the same way as my interviewees have used them. Nature describes the vegetation and wildlife in the site and natural describes a landscape or parts of a landscape that **appear** to have occurred naturally, without human intervention. However, as I will show, the interviewees are aware that there is always an element of human intervention in the development and management of these sites and thus both nature and culture impact on the experience of temporality within the site.

I finish the first section with my second interlude where I reflect on my experiences of the temporalities of Orford Ness in Suffolk during a visit in 2014. The Ness is a spit of land extending from Aldeburgh past Orford and tapering to a point opposite Shingle Street. It was used by the military during WW1 and 2 and subsequently as a test ground for the Atomic Weapons Research Establishment (AWRE).

In the remainder of the chapter I discuss the interviewees' responses in the light of Lynch's (1972) temporal collages and look at the way juxtapositions between nature and culture can create disjunctions in these temporal layers. I examine both the sense of indeterminacy and of continuity that these juxtapositions can create within the sites and finally I consider how the temporal qualities might impact on interviewees' perceptions of the future of these sites.

7.2 Perceptions of the role nature and the material and spatial qualities play in a sense of the passage of time

7.2.1 Decay, disorder and juxtapositions

In this section I examine how nature and natural processes contribute to interviewees' understanding of the passage of time at the three research sites. I focus here on examining responses that express an awareness of time-layers in the landscape that are made apparent through the juxtaposition of the natural and the built. The responses of the interviewees differed across the three sites, as I show below.



Figure 77 Pipe across the River Lea © Interviewee FB14

Interviewees at the Filter Beds made reference to the *crumbling remains* of the ruined structures describing them as the having a *feeling of decay* that contributed to the ambiance of the site. As one student in her 30s walking her dogs explained, *that's the ambiance of it isn't it you know, it's the crumbling brick*. Other interviewees commented on the juxtapositions of specific material artefacts with nature, such as the decaying walls running through the vegetation in the beds. One young woman took photos of the *dead seedheads there and the contrast with the cement wall and then the big rusty pipe in the*

background (Fig.77) and also tried to explain why she had taken photos of the electricity cables crossing one of the filter beds, *their ... horizontality ... their fixedness in contrast to ... yes they're very – there*. Another interviewee on the photographic walk pointed out the detail of a small area of one of the many worn surfaces; *I just find it a really pleasant subtle form ... against a kind of much larger landscape*.

It is evident that the weatherworn-ness, patina and decay of the structures and artefacts is seen as attractive; one interviewee, discussing the photos he had taken, showed me the *wonderful worn quality* of the stone that had had *rain and wind and all sorts of things on it*. A retired local resident who was brought up in the area summed it up, *it's all subsided all over place in there, falling apart like, but I mean that's part of it*. The decay that has become a natural part of the Filter Beds is brought about by the agency of the weather, the vegetation and organisms such as mosses and lichens that interact with the built materials. In some cases these create unusual patinas and attractive textures whilst also imbuing the site with a disordered and chaotic quality (DeSilvey and Edensor, 2012, p.13). Interviewees described this relationship between the natural vegetation and the ruined structures as *nature taking back*; the site was *overgrown* or being *overtaken by nature*.

Interviewees appeared to value this relationship between the industrial artefacts and nature and to relish the ambiguity of control; they might be proud of the achievements of their Victorian forefathers and yet they also enjoyed the idea of nature taking charge once again. The canal boater spoke of this potential for loss of control, *it's got this previous order taken over by new chaos and it can go either way, it doesn't have to go that way, it would interest me in either direction*. Although for some the concept of nature taking back appeared to imply a return to an imagined, pre-industrial past, this did not seem to be the case for most of the interviewees; the development of a natural landscape was not seen as an attempt to reinstate the countryside as it had been prior to the advent of industrialisation. Rather visitors understood and appreciated the long industrial history that was an important part of the local area, (as I discussed in Chapter 6), and saw the Filter Beds today as a new development in the history

of the site. For these interviewees, the material artefacts were as important as the vegetation and, although they appreciated their crumbling nature, they did not want them to disappear completely. As one young man commented, without the industrial artefacts, *it would just be sort of woodlandy, like any other bit of woodland*. Although the concept of nature reasserting herself was an attractive one, there was only one woman in her 50s who saw this as having a moral dimension, albeit as she herself admitted, a somewhat naive one:

I think no matter how far we go in terms of industrial...and make mistakes, that actually nature will put things right again so there's the kind of reassurance that nature will take over and make things good again.

The wildness and disorder of the site, as evidenced by nature appearing to be in control, was contrasted with the more maintained parks in other parts of Hackney and interviewees of all ages and backgrounds were happy with the level of maintenance in the Filter Beds. They spoke of the homogeneity of other green spaces with their *huge grass plains* and their *relatively barren conventional* landscapes and of a *move to regiment and tidy and clip everything*. An elderly woman straightforwardly remarked, *people can be too fussy about shouldn't have this ... just let nature take its course*. A local retired sign writer who has written extensively about the area on the Internet summed up the sense of past, present and future co-existing within the site:

I think it's got great value, ... it's open, it's wild, it's not prissy, it's not, you can't walk here and you can't walk there and mind the geraniums and that. It's just nice, it's lovely. So it's an adventure playground, it's a park, it's a nature reserve, it's whatever you want it to be, it's lovely. It's part of our past ... there's all the old bits and pieces.

At Rainham any reference made to nature was almost invariably about nature and wildlife in general rather than about the details of juxtapositions between nature and the military remains or about the disintegration of the artefacts. Where interviewees did talk about the military structures it was in relation to the wildlife that inhabited them. A regular bird watcher pointed out the rifle targets above the stop butts; *of course they're trying to keep it as much as they can, 'cos I think the fact that they've still got the numbers up for the targets... I was reading about some particular wasp which is nesting there*. Even in the cases of the cordite store and the mantlet banks no one commented on the

juxtapositions of the natural with the material artefacts. It was only the garden design student on the photographic walk who delighted in the disordered properties of the decaying artefacts; referring to the mantlet banks she explained, *I like the fact they haven't cleaned it up too much. They've left the kind of debris in there.*



Figure 78 Stonechat on barbed wire © Interviewee RM12

Interviewees did, however, comment on the contrasts between nature inside the site and industrialisation outside; a man on the photographic walk insisted on showing me photos he had taken at Rainham over the years showing these connections (Fig.78); *so you've got all the barbed wire, ... it was to show that in the middle you've got this lovely little bird in the middle of all this industrialness, and it has its own beauty.* The interest in the very visible wider landscape around the site, and how this contrasts with the natural landscape of the reserve itself, raises several issues. The first is the difference between the site and its surroundings, both the immediate industrial and transportation infrastructure and also the more distant city of London. Interviewees express their delight that a landscape such as Rainham can exist in this situation; a retired professional man told me, *it's a borderland between the river and the industrial part.* A retired professional on the photographic walk echoed these sentiments, stressing the importance of the contrasts:

Maybe if it was all cleaned up and we never saw all the industrial buildings or what's left, the warehouses, it may lose part of its glamour, I don't know. Everything's about contrast. The contrast of the cows in the middle and then the local javelin [train] going past at the same time.

Other interviewees appeared quite matter-of-fact about the juxtapositions, such as this recently retired fireman who was writing a blog about the site and thought hard about the relationship with the surroundings, before explaining:

It's hard to say, I mean, you look at some of the like the flyovers and things and it looks a bit ugly. BUT, it's an urban reserve and I think it sort of adds to it a little bit. As long as you know what to expect when you come here. I mean it doesn't bother you. You can't hear the traffic noise really. You hear a little bit of train noise when you're on the other side but it's such a short, as it whooshes by ... they couldn't really do much more to hide it could they?

Secondly there is the impression that the site has been saved from the industry around it; it is this aspect that is mentioned when interviewees discuss the military remains. The MOD's occupancy is seen as something positive because it allowed the marshland to exist. A man in his 60s who used to work in the container industry surmised:

In a way I suppose that's why it's here because otherwise I expect it would have been developed had the Ministry of Defence not been here, it would have been swallowed up, I would imagine. Warehouses, or houses, whatever.

And this concept of being saved also leads to the third point mentioned about nature - that this landscape has always been here. I have discussed this in detail in Chapter 6 when referring to the official and unofficial stories of the site and it is clear that some visitors, perhaps those who have heard the RSPB story, see nature as somehow reverting back to how it should be. One of the staff members I interviewed explained, *I've watched this place go from ... an enormous thistle bed to a recreated Medieval, lowland, wet-grazing marsh. It's um, it's 100s of years old and it's looking how it should have done.*

Although I did not elicit many comments about the military artefacts in reference to temporality and nature, one example of the time-layers within the immediate surrounding landscape was described to me by several interviewees. The lookout tower on the edge of the marsh beside the path along the Thames no longer 'looks out'; the river wall is above the top of the tower (Fig.79). A

regular bird watcher, who sometimes led history walks around the site, explained this apparent anomaly:

Well the wall in front is 1953, from the great flood. ... It's got bigger and bigger, over the years. Directly in front of that is the Victorian wall, and directly in front of that is the Tudor dock. So when the tide's out you can see the, the ... wooden beams sticking out of the mud that was once the Tudor dock.



Figure 79 The lookout tower with the river wall behind

Several interviewees spoke of the significance of the relationships between the material artefacts, the natural landscape of the marshes, the surrounding industrial areas, the river, and the city of London. They stressed the interdependency of these aspects and the importance of striking a balance between them whilst still maintaining a sense of possibility and change. This sense of past, present and future co-existing, was summed up by the retired bird watcher and history walk volunteer:

We had HMS Europe go up, which was ... our only aircraft carrier. And it was enormous. But it was surrounded by little ships. So again, the history of London takes part. ... Besides which our lookout tower is used by our barn owl as a nest site.

At the Hidden Gardens there is little mention of nature in terms of the juxtapositions with the material artefacts or with reference to the temporalities of the site. A few visitors commented on the weathering of the chimney and the

façade (Fig.80); *you can see there's been doorways and obviously it's been bigger but they've taken it away and I quite like that it's, it's that it's stayed old, I like that sort of decay.* However the agencies that create a weathered look are kept under control and the artefacts are in a state of arrested decay as I discussed in Chapter 4.



Figure 80 View through avenue of trees to the façade of the Tramway

A professional woman in her 50s did see the industrial remains as providing *a nice backdrop* and as making the landscape somehow less artificial. Two young unemployed people felt that rather than a backdrop, nature was at the heart of the garden; this was manifested in the way the xylotheque was constructed around a mature tree (Fig.81). One young man commented: *it's interesting you've got the city on the outside and then the garden and then you've got sort of a structure, and then the tree. Er that's quite nice. I like that a lot.* His friend, a young woman who was also unemployed and recently arrived in Glasgow explained, *it's just the nature that's here but you've just built you know, around it, and it makes it sort of better and more like nature-y and peaceful.* In these cases the garden is thought of as something new, being both built around pre-existing nature and inside the framework of the city.



Figure 81 The xylotheque by Alec Finlay

7.2.2 Maintenance and intervention

It became clear towards the end of the interview process at the Filter Beds that it would be useful to question the interviewees about what they thought might happen to the material structures if nature were allowed to take over the site completely. I therefore began to include this question at Rainham Marshes, and also discussed this issue in my interviews with the staff at the Filter Beds and at Rainham. I did not include this at the Hidden Gardens as the artefacts are kept in a state of arrested decay and maintained accordingly.

Interviewees at the Filter Beds were often unaware that maintenance was a controversial and difficult issue although many expressed an awareness of the rhythms and cycles of the natural world and some were knowledgeable about the need for intermittent intervention to maintain the different habitats on the site, referring to the cutting back and regeneration of the vegetation. Several interviewees showed an understanding of how the successional planting might behave if left unmanaged, however few referred to the difficulty of maintaining the right balance of control or commented on what could happen if nature was allowed a free reign. One exception was a retired professional who had been involved with the site since it was established:

Well I think things like walls and crumbling pointing...you're trying to keep things in an arrested state of decay... I'm quite surprised how well things like these quite thin walls have held up, there's always a danger when you let nature go rampant that it's going to bring things down.

The ranger responsible for the site explained that the vegetation growing into the walls of the beds was removed every year but the roots that had taken hold within the brickwork could only be killed by applying poison. I was told that visitors often complained about the dramatic nature of the cutting back.

The diversity of habitats on the reserve is an important aspect of the site that has come about due to the varied substrates that were left in each of the filter beds and it is important for the future of the nature reserve that this diversity is maintained. The LVRPA has always had to consider the balance between keeping the site as a nature reserve and preserving the industrial artefacts. The ranger explained how this impacted on decisions about whether and from whom to obtain funding:

I'm a little wary of that because we've got sort of ecological funding before and stuff and the two from experience on other sites don't always mix. Because they're conflicting things really. ... if you're the heritage person then you should fight tooth and nail for the heritage and then the ecological people do the same.

The ranger and some of the volunteers also made clear what would happen if nature did completely overwhelm the site. The walls of the filter beds would eventually crumble and become so unsafe that the site would have to be closed and the habitats and artefacts take on new forms. Alternatively, new paths and boardwalks could be installed at a high cost, both in terms of capital outlay and maintenance expenditure. This scenario has not yet arisen, but as the ranger pointed out:

We're just trying to stall it. We're holding it down at the moment... Just. Um, but it's whether we can do just that little bit more, just to, really... 'cos I think the dam's leaking.

At Rainham the situation is very different; if the military artefacts were to become engulfed by nature, there would be little impact on the site itself. The RSPB explained that many of the structures that were present on the site when they took over were demolished because they were unsafe. One staff member

described an experience on the stop butts: *You'd stand up there and the whole thing would sway. And you think, and you'd think this isn't quite right really. ... So you'd get down. And even if we'd cordoned it off the kids would've still been up on it.*

It was this destruction that most aggravated the amateur heritage experts I spoke to at the Purfleet Heritage Centre. One explained, *I mean things like this [the nature reserve] could have happened even if it could've returned to nature completely. Buildings would've fell down all this sort of thing.* However he then went on to describe all the buildings that he would have liked to have seen preserved, seeming to have no awareness of the conflict between a 'nature taking back' and the preservation of large parts of the military site.

I was told that none of the military artefacts is subject to protection orders except for the 100 yard ridges. These mounds exemplify the almost complete merging of nature and culture; from the ground they are practically invisible and covered with vegetation. It is only from the air and on satellite maps that they become clearly visible.

The RSPB staff say they value the military artefacts that remain on the site but, amongst the staff members and volunteers I spoke to, there does not appear to be any clear policy about their preservation. The worker who had been at the site since its inception told me that the mantlet banks were *fine. Underneath they're fine ... There's no problem with them. The management of them is more, how do we keep the vegetation under control? Because we used to just let the cows on there. Then someone got a bit health and safetyish about cows. They might fall off. So we now have to go in there and trim it.* However he then went on to say, *we're just letting it do its own thing, as long as we're managing the top of it. ... Eventually the whole thing, because it's metal, will eventually, like anything, rot and fail and disappear.*



Figure 82 Under the mantlet banks

The interviewees, when asked, expressed varying levels of understanding of what might happen if nature took control. Some understood that eventually the structures would be destroyed, whilst one female volunteer felt it would add to the atmosphere and sense of aging within the landscape. The garden design student understood the dilemma and spoke of the *terrible balance between wanting to maintain these areas and in order to do so you have to have human involvement but human involvement can if you're not careful, can destroy it*. However most interviewees were stoical about the fact that eventually the mantlet banks and stop butts would fall down and disappear, understanding that, *the very nature of their materials mean they weren't built to last*.

7.2.3 Material and spatial qualities and temporality

In Chapter 6 I discussed in detail the interviewees' responses to the material and spatial qualities of the case studies, and particularly focused on their sense of mystery and the way they might stimulate the imagination and encourage story telling. In this section I examine the qualities with respect to the temporal awareness they engender - an awareness of change and renewal. The responses of the interviewees refer mainly to the site as a whole, rather than to particular structures and artefacts. Interviewees usually felt that it was important to have links with the past, explaining that once the structures were gone there was no way for local people to understand how the landscape had once been. For one bird watcher at Rainham it was important to know that the site had gone

through processes of change; *if you don't keep the old stuff there, how're people going to know it's changed? How can they appreciate the change that's gone on?* Another volunteer summed this up:

take it away and it's gone and you can't remember it. I mean people who were born like ten years ago, wouldn't even know that it belonged to the MOD, would they? How would you know? How would you know?

A woman in the walking for health group tried to explain why an understanding of the changes that had occurred was important to her:

I think ... everything has a time ... I like to look back and say this is how it was and this is what it looks like now, you know, I like the difference, you can see how far you've come or whether they've done a good job or a bad job, you know

There was, however, one interviewee at Rainham, a regular bird watcher who spoke in detail about the importance of the history of the site and the juxtapositions between the site and the surroundings before eventually suggesting that sometimes there were more important issues, such as the loss of a manufacturing industry, to consider:

I often feel that if you concentrate too much on the preservation of past, we forget, and this is what's happened to the nation as a whole, you know it's all very well living in a museum, but you know that's why there's no work for the youngsters because we're living in a museum.

The materiality of the structures was also a factor for several interviewees at Rainham; they felt that visually experiencing the remains enabled them to have a better understanding of them, and this experience was not available to people who might read about the history of the area or see images of the site. A visitor from Canada described the sense of connection to the past that this sensual experience of the temporal collage engendered: *the fact that you can see power magazines from decades or centuries ago possibly. Erm, and double-decker buses. I really like that sort of juxtapositioning of all these modern and traditional things ... because it connects you up with history too.*

I described in Chapter 6 how I found interviewees at the Hidden Gardens gave little consideration to the chimney however I discovered a poem in an

anthology of writing compiled with the volunteers that celebrates its temporal qualities. The poem begins by evoking the daily rhythms of the garden as seen through the moving shadow of the chimney:

‘Line on the lawn
Moving with time
Pinning the garden in place’
(Dobson, 2011, p.21)

The final lines capture the sense of stability the chimney gives to a changing landscape. Other responses at the Hidden Gardens also highlighted the juxtapositions of the old materials and structures with the new. One man in his 40s enjoyed the incongruity of change of use between old industrial site and modern art centre. A part-time gardener in her 20s felt that the repurposing of buildings and artefacts was a particularly Glaswegian way of proceeding; *I really like the old and the new, I think ... that's just a big part of it and it's a big part of Glasgow.* I asked why she thought that this way of working was appreciated in Glasgow and she replied; *I always just thought it was a more relaxed approach to things. You're not trying staunchly to preserve, preserve ... conserve. It's just kind of like – right, progress is happening and we've got these old buildings and we can use them.* Others, like this social worker, spoke of the atmosphere created by mixing old and new; *it's kind of er I think what they've done here is erm ... used what they've got and built on it and not destroyed anything. Sooo, there's that old and new feeling at the same time.* Some also spoke of a sense of renewal and progress that appeared to come from understanding that the site was originally a wasteland. A cleaner who sometimes helped in the garden explained in detail:

instead of looking at a derelict thing. Think well we can do something with this! And it's good for ... everybody. You know what I mean?... so yes, it's progress there, you know what I mean, er... instead of looking at a dump, you know what I mean?

The transformation from derelict site to peaceful garden, and the inclusion of the material structures within the new design, contributed to the feeling that the garden was somehow more natural and less manufactured. A staff member in her 40s commented, *it's different, it's not all manufactured and ... precise, they can see it's bits of old buildings that have been used,* and the social worker

explained; *well I think it just makes it feel more natural not just something that's just been created.* A young, unemployed man felt that the conversion of the Tramway building contributed to the special atmosphere of the site, *it just, adds a lot more you know ... having, you know, the old building that they've done up and all this rather than just something flashy.* Others spoke of the ways the old and the new had merged in the design; *I think they've blended in really well actually with the landscaping of the garden, blended well yeah, you can see how the garden's been constructed around them.*

Interviewees also spoke about the material qualities with reference to the present and the future. The responses were very different across the three sites, with interviewees at the Filter Beds and at Rainham much more likely to talk about loss and to be fearful or express resignation about the future. The interviews at the Filter Beds took place during the construction of the nearby 2012 Olympic site and, because many people witnessed the destruction that occurred on the marshes and around the River Lea, there was a feeling that maybe the Filter Beds could be lost at some point in the future. The retired lawyer explained; *London, this is an area that constantly renews itself when things are superfluous they're levelled and built upon, um, it's slightly against the odds in a sense that a place like this survives, all the more important for that.* Others also understood that in the modern world things might have to change. The professional photographer compared the site with the wider landscape:

this seems to be like a very isolated thing, 5 or 6 years ago there were lots of old factories, there was like an old toy factory and some old gas works, but they've all been turned into flats since so it'd be ... it's nice if they can keep something but you know the world turns what can you do?

However, the sense of loss was more significant for the interviewees at Rainham. In this case it was a general sense that all the green spaces in the local area, and further down the Thames, were under threat of development. This, however, was coupled with a universal belief that the RSPB site has now been saved.

The local woman who now worked as a cleaner at the Hidden Gardens and had brought her children to the Transport Museum, described how she loved the old buildings and felt sad when they were demolished, saying somewhat resignedly, *we've got to move on with the times*. However, as I have mentioned above, at the Hidden Gardens a sense of renewal was a predominant feeling expressed about the sense of passage of time, as one woman said, *it feels like quite a new thing, so ... I think it is much more about being in the present moment*.

A few interviewees at Rainham also alluded to a sense of renewal but in this case they were referring to the sense that the natural landscape was being renewed. A retired industrial worker explained; *this in many ways is the future. Because this is, our past ... the fauna and flora of where you are, is an indication of your past and of the future, because each spring the buds appear, and life appears, so that is the future*. This sense of continuity was also expressed by a local woman and volunteer, who had loved playing on the DUN site as a child and felt that she had gained a love of nature from those early experiences: *I do feel like it's mine. I go out, if I can ... And I work out there as well. ... I feel like I'm putting something back*.

I discussed in Chapter 6 how the wider landscape features in the responses of interviewees at Rainham Marshes and this also applies to engagement with temporalities: the river; the sea walls; the landfill site; the reserve; the military remains; the industrial surroundings; the wind turbines. This volunteer summed up the views of several interviewees when he described how these temporalities were linked:

And I make them aware of the fact how interdependent everything is. Everything's like a jigsaw puzzle, it locks together. You can't have one without the other ... If you were to obliterate the history of the site you would be a lot poorer. 'Cos you have less to show people. Less to enthrall people with, especially children, they love to be enthralled and be aware of it.

At the Filter Beds ideas of renewal and progress were different. The site has not been intervened in to any great extent, so combinations of old and new materials and structures are not evident. However a few interviewees had

thought about the changes they would like to see in the spatial relationships between the Middlesex and Essex Filter Beds and the corresponding changes in the narrative of the waterworks. As I described in Chapter 5, there were originally several sets of filter beds on either side of the river; the Essex beds now exist as a more formal and organised nature reserve and between them and the Middlesex beds is an area that is still owned by Thames Water. The fear is that this site will be sold for housing developments. Two interviewees have campaigned to reinstate the connection between these three sites and one described this to me; it would be *LOVELY if it joined up ... you could have a joint thing with the other filter beds ... Middlesex and Essex together back all together again ... Whether that'll happen I don't know.*

7.2.4 'Temporalities at Orford Ness' – the second interlude

Secret, mysterious, bleak, ominous, scary, unique, windswept, flat, isolated, these are some of the words that I had dreamt up in my imagination to describe Orford Ness over the years before my visit in 2014. I knew it was a former military site, a shingle spit of land separated from Orford village by a short stretch of water. I knew it was full of secrets. Now writing this I still think that all those words are appropriate but here I will try to describe the Ness in terms of its time layers, its temporalities, its pasts and futures as seen through my eyes and the words of others.

We make the short boat trip and start walking in a group, strung out, dawdling. I am full of anticipation, excited, apprehensive – what if it is not as amazing as I had hoped? I half listen to the guide talking of the military history, but I am too excited and too occupied with both camera and binoculars to fully concentrate. And then – my first awe-inspiring moment. But it's not about the past at all but an intimation of the future. I spot a spoonbill flying with huge white wingflaps above my head. (Spoonbills are a new visitor to England and in the last few years have started to breed in some sites, but not yet here (Natural England, 2010)). Then present and past merge as I photograph a rare

breed sheep brought onto the Ness as a 'grazing management tool' (The National Trust, 2003, p.25), with the 'pagodas' in the distance (Fig.83).



Figure 83 Rare breed sheep with the pagodas in the background

We follow the designated path, cross a bridge, walk between regimented lines of concrete fence posts that must have long been bereft of their barbed wire, and we are surrounded by shingle.

The shingle spit is 16km long and at its highest is only 4metres above sea level. It has acquired many official protective designations over the years to reflect its importance as a special geomorphological feature and habitat (Cocroft and Alexander, 2009). But this is not a static place, the Ness changes, is built up and is destroyed again, sometimes bit by bit and sometimes dramatically. The shingle is a series of shallow ridges and valleys each one a record of time passing (The National Trust, 2003, p.10). Longshore drift moves material along the shore and it is deposited in ridges. Some are broken or destroyed, rebuilt or added to, so it's not possible – contrary to what you might imagine - to work out the age of each. Time is not so easily sedimented in place. Smaller pebbles are graded towards the tops of the ridges so this is where the vegetation takes a foothold, sweeps and straggles of greenish brown in the whites, greys and browns of the shingle.

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Figure 84

Aerial photograph of the AWRE site. Orford Village is off the top of this image. Reproduced from 1965 Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright NC/Dec.

2014

Pieces of metal, machinery and concrete are dotted at random amongst the shingle. A hare darts across the pebbles and disappears behind a ridge (Fig.85). To our right is the former AWRE site with its iconic pagodas, to our left is Cobra Mist. The former are solid, strangely shaped masses rising from the landscape. Or perhaps the landscape rises with them - shingle and sand are mounded around their walls and roofs.

The Cobra Mist is ephemeral, gradually becoming more defined as the weather changes. It appears ghost-like in the distance (Fig.85). It was built in the late 60s and closed shortly after in 1973 and is said to have been some sort of experimental radar station that never worked (The National Trust, 2003). People talk of UFO sightings there.



Figure 85 Hare running across shingle dotted with military artefacts. The pylons of the Cobra Mist site are in the distance.

In front across the shingle is the lighthouse. Behind is a traditional - appearingly timeless - pastoral scene; greens, blues and Orford village with its 12th Century castle keep in the background (Fig.86).



Figure 86 View towards Orford village

The temporalities of the Ness are waiting for us to find them. The lighthouse is the oldest building (Fig.90), built in 1792, it was sold to Nicholas Gold in 2013 and now its future is the subject of controversy (Fletcher, 2014). The National Trust point out that in 2010 when the lighthouse was decommissioned they agreed with Trinity House, the original owners, that they ‘would allow natural

forces to dictate the future of the building’ (The National Trust, 2014). But Gold has other ideas. ‘Long term I cannot stop nature. The sea will come in, I recognise that. It would cost a fortune to make it last 50 or a hundred years ... but in the short term I can slow things down’ (Lampard, 2014) .



Figure 87 Inside Lab 1

The AWRE buildings including the pagodas are normally out of bounds although we do visit Laboratory 1 (Fig.87), built in 1956, where the UK’s first atomic bomb was tested (The National Trust, 2003). Davis (2008) writes after seeing a defused bomb on display next to Lab 1:

‘it seems to say that here you have stumbled upon the *real* destructive force at Orford Ness: before the site had seemed under nature’s power, the strange shapes you walked past the result only of the long process of decay; now the Ness pales suddenly into nuclear wasteland ... the idea of instantaneous ruin hits you hard’ (p.148).

Every view, including from Orford quay and the marshes, seems somehow to include the pagodas (Fig.88). Through my binoculars I can see seagulls nesting on the sandy mounds of their concrete roofs. They were constructed as vibration test buildings during the 1960s. Each has a concrete roof covered in shingle and sand, and supported by 16 reinforced concrete columns (Cocroft and Alexander, 2009). The tests took place underground. The intention was

that if the blast was too intense the columns would collapse and the concrete roof could then contain the full force of the explosion. This never happened. Both pagodas still stand - for now.



Figure 88 View to the pagodas

The AWRE closed in 1971 and the Ness was abandoned until the National Trust took over in 1993. They protect the sensitive and unusual habitats on the shingle by not intervening, doing little. But Grant Lohoare (Motion, 2007b), a warden on the Ness interviewed for a short film by Andrew Motion, explains that the rusted artefacts could have been part of the scientific and military experiments or they might be ‘junk or rubbish but we don’t know that at the moment’ and so they are left undisturbed. This applies to the buildings too. Much of what happened here is unknown - kept secret.

MacFarlane (2012) describes their ‘controlled ruination ... when glass shatters or tarmac cracks, it is left unfixed. Rust spreads in maps. Buildings dilapidate. The splintered, the fissile, the ruderal: these are the Ness's textures’. But for Lohoare (Motion, 2007b) the ‘decay is part of the whole philosophy of what’s happening here ... [the buildings] have become symbols of the Cold War in the landscape now rather than actual structures’.

Still the secrets of the Ness will remain hidden. Motion (2007b) reminds us that the decaying buildings are actually hiding the real story, ‘they seem to imply that what they were here to experiment with is also no longer with us’, but of course this cannot be true.



Figure 89 Artefacts and structures amongst the shingle on the AWRE site



Figure 90 View to the lighthouse. In the foreground is the 'Antenna' now destroyed. It is not known exactly when it was built or what it was for (Cocroft and Alexander, 2009)

On the Ness I have seen and imagined the unknowable, secret, hidden, lost, classified, filed away, never spoken of. John Hughes-Wilson, a military historian, believes that 'it may only be our children who find out all the secrets of Orford Ness' (Motion, 2007a). I wonder if by then the secrets will be buried deeper, circular craters all that's left to mark the explosions. Evidence of experiments and bombs hidden beneath the shingle only partially revealed when a wild storm breaks through the spit. But the mysterious stories of the Ness will still be told. And the spoonbills will probably be breeding there.

7.3 A discussion – the temporalities of the past, present and future

7.3.1 Temporal collages and time-layers

Lynch (1972) describes the ways designers might create layers within a landscape in order to make visible past events, referring to this layering as a temporal collage. This terminology is particularly appropriate when describing sites where layers become intermingled as evidenced in the case studies and at Orford Ness. I categorised such landscapes as natural and abstracted palimpsests in Chapter 4. Lynch's term, temporal collage, makes clear that the new elements of the palimpsest can be combined in diverse ways with the old and that there is room for visible juxtapositions and disjunctions between layers as well as continuity. The term time edge is mentioned by Relph (2004) when referring to research carried out by his graduate student. He explains that a time edge occurs when there is a 'abrupt juxtaposition' (Relph, 2004, p.114) between one time period and another, something that he considers to be detrimental to the landscape.

It is clear from my research that nature plays an important part in the creation of temporal collages and time edges and it features time and again in the responses of the interviewees. At Rainham interviewees perceive the temporal collage over a large scale, focusing on the spatial relationship of the nature reserve with the industrialised area. This may be due, in part, to the horizontality of the landscape and the visual permeability of the site and the surrounding area. The Canadian visitor summed up the appropriateness and attraction of this large-scale temporal collage, incorporating as it does the past, present and future of the landscape:

Well I like all diversity, the industry, the marshlands, the former er, London rubbish dump, that's now a green hill, far away. Er, The pylons, it's a real, sort of er, it's a modern snapshot isn't it, of industry and green space.

I showed in Chapter 6 how the materiality of the site impacts on the frame for reading the landscape and it is clear that many of my interviewees' responses

to the temporal qualities also take account of the site's context and its spatial relationships with the surroundings, whilst appreciating the complexity of the relationships between the natural and cultural realms. However at Rainham I found that time edges at the small scale between the military remains and the natural vegetation are rarely noticed. Rather the more common response as I discussed in Chapter 6, is to suggest that the structures and the materials used in the site blend in with their surroundings; their role is secondary in a landscape that is primarily a bird reserve.

In contrast the Filter Beds, however, has many examples of time edges between artefacts, structures, surfaces, new industrial materials, and the vegetation. Far from seeming discordant and out of place (Relph, 2004, p.114), the contrast and inherent tension of these time edges is appreciated by interviewees, and they serve to highlight the processes of change, adding to the complexity of the landscape (Lynch, 1972, p.57). When commenting on the detailed juxtapositions between the ruined structures and the vegetation at the Filter Beds, interviewees are not describing a sense of the passage of time that encourages reflection on mortality, often mentioned in writings on the sublime and picturesque ruin (Roth, 1997a), (Roth, 1997b), (Woodward, 2002a). Nor are they indulging in nostalgia for a lost era (Walsh, 1992) (Edensor, 2005c). Neither is there evidence they are enjoying some form of ruin porn, seeing the decaying structures in terms of their aesthetics with little understanding of their social context and historical background.

Small-scale nature-culture juxtapositions can serve to highlight discontinuity or they can appear to be a natural part of the processes that make up the whole landscape, engendering a sense of continuity. In the former case it is the contrast between the material qualities and the vegetation that is commented on by the interviewees, whilst in the latter there is blurring of the boundary between the natural and the cultural. However in both cases temporality is signalled through a combination of material forms, and interviewees experience a sensual response to these interactions and processes.

In my interlude on Orford Ness I also experienced small and large-scale

juxtapositions, however for me these raised questions about the purpose of the military structures and artefacts. The knowledge that this landscape, the laboratories and other structures were once used for testing nuclear weapons contributes to a sinister reminder of the disjunction between the natural and the cultural.

I discussed in Chapter 2 Dee's (2010, p.28) assertion that 'form has the potential to speak of multiple time frames' and the differences in the rate of change of these forms create tensions that can be exploited by the designer. I suggest that the juxtapositions, both at the small and large scale, are working in this way. It may not have been the designer's intention to create dynamic landscape forms that highlight process, however my research makes clear that 'encounters with ambiguous temporal juxtaposition' (Dee, 2010, p.28) is a pleasurable part of some interviewees' experiences. Interviewees appreciate the relationships between these decaying objects and the agencies of the natural world **in the present** perceived, both in the forms of, and contrasts between, the objects, and in the processes that are taking place between them. The pleasure derived from the action of nature on the material artefacts is much the same as that mentioned by writers describing reactions to the ruin (Edensor, 2005c), (DeSilvey, 2006), (DeSilvey and Edensor, 2012).

I discussed the question of meaning in Chapter 6 and suggested that the chimney at the Hidden Gardens often fails to function as a symbolic expression of the past history of the landscape. However a few interviewees did make reference to the outlines of lost buildings visible on the façade and the changing colours of the brickwork on the chimney and speculated about how these ghostly traces might have been formed. Their perceptions of the juxtapositions and time edges were of a reflective nature and this element was also present in the comments of interviewees about the juxtapositions between, (what are seen as), naturally occurring trees on the mound, and the new landscape, in the form of the xyloteque. As with the other two sites, the time edges appear to add to the complexity of the garden, and the temporal juxtaposition highlights the sense of progress and renewal that some interviewees expressed when discussing the site. The interviewees appear to

perceive the garden in layers rather than as a collage; the design has grown up around the historic artefacts and, in this case, around the natural vegetation.

In Chapter 4 I suggest that the design of the Hidden Gardens references the histories of the site but does not function as a complex palimpsest landscape. However the responses of these few interviewees indicate that I perhaps should partially revise my opinion. Although nature and other natural agencies are not significant elements in the temporal collage, interviewees instead refer to the garden as a whole as a collage of old and new. One of Lynch's (1972) suggestions for incorporating time-layers within a landscape is to deliberately juxtapose 'seemingly disparate elements so that the form and meaning of each is amplified and yet a coherent whole is maintained' (p.173). Although this has been attempted at the Hidden Gardens, I maintain that this approach does not, in this case, achieve the awareness of temporalities that might be expected or intended and I will discuss this in more detail in Chapter 9.

7.3.2 Nature, indeterminacy and control

Interviewees perceive nature as the driving force in the processes at work at Rainham and the Filter Beds, however there is a difference in the way they interpret the relationship between nature and culture. At Rainham the understanding is that the RSPB is controlling the return of the site to how it has always been, or should be, whereas in the Filter Beds it is nature herself that is apparently asserting that control. A count of the occurrences of the words wild and wilderness in the transcriptions showed that these terms were used by half of the interviewees at the Filter Beds but by only one person at Rainham. Interviewees at the Filter Beds value the wildness and heterogeneity of the site, with its temporal collages and time edges, and compare this favourably with the more maintained parks in the surrounding area. The light touch approach to maintenance means that visitors do not always perceive the full extent of the control being taken to ensure that habitats are maintained and the site remains safe. This sense of indeterminacy is a positive one for the interviewees; this is not an 'aesthetically and behaviourally controlled and homogeneous "themed"

environment ... where nothing unpredictable must occur' (Franck and Stevens, 2007, p.3). However the people interviewed were making the choice to visit the Filter Beds and could be expected to be positive in their responses. As one interviewee put it, *if it's not really your heritage it's just a piece of wasteland.*

This perception of indeterminacy and of a loosening of control at the Filter Beds contrasts with the interviewees' perceptions at Rainham, where they are very aware that the site is being managed by the RSPB for particular purposes. Nevertheless there is also the perception that nature can undermine this control; interviewees understand that eventually the military artefacts will disappear, crumbling beneath the force of ever-encroaching natural agencies. They also express an enjoyment in the contrasts and juxtapositions of the surrounding industrial areas with the natural world, as epitomised by the birdlife. Some interviewees in their comments on the wider landscape appreciated this sense of nature in control; they mentioned the reclamation of local landfill sites by nature and told me of the Tilbury Marshes, a nearby brownfield site that supports a mosaic of different habitats. One local resident was eloquent in her defence of nature, and demonstrated her understanding of what could happen if it was allowed to take control:

We had housing development people wanting to come down and build, on all of the grass that's over the back of behind our estate, bordering along the Thames. And they were saying, what would you rather have? ... Big piles of dirt because of what's been dredged up from the Thames for the DP world [the deep water facility being built further down the Thames] or houses that are going to be better to look at. And we said dirt, because that will get taken over by nature. And we'd rather have massive banks of dirt, than houses.

In Chapter 2 I outlined the discourse around brownfield sites and wastelands, and the ways in which these sites are perceived and assessed. Jorgensen and Tylecote (2007, pp.458-9) make a case for valuing interstitial wilderness landscapes in urban environments and suggest that there might be possibilities for creating spaces in cities that 'accommodate the spontaneous development of wild nature'. In a similar vein Beard (2006, pp.6-7) suggests the term 'slack nature' to describe 'those fragments of raw wilderness that were never planted, designed or managed', and yet manage to still exist in the urban landscape, and he calls for such spaces to be valued and incorporated into the fabric of our

urban lives. Jorgensen and Tylecote (2007) suggest that such wastelands are disturbing because it is unclear whether nature or humans are in control. Our personalities may determine the types of landscape we find attractive, an anthropocentric person, preferring to see the hand of humans in control whilst the ecocentric character may find a wasteland more acceptable (De Groot *et al.*, 2011), (Jorgensen and Tylecote, 2007) citing (De Groot and Van Den Born, 2003).

The design and maintenance of the Filter Beds and Rainham Marshes ensure that the ambiguity about whom or what is in control is resolved – they are not now abandoned wastelands – and all the interviewees felt that the level of maintenance and intervention was sufficient. It would seem that both sites, in aspects of their design, enable visitors to engage with the sense of indeterminacy engendered by the interweaving of the natural and the cultural worlds and I will discuss this further in Chapter 9. There is a mutability and a dynamism to these landscapes that the interviewees value. At the Filter Beds this is best seen in the micro, the detail of juxtapositions of brick, concrete and vegetation. At Rainham it is more often observed on a large scale, in the way the landscape forms uneasy links with its surroundings. Saito (2007) suggests that the pleasure we gain from the aging object may be in part due our understanding of the ‘contrast between exerting control and power and letting things and natural processes be’ (p.182). Although Saito does not directly address the question of the attraction engendered by the juxtapositions and entwinings between the natural and cultural worlds, the idea of control is again an important one. The interviewees at Rainham and the Filter Beds enjoy the potential nature has to take over, whether they are watching a kestrel perching briefly on an electricity pylon or observing the roots of a birch slowly merging into a brick wall. However I think Saito’s explanation cannot be directly applied to the interviewees’ experiences as she implies that when we experience the aging object we consciously think about the contrast between human control and letting go. Although some of my interviewees speak about their understanding of what happens when nature takes over, the sense of pleasure this engenders does not appear to be about a conscious weighing up of the two courses of action. Rather it is an enjoyment in the power of nature, in

spite of human endeavours. This experience is much more akin to that of the visitor to a wasteland who is unsure whether nature or humans are in control and yet enjoys that ambiguity (Jorgensen and Tylecote, 2007).

7.3.3 Continuity and naturalness

My results show that across all three sites the concept of the landscape appearing natural is an important one. At the Filter Beds interviewees speak of a timeless quality, of a sense that it has always been there, whilst at the same time suggesting that nature is taking over. At Rainham although the sense is that the landscape is returning to a previous centuries-old state, interviewees also see the changes as part of a continuum; an everyday part of their experience of the temporal landscape collage as it is today. Local people are very familiar with the marshes and with the military presence. Peter Beard (2011) pointed out to me that in the past they could look across the marshes from their homes to the places where they worked, and several interviewees spoke of taking the train across the marsh on their daily commute. Naturalness at the Hidden Gardens is about a sense of things blending in, of not being manufactured. These impressions of naturalness are linked to the sense of the passage of time, and in particular seem to suggest the importance of continuity for the interviewees. Although in all cases interviewees understand that change has taken place and that it will continue to do so, they also have an underlying sense that these changes are part of a natural process.

However the importance placed on continuity does not preclude interviewees also valuing discontinuities and time edges. The juxtapositions, and indeed the blurring, of nature/culture and old/new time edges are particularly important for the complexity they add and, for my interviewees, these relationships do not seem to be counter to the naturalness of the landscape. Lynch (1972, pp.63-4) says, 'the past must be chosen and changed, made in the present. Choosing a past helps us to construct a future'. At the three case study sites the past, in the form of the qualities, and in terms of the narratives told about it, has been changed. It has also, to a certain extent, been chosen. But by whom? Lynch is

discussing how practitioners might include temporal elements within a landscape, and I will discuss this further in Chapter 9. At the three sites, choices have been made by the managers and designers about which elements of the past to save, preserve and renew, and they have also chosen particular narratives to tell about the past, present and future of these landscapes. However I have shown in Chapter 6 and above, that the interviewees also make their own choices about how to understand the past through these qualities. It appears that they use their knowledge and understanding of these landscapes, together with their experiences of other landscapes in the surrounding areas, to construct a past that flows into the present, maintaining for themselves an important sense of continuity. I suggest that this ability of the interviewees to make their own narrative of continuity - in Massey's (2005) terms, to negotiate these interrelationships that contribute to place - highlights that fact that these landscapes are unfixed and unfinished and even unbounded. I discussed in Chapter 2 how Massey's (1999) concepts of time and space lead to this conclusion; if space is the source of multiple new stories it can never be fixed and contained.

The main exceptions to this sense of a natural progression are the interviewees at the Purfleet Heritage Centre, who perceive only discontinuity in the destruction of the military remains when the RSPB took over. This discontinuity informs their stories about the site and they feel so strongly about the changes that took place, that they no longer visit; in effect they refuse to re-negotiate their relationship with the changing site. They too wished for a natural continuity that allowed nature to take a hold, whilst still preserving the buildings and infrastructure, however they did not appear to take account of the responsibilities that the RSPB would face in terms of maintenance and safety if such a course of action were taken.

The sense of natural continuity is different for each interviewee and in some cases the derelict stage in the time-line for the site is seen as a disjunction or discontinuity. For the bird watchers at Rainham, the activities of others on the derelict site made bird watching unpleasant and sometimes dangerous, and the interviewees at the Hidden Garden had no knowledge of the derelict site

behind the Tramway. In fact many saw the period in which the site was transformed from Transport Museum to Arts Centre as a discontinuity; they did not feel that the Tramway catered for their interests and it was only with the opening of the garden that they began to visit the site again. For these interviewees the period of dereliction and/or development is a short detour off the timeline. For others though, the derelict period is a part of the continuum; many bird watchers still went to Rainham Marshes and local people used the site as their playground.

In my reflections on Orford Ness I strive to create a narrative around the clear discontinuities between the natural and cultural landscapes that have evolved over decades. My attempt to bring a sense of continuity to this story leads me to look years, perhaps centuries, into a future when shingle, marsh and water have reclaimed the site. Through my past experiences and general knowledge about the forces of the sea and the weather, and the ways in which it has shaped this particular landscape (acquired through reading the guidebook), I am aware of the ways in which the landscape is ‘in the process of being made’ (Massey, 2005, p.9) and remade, and I speculate on how this might continue into the distant future. As Massey points out ‘space is open ... there are always connections yet to be made, juxtapositions yet to flower into interaction’ (p.11)

At the case study sites some interviewees fear their perceived sense of continuity will be broken in the future, others understand that changes will occur and the material structures and artefacts may become unrecognisable, and yet this progression is accepted as part of the natural continuity. This sense of natural continuity is also expressed through interviewees’ understanding and desire for young people to engage with the site as it is now, sometimes learning from it or taking their own memories from it. It is perhaps the perceived element of naturalness in the processes that created these landscapes that makes the element of indeterminacy an acceptable factor in the ways in which visitors choose to make their own pasts in the present; nature is permitted, or even expected, to be uncertain and unpredictable. The fact that interviewees accommodate this unpredictability of natural processes is a practical example of Massey’s (2005) assertion that we re-negotiate our relationships with places

as they, and we, change. I will return to this connection between indeterminacy and the relations between the human and the non-human in my conclusions in Chapter 9.

Jorgensen and Tylecote (2007) call for a re-evaluation of interstitial wastelands as places that might 're-connect our natural-cultural selves in the context of our urban existence' (p.458). Although the phase two sites examined here are no longer wastelands, the responses of the interviewees demonstrate an awareness and understanding of the interconnections and interrelationships between nature and culture in the city. The narratives they create around the continuities and discontinuities of these relationships seem to indicate that these landscapes do indeed allow for a re-connection and a merging of our natural and cultural selves.

7.4 A discussion - expectations of the future

It has become accepted to talk of landscape as process rather than as fixed and static. Massey (2005, p.12) describes place as a ‘simultaneity of stories-so-far’ and Ingold (2012, p.16) writes of an understanding of landscape as an ‘interweaving of material flows and sensory awareness’. I have shown how the interviewees perceive the temporal qualities of the case study sites as part of a process, and yet the connections they make in these stories-so-far, form a continuum that links their imaginings of past, present and future and allows for a sense of continuity. At these sites it is often nature and the natural that appear to meld together disparate elements of the interviewees’ perceptions of the landscape. Even at the Hidden Gardens, the concept of naturalness, of a place naturally changing, is an important one.

There is a matter-of-factness to many of the interviewees’ responses to the temporal qualities that brings to mind the quotidian mode (Ingold, 2012) for imagining landscapes, discussed in Chapter 6. They talk of the contrasts between old and new, the balance between the natural and the cultural, of the need for maintenance to prevent successional planting completely overtaking the artefacts, of the continuity between past, present and future that has become an accepted part of the landscape, of disjunctions and discontinuities, and of the pleasure to be taken in decaying and disordered objects. There is also an awareness of change and a perception of renewal and future changes yet to come. Yet all of these different ways of perceiving and thinking about the temporal qualities of the site are valued as part of their everyday experiences. The past has become one element ‘of the present landscape, which seamlessly integrates the past within the everyday present’ (Poller, 2012, p.52).

The sense of a temporality in the juxtapositions and intertwinings of the natural and cultural worlds necessarily opens up questions for the future. As I discussed above, interviewees were often inconsistent in their understandings of what might happen to the material artefacts if nature is allowed to take control completely. DeSilvey’s (2012) concept of anticipatory history is

relevant here. She suggests that preserving and conserving artefacts may not always be the best policy, and sometimes they should be left to gradually decay and disappear. This is the approach taken by the National Trust at Orford, however the new owner of the lighthouse refuses to accept such a policy. DeSilvey considers ways in which the history of the landscape or site could be made visible in order to signal possible futures that might include destruction and loss. As I have mentioned above, such an approach at the Filter Beds would result in a completely different landscape; the existing spatial layout of the site, with its raised paths, would render the place unusable if the viability of the walls were undermined, structures would revert to undifferentiated ruined materials, and successional planting would reduce diversity²⁰. This might be seen by some as another stage in the continuum of the story of the site, however interviewees expressed dismay at any suggestion that the Filter Beds could be completely lost.

I will discuss the implications of the anticipatory history approach for practitioners in more detail in Chapter 9. I suggest that the anticipatory history of all three sites is already written in their temporalities, and the interviewees perceive these continuities of past, present and future in the temporal collages. At the Filter Beds and at Rainham the inclusion of the decaying material structures and artefacts in the sites, and the relationships between the artefacts and natural agencies, signal the possibility of change in the future. At the Hidden Gardens it is the sense of renewal from wasteland to garden that suggests future change. Lynch (1972) points out that when designing the temporal collage one must not forget the possibility of new layers and interventions in the landscape, and these ‘signs of the future, as currently interpreted should be part of the collage’ (p.171). In the anticipatory history the signs of the future can be read through the layers of the past and the present. The comments of the garden design student on the photographic walk at Rainham are worth quoting here in full, as they sum up the importance of the temporal collage in these landscapes and touch on many of the comments made by the other interviewees:

rather than trying to change what's there it's actually adding in the best of now. To make it relevant to now you don't try to preserve the old bits in aspic, you look after them, but you also continue to introduce things, that are new, that make it very present. And also mean that future generations don't feel that they've got to treat it like a museum. Erm ... It's that kind of past, present and future. All three of those are equally important. If you do away with one of them, then you lose the kind of integrity of the site, I think.

8. How do the material, spatial and temporal qualities contribute to interviewees' recollections?

8.1 Introduction

The three case study sites take different approaches to the inclusion of material and spatial qualities that might be sources of memories. At Rainham although the preservation and interpretation of history is not the priority for the RSPB, a few of the military remains are retained and there has been some attempt to interpret these with signs and the occasional history walk. Peter Beard, the landscape architect who has designed parts of the Rainham site, acknowledges the history of the landscape in his design approach, as I have shown in Chapter 5, however there is no intention, either on his part or on that of the RSPB, for this to be a historical landscape or as Küchler (1993) would say, a 'landscape of memory'. At the Filter Beds the artefacts and structures are retained in a state of managed decay and as at Rainham there are a few interpretation signs. In contrast with Rainham however, I noted in Chapter 5 how the management of the site attempts to balance the preservation of the industrial remains with the site's new use as a nature reserve. The designers of the Hidden Gardens take a different approach completely from the other two case studies; one in which the history of the site, at least in part, intentionally informs the new design.

As well as differences in the ways the case study sites approach the emplacement of memories, there were also differences in the cohorts of interviewees. I made the decision to concentrate my interviews on people who were visiting the site as part of their everyday life rather than attempting to select people from a range of demographic groups. I explained my reasons for this in Chapter 3 and outlined these differences in detail. At the Hidden Gardens a large proportion of the interviewees were local people, some of whom had known the Tramway when it was the Transport Museum. A second group was younger parents with small children who started coming to the garden when their children were born. At Rainham Marshes there was also a

large group of local people who had known the site when it was occupied by the military and many of these people had used the site during this period and after the military left. In contrast, at the Filter Beds I only interviewed a small number of people who had been brought up in the area and, because secure boundary walls protected the site, no one had visited the site when it was in operation, and few remembered it when it was abandoned.

In this chapter I examine opportunities the qualities of the sites afford for remembering and reminiscing. I outlined in Chapter 2 the body of opinion, both in theory and in practice, that asserts that memories can be emplaced in material objects in the landscape (Boyer, 1996), (Casey, 2000), (Lyndon, 2009), (Sharr, 2010). In the first section below I describe the memories and recollections that the material and spatial qualities of the sites engender and also examine this with reference to the landscapes as a whole. I then look at the concept of embodied memories and ask whether Vergunst's (2012) idea of gestural memory is relevant to these sites. Ruins speak of absences and forgetting and I examine whether these attributes are a part of the case study sites and look at interviewees' responses, and finally I look at the ways visitors use the memories engendered by these landscapes to reflect on the past through the present.

The nature of my research means that it is not possible to comment on truly spontaneous memories; I am asking people questions about their memories and any replies are therefore filtered through a process of reflection. In undertaking a critical realist approach to this research, I am attempting to move closer to an understanding of the case studies through a dialogue between my findings and myself as I discussed in Chapter 3. I thought it would be of value, therefore, to include an interlude that examines my own spontaneous memories. In early 2014 I visited the decommissioned US Military base at Bentwaters in Suffolk. I had no intention during the visit of including the site in this research. However, I decided to record my memories as I experienced them during the visit and these are described at the end of the first section of this chapter.

In the discussion that follows I examine Kuchler's (1993) arguments about the differences between landscapes of memory and landscapes as memory and relate them to the findings for the three case study sites. The former, she suggests, are created for the purpose of remembering whereas the latter are lived-in landscapes that constantly undergo change. Although Kuchler's discussion of these two types of landscape is based around ideas of social rather than individual memory, it is a useful way to differentiate between a landscape where the memorial elements are deliberately inscribed for the purpose of remembering and a changing landscape where memories are individual, random and arbitrary. In my discussion I examine individuals' responses to the intentional emplacing of memories in the landscape and also examine the chance stimulation of memories that might be a result of a sensory interaction with the site and its qualities. I also consider how the emplacing and embodying of memories can contribute to landscapes of memory and landscapes as memory and whether the idea of the counter-monument is a useful concept when discussing these types of landscapes. In the final discussion section I return to the idea of continuity discussed in Chapter 7 and look at how the interviewees' memories can contribute to their sense of the passage of time.

8.2 Interviewees' memories and recollections relating to the material, spatial and temporal qualities

8.2.1 Emplaced memories

I use the term 'emplaced memories' here to describe those memories, recollections and reminiscences that can arise whilst directly experiencing or remembering the landscape as a whole and the material objects within it. The implication of the word 'emplace' is that something is put in place or in position, and this implies intention. However here I use the term to also apply to memories that might occur by chance through the experience of the physical object. I describe these memories in this way to distinguish them from the embodied memories that I discuss in the next section.



Figure 91 Surface at the Filter Beds showing grinding indentations

Several interviewees at the Filter Beds described material qualities that could be considered to be sources of memories about the site's history: the incised grinding lines in one of the surfaces (Fig.91), the rusty holes in the Hackney Henge (Fig.64), the crumbling footprints of the buildings, clasps on the sides of the beds, small sections of lettering, swirls of metallic coloured paint staining the ground. The qualities that appeared to have the potential for conjuring up memories were often those that bore evidence of some form of process having

taken place. The process itself was not understood and the memories were lost; they were someone else's memories and yet they were worthy of comment.

The landscape architecture student pointed to a surface where *something has been dragged along it and so it bears sort of echoes of that* (Fig.91). Similarly at the Hidden Gardens a few interviewees commented on the weathering of the bricks on the chimney and the façade of the Tramway. A musician reflected as we were walking round; *strange, isn't it the way the brick changes...It looks older above. It's looks newer down below....Oh maybe there was a building against it...I wonder if that's what it is. So it was, you know it was exposed to the elements above that point.*

At Rainham Marshes the local people interviewed at the Heritage Centre also described how memories were enmeshed in the material structures and artefacts, however for these interviewees the memories were relived in the stories they told me. This differs from imagined memories that were evoked through perceiving processes at work on the material qualities. One told the story of a disturbed WW2 soldier who started driving a gun carrier in circles until it collided with the wall of one of the military buildings and *just gouged it all away and knocked some of the brickwork out and all the marks were all still there*. The interviewee spoke of his sadness that the physical memory of this event was lost when the building was demolished. Another described how the tanks used to be unloaded at Purfleet Station and how *you can go round there even today and look at the granite kerbstones and you can see lumps knocked out of them where the tanks knocked them*. He also told me of a bomb that had fallen on the marshes and sunk into the ground leaving a depression as evidence of its presence; *where it's gone down it's drawn the earth down with it*.

Interviewees at Rainham Marshes spoke of personal memories of visits to the site when it was in use by the military and when it was abandoned. Sometimes these memories related to structures such as the lookout tower where one bird watcher recollected ringing swallows, the firing range where there was a *little owl ... I think between numbers 5 and 6* and the cordite store where one family picnicked. However it was more often the landscape as a whole, together with

the River Thames, the railway and the A13 that brought back memories of the noise of gunfire, the military presence and of adventures on the site itself including bird watching, racing motorbikes, jumping ditches, fishing, cadging chocolate and chewing gum from the US soldiers, picking up ammunition and the view from the train on the way to work.



Figure 92 The Navigation in the 1950s with the power station on the left and the wall of the Filter Beds in the distance on the right © Interviewee FB21

The two interviewees who had been brought up near the Filter Beds when they were operational, spoke in a similar way to those at Rainham of their memories of the site and its surroundings. The river, the Navigation, the power station and the wall of the Filter Beds were all sources of personal memories. A blogger and retired sign writer vividly described how when he was a boy the boundary wall had been the site for illegal gambling games (Fig.92): *the Spiel was here just behind that corner. I used to sit up on this wall here and get 2 bob a day or a shilling a day to keep a look out for the police.* At the Hidden Gardens it was the Tramway rather than the gardens themselves that was a source of personal memories about the site's past; interviewees spoke of visits they had made to the Transport Museum, of the smell and hanger-like industrial quality of the building that contributed to these memories. A few interviewees also had memories of the Tramway as a theatre, touching on the

idea of the site as derelict. A musician remembered playing in an opera, *it must have been in the winter because I remember the snow coming through a hole in the roof.* An artist, who has an artwork in the gardens, described the building in the early days of its incarnation as a theatre and artspace: *you used to be able to just go in there, there're empty, empty spaces ... and ... a friend of mine put on a large installation performance in one of the end rooms and it was literally an empty, huge empty space, with kind of weeds growing in it.*



Figure 93 The corridor running alongside the former stables

Although it was almost always the building as a whole that inspired these memories there was one part that had become a source of collective rather than personal memory; the shallow ramp that leads to the upper storey of the building. I was told by many interviewees that this ramp was used to take horses up to the stables on the first floor above the industrial workshops (Fig.93). The corridor that ran alongside the stables still exists. The Coplawhill Works opened in 1899, and in 1901 the trams were converted from horse-drawn to electric and yet it is the story of the horses that is remembered by many people. One worker at the Hidden Gardens spoke of visitors to the site saying, *they remember the horses, they remember when there were horse drawn trams and they used to run under the horses,* and yet this cannot possibly be true (Fig.94). A retired man who was interested in the history of the site explained, *my father was ...born in 1916, 1913 something like that. So*

he remembered when he was a boy because, obviously he was a Glaswegian and he stayed round about here most of the time. You know, so he used to tell us about the horses.



Figure 94 Horsedrawn trams at Coplawhill Works, 1890s © CGC CIC Glasgow Museums Collection

In addition to the specific memories that were evoked by the sites and their material qualities, interviewees spoke more generally about the patterns and symbols within the landscape that reminded them of other places. In the case of the Filter Beds it was the temporal processes of decay and ruination that evoked memories of ruined churches and abbeys as well as other abandoned industrial and military sites. The seemingly natural and wild look of the landscape also brought memories of the countryside. More specifically the material artefacts reminded interviewees of other places and times: the Hackney Henge was reminiscent of ancient standing stones; the riveted pipe conjured up ideas of the medieval; the structure and colours of one of the industrial artefacts reminded an interviewee of a Japanese cemetery and the contrast between order and disorder seen in the bricks evoked pebbles on a beach. In contrast the interviewees at Rainham Marshes spoke more generally about how the landscape reminded them of the local area; of other marshes along the Thames Estuary, of landfill and neighbouring industrial sites.

Interviewees when asked about the chimney at the Hidden Gardens spoke of it as a landmark, *just to remember*, and one young unemployed man explained *I'd imagine there were a lot more at one point, probably, so it's nice to have...one*. However as I discussed in Chapter 6, it is not clear that people know the original purpose of the chimney and, if anything, it stands as a general reminder of an industrial age. It is this that the volunteer coordinator I interviewed spoke of when she told me of a young man with learning difficulties who looked at the chimney and *he started talking about Govan Hill and he doesn't live there now but he had all these memories so from looking over and by looking at the chimney he could remember things from his childhood and he was telling me all about this area*.

In a few cases interviewees spoke to me of significant memories that they had emplaced in the site. Obviously there were many memories of past visits and also hopes of good and lasting memories, but these few instances at the Filter Beds were of a more ceremonial nature and were specific to the site. In one instance a father spoke of one section of the site overlooking the river where he had had a naming ceremony for his son, and in another a retired man described the beating the bounds event that he initiated. He and a friend, who I also interviewed, had erected and inscribed a post, made of oak that was more than 450 years old, near the boundary of the London Boroughs of Hackney and Waltham Forest, which runs along the River Lea. The event took place for many years and the oak post had become so important to him that he wanted his ashes scattered there.

8.2.2 Embodying memories

In Chapter 2 I discussed how someone might experience embodied memories through spatial relationships such as when crossing a threshold or remembering and imagining the experiences of others through the ways in which they move around a landscape (Vergunst, 2012). Edensor (2005a) also suggests that the ghosts of the workers might be encountered through bodily interactions in

derelict industrial sites. None of my interviewees spoke about their memories in this way, however their memories were often of their own movements in and through the landscape, and the sensations these engendered. They remembered diving into the Filter Beds, swimming in the river and sliding down the outlet pipes, climbing on the vehicles at the Transport Museum, jumping the ditches at Rainham.

The most distinct memory for many of those I spoke to at Rainham was of how they had accessed the site when it was owned by the MOD. These memories were not evoked by existing material qualities or by a particular section of the site, although they were sometimes emplaced in the memory of the red flag that was raised by the MOD to warn people whenever there was firing on the site (Fig.95). Rather they were expressed as embodied memories and were evoked as soon as I asked them of their memories of the DUN site; *the red flag went up and the people were down here and they were firing every weekend. And erm, if you were standing in the middle sometimes you got one that whizzed past your head.* There was the recollection of the danger of straying into the path of the bullets, the frustration of not being able to start bird watching as the flags were still up and the sense of excitement as they trespassed into the site. *There was one time I did venture over the lagoons when the flag was up and you could hear the odd bullet whistling ... I didn't stay too long ... Even for me I felt quite nervous.* Others spoke of the physical and sensual experience of getting into the site, of how they *used to have to clamber over and creep along the bottom* to avoid being seen and how they *were belly-crawling out through the reeds because you didn't want to stand up in case the red flags were flying. There are some big metal pipes that stick up down there from the early dredging things over there and you'd hear the overshoots pinging off of the metal pipes.*



Figure 95 Danger signs at the Purfleet Heritage Centre salvaged from the former MOD site

8.2.3 Absence and forgetting

Many interviewees spoke of the importance of remembering, of being reminded, and of how material qualities such as the chimney at the Hidden Gardens and the mantlet bank and stop butts at Rainham had a role in this process of remembering. However I discussed in Chapter 6 how such artefacts often go unremarked upon and it is not clear to people exactly what they should be remembering. I mentioned above the sense of loss that some of the interviewees at Rainham Marshes felt when the buildings were demolished and the emplaced memories erased, and these interviewees celebrated the artefacts that they had scrounged, scavenged and saved for the Purfleet Heritage Centre. The overall feeling of the interviewees was that it is necessary to remember the past, as it is a part of our history. An interviewee at Rainham summed this sentiment up:

I think it's nice as well for future generations to know about it. This is where their parents might have grown, or grandparents. It's just part of British history I suppose. Whether you're from here or not. It's nice to see. When you

see somewhere you have far more belief in it, you know ... You relate to it and things like that, you know.

Interviewees also remembered the sites as a whole when they were wasteland; in the case of the Filter Beds and Rainham Marshes, I spoke to several interviewees about the DUN sites and at the Hidden Gardens interviewees remembered other derelict sites when they reflected on the transformation of the garden. I have discussed interviewees' responses to the abandoned sites in some detail in Chapter 6 with reference to creating frames for reading. The few who remembered the Filter Beds described vandalism and destruction and many of the interviewees' memories of Rainham Marshes during this period were of dereliction, danger, fly-tipping and trespassing. Even those who had made alternative uses of the site when it was derelict, remembered that it *started getting used as a dump and things got really bad over there on that side of it ... that's one of the memories. That's modern living. Erm I've got to admit this we were one of the guilty ones.* It was these memories that were re-told when interviewees described the transformation of the sites; the memories of the clean-up operations were emplaced in absent material qualities. These qualities were often seen as polluting; things such as tyres, burnt out motorbikes and spent ammunition. However there were also memories of overgrown vegetation and of the wildlife. The sense was usually of a wasted and problematic landscape, but one that was full of presences rather than absences; interviewees did not speak in terms of forgetting and loss when describing the ruined site but rather saw it as another stage in the history of the site.

However in the sites as they are experienced in the present there were several structures and artefacts that were remembered in their absence; the memories were emplaced in a particular part of the site even though the physical object was no longer there. This was most noticeable in the comments about the empty plinth at the Filter Beds. This large slab of concrete had been the base for a pylon and the memory of the pylon was still writ large in several of the interviewees' minds. A woman walking her dog commented, *there was even outcry at the pylons going because that's also part of industrial heritage, people said aah, leave the pylons, but they didn't, they took 'em.*

Other absences were also noted at the Filter Beds; the canal boater, when talking about a photo he had taken, spoke of the way the *hints of the missing structure, the structure continues in your mind somehow*. The local blogger who played on the river as a child described in detail a missing statue of a woman pouring water from an ewer that used to stand on the side of the Navigation marking the beginning of the Filter Beds:

She was on that point, ... let's have a little look ... Of course she was a local landmark, and ... she was beautiful. A bit diaphanous, as far as I can remember and it was the nearest thing to classical art that we would see around here ... I suppose it was Greek art or whatever they call it ... not an expert at these things. But it was always lovely, we always thought it was nice because the water was coming out, ... that's where she was on that corner there.

I have endeavoured to find pictures or references to this classical woman and have not succeeded although I have found a sculpture of a river god complete with urn that was displayed on top of the Turbine House at the Middlesex Filter Beds (Lea Bridge Heritage, 2012c). This statue, commissioned in 1809, was relocated to the Coppermill Lane Waterworks in 1971 (Public Monuments and Sculpture Association, Not known). I also located a painting by Cyril Mann from 1967 that depicts an empty plinth at the spot indicated by my interviewee (BBC in partnership with Public Catalogues Foundation, 2014).

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At Rainham Marshes and the Hidden Gardens it was the absence of rail and tram tracks that were commented on. A woman employed as a cleaner at the Hidden Gardens was disappointed that the tramtracks and the cobbles had disappeared in the garden when it was still possible to see them in areas outside the ballet school, and a man I interviewed on a walking for health morning at Rainham described in detail how the topography of the site reminded him of the railway: *I'll show where the railway line used to come off the Tilbury line ... up further there was a branch which took the munition trucks into the garrison and there's still some of the concrete abutments left.* Another interviewee described walking round the site with an old friend who had been in the Territorial Army and had been on the site when it was operational: *I think you'll find if you look down on the right hand side [of the boardwalk] ... I mean it's not a railway station, you can see a bit of a platform. 'Cos they used to bring in the ammunition by rail, and that's where it used to come in to.*

I later found more evidence of the branch line that once served the rifle range (Fig.97). I mentioned in Chapter 5 the artworks at Rainham; opposite the mantlet banks on the brick building decorated with these graffiti-like images is an image of a signal box. On the side of the building itself is affixed an old railway sign saying 'Purfleet Riflerange Halt' (Fig.98). This station is shown on old maps of the area and was in fact several hundred metres across the site next to the existing railway (Fig.41). The memory of the station at Purfleet Rifle Range Halt is now emplaced in the simple brick building, but is absent and almost forgotten in its original setting.

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Figure 97 Map from 1930s showing the Purfleet Rifle Range Station and the branch line into the Cordite Store © Crown Copyright and Landmark Information Group Limited 2014. All rights reserved. (1930). An Ordnance Survey/EDINA supplied service



Figure 98 Purfleet Rifle Range Halt

8.2.4 Reflection and memory

Although interviewees did not experience an embodied link with people who had worked on the case study sites as suggested by Vergunst (2012) and Ingold (2012) and discussed in Chapter 2, they did reflect on the experiences of the workers in the light of their present day understanding. At the Hidden Gardens a few of the older interviewees spoke of what it might have been like for

people working in these industries and one elderly woman in particular looked back on those times with reference to her life today.

It reminds you that people worked here and they probably had hard times. You know I always think compared to the people who worked here I have such an affluent life. I can volunteer, volunteering to them would have been unheard of! They'd have thought I was crazy to volunteer. I mean they'd be working from 8 to 8, sort of. Um ... long hours. My father worked on the railway in the 40s, 50s and he was working like 10 hour days, so goodness knows what they were working ... workers then would be paid peanuts and now people coming in and having coffee. I think it's very good to look back and social history and look at the lives people had. It makes you more appreciative of what you've got.

A professional woman in her 40s also reflected on the relationship between the Tramway and Hidden Gardens site and the surrounding area, in particular the links between its industrial history and the history of immigration:

I mean you just think of Glasgow and the shipbuilding and the heavy industries, which are no longer existing and I think it's a really poignant reminder of all of those things. Erm, and you know there's a huge garage just across the way which is a bus depot ... Glasgow had about half a dozen massive bus depots that were all linked and the whole kind of transport system and the transport museum being here, and the traffic levels and, so something about all of that that actually I think resonates with this place ... And there was a high immigrant population where people were enticed to come and drive buses in Scotland, erm, back in the 50s ... it was all heavy industry and none of the men would drive buses. So there was a massive piece of work went on for encouraging people, erm particularly from Pakistan, to come over and drive buses, so a lot of them settled in these areas and surrounding areas.

I have discussed in Chapter 6 how at Rainham Marshes one of the interviewees imagined what life might have been like for the women working in the ammunition and cordite stores. Other interviewees also reflected on the memories that certain structures and artefacts could evoke. The garden design student, after photographing the mantlet bank reflected, *you just think about the people who've been there and used it and hidden under there* and another interviewee described feeling sad when he remembered that many who had undergone rifle training at Rainham did not return from the war.

At the Filter Beds interviewees thought that the workers might feel a sadness that the industry they worked in had gone, and some also expressed a pride in the achievement of maintaining a clean water supply. The photographer told

me that he was *quite proud of my Victorian forefathers, they made a lot of changes, so it's nice to have some respect, or to feel a little bit part of that or to see something they made.* However it was noticeable that at the Filter Beds I almost always had to ask the interviewees specifically about the people who worked there.

At the Hidden Gardens some interviewees also reflected on potential future memories. The cleaner who had brought her sons to the transport museum as children explained, *my boys still when they meet up, this is where they come for coffees ... I think you need landmarks, just to remember, I mean, when I go, my sons are not going to remember the chimney, they're just going to remember the play area and the nice times, the coffee house, as they get older.* A mother of a young child, who was playing as we spoke, also reflected on the future; *he's going to remember the place fondly, and the features that he would remember might be things that he didn't necessarily notice or speak about but, he might say, oh do you remember there was a big chimney in there?*

8.3 ‘My memories at Bentwaters’ – the third interlude

Bentwaters is a former US military base that opened during the Second World War on heathland near Woodbridge in Suffolk. I was taken on a tour of the decommissioned base with a group of about 30, organised as part of the Place – Occupation weekend at Snape Maltings in January 2014. When I visited the site I had no intention of writing this interlude, however shortly after I decided to write an account of my memories of the visit. I include this as the third interlude to demonstrate examples of my spontaneous memories that were part of my experience of the landscape. It is not possible in the interview walk to catch this element of spontaneity but in this interlude, by writing about my own memories, I am able examine the different ways in which they relate to the materiality of a landscape previously unknown to me.

My mind wanders as the tour leader recites all the makes of aircraft that were stationed at the site from 1944 when it opened until its closure in 1993; I imagine the group is divided into those who perhaps could be described as fighter plane enthusiasts and those who are interested in abandoned places. We climb the staircase to the watchtower that overlooks the runway; there are bird droppings and masses of dead flies festooning the cheap laminated tables. The view is not that interesting, but as we are all crammed in the tower I find myself beside a highly varnished wooden table with a glass top beneath which is a circular arrangement of shiny golden bullets. It reminds me of the armouries I have seen as a child, where guns, swords, daggers and knives are arranged on the walls in huge circles; I remember being fascinated at the beauty and yet unsettled, knowing that perhaps I should not be feeling like this. I wanted a sword. I wanted to take one home with me. The thought crossed my mind that perhaps I could take a bullet – of course I didn't, but surely the table had been left behind, forgotten in the dead-fly room because it was unwanted.

From the window I watched a group of men and boys flying large model aeroplanes where once fighter planes took off on their missions.



Figure 99 No-man's land

The coach dropped us further into the site and the security gates opened to let us through into the area where the nuclear warheads were stored. There was a double gate with a control room and a no-man's land in between (Fig.99). Surrounding the area were three layers of barbed wire fences (Fig.100) and apparently the telegraph poles that crisscrossed the site had originally had wires strung across them to prevent helicopter attack from above.

I remind myself to stop photographing and to experience the place; as the first security gate closes and we all wait in the no-man's land, I feel a frisson of excitement – perhaps this is what it was like when you were protecting nuclear warheads.

The bunkers contained the detonators and warheads for the planes that were sited at Greenham Common. How ironic that when I was joining hands around the airbase at Greenham, the nuclear warheads were stored just 20 miles down the road from where I was born and brought up. I remember the day we went to Greenham, men and woman joining hands round the perimeter fence, the feeling that surely together we could make a difference to the world. Now I'm taking photos from inside a similar US base, of barbed wire fences contrasting with the vertical trunks of pine trees.



Figure 100 Barbed wire fences at Bentwaters

Two teenage boys in the group are bored; the cold war probably means little to them. They run up the grassy bank that protects one of the bunkers, but immediately someone in charge shouts for them to come down (Fig.101). I take a photo of the base of the watchtower; the corroded metal plates remind me of the Piazza Metallica at Duisburg Nord (Fig.102). Was there a link between that steelworks and the military or am I imagining this?



Figure 101 Teenagers climbing the mound on top of the bunkers



Figure 102 The underside of the watchtower

Walking along the line of bunkers there are traces of history to be read, but what do they mean? The bunker itself is a Rachael Whiteread, a concrete box in a concrete bunker (Fig.103). Several others are also taking photos of these traces, of decay, of contrasts; perhaps we are the *ruin porn* group.



Figure 103 The concrete bunker that contained the nuclear warheads

When I look at the photo I have taken of the Nato 399 sign I see three black-clad figures in the background; they could almost be guards, they are just lacking the rifles (Fig.104).



Figure 104 Nato 399

We wander through the pines and across the endless tarmac and concrete routes that traverse the site. Again I stop to photograph some concrete blocks and again I have no idea what they were; they have become pleasing forms against a larger landscape of pines and grass (Fig.105). How is it that the grass is so short? Is it mowed or grazed? Surely the rabbits that we spot can't keep it at this length.



Figure 105 Concrete blocks

A man who works on the site tells us that he doesn't think about the past history of the place; that's not what it's about for him. He thinks about the future, about the many films and stunt routines that have been shot here. Someone says they keep expecting to see Private Pike emerging from the trees. Wasn't *Dad's Army* shot in Norfolk? I seem to remember my father telling me that.

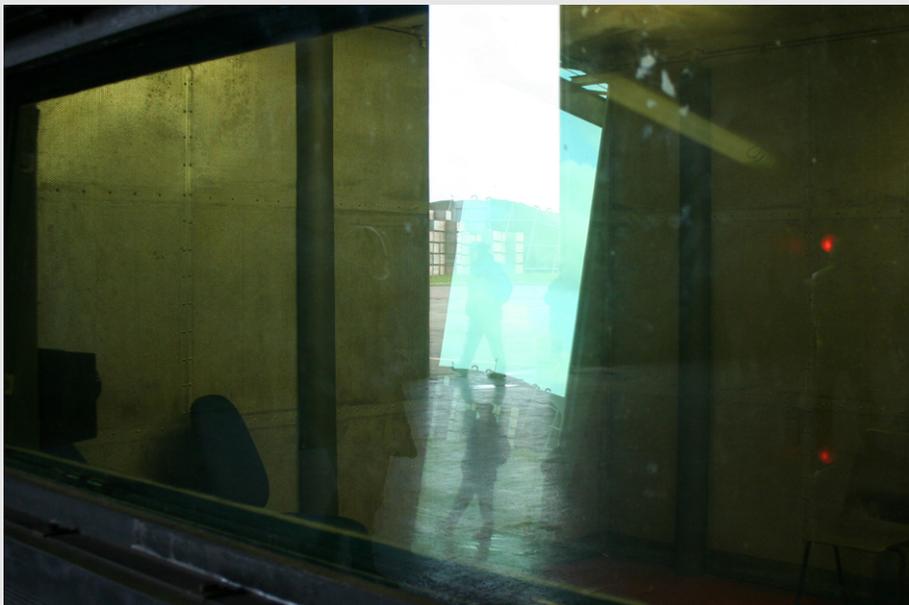


Figure 106 The control room

The hanger for testing engines is dark when we enter. We stand in the control room, peering through the glass, imagining what it could have been like. There

is still an instrument panel there that helps in our imaginings, but no planes, engines or airmen (Fig.106). In the dark we creep around the hanger listening for whispers of the past until dramatically the vast hanger doors are slid open and light floods in, bringing us back to the present.

The view across the site is of flat grass punctuated by the mounds of hangers and tall stacks of crates that are used by the vegetable distribution company (Fig.107). Local farmers bring their potatoes and onions here. We are told that the original owner of the land, before the airfield came here, now owns it again.



Figure 107 The mounds of the hangers and piles of agricultural crates

Outside the perimeter fence is a Norman church. It stands in a ploughed field on its own. The landowner tells us that people are unsure why a church was built there although some think that once it was on the course of a river that has long since diverted south. The memory of the landscape is perhaps written in the worn flints of the church. Apparently only two cottages had to be demolished when the airfield was built. They were right next to the runway.

8.4 A discussion - Landscapes of memory – Landscapes as memory

8.4.1 Memory and materiality

In this section I look at how the material elements in the landscape evoke memories for my interviewees. I mentioned in Chapter 2 that some theorists reject the idea that memories can be emplaced in landscapes or buildings (Forty, 1999), whilst others suggest that particular material forms can be incorporated into designs to evoke collective memories (Lyndon, 2009), (Rossi, 1981). Interviewees speak of memories that are emplaced as part of their experience of the landscape and also of how memories are evoked by material elements within the site as well as the site as a whole. Interviewees remember by recollecting, re-enacting or re-telling events, and such memories encourage the musing on and questioning and referencing of experiences or knowledge in the present. This is suggested by Boyarin (1994, p.22) who explains how memory is ‘a potential for creative collaboration between present consciousness and the experience or expression of the past’, and therefore is something that is lived in the present. It is possible to understand these collaborations in the light of Massey’s (2005) writings; the memories evoked by the material qualities are a part of the multiplicity of stories that make up space and, in forming linkages between these stories, place can be experienced as something specific and special. Massey might question whether memories can be emplaced in material objects to evoke pre-ordained memories, however I suggest that the concept of emplacing memories does not necessarily run counter to her theories. Such memories form one strand in the multiple relationships of space, however, as Massey would contend, and as my research confirms, there is always the understanding that the visitor remains free to make their own connections and tell their own stories.

It would seem therefore that the case study sites are functioning as landscapes as memory rather than landscapes of memory; memories are created over time as part of the lived experience of the landscape. In this respect my research

appears to contradict Millman's (2011) statement that there is only a small window of time when a place might be seen as open to diverse memories before the recognised and agreed story of these memories is written; in fact interviewees' memories seem to be varied and multiple rather than static and singular.

There are several properties of the material qualities that evoke memories. In the case of the Filter Beds it is often processes or actions evidenced in the textures and patinas of the structures and artefacts that suggest forgotten memories and stimulate the interviewees' imaginations. This type of memory emplacement is similar to my experiences of the concrete blocks and the Nato 399 sign at Bentwaters. I have no memories of my own about these artefacts and yet they give the impression that there are stories to be told about them. At Rainham emplaced memories also evoked memories and inspired the re-telling of stories. The material qualities themselves and the topography of the Rainham Marshes site as a whole evoked memories of embodied sensory experiences of past visits - in particular of moving through the landscape. Tilley (2006a, pp.23-24) suggests that we can remember 'in, by and through the body' and it appears that for some interviewees any discussion of memories evoked by the landscape includes the memory of the body's actions within it. Such embodied memories often featured in stories that interviewees told of their childhood or of trespassing on the site when it was operational or derelict. In addition, the recognisable patterns and symbols that interviewees perceived in the material qualities and the landscapes as a whole - such as decaying ruins, industrial materials and natural vegetation - served as reminders of other places and other times. This confirms the findings of Rishbeth and Powell (2013) who suggest that people create layers of memories in landscapes, reminding them of other places they have known, as I discussed in Chapter 2.

These different ways of emplacing and embodying memories in the material and spatial qualities of the site could be seen to confirm Casey's (2000) theories of place and memory. He suggests that places are enclosures for memories, memories that are waiting to be re-remembered. As I indicated in Chapter 2 this conceptualisation of place is problematic, partly because of the

specificity such memories and the intentionality of their emplacement. Boyer (1996), in contrast to Casey, describes memory in the city as being unlocalisable, random and left to chance. However Boyer does suggest that memory can be stimulated by experiences and encounters in the city, and therefore there is an implication that the material is involved in this random encounter. The creative act of remembering can be likened to a process of reflection on past memories that are brought into the present, re-remembered and re-told in new ways and new contexts (Boyer, 1996) (Boyarin, 1994) (Till, 2005) (Crimson, 2005). I suggest that the memories interviewees experienced through the material qualities of the site are in some cases akin to this creative process of remembering. Sometimes interviewees told me stories that they had told many times before; the tales of the interviewees at the Purfleet Heritage Centre are examples of this, as is the story of the horses at the Hidden Gardens. However there are other instances when the stories developed as we talked, with interviewees remembering more details and reflecting on their remembering, and thus re-making the past in the present. As Tilley (2006a) says ‘whatever we remember, and the manner in which we remember, we get a different past, a different sense of place, and a different landscape every time’ (p.29).

These diverse memories and the multiple ways in which the interviewees experience them suggest the sites are landscapes as memory (Küchler, 1993). However the Hidden Gardens also aims to be a landscape of memory, where designers have utilised the idea of the palimpsest or sedimentary landscape in their inclusion of the material qualities and also to make reference to previous uses of the site in more abstract ways as I noted in Chapter 5. The spatial arrangement of the rows of trees on the western boundary relates to the nursery, which occupied the site prior to the development of the Tramcar works, although this historical reference was not mentioned by any of my interviewees. The layering of the material structures into the landscape appears to have been slightly more successful in signalling the history of the site; the interviewees see the material qualities as important reminders or landmarks. Nevertheless, it was often necessary for me to specifically ask about the chimney and the other artefacts, almost as if they were so familiar, they did not

require comment. It is clear that the Hidden Gardens does not in any traditional sense provide an official linear historical narrative (Boyer, 1996), and there was no intention or desire that it should. However Boyer (1996) shows how, more recently, a post-modern approach to art and architecture differs from this linear approach by creating ‘images and artefacts bear[ing] the record of the past; they either speak their historical role or relay memories to the present’ (p.67). For my interviewees at the Hidden Gardens this rarely happens and the memories that do arise do not appear to be connected with the material qualities of the gardens, but rather with the Tramway itself and the memory of their past experiences and sensations within the building.

This draws into question the design approach that attempts to create strata or layers that make visible the signs of past histories (Lynch, 1972, pp.168-171). I suggest that the creation of the Hidden Gardens as a landscape of memory (Küchler, 1993) has been only marginally successful. The idea of the site as landscape as memory is perhaps more appropriate; for the people who knew the site and had visited when it was a Transport Museum, there was a sense of continuity that was engendered through remembering, as I discuss below. In addition new memories were connected with the experience of being and playing in the garden as a whole rather than through specific engagement with the qualities of the site.

Nevertheless, one element of the history of the Tramway has become part of a collective memory for many of my interviewees and this is the story of the horses. I mentioned above how the official history acknowledges the horses as a small part of the overall story of the Tramway, however in the memories of my interviewees they have taken on a greater significance than their historical role would warrant and the interviewees’ understanding of the part the horses played in the history of Glasgow’s trams is perhaps overstated and at times incorrect. These inaccuracies emphasise the difficulties of intentionally emplacing predetermined memories. Nevertheless it is clear that memory of the horses is emplaced in the ramp and, to a lesser extent, the former stables, and that these material structures form an important element when reinventing and retelling the story.

8.4.2 The monument, the ruin and forgetting

A monument is traditionally understood to be an *aide memoire*, forming part of a landscape of memory; it is erected to serve a specific purpose in remembrance of a defined historical event. A ruin can also be understood as something that might prevent us forgetting, however the difference between the ruin and the monument is the process of change. The ruin is constantly changing as it decays and eventually it may disappear completely, whilst the monument is static and unchanging and thus paradoxically it too is in danger of becoming invisible. It is for this reason that the concept of the counter-monument was conceived, as I discussed in Chapter 2. My research results appear to show that the chimney at the Hidden Gardens acts in a similar way to the monument; it is relatively unnoticed. In contrast, the Filter Beds and its structures, surfaces and artefacts more closely resemble the changing ruin and can act as counter-monuments where interviewees engage with multiple and diverse personal memories (Stevens *et al.*, 2012). As DeSilvey says, the forgetting brought on by decay allows for a different form of recollection' (2006, p.328); through perceiving the decaying object we can reflect on its history and also imagine possible futures, as the object continues to decay and vanishes.

Interviewees at the Filter Beds speak of the decaying material qualities as sources of memories about the past, however there is a sense that they are distanced from these memories, they can only imagine the uses of the artefacts and the people who worked there. As I mentioned above these interviewees did not have access to the site when it was working or when abandoned, with the result that the memories of absences are more romanticised than those of the interviewees at the other case study sites. The sense of being distanced from the past is discussed by Lowenthal (1985) (Lowenthal, 1996). He suggests that the past is necessarily 'other' from our present day experiences and knowledge and that it is this sense of difference that marks our understanding of history. The alternative is the memorial approach that asserts that the only way we can

understand people from the past is through the knowledge and understanding of others and ourselves in the present (Feeley-Harnik, 1996). There is a sense that for some of the interviewees at the Filter Beds, the past is something separate and other, and as I have shown in Chapter 6, they see in the decaying material qualities, multiple ways of imagining this past in the present. In contrast at Rainham Marshes and the Hidden Gardens, the interviewees are reflective about the people who have worked on the sites and also about the materiality of the derelict landscapes. These absences were, for some, very present in the everyday landscape that surrounded them and they were eager to talk of their memories.

My results also show that specific absences produce memories, and in some cases material structures and the physical attributes of the landscape can 'emplace' an absence. This was evident in the comments interviewees at the Filter Beds made about the empty plinth and the missing pylon, and the patch of land where once the lost river god or goddess was sited, whereas at Rainham it was the topography of the landscape that reminded one interviewee of the absent railway lines. The memories remain emplaced in the landscape even though the physical objects are long gone. However these memories are ephemeral and will be lost completely when the people who remember are gone. They will be replaced by other memories; the plinth without the pylon has already become a place to sit and chat. The Purfleet Rifle Range Halt station is commemorated on a non-descript brick building that long ago lost any evidence of its previous use. I have also shown how memories prompted by absences might change and take on new forms; the river god or goddess is one example of an individual's memory that may or may not have become modified over time, and the story of the horses at the Hidden Garden demonstrates how collective memories emplaced in the ramp, can embrace inaccuracies that serve to make the story more attractive. I wonder how the story of the Purfleet Rifle Range station might be told in the future? Memories change as they are re-remembered and can become fluid and adaptable, particularly when they are evoked by absences. Interviewees' past experiences, knowledge and imagination inform the process of memory; I may never be

sure whether the statue my interviewee described in such detail was in fact a classical figure of a woman or a river god.

As with the emplacing of memories, there is a difference between intention and chance. The designers' intention at the Hidden Gardens was partly to create a landscape of memory and the chimney is incorporated as a landmark and a symbol of the industrial history of the site. However even if there is the intention to produce a landscape of memory, it appears that people create their own landscapes as memory. Boyer (1996) describes the difference between history and memory thus; 'history always stands against memory, the one as a constructed or recomposed artifice, the other a lived and moving expression' (p.69). The inclusion of historical layers in the Hidden Gardens to create a landscape of memory has, to a certain extent, worked against the remembering of the past and instead the landscape has become a landscape as memory, a 'lived and moving expression' (p.69) of memories, unpredictable and contradictory, and yet part of the encounter and the relationship between person and place (Boyer, 1996).

8.4.3 Memories and continuity

I discussed in Chapter 7 how an understanding of continuity plays an important role in interviewees' experiences of the case study sites. There is evidence that memories also contribute to the sense of continuity. Interviewees create, and emplace memories, for re-remembering in the future; I mentioned the naming ceremony and the beating the bounds event at the Filter Beds as two examples of memories contributing to the importance place has for the individual.

A sense of continuity is also evident in the ways interviewees reflect on the past through their understanding of the present, and make connections between their memories, the stories told about the past, and their knowledge of life today. This is particularly noticeable in the interviewees' responses to the Hidden Gardens and the Tramway, and may be due to the fact that many of my interviewees were local residents and remembered the site when it was the

Transport Museum. In some cases their parents had worked in similar industries so they had an indirect connection with the history of the site. These interviewees attempt to understand the past through their knowledge of themselves and others in the present, however they also see the past as different and separate from themselves and they reflect on these differences. The past is not a foreign country (Lowenthal, 1996), completely distanced from their present lives, but it is something different that they then attempt to accommodate in the here and now. In Chapter 2 I discussed how Massey (2005) incorporates continuity into her conceptualisation of space and place as the continuing accumulation of experiences as one returns to a place over and over again. For my interviewees, the memories that are told and re-told, recalled and reflected upon, contribute to this sense of continuity. The differences they perceive between themselves and people from the past histories of the site are another aspect of their experience of the site; their negotiation between the different relationships and linkages that go to make up place (Massey, 2005).

As with the emplacing of memories and of absences, the sense of continuity achieved through memories, is part of a landscape as memory. I discussed in Chapter 2 how some designers (Lyndon, 2009) assert that certain universal stabilising forms and structures can serve as centering elements in people's understandings of the landscape. I suggest that my case studies show that rather than a formal structure being the stabilising element to the design, the centering element and the sense of continuity is in the mind of the visitor; it is created through their knowledge, experience and memories. I observed this on a personal level in my interlude at Bentwaters. In effect my interviewees' memories, and my own, become one factor in the frame for reading the site, an aspect I discussed in detail in Chapter 6. If we are able to create this sense of continuity for ourselves then is it possible that designed landscapes can present new and exciting aspects that challenge this understanding, creating opportunities for experiencing unpredictable and chance memories? I will discuss this in the next chapter.

PART 4 – LANDSCAPES, THEORY AND PRACTICE

9. Conclusion

9.1 Introduction

It was my interest in DUN landscapes and the discourses that surrounded them that first inspired me to undertake this research. There was a developing body of literature that described interactions with these sites, much of it concentrating on theoretical or aestheticised concepts. In parallel with this academic and popular focus directed at the derelict site and wasteland there was the desire of the Labour, and then the Coalition, Governments to maximise the land available for house building, and brownfield sites were the land of choice. Also of interest to me was the broad definition of landscape in the European Landscape Convention (Council of Europe, 2000), making clear that former industrial and military sites could be considered as having cultural value to local communities.

I was interested in exploring whether the aspects of these sites that were capturing the attention of academics could be incorporated into developed landscapes. I defined these aspects of the DUN site as qualities. I found little research into users' perceptions of these landscapes and it was this that led me to propose examining how users of the developed sites responded to the elements of pastness in the landscape. However it was also important to me that I grounded my research in landscape architectural discourse and practice. My intention was provide information that could be used by professionals working in this field.

My in-depth study of the wide range of literature that could be brought to bear on this subject emphasised its multidisciplinary nature; I examined the writings of social scientists, anthropologists, philosophers, planners, geographers, environmental aestheticists and landscape archaeologists and explored the

relationships between theoretical concepts in these fields and landscape architectural theory.

I defined the aims of my research as, in the first place to:

- Provide practical information of use to landscape professionals with an interest in the design and development of DUN sites.
- Show how users of such sites might respond to particular approaches taken to landscape change.

And in the second place to:

- Draw together the multidisciplinary theory in this field in order to contribute to landscape architectural discourse.

In this final chapter I summarise my key findings and draw together the multiple areas of discussion that have run through this thesis. I examine the implications of these findings with reference to the underlying aims of my research and the detailed research questions.

9.2 Key findings

In phase one of my research I examined 15 case study sites to explore how practitioners approached the pastness of the DUN site. The research questions that evolved from my study of the literature were:

- What qualities of DUN sites do designers and landscape architects use when developing the site as public open space?
- What approaches do design professionals take to the inclusion in the developed site of these qualities?
- How do these sites approach the management of change?

In answer to the first question I produced a typology of qualities - material, spatial and temporal - that designers incorporated into the developed site. Material qualities included structures, footprints, relics, artefacts, tracks and surfaces. Spatial qualities were closely linked with the material and covered areas such as topography and landform, enclosure and permeability, as well as the spatial relationships the visitor made both within the site and with the surroundings. Temporal qualities included processes such as decay and ruination with the resulting textures and patinas, rhythms of change, discontinuities, the juxtaposition of time layers, possibilities for recollection and expectations of future change.

Designers incorporated these qualities in a range of ways often using several approaches in one site. These included:

- Using symbols and metaphors to reference past use
- Using material and spatial forms such as decaying artefacts, slag heaps and successional vegetation to make processes visible
- Creating natural and abstracted palimpsests by using time layers and time edges to allude to the pastness of the site

- Using a relationship approach to the layout of the site to reveal the time layers and the connections between past and present, the site and the surroundings, the visitor and the site

I also found that a range of approaches was taken to the management of the material and spatial qualities and I called these: stasis, arrested decay, managed decay and complete decay (Fig.18). I demonstrated the relationship between the management of the decay of the qualities and the decisions taken about the planting design and vegetation growth (Fig.26). Projects towards the managed decay end of the spectrum usually included planting for habitats and successional vegetation. The converse was not always true, however often sites with qualities managed for stasis and arrested decay took a more traditional or naturalistic approach to planting design.

In phase 2 of my research I selected three sites and focused on the users' responses to and understanding of these landscapes. Again my research questions were finalised after extensive background reading from a wide range of disciplines, and were as follows:

- How do users of the developed DUN sites perceive and respond to the material, spatial and temporal qualities when they are incorporated into the new landscape?
- How do users perceive change and continuity in these sites?
- How do users attempt to understand these landscapes and landscape change?

My key findings are summarised here and I discuss the implications in more detail below.

- A few of the research participants had a detailed historical understanding of the site and many had a little knowledge of how the site had operated before becoming derelict. Their interest in the pastness of the site was demonstrated in their responses which were

multiple, diverse and contingent, and sometimes unpredictable and changeable. The ways the qualities were incorporated and the ways in which the participants were able to engage with them affected their responses. The creation of palimpsest landscapes combined with the extended relationship approach could leave the way open for individuals to experience a diverse range of responses.

- Participants used their knowledge and past experiences of this and other sites as conceptualising structures to form part of their frames for reading the landscape. The connections between the visitor, the site, the qualities and the surroundings were important factors in creating these frames for reading.
- Participants created narratives that gave a sense of continuity to their understandings of the site and contributed to a sense of the passage of time. This sense of continuity was influenced by a complex set of interrelations between the visitor, the site, the surroundings, memories and prior knowledge.
- The light touch approach or the concept of ‘do little’ made the site appear as if it had developed naturally. This sense of a natural progression contributed to an individual’s sense of continuity and sometimes resulted in quotidian or matter-of-fact responses to the qualities of the site whereby the past merged into the everyday present.

In Chapter 2 I explained how Government planning policies affected DUN sites and suggested that when implementing these policies the significance of these sites for local people may be underestimated. Often sites are described as a blight on the area and regeneration - sometimes accompanied by the erasure of historical elements in the derelict landscape - is advocated as the solution. My research shows that the assumption within this policy, namely that DUN landscapes are of no value (unless they can be shown to be of ‘high environmental value’ (Department for Communities and Local Government,

2012, p.26)) is far from the case. Although I am not examining participants' responses to the derelict sites themselves, my findings demonstrate the importance given to elements of pastness that are found in these landscapes and incorporated into the developed site. Below I discuss in detail the diverse ways participants responded to these historical elements and it is clear, I suggest, that there is a case for considering as part of the planning process both the historic and the environmental value the DUN landscape might have for local people. Such a move would be in line with the principles of the European Landscape Convention (Council of Europe, 2000) that stress how everyday landscapes can form part of the local heritage and contribute to people's sense of identity.

9.3 Practical implications of this research for designers of DUN sites

I took the decision early in the research process, as I discussed in Chapter 2, to consider literature from a wide range on disciplines. I have attempted in the preceding chapters to show how these various texts have proved useful in my research and in particular to draw links between these disciplines and theory in landscape architecture. In this chapter I seek to reinforce these links within a discussion of the practical implications of my research for designers of DUN sites. I referred to Massey's (2005) theories at points in the research process and the diverse and sometimes unpredictable nature of the participants' responses to the research sites supports my suggestion in Chapter 2 that her theories of place, space and time can provide a conceptual framework for landscape architectural discourse in this field. Her assertion that place is a random selection of stories thrown together and involves experiences (negotiations) between the human and the non-human, is borne out in my findings. However the challenge for landscape architects, set by both Massey and my research findings, is to create places that are open to different understandings, unfixed and unfinished. Often a designer's brief requires the opposite; defined control, order and containment. I suggest that an awareness of Massey's position with regard to the exclusions brought about by fixing meaning within place can inform the understanding designers bring to these challenges.

However I have shown how the official narrative is sometimes only one strand of an interviewee's understanding as they seek to make sense of the landscape in the light of their present perceptions and their prior knowledge and experiences. As Treib (2002) (2011) points out there can be no assumption that the landscape will be read in the same way by everyone; what may be perceived as everyday and matter-of-fact by one may be seen as unique and marvellous by another. If Massey (2005) defines space as the possibility of stories or the 'simultaneity of stories-so-far' (p.130), and place as one collection of these stories, then the question must arise; are designers creating

spaces or places. I suggest that during the design process in undertaking their own negotiation with layers and linkages both locally and in the wider landscape, designers are creating their own understanding of a place. However in doing so they are also adding to the multiplicity of stories that comprise space and it is from these that individuals can, and do, negotiate their own places. Thus the resulting landscape design contributes to Massey's 'stories-so-far' (2005, p.130) and becomes part of a new specificity. The very fact that individuals have a range of responses can be seen as an invitation to the designer to create places that are open to these multiple understandings rather than designing easily understood and homogeneous landscapes. Rather than creating landscapes that smooth over or deny difference they can create openings for imagination and memory. In creating or permitting the possibility of change, of chance encounters and interactions, the designer is leaving the way open for the individual to engage with their own collection of stories.

I have shown how an understanding of these former DUN landscapes is always contextual and therefore experiences can change as the relationships change or as other and different relationships become part of the story. I found evidence of these relations at small and large scales, within and beyond the site and between the natural and the cultural, the human and the non-human. Massey (2005) asserts that space is a set of interrelations and interactions and it is the specificity of these that creates a sense of place and my findings suggested that it is also the specificity of these interactions that contributed to participants' frames for reading and sense of continuity.

However, the challenge of Massey's theories is to envisage how material places might be actually be designed and yet be always changing and never completed. Designers talk of process and event and yet it is not always clear what this means to the individual experiencing the landscape. My research demonstrates the connections between Massey's writings and Dee's (2010) call for an approach to design that considers the **material** forms in ways that make evident the **temporalities** of the landscape, and shows how valid this approach can be for visitors to these sites²¹. In examining the responses to the material and spatial qualities of the DUN sites I have demonstrated the significance of

these forms to the understanding of temporalities and shown the importance of context in these interrelations. Although it is often the case that meaning develops over time as Corner (2002, p.148) and Treib (2002, p.99) assert I have found that this is not necessarily a linear development. Individuals create narratives that make sense of the passage of time in the landscape and relate this to their own experiences. However the fact that frames for reading are composed of complex interrelations of understanding suggests that meanings are contingent and changing and may be part of a one-off event as well as the accretion of many layers of experience.

9.3.1 Designing DUN sites

9.3.1.1 Using materials as symbols of past use

In Chapter 4 I examined the ways in which designers used materials, both new and recycled, as symbols of the past use of the site. At its simplest, structures or artefacts are designed as focal points and materials are also repurposed as artworks such as the Hackney Henge at the Filter Beds and the dragonfly sculptures at Rainham Marshes. An industrial palette of new materials is utilised by designers to signal the past use of the site and may also create links with continuing industrialisation in the surrounding landscape. More complex symbols are designed using new materials to create integral parts of the new design, such as the walkway that resembles a rail track at Südgelände (Fig.149) and the concrete sections of paving, also reminiscent of tracks, on the High Line (Fig.140).

It is evident from my research that if a designer is aiming to make reference to the past history of the site through the incorporation of material symbols they need to be aware that the effectiveness of this approach is limited. The use of an industrial palette of materials, the recycling of materials into new features and the incorporation of artefacts as symbols do not on their own necessarily signal the pastness of the site to the visitor²². It appears that these symbols merge into and become an accepted part of the new site rather than standing

out as a contrasting time layer. It was also noticeable that the symbol of the chimney failed to give any idea of the scale of the industrial landscape prior to its dereliction. This was in contrast with comments from interviewees about the boundary wall at the Filter Beds and the Tramway building itself, both of which signalled that something important had once happened here. However there are significant exceptions; as might be expected the interviewees' prior knowledge impacted on their responses to these symbolic references and those with an art and design background had more appreciation of the meaning behind the inclusion of the materials. Responses to the Hackney Henge were also more varied and I suggest that in this case the physical interaction between the materials and the visitors encouraged a questioning and imaginative response that was not evident in the case of the Rainham sculptures.



Figure 108 Children playing on the Hackney Henge at the Middlesex Filter Beds

9.3.1.2 Creating palimpsest landscapes through processes and retained material and spatial qualities

In both the phase 1 and 2 sites designers integrate the material, spatial and temporal qualities of the DUN site as time layers within the new landscape where they function as *aides memoires* rather than as symbols of the past history of the site. They are to be seen for themselves and for what they are now and how they relate to other layers within the landscape rather than as a

stand-in for something more that has now gone. This is not to say that they are not reminders of the site's history, but it is their very incompleteness that leaves the way open for many possible interpretations. In this way they differ from the traditional heritage landscape where artefacts are on display in ways designed to convey a particular aspect of the site's history. Woodward (2012, p.26) suggests that juxtapositions between time layers are necessary for the visitor to have an aesthetic appreciation of decay and dereliction. Designers working with these landscapes to create natural or abstracted palimpsests can emphasise and exploit these juxtapositions to enhance the aesthetic appearance and to create tensions, contrasts and disjunctions. However the palimpsest landscapes that I discuss in this thesis are also landscapes where choices have been made about what to keep and what to destroy and therefore there is an element of control in the display of pastness. Contamination, health and safety and financial issues all play a part in these decisions. I also discussed in Chapter 6 the ways in which layers within the palimpsest can be utilised by different interest groups to foreground differing understandings of a site's history and to close down others. In Chapter 4 I pointed out layers of meaning in the history of Duisburg Nord – the use of Jewish labour during the war - that are buried and remain unmentioned in most discussions about the site.

I described how some designers of the phase 1 sites incorporate the existing material forms and the spatial layouts of the DUN site into the design in ways that draw attention to the histories of the landscape. Designers at sites such as Ballast Point Park and Duisburg Nord create abstracted palimpsests that subvert the material qualities of the DUN site to create new interventions and temporalities, and these juxtapositions, or time edges between the old, the new and the invented are made explicit. The relationship approach, discussed below, attempts to make the visitor very aware of these disjunctions.

These abstracted palimpsests differ from the light touch interventions evident at Cockatoo Island, Carl Alexander Park and the Filter Beds and Rainham Marshes. In Chapter 4 I called this approach a natural palimpsest, where the material qualities of the site remain as a time layer within the new design and in time may become engulfed with vegetation and fall into partial dereliction. I

have shown in Chapters 6, 7 and 8 that there are differences between the ways in which these natural palimpsests are perceived and I have suggested reasons for these differences: the demographics of the interviewees; the size and visual permeability of the site; the purpose for which the site is intended; the familiarity visitors have with the landscape. However I also suggest that the ways in which visitors can engage with the artefacts is a factor in their differing responses. At the Filter Beds there is the opportunity for embodied engagement, visitors can walk, run and play on the artefacts, they can experience them sensually with little interference or control. The range of responses to this form of engagement was considerably more varied and diverse than at Rainham Marshes where the artefacts are in the main separated from the public.

However this does not mean that the interviewees did not engage with the palimpsest landscape at Rainham in other ways. Beard (2011) makes a deliberate decision to leave the derelict artefacts to 'get on with what they do' whilst making subtle interventions, or 'gestures', in other parts of the site. The outcome of this light touch approach is that the juxtapositions of new interventions, ruined structures and the surrounding landscape appear unplanned and arbitrary - sometimes even serendipitous as for example when a bird alights momentarily on a section of metal handrail. In much the same way as the design of the Filter Beds has left traces and artefacts to be stumbled upon, at Rainham these juxtapositions are also encountered by chance and will change with each visit.

In Chapter 4 I described how at sites such as Vintondale time layers are designed to highlight processes through the incorporation of material forms that create metaphorical reminders of the past uses of the landscape. In phase 2, interviewees were aware of the passage of time at all three sites and this was particularly manifested in terms of renewal. At the Filter Beds this is evident in the interviewees' perception and understanding of the processes of 'nature taking back'. At the Hidden Gardens and Rainham Marshes the concept of renewal arises from an understanding that the sites have been in some ways saved from their derelict state and become something new. This belief is

informed by the interviewees' prior knowledge and experiences of specific and generic wastelands. The complex personal time layers formed by these processes - or temporal qualities - combined with the prior knowledge, memories and experiences of the interviewees contribute to the ways in which they make sense of the new landscape.



Figure 109 The filter bed walls in a state of managed decay

Finally I turn to the emplacing of memories within the time layers of the palimpsest landscape. This is not something that I discussed in Chapter 4, except in terms of the artefacts themselves acting as *aides memoires* of the history of the site. In Chapter 8 I examined in detail the complexities of the relationship between these landscapes and memory. It is clear from my results that memories are usually personal and contingent and sometimes unpredictable. It is for these reasons that I suggest that designers face challenges if they intentionally attempt to create palimpsest landscapes of memory. The Hidden Gardens is such a landscape and yet the memories that I discussed with my interviewees only rarely related to the garden as a whole, or to the elements of the garden that might be expected. However there is evidence that some memories do become emplaced in material qualities and

can become part of a narrative that is told by many visitors to the site. I am thinking here of the story of the horses and the very visible ramp and stable corridor that remain as part of the Tramway building. As I discussed in Chapter 8, whatever the original intention of leaving these emplaced memories in the building, the resulting story of the horses appears has taken on life of its own.

However more often memories come about as a result of chance interactions and experiences. They are sometimes emplaced in particular material qualities, sometimes in absences and they are more often engendered in discussions of the site as a whole or in the embodied experience of being in the landscape. Therefore it is questionable whether designers should seek to create time layers with the intention of conjuring up predetermined memories. If landscapes can be designed to remain open for visitors to encounter memories by chance, to create imaginary pasts or to emplace their own memories to be re-remembered on another visit, then the possibility is there for these sites to become landscapes as memory rather than of memory (Küchler, 1993). Whatever the intention of designers and developers, memory is best understood, as Boyarin (1994, p.22) says, as ‘a potential for creative collaboration between present consciousness and the experience or expression of the past’. This understanding seems to me to be the best way of thinking about landscape and memory. The designer by making the past accessible through time layers and by ensuring there is the possibility of engaging with these landscape elements - in effect making chance possible - can leave the way open for a ‘creative collaboration’ that might result in multiple unpredictable memories.

9.3.1.3 Taking the extended relationship approach

In Chapter 4 I discussed how some designers have taken a relationship approach (Raxworthy, 2008) to the design of DUN sites and I suggested that this approach is a useful one when considering the design of the Filter Beds and Rainham Marshes. At the Filter Beds the spatial layout and material forms of the site allow visitors access whilst maintaining some separation between them and the sensitive habitats in the beds. The enclosed nature of the site and the fact that it cannot be viewed as a whole but has to be walked around to be

fully experienced engenders a sense of mystery and discovery, and allows the visitor to stumble upon things and question their purpose. Time layers and time edges are also encountered in this way, not fully visible from the start but exposed whilst exploring. There are small-scale juxtapositions between vegetation and artefacts and larger scale contrasts between the site and its surroundings. The wider landscape becomes more important as the leaves fall from the trees and boundaries become more visually permeable with the result that the river, former power station and the industrial site on the far bank of the Lea can be seen. However these juxtapositions are never completely forgotten whatever the season, the sounds are always present as a reminder.

The design of Rainham Marshes also brings the visitor alongside the time layers in the landscape but as I have mentioned above, prevents much direct engagement with the artefacts. This landscape is very different from the Filter Beds, it is a horizontal estuarine landscape and most of it can be seen as one panoramic vista from the visitor centre and from the A13 and the CTRL. However this very horizontality helps the low buildings and structures to merge with their environment and at times the visitor can be completely unaware of the military remains amongst the reeds until the path veers in their direction and they become part of their peripheral vision. It is perhaps because of this that visitors talk of the materials blending in with their surroundings. Even Beard's seemingly dramatic intervention of using three rusty shipping containers as an education centre does not perturb the watery blending-blurring nature of this landscape.



Figure 110 A view from the Visitors' Centre at Rainham

My findings suggest that it is not sufficient to merely put the visitor into a visual relationship with the landscape, something more is needed if they are to fully experience the layers of change. At Rainham Beard has not focused on pointing out the obvious time layers in this landscape; his paths and boardwalks are not designed to guide the eye to military artefacts as focal points. Instead the relationship approach draws attention to the small and large-scale juxtapositions and connections both inside and outside the site. There is no attempt to hide the industrial buildings, landfill site and transport infrastructure. The directional emphasis of the boardwalks running through the reedbeds allows the visitor to both get up close to the immediate landscape and to be constantly aware of the wider environment beyond the site with all its own merging time layers. Visitors talk not only of the small-scale juxtapositions between new and old, industrial and military but also of connections and interrelations between this site and others, with the immediate wider landscape and with other landscapes in Essex and London. To my mind Beard also points to a future – one long boardwalk takes the eye outside the site to the wind turbines on the horizon.

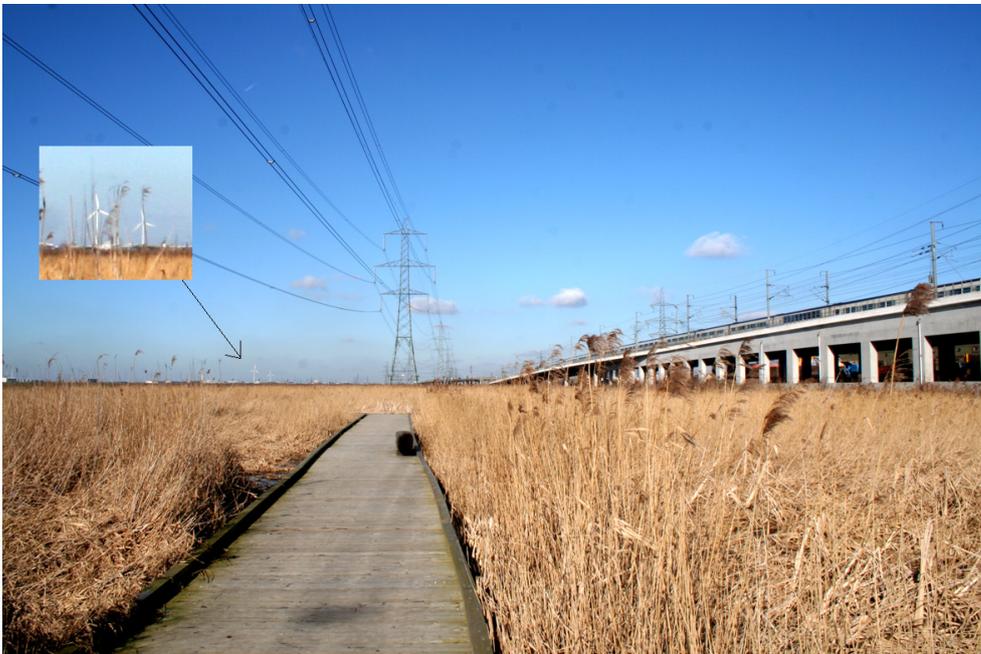


Figure 111 The view of the wind turbines on the horizon at Rainham Marshes

My findings confirm that Raxworthy's (2008) concept of a relationship approach to design is a valid one for drawing attention to the pastness of the

landscape and is especially effective when considered in combination with the creation of natural and abstracted palimpsests. I also suggest that Massey's theories of place and space have relevance when understanding and employing the relationship approach. She stresses the importance of linkages on a local and global scale and challenges the individual to negotiate their relationships with others and with the non-human. The relationship approach, as I discuss it here, draws attention to change and the pastness of place and I have shown how it assists, or encourages, negotiation in the present between the individual and their perceptions, memories and understanding of the past.

Raxworthy describes how the designers of the BP Park (this is not the same park as Ballast Point) on the Sydney Harbour attempt to make clear the history of the occupation of the harbour through the relationships made between the visitor and the site and suggests that the view of the harbour contributes to this. I call this approach that gives insights into interrelations beyond the site the extended relationship approach.²³ The design creates the possibility for relationships between the visitor and the site and also points to the relationships between the site and the wider surroundings. The ways in which designers might use this extended relationship is dependent on the site itself, the flat landscape of Rainham calls for a very different treatment from the enclosed Filter Beds. Designers also need to consider the different scales at which this approach functions. It can bring visitors into relationships with anything from small-scale, intimate juxtapositions through to the large-scale of the surrounding landscape.

It is interesting to consider what impact such an approach would have on the responses of interviewees at the Hidden Gardens. Although the chimney is the largest feature of the site it does not form a conventional focal point – the eye is not drawn to it as the main aspect of a vista from a particular viewpoint, it is just there, always visible. The same applies to the other artefacts, they form part of the new design but the visitor's attention is not drawn to them or to the juxtapositions between the old and the new. The exception is the façade of the Tramway with its ghostly traces of doors and windows that is partially visible, framed at the end of an avenue of trees (Fig.80). However access to this vista is

not easy and the area next to the Tramway is used as a temporary store and is often cordoned off (Fig.112). Here again taking a relationship approach to the spatial layout of the whole site might have been more successful in drawing attention to the contrasting time layers.



Figure 112 The façade of the Tramway

9.3.2 Understanding landscape continuity and change

Landscapes are often described as unchanging, timeless, as if they have been there forever and it is this concept of place as static and unchanging that Massey challenges in her writing on place, space and time. In my research it at first appeared that the interviewees subscribed to these views of landscape and indeed they used some of these phrases to describe the case study sites. They were also apprehensive about possible changes in the landscape around them, expressing horror at what the Olympics would do to the marshes and concern at the way in which the green spaces in their area were threatened with development for housing. They questioned what would happen to their local area and the site in particular if certain plots of industrial land were sold off to developers and questioned why old buildings were so often demolished to make way for new. And yet they also show resignation about these things happening; this is the way the world goes.

an appreciation of the temporality of the sites as they evolved from industrial or military use through a wasteland and dereliction stage, and to the present and further to possible futures. As I discussed in detail in Chapters 7 and 8, there is a sense that the sites are subject to a natural progression and individuals create their own narrative of natural continuity filtered through their experiences, memories and prior knowledge. Often they are able to seamlessly merge what might appear to be discontinuities such as change of use, dereliction and destruction into this natural continuity, although I have pointed out in Chapter 8 that there are those who feel the disjunctions cannot be ignored. I mentioned in Chapter 2, de Solà-Morales Rubió's understanding of a continuity expressed through rhythms and a sense of the passage of time and I suggest that this is the continuity experienced by the interviewees, rather than that offered by an official and planned narrative. The possibilities these landscapes afford for visitors to experience the passage of time range from looking back at the multiple histories, through experiencing the pastness of the site in the present, to pointing towards different futures.

In Chapter 2 I referred to Manzo's (2005) discussion of continuity and its relationship with place meaning. Manzo asserts that places become significant when they are seen as 'bridges to the past' (p.74); there is a connection between peoples' memories and places that they find significant. She refers to Gustafson (2001) who suggests that places are meaningful when they form part of a person's life story or because they are reminders of past histories. Manzo also discusses continuity and place with reference to Twigger-Ross and Uzzell's (1996) concept of place as a means of creating self-identity. My research appears to support these ideas of connections between the place, memory and history, and continuity. However I also show how the sense of continuity is manifested in an awareness of the passage of time and an ability to reflect on this - and to make connections see Fig.113 - as an embodied person in the present. In particular I demonstrate how the physical landscape, through juxtapositions and relationships, draws attention to the sense of passage of time and in effect, 'talks back' (Bender, 2006, p.103).

Massey (2005) explains how an understanding of the concept of places changing requires us to be open to constant re-negotiation of our relationship with them. This appears to be somewhat exhausting and in practice when experiencing everyday landscapes we often are unaware of any such responsibility. Instead we walk through places and return to places day after day, sometimes not noticing changes, small or large. Massey (2005) suggests when we move between places we find those that are relevant to us and reinsert ourselves into them by ‘weav[ing] together different stories which make this ‘here’ and ‘now’’ (p.130). My findings demonstrate how, in a changing environment, individuals ‘negotiate’ a sense of continuity in place, both through their external perceptions and their internal memories, knowledge and emotions. In applying Massey’s theories at a practical level it is necessary to not only address possibilities for change but also to be aware of the accumulation of individual memories and prior knowledge that each person brings with them to any understanding of place.

At the end of Chapter 8 I suggested that an awareness of how individuals create their own sense of continuity through memories gives designers an opportunity to design landscapes that challenge this, creating spaces for chance interactions with time layers that give rise to different understandings of the passage of time. I pointed out that interviewees created their own centering devices to suggest continuity through their own memories and stories, rather than needing to rely on universal forms as stabilising structures. This understanding could also be applied to those engagements with the landscape that form that sense of natural continuity I describe above. If the visitor is able to understand and relate to elements of the landscape in a way that can provide the security of a natural continuity it may be that disjunctions and time edges can present opportunities rather than threats. Of the phase 1 case studies it is perhaps Ballast Point Park that best epitomises this approach. The designers have used a relationship approach to enhance visitors’ experiences of the time layers and for local people with prior knowledge of the site many of the references to the industrial history must be easily comprehended. Yet as I have discussed in Chapter 4, this is a controversial landscape and the inclusion of time layers that highlight the industrial past in such a gritty and hard-edged

manner has been criticised. The designers of this landscape are not afraid of challenging the visitor but they also create time layers that suggest both continuity and hope. The museum-like vitrine with the remnants of the Villa Menevia, the gardenesque lawns in the footprints of the oil tanks, the native planting palette, the artefacts made safe and contained in the gabion walls, the skin of the oil tank that now supports wind turbines, all take the past history and memories of the site and point towards possible futures. This is a much more extensive approach to the inclusion of time layers than the use of symbols or references to the past and therefore allows many opportunities for different engagements and multiple and diverse responses.

9.3.3 Creating frames for reading

The idea of whether landscapes can or should mean something, or if they can be made to mean something, has run through this research. This is partly due to the questions I am asking that call on interviewees to reflect on their experiences of the landscape and to try to make sense of it. To do this many interviewees draw on not only what they are seeing or experiencing but also on what they already know or have experienced and thus there is an interplay of these factors in their replies as I have demonstrated in Fig.114 below.

My findings suggest that visitors try to make sense of these landscapes using their personal frames for reading. They construct these frames for reading from the connections they perceive between the material and temporal layers within the site and between the site and its surroundings. They also make links between experiences of the landscape in the present and past experiences and memories of this or other DUN sites. Prior knowledge, including that of the history of the area, and cultural bias, such as preconceived ideas about the value of wastelands, are also factors in the construction of a personal frame for reading. Although official narratives about the site play a part in these personal frames, visitors' reflexive experiences may run counter to these traditional narratives about the site; not only do different individuals construct different

least in part. However I have shown that the ways in which designers use the qualities of the DUN sites in the new landscape can influence the interviewees' responses and the ways they make sense of the site, and therefore can contribute to the possible frames for reading. It is possible for designers to close down opportunities for multiple responses by enclosing the site and restricting the porosity of boundaries, by excluding certain time layers and drawing attention away from time edges. Conversely designers can choose to signal possible meanings through the relationship approach and choose how much and in what ways they make explicit the links between the site, its history and its surroundings. If they wish to create sites with the potential to open up the imagination to rich and diverse understandings there are many ways in which they can recontextualise materials and incorporate the qualities into the new design whilst acknowledging the fact that these qualities are not necessarily knowable and are not perceived as having obvious predetermined meanings. This allows the visitor space to bring their own experiences and knowledge to add to the frame for reading.

9.3.4 Doing very little

It might appear from the above discussion that I am suggesting that designers create complex time layers and time edges with old and new materials and point out a range of processes in the new landscape – do a lot in other words. However my research also demonstrated the usefulness of doing - or at least appearing to do - very little. This supports Jorgensen and Lička's (2012) call for an approach to the urban wild that recognises the value in 'doing as little as possible' (p.234) enabling characteristics such as mutability, multiplicity and dynamism to flourish (p.233).

I have pointed out how an individual's perception of continuity is partly reinforced by the impression that the site has developed naturally. Ingold's (2012) quotidian mode of imagining, where the past merges seamlessly with the present, is a useful way of describing interviewees' perceptions of this sense of natural continuity and their matter-of-fact responses. However this is

not to say that the interviewees' responses to doing little are always of a quotidian nature. I have shown how at the Filter Beds the use of the existing topography, material forms and spatial layout has allowed the LVRPA to do very little and yet ensure that the time layers are not only visible but also there to be experienced and engaged with in multiple ways. Even the empty pylon plinth can be seen as an example of the benefits of doing very little; the pylon has been removed but the plinth is left on the edge of the path and has thus become a noticeable reminder of change. I have also pointed out how Beard's subtle interventions at Rainham give the appearance of doing little and yet create small and large-scale juxtapositions and time edges that contribute to frames for reading, the sense of the passage of time and expectations of future change.

The concept of doing little is also of significance in decisions about the management of change in the landscapes as I discuss in more detail below.



Figure 115 The juxtapositions of wildlife and the transport infrastructure at Rainham © Interviewee RM12

9.4 Blurring the boundaries between nature and culture – designing and managing change

In Chapter 2 I discussed Treib's (2005a) suggestion that nature and culture form part of a continuum with landscapes of inflection designed at a point along this gradient where the ordering of materials and the forms of the new landscape reflect the existing landscape whilst also creating something new and different. I pointed out that such landscapes could be particularly suited for the development of DUN sites with their interrelations between nature and culture. The blurring of boundaries between vegetation and built structures in DUN sites and wastelands contributes to the sense of flux that such sites evoke; the gradient between nature and culture is slippery. I also referred in Chapter 2 to DeSilvey's (2006) suggestion that an understanding of the natural processes of decay can lead to an acceptance of hybrid artefacts formed through a combining of cultural and natural processes. DeSilvey (2012) goes further to posit that in landscapes these processes of change can be highlighted and become part of the frame for reading, pointing the way to possible futures.

I suggest here that designers should consider these concepts of inflection and hybridity that slip and slide between nature and culture when creating new interventions in DUN landscapes. As Jorgensen and Lička (2012) point out 'places need not be ... *either* regulated *or* wild, but may be shades of both' [my italics] (p.221). In Chapter 4 I introduced, following DeSilvey (2005), the terms static, arrested decay and managed decay to describe what I consider to be the intentions with regard to future management of the material and spatial qualities of the phase 1 sites. Qualities kept in a state of stasis remain towards the cultural end of the scale whereas those qualities allowed to decay – the do little approach - pass through the hybrid stage before eventually appearing to merge with nature completely (Fig.18). In Fig.116 I suggest where the phase 1 and 2 sites might sit on a culture-culture gradient between two cultural landscapes – the present developed site and the past DUN site. A site's position on this gradient is determined by the extent to which new interventions merge into or reflect the forms of the past DUN landscape.

THE CULTURE-CULTURE GRADIENT AND LANDSCAPES OF INFLECTION



Figure 116 The culture-culture gradient

Designers may use the material and spatial qualities of the DUN site to create new interventions in the landscape or may leave them as part of the palimpsest but separate from the new time layers. All the sites that I have suggested as situated around the landscapes of inflection section of the gradient include new elements in their design whilst also reflecting the past DUN culture to some extent. It is interesting to compare this gradient with Fig.18 in Chapter 4. There I assigned Südgelände, Carl Alexander Park, Rainham Marshes and Duisburg Nord - all of which I consider to be demonstratively classed as landscapes of inflection - to positions towards the managed to complete decay end of the spectrum. It is possible to retain the material and spatial qualities in states of decay, forming hybrid nature-culture entities, whilst also creating new interventions in DUN landscapes.

I have suggested above that the juxtaposition between the natural and the cultural contributes to an individual's sense of the passage of time in the landscape. However achieving a balance between managed and complete decay is obviously a challenge. As I pointed out in Chapter 7 there are difficulties in the light touch maintenance approach and often safety and finance dictate the amount and type of intervention. Leaving the decaying artefacts on display but safely inaccessible does not give rise to the same range of responses as do those artefacts with which visitors can interact, nevertheless visitors in all three sites overwhelmingly felt that the artefacts were important reminders of the past and served an educational purpose. This implies that they would prefer it that the artefacts did not disappear completely; indeed many expressed this wish. Perhaps something can be learnt

from my experience of Orford Ness. Although it remains a DUN landscape rather than a designed redeveloped site – the ultimate example of a do little approach - I suggest that an awareness of the centuries of landscape change that are inherent in the natural creation of the shingle spit might lead to an acceptance of other forms of natural change, even if they result in the eventual loss of the buildings and structures in this landscape. My research has shown that individuals attempt to create their own narratives around change and strive for a sense of continuity. Designing for landscape change could incorporate explicit references to the possibilities of change, much as in the design of the Litmus Garden at Vintondale that uses material forms to make reference to processes that point to the future.

There is a second aspect of the juxtapositions between the natural and the cultural that I have discussed above and in Chapter 7. This is the way in which individuals form connections between the time layers in the landscape and the ways they respond to the chance juxtapositions that they witness. In Chapter 4, Fig.26, I examine the relationship between the management of the material and spatial qualities and the type and management of the planting or vegetation. The choice of a planting style or management regime is part of the design of the new site and again there is a gradient from a traditional horticultural scheme through the design of naturalistic and meadow planting to the inclusion of specific habitats and the managing of natural succession. As I expected, in the phase 1 case studies the sites that adopt a position of managed decay favour the habitat and natural succession approach to planting and vegetation. However it is not always the case that the more traditional planting techniques are only used in landscapes that start from a *tabula rasa* or favour a static and arrested decay approach. The planting design on the High Line is naturalistic and Duisburg Nord incorporates several planting techniques, including contrasting a grid of ornamental trees in front of the steelworks in their state of arrested decay, creating a time edge (Fig27).

To create possibilities for individuals to experience juxtaposed and interconnected time layers that merge the natural and the cultural, designers can consider how they combine planting techniques with management of the

material structures and artefacts. At Südgelände the old train tracks are visible from the symbolic track-walkway as they run ghost-like between the grasses and birches (Figs.149, 150). The management of the vegetation and the managed decay of the tracks work together to allow for chance glimpses of the tracks – occasional juxtapositions of the time layers - with of course the understanding that the visitor and the walk along the new time layer represented by the walkway is part of this palimpsest of interrelations.

In Chapter 4 I quote Beard (1996, p.35), quoting Latz, whose aim when working with DUN sites is to try to maintain a sense that the site is a wild and natural landscape whilst signalling that it is not merely a derelict wasteland. In a slightly different vein Jorgensen and Lička (2012) call for urban spaces that are neither completely regulated nor completely wild, suggesting that there can be benefits in designing spaces that encompass both order and wildness. Massey (2005) uses the phrase ‘the chance of space’ (p.151) to describe the multiple layers and linkages that constitute places and goes on to discuss the ways in which chance is contained and space is ordered and controlled - ‘how juxtapositions may be regulated’ (p.151). I suggest that the decay and disorder that signal the blurring of the natural and cultural worlds is a very visible example of the chance of space. In allowing an element of indeterminacy into the relationship between the natural and the cultural, the human and the non-human, the designer can highlight the challenge of negotiation in the present and signal the possibility of future change.

I suggest that designers working with DUN sites might intentionally position their landscapes on the management gradients to maintain an element of the urban wild whilst ensuring such landscapes do not appear to be forgotten and derelict. In Fig.26 in Chapter 4 I showed that the case studies roughly fall within a gradient that runs from tabula rasa/traditional to complete decay/natural succession. In the amended Fig.117 below I have suggested an alternative gradient running in the opposite direction from complete decay/traditional to tabula rasa/natural succession.

ALTERNATIVES FOR MANAGEMENT OF QUALITIES AND PLANTING APPROACH

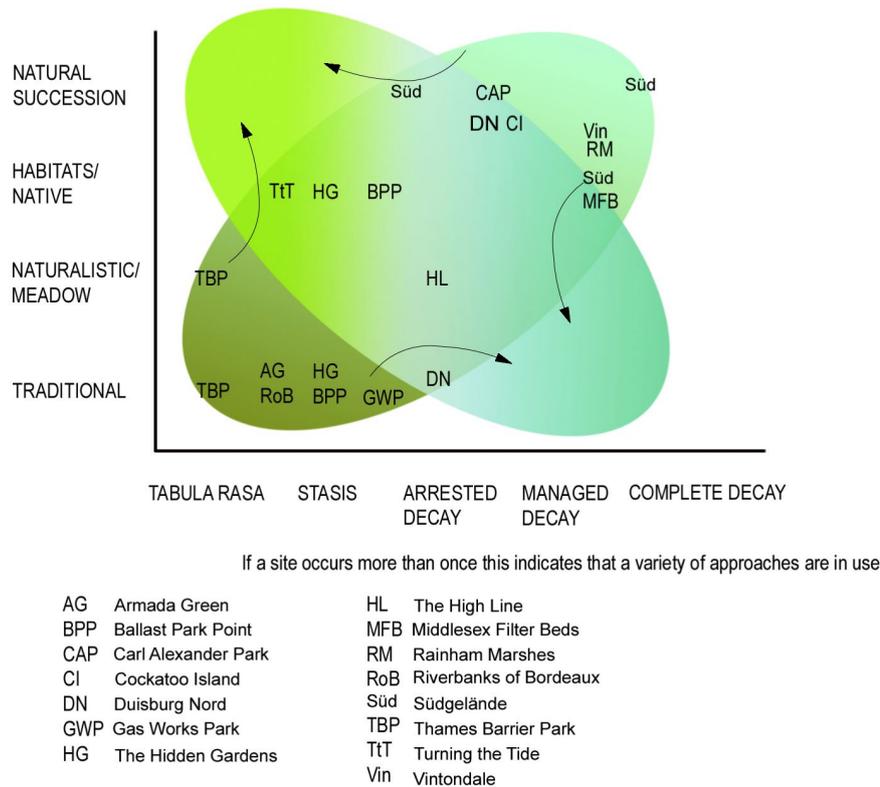


Figure 117 Alternatives for the management of qualities and planting

In this diagram I show how sites could move along one of the axes whilst still keeping their position on the other axis constant. For example, designers when taking a more traditional approach to the planting design might consider introducing surprising and perhaps challenging temporalities by suggesting a management practice of arrested or managed decay for any material and spatial qualities. Or alternatively if the site is required to be managed for native habitats or the development of successional vegetation they can attempt to keep the qualities in a state of stasis-arrested decay. Similarly new interventions in the landscape can be designed to call attention to the juxtapositions of time layers and in particular to make clear the times edges or tensions between new and abstracted elements, artefacts in states of managed decay, and wilder vegetation managed for succession. In this way designers can create inflected and hybrid landscapes that foreground the juxtapositions between time layers and allow elements of temporality into their management regime to ensure that chance plays a part in the perceptions and interactions visitors can experience.

Nevertheless the managed-complete decay option must be considered. There are instances where changes in the economic climate or in funding mean that levels of maintenance cannot be assured and complete decay becomes the only option for the future of the site. The material qualities of the site will eventually become hidden beneath vegetation or decompose into undifferentiated matter. DeSilvey (2012) discusses anticipatory histories whereby possible futures are implicit in an understanding of the landscape mediated through the visitors' frame for reading. At Rainham Marshes this is already happening; the narrative expounded by the RSPB is one in which the site is returning to medieval grazing marsh and the material qualities are gradually decaying. I have shown, for example, that visitors do not often perceive the pastness of the cordite store but do understand the habitats that it now supports. Many of the local people I spoke to who recounted their memories of playing on the marshes when it was under MOD control did not need the individual material qualities to remember – the whole site and the surroundings were a part of their everyday life and they remembered the military presence, the noise of gunfire, the unexploded bombs, the red flag in the same way that they also remembered jumping ditches and spotting rare birds.

Managed decay can also be seen as a way of blurring the time edges in a landscape. As the material artefacts gradually become invisible the time edge becomes less of a disjunction until it is gone and the memory only remains. However as I have shown with the empty plinth at the Filter Beds and as I suggest almost certainly will happen at Orford Ness, absence does not necessarily mean that something is forgotten. New stories can grow up around the absence, new imaginings, mysteries and memories. Designers who choose to design for complete decay can exploit this by retaining an element of the material artefact, such as the plinth or the footprint of a building, whilst allowing other parts to gradually disappear. Or they may create a new time layer that points to what was there before, perhaps abstracting the form of the plinth or reinterpreting the footprint of a building. Nevertheless the pasts and futures that individuals imagine when experiencing these new landscapes will

be contingent on their own experiences and prior knowledge and designers, by creating opportunities and possibilities for understanding and interpreting landscape change, or by doing very little, can make their own contributions to the 'stories-so-far' (Massey, 2005, p.130).

9.5 Reflecting on my research

Before I reflect on the research process itself I would like to suggest possible areas for further exploration in this field. One of my findings was that the use of material qualities as symbols was not an effective way of signalling the pastness of the landscape. Research could usefully be continued into this use of symbol and metaphor. It is a tool that designers employ in order to create meaning in their landscapes and I suggest that there could be ways in which symbols could be incorporated more successfully. It may be that different results would be found if users were interviewed at sites such as the High Line and Südgelände that use metaphor in an abstract sense – the linear paving and moving sunbeds at the High Line and the raised walkway at Südgelände. A second area of research might examine the success of sites that are designed for informal and temporary uses. This is an area that is now being considered by designers and planners and it would be interesting to explore similarities and differences in users' perceptions of these sites and DUN landscapes. Finally I am aware that the three sites I chose for phase two of my research, were all sites that could be considered “non-threatening”. None had contributed to major contamination of the area or been part of an industry that is now looked on as being polluting or dangerous. The Filter Beds supplied clean water to East London, the Coplawhill Tramworks built and maintained part of the transport system of Glasgow and the MOD rifle range had an important role in both world wars. Therefore, although there was controversy about the development of these sites, there was not the level of ambivalence about them that I might have found if researching a former coalmine or steelworks. I would like to see further research to explore whether my findings apply to these more abject and difficult landscapes

In addition to these possibilities for practically-directed research I suggest that there is the opportunity for the development of theoretical frameworks that draw on my empirical research and in particular continue to extend the links I have made between a wide range of thinking within different disciplines. I have drawn on theoretical texts to support discussion within landscape

architectural discourses and have applied these theories to practical issues in the field and I hope that this drawing together of practice with a wide range of different theoretical viewpoints can continue to be expanded upon.

Finally I would like to look back over the years of this research project. I took a critical realist approach to the research because I felt it best reflected the way I as an ethnographic researcher could gradually, through the research process, come to understand more about the research questions. I also felt that it helped me to understand the ways in which the interviewees came to their own understandings about the questions I was asking them. By taking an iterative approach towards the gaining of knowledge I was leaving open avenues of exploration as well as accepting that I would never know everything. During the first phase of interviews I realised that I needed to include what could perhaps be seen as a more whimsical or reflective element that emanated from a critical realist standpoint. I wanted to examine my own embodied experiences of the landscape. This resulted in the three interludes in which I take the role of a research participant, and then think and write about my experiences.

My choice of the interview walk as a research method proved an effective way of experiencing the landscape with the interviewees whilst talking. It also enabled me to have a relaxed, informal and friendly conversation with the participants. The photographic walk however was not so successful. This was not because of problems with the concept of taking photos and talking about them, which I feel worked well, but was due to the practicalities. It proved difficult to recruit interviewees who could spend the time needed over two sessions for the walk and the interview and it was also often impractical to provide a camera and equipment to then look at the photos.

One of the most rewarding things about the interviews and the subsequent analysis was the quality of the thoughts, ideas, information and memories that participants were prepared to share with me. I rarely found that they had nothing to say. Most were happy to walk with me or to provide me with their previous photos of the site and many were interested in my research and

wanted to know more. I had expected that they would be appreciative of the landscape - after all they had chosen to come there and many had visited before – but I had not expected that so many would have such interesting and informative memories, knowledge and understanding of the context of the case study sites and their local areas that they were prepared to share with me.

I have come to love the three case study sites and feel a sense of loss as I write this and my research approaches its end. It is good to know that all three sites are also loved by many who visit them. These places are everyday landscapes and yet they have the ability to transport visitors from the noise and bustle of the city. The European Landscape Convention (Council of Europe, 2000) sees all landscapes as part of our natural and cultural heritage, be they traditionally beautiful countryside or small areas of urban wasteland. There can be little doubt that the research sites are valued landscapes and yet all three could have had very different futures. The participants are rightly worried for the future of their seemingly natural spaces: the demand for houses is a very real threat for similar DUN landscapes. I hope this research helps makes the case for the importance of such sites: they might support unusual habitats and may be part of the urban wild, a place for blurring the natural and the cultural in the city. Most of all, they are places to experience the dynamic and mutable interrelations between past, present and future.

APPENDICES

Appendix A: The Phase 1 Case Studies

The fifteen phase one case study sites are described below and Fig. 5 indicates their location. For each I include details of past uses and a brief comment on the site when derelict. I have not attempted to describe the developed sites in detail but have focused on those elements of the derelict site that have been incorporated into the new landscape in various diverse ways. The sketch maps give an indication of the location of the site and of key roads, rivers, towns and other features that help the reader to set the site in context. The sketches were drawn with reference to OpenStreetMap.

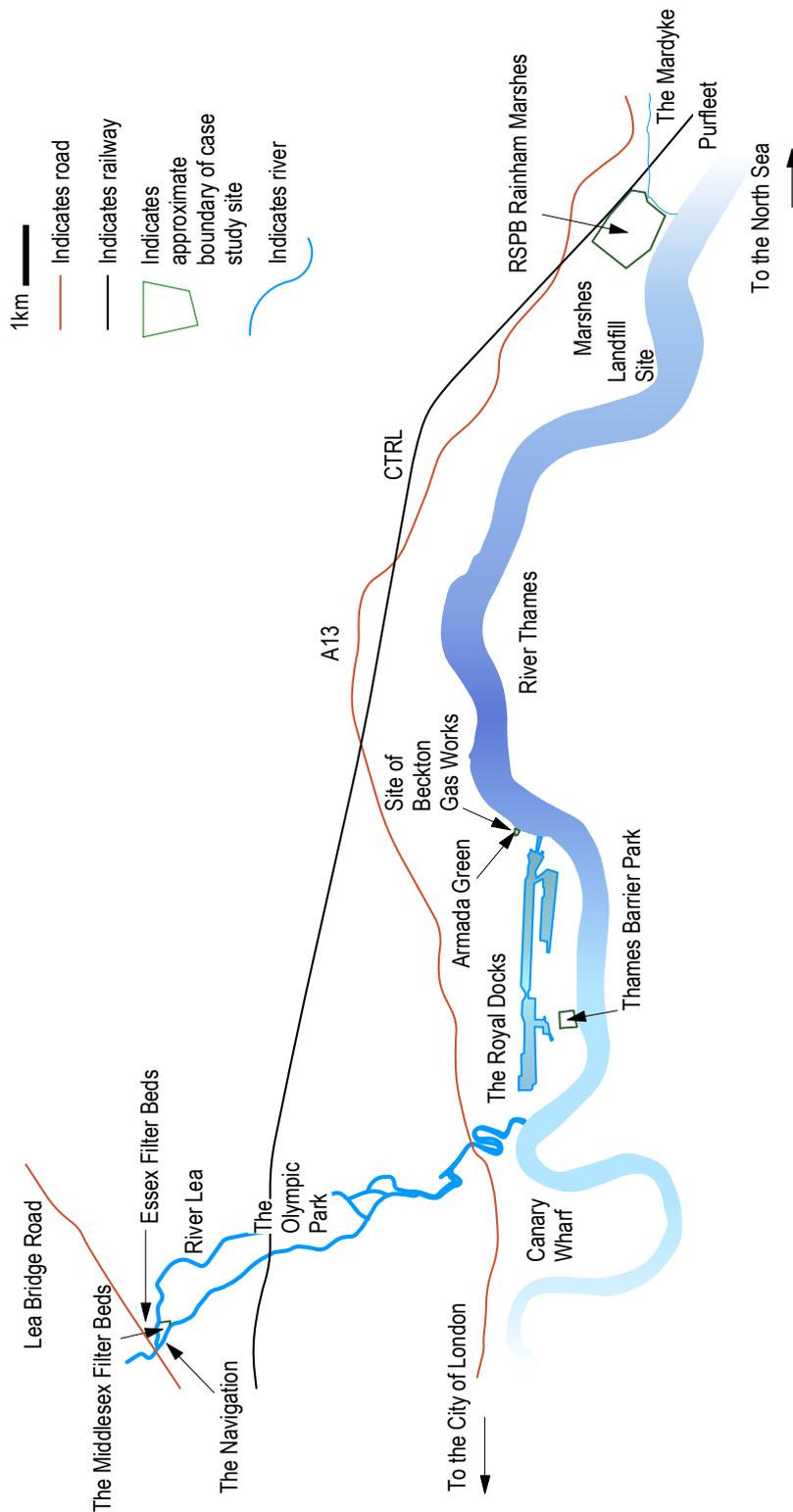


Figure 118 Sketch showing location of the Middlesex Filter Beds, Thames Barrier Park, Armada Green and RSPB Rainham Marshes © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

1. Armada Green

Location	Gallions Reach, London Borough of Newham, UK, (Fig.118)
Size	5400 square metres
Cost	£350,000
Client	London Development Agency, Design for London
Landscape Architect	Adams and Sutherland
Previous uses	Adjoining the Beckton Gas Works. It is not known if this small site was part of the gas works site.
Date completed	2010
Abandoned in	The gas works was closed in 1970
Qualities of the derelict site	The Beckton gas works site is described as 'like a jungle now' (Kerimol, 2010a). On a visit in 2012 the neighbouring site consisted of broken concrete surfaces and opportunist ruderal plants, primarily buddleia.

The Armada Green site consists of a horizontal ground plane of poured concrete that uses aggregate dredged from the river (Kerimol, 2010b, p.56), with a small number of trees forming vertical elements. This concentration on the horizontal draws the attention to the view of the river and the topography enhances this vista; the ground has been contoured upwards to the river wall. The industrial context of the site and the surrounding area is referenced in the landscape architects' use of a minimal palette of materials. There is no sense of enclosure and only a chain link fence separates Armada Green from the former gasworks site, creating a visually permeable edge between the new and the derelict. Strips of timber sleepers, reclaimed from the site, (Adams and Sutherland, 2010) form parallel, directional lines also drawing the eye to the river wall and the expansive view. Two long, rough timber benches, following the line of the sleepers, stand isolated in the expanse of concrete. Sleepers also create a timber enclosure which conceals an electricity substation (Kerimol, 2010b). The landscape architects have not attempted to incorporate a temporal element into the landscape, although the minimal detailing and basic materials seem to imply that this landscape is itself temporary; the prime aim of the project is to set in place infrastructure which may then facilitate the redevelopment of the surrounding area (Kerimol, 2010b, p.52).



Figure 119 Beckton Gas Works from Armada Green



Figure 120 Sleeper benches and view to the Thames



Figure 121 View across the site towards the timber enclosure

2. Ballast Point Park

Location	Sydney Harbour, Australia (Fig.127)
Size	2.5 Hectares
Cost	\$8,500,000
Client	Sydney Harbour Foreshore Authority (SHFA)
Landscape Architect	Original master planning by Anton James, (now JMDD) Context Landscape Design and Craig Burton. Project completed by McGregor and Partners (now McGregor + Coxall)
Previous uses	Oil storage depot, Villa Menevia, formally Aboriginal lands
Date completed	2009
Abandoned in	1970s
Qualities of the derelict site	Sandstone cliffs cut, benched and ramped, structures including oil tanks, footprints of buildings, industrial contamination and waste, remnants and artefacts (McGregor + Coxall, 2011).

Scott Hawken describes how the designers of Ballast Point Park have created a landscape that is a ‘muscular fusion of natural and artificial topographies’ (Hawken, 2009a, p.46). The design of the park builds on the existing topography of the site and highlights the contrast between the natural sandstone cliffs of the Sydney Harbour and the dramatic changes made when these escarpments were blasted away to make space for industrial activity. Vistas draw attention to the topography of the harbour itself and its relationship with the site. The materials also emphasize contrasts, juxtaposing different textures and finishes and combining concrete and metal with gritty gabions filled with waste (from this and other sites) and relics including tiles, shells, hard hats, springs and other found objects (Harding and Hawken, 2009, p.44). Openings cut through the original structures reveal their construction and create disjunctions and discontinuities. The circular footprints of the oil tanks are replaced with steel rings planted with grass. There is also a reliquary to the Villa Menevia that occupied the site prior to its industrial incarnation, containing artefacts found during excavations (Harding and Hawken, 2009, p.44). The reuse of found materials and the new uses to which they are put, subtly indicate the landscape architects’ interest in process, particularly in relation to their concern for sustainable design. One example of this is the repurposing of the skin of an oil tank to create a replica cylinder complete with mini wind turbines that draw attention to the changes in energy production over the decades (Simon, 2010).



Figure 122 Layers of sandstone and concrete at Ballast Point Park seen from Sydney Harbour © Maggie Henton



Figure 123 The contrast of materials, the repurposed oil tank is in the background © Maggie Henton



Figure 124 Oil storage tanks, Sydney Harbour Bridge in the background © Maggie Henton

3. Carl Alexander Park

Location	Baesweiler, Germany (Fig.125)
Size	85 Hectares
Cost	6.4 million Euro
Client	Stadt Baesweiler
Landscape Architect	Davids, Trefruchte + Partner
Previous uses	Coal mining spoil tip
Date completed	2008
Abandoned in	Mid 1970s
Qualities of the derelict site	80m high slag heap with ruderal and successional vegetation on the bottom slopes including maples, acacias and birches (Leppert, 2009)

The landscape architects' response to the site at Baesweiler was unconventional; they chose to work with - indeed to highlight - the existing topography and waste material of the slag heap itself. As Leppert writes, 'giving a slag heap a fancy peak while degrading it to a mere base for an art object [was] out of the question.' (Leppert, 2009, p.89). Rather than taking this approach the designers chose to preserve the natural successional vegetation on the slopes of the waste tip by constructing a *Schwebsteg* - a suspended walkway - that rises in places to heights of ten metres above the ground (Havemann, 2010), allowing visitors to climb the 'mountain' through canopies of trees. The walkway gives prospect to the slag heap below, whilst also enhancing the sense of anticipation and exploration for the visitor. When they reach the plateau, visitors can walk across the surface of slag to a red-bordered steel ellipse that bounds the peak. From here there are vistas over the surrounding countryside; small villages and vast industry are laid out below (Leppert, 2009, pp.91,93).

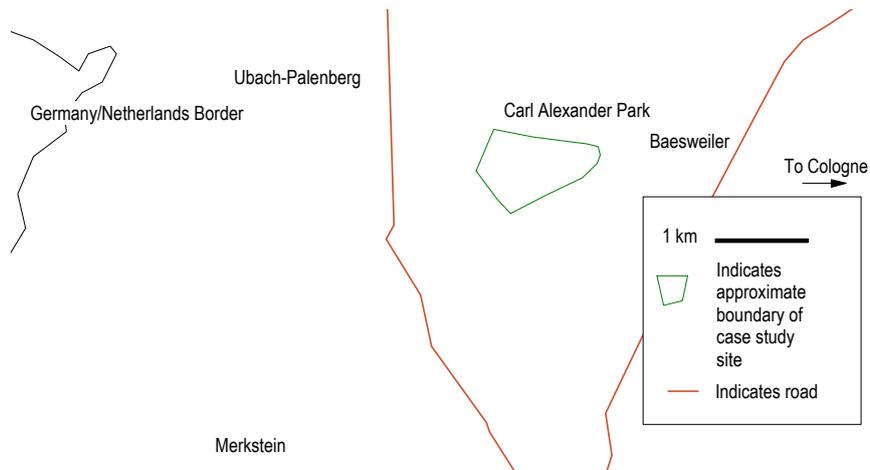


Figure 125 Sketch showing location of Carl Alexander Park © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 126 The suspended walkway up the slag heap running through successional vegetation © Robert Franken, license <https://creativecommons.org/licenses/by-nc-sa/2.0/legalcode>

4. Cockatoo Island

Location	Sydney Harbour, Australia (Fig.127)
Size	Primarily a linear walkway, length not available
Cost	Not available
Client	Sydney Harbour Federation Trust
Landscape Architect	James Mather Delaney Design (JMDD)
Previous uses	Penal colony, grain storage, a dry dock and shipyard, school for orphans, reformatory for women
Date completed	Clifftop Walk completed in 2008
Abandoned in	1992
Qualities of the derelict site	Numerous semi-ruined buildings, warehouses, footprints of structures, opportunist planting, surfaces, walls (Hawken, 2009b).

The landscape designers at Cockatoo Island have used the existing structures and topography of the site to define the routes and paths taken by the visitor. Their solution to the problem of access to this sensitive site, is a ‘clip-on landscape’ (Hawken, 2008), in places attached to and suspended from the cliffs or fixed into the concrete bases and fabric of the infrastructure, thus serving to integrate the structures, topography and pathways in the site whilst still maintaining a sense of disjunction between the old and the new. In this way they can allow access to the site and integrate the buildings and infrastructure, whilst ensuring there is the flexibility for future developments (Hawken, 2009b, p.58). Below the suspended platforms, the ‘foundations of sheds and other architectural ghosts are visible’ (Hawken, 2009b, p.58). Where possible the path disappears and people walk on the historic structures but in other places it has been necessary to add steps or to make breaks in the sandstone walls. (JMDD, 2008, p.3). The materials of the walkways mix galvanised steel handrails with steel mesh treads and mown grass with decking – ‘a montage that confuses the domestic and the industrial.’ (Hawken, 2009b, p.59). JMDD explain that ‘The Walk allows the appreciation of the site as both a sequential experience and a journey through the layers of the island’s history’ (JMDD, 2008, p.1). As well as respecting the historical layers on the island, opportunistic vegetation is allowed to remain and on-site research has informed decisions about new planting palettes (Hawken, 2009b, p.59).

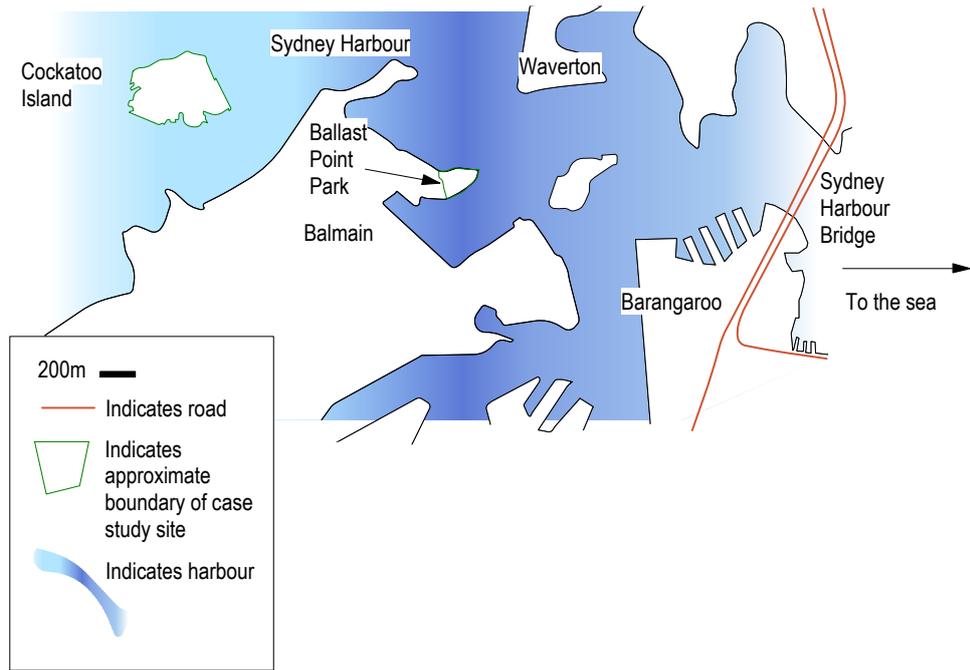


Figure 127 Sketch showing location of Ballast Point Park and Cockatoo Island in the Sydney Harbour © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 128 View of the layers in the landscape at Cockatoo Island © Maggie Henton

5. Duisburg-Nord Landscape Park

Location	Duisburg, Germany (Fig. 129)
Size	230 Hectares
Cost	30 million DM (excluding buildings and initial pollution clean up)
Client	LEG NRW, EmscherGenossenschaft, KVR Essen
Landscape Architect	Latz and Partners
Previous uses	Steelworks
Date completed	2000
Abandoned in	1985
Qualities of the derelict site	Steel works including two furnaces, bunkers, walls, water collection pools, railway tracks. Foundries left with liquid iron inside (Pirzio-Biroli, 2004). Opportunist plants colonising the structures. Steppe-like vegetation growing on waste (Kirkwood, 2001, pp.150-161).

The most noticeable features in the landscape of Duisburg Nord are the vast rusting blast furnaces, the railway tracks and the huge chimney. Around this existing infrastructure Latz, when interviewed (Pirzio-Biroli, 2004, p.31), explained that he works with the ‘information layers’ already present in the landscape integrating the material elements of the industrial site with open spaces, paths, cycle tracks, gardens and playgrounds. One layer consists of the raised walkways that follow the route of the existing rail-tracks, from which visitors can look down into the industrial bunkers, some containing new gardens and others spontaneous vegetation. The water system forms another layer; contamination prevents there being any natural running water on the site (Krauel, 2008), and water runoff is collected from buildings and runs through open channels and overhead pipe systems, many of them part of the existing infrastructure of the industrial site. In places the water falls into the former cooling ponds that now support lilies, fish and dragonflies.

Vegetation forms a third layer to the park; opportunist plants, primarily native birches, have established themselves on and amongst the rusting buildings (Kirkwood, 2001, pp.150-161). Material from demolished structures on the site has been crushed and used as a substrate thus encouraging and supporting rare and unusual plants (Beard, 1996); more than 200 foreign plant species were accidentally brought to the site in the iron ore imported from South America.

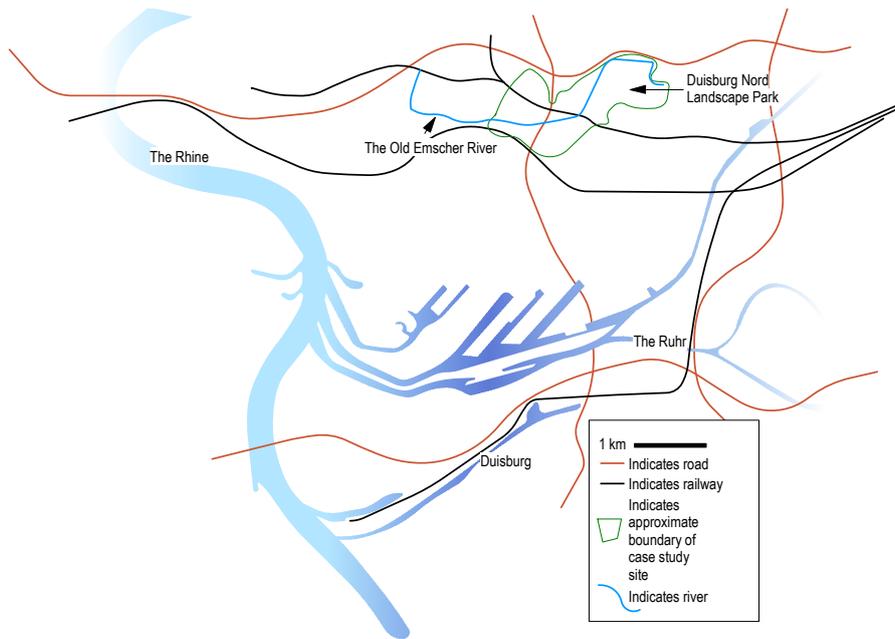


Figure 129 Sketch showing location of Duisburg Nord Landscape Park, the Rhine and the Ruhr
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Figure 130 View across the raised walkway towards the blast furnaces

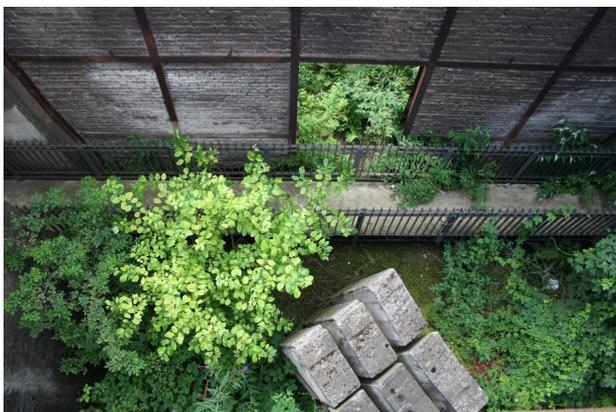


Figure 131 Looking down from the walkway into a bunker with successional vegetation

6. Gas Works Park

Location	Seattle, USA (Fig.132)
Size	9 Hectares
Cost	\$1229,570
Client	City of Seattle
Landscape Architect	Richard Haag
Previous uses	Gas production from coal
Date completed	Ongoing during 1970s
Abandoned in	1956
Qualities of the derelict site	Pirzio-Biroli quotes Haag describing the site when he first saw it 15 years after it was abandoned. There were 'no sacred forests, but towering totems of iron; no seductive pools, but pits of tar; and no plants' (2004, p.28).

Richard Haag's approach when faced with a new project was to ask 'what is the most sacred thing about this site? ... Without the buildings there was nothing sacred about it' (CCLRtv, 2009). This insight led him to propose keeping the gas towers; 'we went through this industrial revolution and it's a very important part of the world that we lived in ... I decided that I would go down to the wire to save that structure ... this is the last of an extinct species' (CCLRtv, 2009). The towers form a monumental 'grouped foci' (Dee, 2001) for the park, creating a defined and dramatic edge, which gives meaning and identity to the new, primarily grassy, landscape. Although Haag succeeded in preserving the towers he was dismayed when they were fenced off for health and safety reasons and public access was prohibited (Hester, 1984).

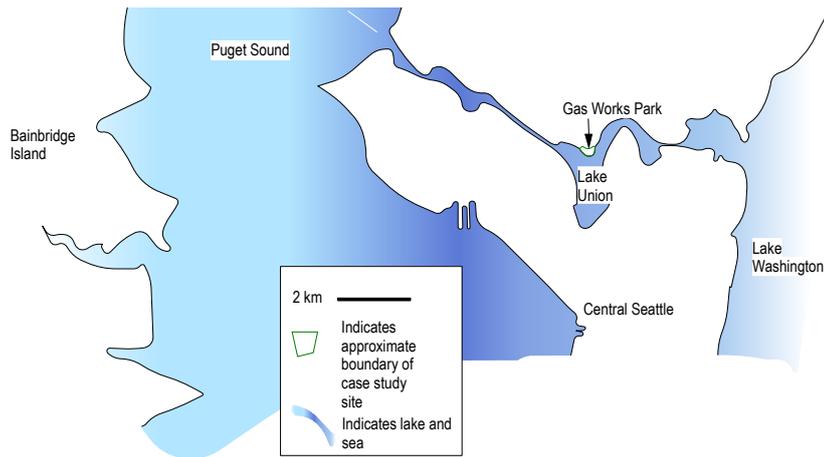


Figure 132 Sketch showing location of Gas Works Park, Seattle © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 133 Gas Works Park under construction 1971 © Seattle Municipal Archives (Commons Wikimedia)

Redacted due to copyright. For full details of figures see printed version of thesis at University of Sheffield.

Figure 134 The Gas Works in 2011 © Another Believer (Commons Wikimedia)

7. The Hidden Gardens

Location	Pollockshields, Glasgow, Scotland (Fig.135)
Size	5000 square metres
Cost	£500,000
Client	The Tramway
Landscape	City Design Cooperative
Architect	
Previous uses	Coplawhill Tramworks, Transport Museum, Nursery
Date completed	2003
Abandoned in	1987
Qualities of the derelict site	Demolished buildings, bricks, rubble, fly-tipped waste, concrete surfaces (The Tramway, 2011)

The Hidden Gardens is located behind the Tramway Arts Centre and bounded on one side by a derelict site with a busy railway beyond and on the other by roads and residential areas. Even after the opening of the theatre and arts centre the area of the site that now forms the Hidden Gardens was hidden from view and it remains so; public access is only through the Tramway building.

The design for the gardens incorporates structures and materials found on the site including: the boiler-house chimney, which forms a focal point; the façade of the Tramway; a small section of tram track; concrete factory floors; cobbles and materials such as slate shale; gabions filled with bricks from the demolished boiler house and recycled timber (Coulart, 2010). The integration of industrial materials throughout the design links the old and new, however it is not clear how the scale of the chimney relates to the more intimate spaces in the garden.

Some successional silver birches have been retained in the design and native Scottish plants added, whilst in more formal areas new trees are laid out in grids making symbolic reference to the time when the site was a nursery (Roscher, 2011). There are several artworks on the site.

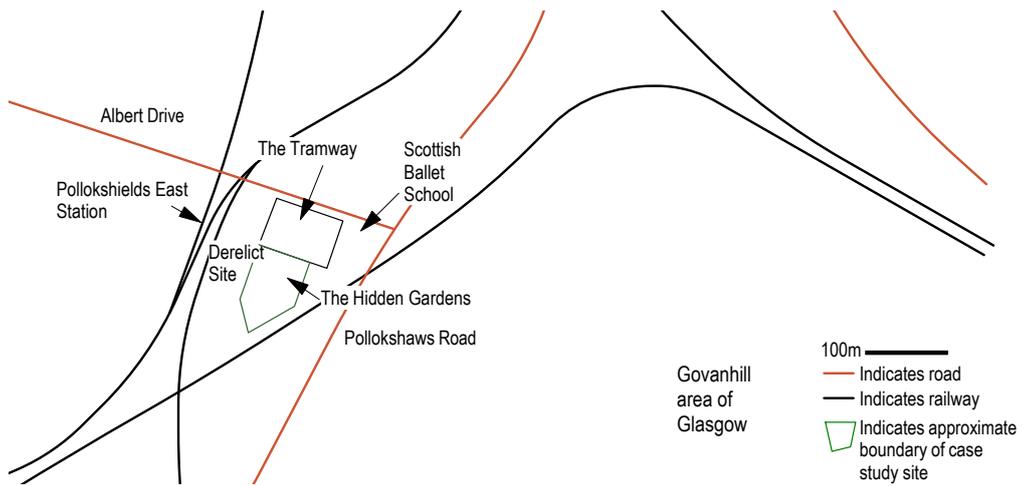


Figure 135 Sketch showing location of the Hidden Gardens and the Tramway © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 136 The base of the chimney and palette of new and recycled materials

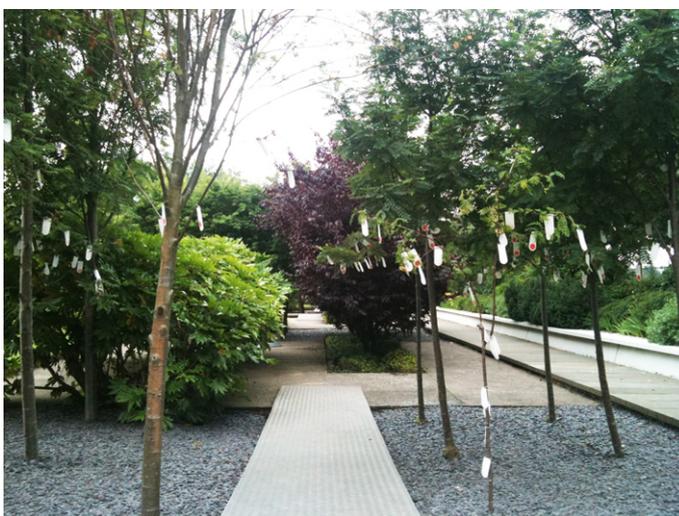


Figure 137 The rectilinear layout

8. The High Line

Location	Manhattan, New York City, USA (Fig.138)
Size	1.5 miles long when complete
Cost	\$86 million (section 1)
Client	City of New York, (Friends of the High Line)
Landscape Architect	James Corner Field Operations with Diller, Scofidio + Renfro.
Planting by	Piet Oudolf
Previous uses	Elevated railway track
Date completed	Section 1, 2009, Section 2, 2011, Section 3, 2014
Abandoned in	1980
Qualities of the derelict site	Colonised with a diverse range of plants including lichens, bryophytes and 161 species of vascular plants (Stalter, 2004). Described as 'a rust-caked dragon's tail of black-iron urban blight, blotting out the sky' (Martin, 2009, p.41).

The design for the linear park makes reference to its history in the reinterpretation of the existing form of the railway line; it is a 'landscape that is designed for a journey' (Ulam *et al.*, 2009, p.94). In places the rail tracks are visible having been removed, numbered and carefully replaced in their original positions. The palette of materials is a contemporary take on the industrial aesthetic and includes Cor-ten and stainless steel, glass and bespoke concrete 'planks', up to four metres long (Pearson *et al.*, 2009). The linear surface of these planks references the railway tracks, and then becomes more abstract as it peels upwards to form fixed seating.

It was the publication of professional photos of the opportunist and successional planting on the derelict railway that helped to spark interest in developing this landscape (Sternfeld, 2000); people began to see it as more than merely a blight on the local area. Oudolf has designed the planting with careful consideration of the original vegetation and some species are varieties of those there already (Martin, 2009). The hard and soft landscaping form a continuous surface; each element flows in and out of the other. In some areas there are large blocks of planting, in others 'plants grow up through the cracks between the planks in a fashion that is reminiscent of the former railway landscape' (Ulam *et al.*, 2009, p.94).

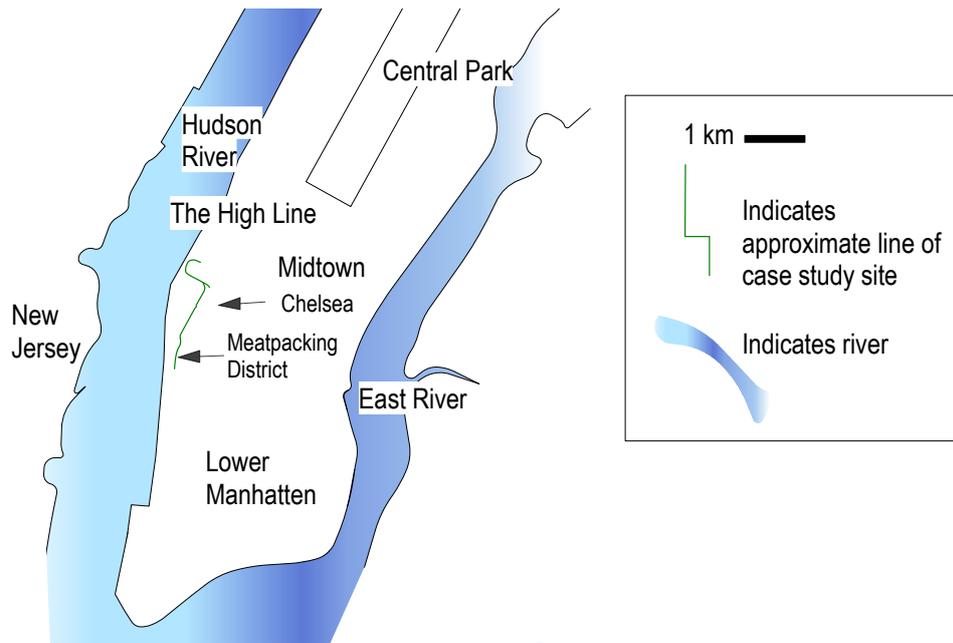


Figure 138 Sketch showing location of the High Line in Manhattan © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 139 Planting on the High Line, © Alex Johnson



Figure 140 Paving, seating and sun loungers on wheels make reference to the railway © Alex Johnson

9. Middlesex Filter Beds

Location	Lea Bridge Road, Hackney, London, UK (Fig.118)
Size	4 hectares
Cost	Not available
Client	Lea Valley River Park Authority
Landscape Architect	Not available
Previous uses	Filter beds providing drinking water to East London
Date completed	Late 1980s
Abandoned in	1969
Qualities of the derelict site	Six filter beds, variety of surfaces, brick boundary wall, and artefacts such as sluices, railtracks. Colonisation of each bed was different depending on the depths of sand and gravel remaining. Crumbling walls and a 'patchwork of plant growth, with species colonizing the cracks and joints in the concrete' (LVRPA, 1988, p.5)

There has been little design input to the Filter Beds and both spatially and structurally they remain much as they were before they were abandoned. The site is enclosed on one side by the repaired original brick wall and on the other by the River Lea. Pathways circumnavigate the site above the beds themselves and surface materials such as cobbles, terracotta tiles, concrete, bricks and tracks all remain *in situ*. The LVRPA recognised that:

‘the variety, jumble and informality of the floorscape is one of the more appealing and charming aspects of the site. This quality and characteristic should not be lost or diluted in proposals by the landscape architects’ (LVRPA Countryside Officer, 1989).

In the centre of the site there is a covered central well, approx. 30m in diameter, which forms a horizontal open plane; the crumbling walls of the beds with their encroaching vegetation radiate from this circle. The LVRPA manages each bed for different stages of succession and to ensure there is a range of habitats on the site. Industrial artefacts - hoppers and sluices - have been painted in black gloss paint and are sited along the paths and a rusty pipe runs through one bed and into the River Lea. The granite foundations of the pump house originally on the site have been reused to create an artwork colloquially known as the Hackney Henge.



Figure 141 Vista over one of the filter beds from the central collecting well



Figure 142 View along the central walkway



Figure 143 View over the wall along the Navigation into the Filter Beds. The tops of the Hackney Henge artwork are visible

10. RSPB Rainham Marshes

Location	The Rainham, Wennington and Aveley Marshes (Fig.118)
Size	411 hectares
Cost	Not available
Client	RSPB
Landscape Architect	Peter Beard Landroom
Previous uses	Military firing range on ancient wetland and grazing land
Date completed	Ongoing, from 2000. Opened in 2006.
Abandoned in	1995
Qualities of the derelict site	Military buildings, shooting range, landform structures, artefacts including signs, spent ammunition, unexploded bombs. Described by Howard Vaughan, RSPB Information Manager, as 'that rubbish tip with burnt out cars, piles of tyres, bubbling chemical pools, rats, guns, motorbikes and whizzing bullets ... oh and water pipits' (2005)

There is minimal formal intervention in the landscape designed for the RSPB at Rainham Marshes and Beard (2011) has interpreted the existing site forms in the circular route around the site that follows old pathways, the route of the trams which were used for moving munitions on the military site and, in places, the original railway tracks (Worman, 2012). Low wooden boardwalks allow visitors access to the reedbeds forming part of the simple horizontal ground plane in the flat landscape. There is minimal detailing, handrails are only incorporated where necessary, and materials include wooden screens and blocks of reclaimed oak to make rough seats. A hide and an education centre are constructed of rusty reclaimed shipping containers with, in places, a floor of steel mesh revealing the water beneath. These materials also create links with present and past uses of the surrounding area; to the north a huge shipping container depot is clearly visible and from the boardwalk the foreground of reed beds gives way to a mass of brightly coloured trucks and containers. There is little attempt to integrate the remaining military history with the new landscape, although a path leads into the cordite store. The shooting range (comprising the mantlet banks and stop butts), cordite and ammunition store and lookout tower, are unobtrusively interpreted with signs beside the paths and boardwalks; birds and wildlife are gradually appropriating these structures.



Figure 144 The boardwalks running through the reedbeds with the CTRL and the container yards in the background



Figure 145 View across the reed beds to the stop butts just beyond the site boundary



Figure 146 The Marshland Discovery Zone constructed of rusty shipping containers

11. The Riverbanks of Bordeaux

Location	River Garonne, Bordeaux (Fig.147)
Size	6km of river bank, 90 hectares
Cost	Not available
Client	City of Bordeaux
Landscape Architect	Michel Desvigne
Previous uses	Factories and light industry
Date completed	On going for 30 years from 2004
Abandoned in	Lots become abandoned throughout process
Qualities of the derelict site	Semi-derelict buildings, parking lots, roads and other infrastructure (Desvigne, 2005)

The design for the Riverbanks of Bordeaux is not intended to include material qualities of the derelict sites but is focused around the existing topography and infrastructure of the industrial area; the existing site forms are transformed into something completely new. Desvigne writes that ‘the project involves a set of actions based on, and playing upon, the existing parcels of land, the industrial areas, the abandoned parking lots, and the roads’ (Desvigne, 2009, p.51). The intention is that the land be acquired by the city on a piecemeal basis whenever it becomes available; sometimes parts of a site will be made available before others so there may even be small disjointed strips which become a part of the larger project (Desvigne, 2005). These vacant spaces will then be planted with stands of trees; thus the land will gradually become reforested. The release of the land to the project takes place unpredictably and the thinning out of trees will occur gradually at different times giving a random element to the scheme. Desvigne explains that ‘plantings will gradually replace construction and traces of industrial activity ... [it is] very much an explicit artefact’ (Desvigne, 2005, p.26).

Although Desvigne (2005) writes about this project in his book published in 2005 I have found no recent information available about its progress.

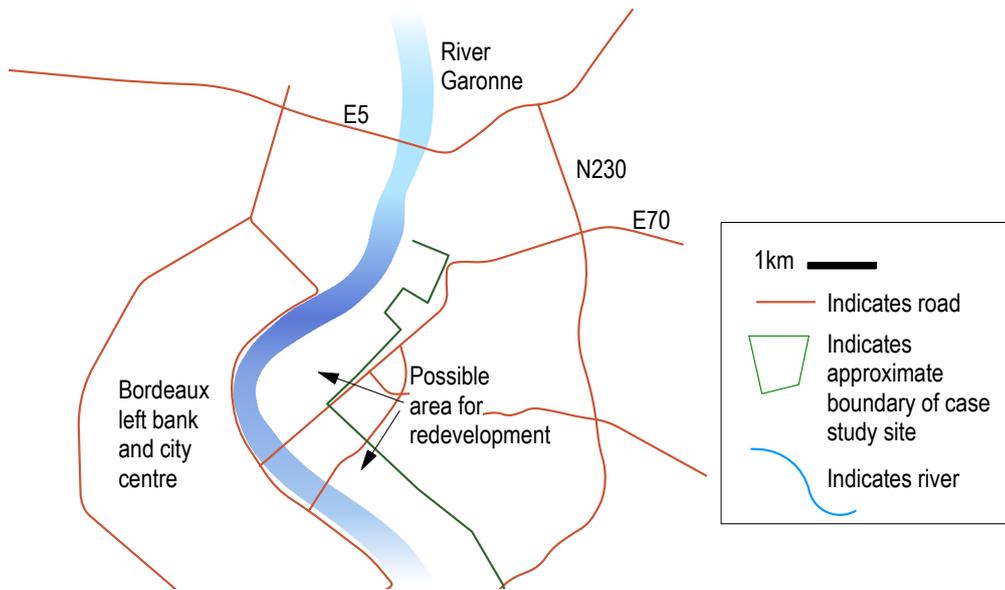


Figure 147 Sketch showing location of the proposed Riversides of Bordeaux project © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>

12. Südgelände Nature Park

Location	Berlin, Germany (Fig.148)
Size	16.4 hectares
Cost	3.5 million DM
Client	City of Berlin
Landscape	OkoCon & Planland and artist group ODIOUS. Commissioned by
Architect	Grün Berlin Park und Garten GmbH
Previous uses	Freight railway yard
Date completed	2000
Abandoned in	1950s
Qualities of the derelict site	Natural successional vegetation amongst railway tracks and derelict buildings (Langer, 2012)

The aim of the designers at Südgelände was to ensure that a variety of stages of successional vegetation are present at the same time in different sections, providing the opportunity for visitors to experience the different processes as they explore the nature park (Grosse-Bächle, 2005). Three forms of succession are demonstrated in this system; in one the process is stopped and a constant state maintained, whilst in the other two, processes are either modified to some extent or left to their own devices (Grosse-Bächle, 2005, p.242). A raised linear walkway allows access to sensitive areas of the site whilst in other places visitors walk on existing paths and tracks that run through the vegetation.

The preservation of cultural elements was also of consideration; a locomotive is restored and sited in a grove for children (and adults) to play on and the ghostly forms of railway tracks emerge from the vegetation. The contested history of the city can be read in the site: although located in West Berlin, it fell under the jurisdiction of the East and was left to become more and more overgrown during the decades that the city was divided (Langer, 2012). At the entrance to the site is a long wall, painted orange on the outside but transformed inside with extensive and changing graffiti; this is a gritty reminder of the graffiti adorning the Berlin Wall that divided the city for 28 years.

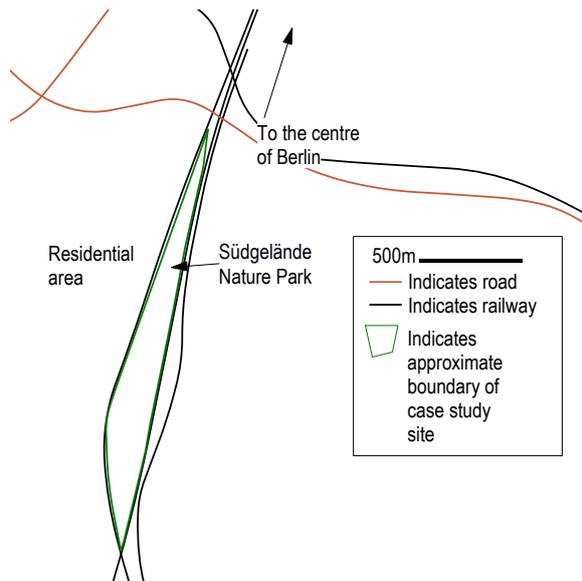


Figure 148 Sketch showing location of the park and the surrounding railway lines © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 149 The raised walkway running through the sensitive successional vegetation



Figure 150 Walkways and tracks through successional vegetation

13. Thames Barrier Park

Location	River Thames, London Borough of Newham, UK (Fig.118)
Size	8.9 hectares
Cost	£12.5 million
Client	London Docklands Development Corporation (LDDC)
Landscape Architect	Patel Taylor Architects and Groupes Signes with Alain Provost
Previous uses	Chemical dye works, armaments factory, tarmac plant
Date completed	2000
Abandoned in	1984
Qualities of the derelict site	Highly contaminated site cleared of buildings and all structures (CABE 2011b)

The site for the Thames Barrier Park was acquired by the Greater London Council in the 1970s, cleared to provide space for the construction of the Thames Barrier and subsequently remained contaminated and unused until the 1990s. Groupes Signes' design for the site symbolically references the surrounding docks in their incorporation of a deep diagonal 'green dock' which splices through the landscape (CABE, 2011c). Within this chasm, parallel bands of yew hedging are sculpted to suggest abstract waveforms interspersed with colourful blocks of perennials.

The remainder of the site consists of grids of trees and meadow planting with mown paths following the diagonal device of the dock; Davey likens this large grassy area to the 'muscular man-made topography of the Royal Docks' (Davey, 2001, p.77). Andrew Taylor, director of Patel Taylor (Davis, 2009, pp.299-300), acknowledged the difficulty of working with such a vast derelict site; the surrounding docks are physically imposing and redolent of their history and the challenge is to introduce spatial and formal arrangements which can work on a more intimate scale. The 'green dock allows for a bridging between both scales and times ... [and] forms a structuring element' (Davis, 2009, p.300).



Figure 151 The green dock with its waves of planting and the Thames Barrier in the background



Figure 152 The meadow planting and grids of trees



Figure 153 View along the green dock to the fountains

14. Turning the Tide

Location	County Durham, six collieries along this stretch of coastline (Fig.154)
Size	12 km. of coastline, 225 hectares of cliff-top
Cost	Initial funding £10 million
Client	Durham County Council, Turning the Tide partnership
Landscape	Not available
Architect	
Previous uses	Collieries waste and spoil
Date completed	Work started in 1997, major cleanup phase completed in 2002
Abandoned in	1993 (Easington Colliery)
Qualities of the derelict site	Easington Colliery was one of the biggest coalmines in Europe and the resulting pollution of the coastline was considered the worst in the world (Durham Heritage Coast, 2006). Spoil and waste, in places 10m. deep, were tipped on the beach leaving a 12km. stretch of despoiled countryside extending in some areas 7km. into the North Sea.

During the life of the Turning the Tide project 1.3 million tones of colliery waste were removed from the beaches and 225 hectares of cliff-top arable land were purchased and seeded with wild flowers and grasses to create a seemingly natural meadow (English Nature, 2003, case study 1). Cycle and footpath routes were implemented to connect local people back to the sea and the installation of artworks and other local community projects was undertaken (English Nature, 2003, case study 1). The beaches and clifftops are now restored and accessible to the local people and tourists; in 2001 the area was awarded Heritage Coast status.

All visible evidence of the former uses of this landscape at Easington has been erased, although when I visited, a local retired miner took me to see some hidden remnants amongst the meadow grasses. The Turning the Tide project makes reference to the history of the site through its artworks; on the cliff top at Easington, markers on a historical timeline for the area lead to a lone and isolated pit cage memorial. However this did not find favour with my guide who commented ‘I don’t know what the bugger that’s about!’²⁴

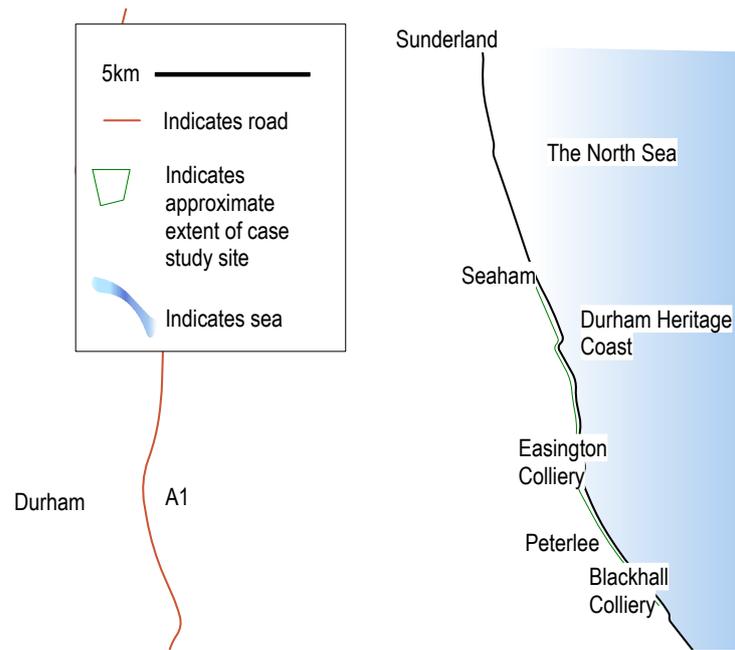


Figure 154 Sketch showing extent of the Turning the Tide project © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 155 The pitcage memorial on the cliffs at Easington Colliery



Figure 156 The coastline prior to regeneration showing the black beaches © Durham Heritage Coast Partnership

15. The Litmus Garden, Vintondale

Location	Vintondale, Pennsylvania, USA (Fig.157)
Size	14 hectares
Cost	\$950,000 from variety of sources. Community project undertaken by volunteers
Client	Community of Vintondale
Landscape Architect	AMD&ART, T. Allan Comp, (artist), D.I.R.T., Julie Bargmann, (landscape designer)
Previous uses	Mining area, when the mines closed the abandoned mine discharge continued to pollute the area
Date completed	2001
Abandoned in	1960s
Qualities of the derelict site	Washery, power plant, tippie, 152 coke ovens, derelict structures, footprints of buildings, degraded landscape, extreme pollution and on going contamination from Acid Mine Drainage, (AMD); the water seeping from the abandoned mines is coloured orange with metal pollution (Comp, 2004)

The designer and artists involved in the community project at Vintondale have created a garden which has water treatment as its focus; the acid discharge from the mines is piped through a series of six ponds each lined with limestone which gradually absorbs the iron from the water (Kapusta, 2005, p.73). The water enters the final pond clear and of a neutral pH before flowing into a wetland for final purification and entry back into the river system (Kapusta, 2005, p.73).

The woodland which runs alongside the treatment pools has been planted by volunteers with 1000 native trees in blocks; each group of trees has a different autumn leaf colour to correspond with the colour of the water as it turns from reddish-orange through yellow to silvery-green (Reece, 2007). These design interventions use the form of the new landscape as both a metaphor for the purification process and as a means by which to remember the industrial history of the area.

In other parts of the site the planting is used to outline the footprints and structures of the abandoned buildings.

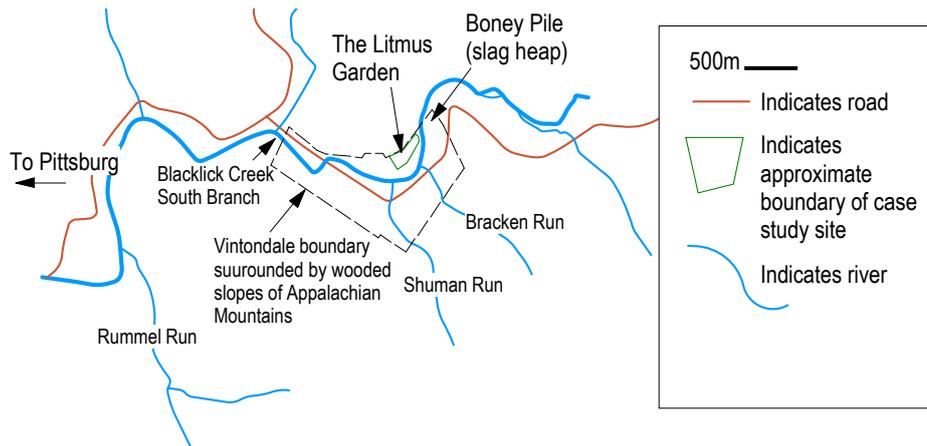


Figure 157 Sketch showing location of the Litmus Garden and the town of Vintondale © OpenStreetMap contributors. Data is available under the Open Database License <http://www.openstreetmap.org/copyright>



Figure 158 Acid mine drainage © D.I.R.T. Studio <http://www.dirtstudio.com/#vintondale>



Figure 159 The Litmus Garden showing the sequence of treatment ponds © D.I.R.T. Studio <http://www.dirtstudio.com/#vintondale>

Appendix B. List of experts Interviews took place in 2011.

Name	Company	Site
Christian Borchert	McGregor + Coxall Landscape Architects	Ballast Point Park
Anton James	JMDD Landscape Architects	Ballast Point Park Cockatoo Island
Rolf Roscher	City Design Co-operative	The Hidden Gardens
Clare Hunter	NVA, Consultant	The Hidden Gardens
Jamie Dean	Design for London	Rainham Marshes Armada Green Thames Barrier Park
Levent Kerimol	Design for London	Rainham Marshes Armada Green Thames Barrier Park
Peter Beard	Landroom Architecture/landscape design	Rainham Marshes
Ken Worpole	Writer	Rainham Marshes
Noel Kingsbury	Writer	Südgelände
Melanie Worman	Volunteer manager	RSPB

Appendix C. List of participants for phase two case studies

Type of interview: AW – Interview walk, PW – Photographic walk, EI – Expert interview

NB: In the case of the Filter Beds the column 'knew site before development' indicates that the interviewee knew the area around the site and/or the derelict site and in the case of the Hidden Gardens it indicates the interviewee had visited the Tramway building, usually when it was the Transport Museum. Interviews took place from 2011-2013.

Id.	Type of interview	M/F	Identifies as living locally Y/N	Knew site before development	Previous visits?	Professional background
Middlesex Filter Beds						
FB01	PW	F	Y	N	Regularly	Artist
FB02	AW	F	N	N	First visit	Retired
FB03	AW	F	Y	N	Regularly	Teacher
FB04	AW	F	Y	Y	Regularly	Psychotherapist
FB05	AW	M	N	N	Regularly	Director/ photographer
FB06	AW	F	N	N	First visit	Retired
FB07	AW	F	Y	N	Regularly	Lawyer
FB08	AW	F	Y	N	Regularly	Student
FB09	AW	F	Y	N	Regularly	Retired
FB10	AW	M	Y	N	Regularly	Architectural designer
FB11	PW	F	Y	N	2-3 times	Children's Services Manager
FB12	PW	M	Y	N	3-10 times	Performer
FB13	AW	M	Y	Y	Regularly	Retired social worker
FB14	PW	F	N	N	3-10 times	Playworker
FB15	AW	M	Y	Y	Regularly	Retired
FB16	AW	M	N	Y	Regularly	Retired
FB17	PW	M	N	N	First visit	Lecturer
FB18	EI	M	Y	N	Regularly	LVRPA ranger
FB19	AW	F	Y	N	Regularly	Retired/ Volunteer

FB20	AW	M	N	N	Regularly	Retired/ Volunteer
FB21	AW	M	Y	Y	First visit	Performer and retired sign writer
RSPB Rainham Marshes						
RM01	AW	M	Y	Y	Regularly	Volunteer
RM02	AW	M	Y	Y	Regularly	Retired
RM03	AW	F	Y	Y	Regularly	Retired
RM04	AW	F	Y	Y	Regularly	Retired
RM05	EI	M	Y	Y	Regularly (prior to RSPB)	Volunteer, Heritage Centre
RM06	EI	M	Y	Y	Regularly (prior to RSPB)	Volunteer, Heritage Centre
RM07	AW	M	Y	Y	Regularly	Ornithological consultant
RM08	AW	M	N	N	Regularly	Volunteer
RM09	EI	M	N	Y	Regularly	RSPB
RM10	AW	M	Y	Y	Regularly	Retired analytical chemist
RM11	EI	M	N	N	Regularly	RSPB
RM12	PW	M	Y	Y	Regularly	Retired paper merchant
RM13	AW	F	Y	Y	Regularly	Volunteer
RM14	AW	F	N	N	First visit	Librarian
RM15	PW	M	Y	Y	Regularly	Retired
RM16	PW	F	N	N	First visit	Garden design student
RM17	AW	M	Y	Y	Regularly	Retired
RM18	AW	F	Y	N	Regularly	Conservation Science
RM19	AW	M	Y	N	Regularly	Retired civil servant
RM20	AW	F	Y	N	Regularly	Retired NHS worker
RM21	AW	M	N	Y	3-10 times	Retired
RM22	AW	M	N	N	2-3 times	Local government officer
The Hidden Gardens						
HG01	AW	F	Y	Y	Regularly	Cleaner
HG02	EI	F	Y	Y	Regularly	Volunteer Manager
HG03	AW	F	Y	N	Regularly	Unemployed
HG04	AW	F	Y	Y	Regularly	Retired/ Volunteer
HG05	AW	F	N	N	Regularly	Retired/ Volunteer
HG06	AW	M	Y	Y	Regularly	Clarinetist
HG07	AW	F	Y	Y	Regularly	Social worker
HG08	AW	F	Y	N	Regularly	Cleaner
HG09	AW	M	Y	Y	Regularly	Unemployed, volunteer
HG10	AW	F	N	N	Regularly	Volunteer/ landscape architect
HG11	AW	M	Y	Y	Regularly	Retired
HG12	AW	F	N	Y	Regularly	Consultant
HG13	AW	M	Y	N	Regularly	Metal sales
HG14	AW	F	Y	N	Regularly	Accountant
HG15	AW	F	Y	N	Regularly	PhD graduate

HG16	AW	F	Y	N	Regularly	Artist
HG17	AW	F	Y	N	Regularly	Librarian
HG18	AW	F	Y	N	2-3 times	Garden designer
HG19	AW	F	N	N	Regularly	Gardener
HG20	AW	M	N	N	First visit	Unemployed
HG21	AW	M	N	N	First visit	Self employed
HG22	AW	F	N	N	First visit	Unemployed
HG23	AW	F	Y	N	Regularly	Quantity surveyor
HG24	AW	M	N	Y	Regularly	Artist

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¹ This research relies on photographs and photomontages to assess landscape preference and I question the value of these results. The participants were given six photos of the very diverse, lush post-industrial landscape of Duisburg Nord and two groups of photos of more open and less diverse landscapes (Ruelle *et al*, 2013, pp.85-88). One of these groups showed photos with an open expanse of grass in the foreground. In another group five of the six photos showed what appears to be a road or path in the foreground. The level of complexity in the Duisburg photos was much greater than the other two examples and, if the photos were in colour as I assume, the greenery of the vegetation would predominate. The authors draw conclusions about the value of the conservationist approach to post-industrial landscapes, however it may be that the level of diversity and complexity in the Duisburg landscape was influencing these results.

² Scannell and Gifford (2010) in their tripartite model of place attachment, examine the specificity of the physical place and suggest that the physical attributes of a place contribute to the meanings place may have for the visitor. They suggest that this meaning may be symbolic or may contribute to a person's sense of identity. However they do not consider in detail specific physical attributes, rather concentrating on general concepts such as wilderness, home and nature. Scannell, L. & Gifford, R. (2010) Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, 30 (1), pp. 1-10.

³ I use the term historical here to indicate any attributes of the place that might create links with the past and hence continuity – this could be in the form of local traditions, as mentioned by Gustafson (2001), or events, stories, local and national histories.

⁴ Nora's (2004) account of the relationships between memory and history is confused somewhat by his definitions of collective and individual memory. At times he refers to memory as being about collective traditions and at others he maintains that it is also a spontaneous event without a past. I sometimes found it unclear to which of these definitions he was referring.

⁵ Sharr (2010) suggests that negative discourse critiquing the Modernist approach to a linear and progression-oriented method of history writing has become too pervasive and calls for this approach to have its place in the discussion of memory. In this I agree; although much of the writing on memory stresses the unpredictability and sense of randomness that is a part of recollection it might be useful to consider how we use a framework for reflecting on our memories. It is clear that this framework is constructed of our experiences and knowledge, one element of which is the sense we have of a linear progression between past, present and future.

⁶ Although Boyer (1996) speaks of collective memory with relation to the city, the unpredictable memories she is describing here are experienced by individuals and I think she is using the term collective to speak of the collective memories and histories that form the layers of this conceptual city. These are then experienced randomly and by chance by the individual as they engage with the city.

⁷ Küchler (1993) is discussing the ways that the history and memory of land-use and ownership are embodied in the landscape. She introduces the term memory-work to describe the process of emplacing memory in landscape. Although her focus is non-Western cultures, this way of looking at landscape as process is now fundamental to an understanding of landscape within the landscape design discipline. Individual memories are one part of the process of landscape, as the results of my research will demonstrate.

⁸ An example of a counter-monument given by Young (1993, pp.28-37) is the 12m tall, lead-covered column designed by Jochen Gerz and Esther Shalev-Gerz. Visitors to the column were encouraged to write on its lead surface and as each accessible section was filled with messages and graffiti the column was lowered to the ground until in 1993 it disappeared completely.

⁹ I do not propose to examine this aspect of the monument in detail as my research considers individual rather than collective memory, however Stevens *et al* (2012) suggest that there is an ever-increasing range of groups of people who make 'conflicting claims on memory and history' and it is therefore important to consider how the design of the counter-monument can speak to different people and interest groups (p.968). This is also relevant to the designing of landscapes that make reference to past uses; my research will examine the different ways in which memory and landscape are linked and suggest how these findings might be useful for landscape architects.

¹⁰ It is worth noting that there is little or no evidence about informal users' responses to these sites. It is for this reason that I found the analysis of my interviews in the second phase of this research invaluable in my creation of the typology of qualities for the phase one sites.

¹¹ I discuss this in my chapter *Buried Narratives* in the 2012 book *Urban Wildscapes* where I explore the potential for landscape to evoke narratives and stories.

¹² I note in my chapter *Buried Narratives* that in the planned regeneration of the Riverbanks of Bordeaux 'the natural processes of ruination and succession are made explicit; concrete becomes woodland' (p.179).

¹³ Roe and Taylor (2014) discuss the concept of cultural landscapes in detail and suggest that recently there has been a growing acceptance that all landscapes could be described as cultural. They suggest that the term can be used to describe 'living landscapes that reflect a range of relationships between humans and natural cycles' (p.3). This definition is eminently applicable to the sites I discuss in this research. Roe, M. & Taylor, K. (2014) *New cultural landscapes: emerging issues, context and themes*. In: M. Roe & K. Taylor (Eds.) *New cultural landscapes*. Oxon, Routledge. pp. 1-23.

¹⁴ I discuss this in detail in my unpublished MA from Middlesex University and suggest that the inclusion of such an artwork when all other evidence of the industrial history of the area has been removed does little to create a meaningful narrative about the pastness of the landscape.

¹⁵ The archeological report (Field Archeology Unit, 2010) also notes that an earlier survey undertaken between 2004-6 whilst the reserve was in the development stage revealed practice trenches and shelters and late medieval drainage features as well as evidence of the submerged Purfleet Neolithic forest, including 'trunks and roots of trees such as alder, ash and yew' (p.4).

¹⁶ I was told this by one of my interviewees and could not confirm whether these sculptures were in fact made of recycled bicycles. There was no information on the interpretive boards.

¹⁷ These results accord with those observed during a research programme by students at UCL over the period 2008-2010. The research, which centred on the Hackney Marshes and included the Filter Beds, found that people enjoyed discovering the marshes for themselves and finding new things in a situation where the urban environment meets nature. This research also found that it was the over 50s who responded to this type of landscape, with teenagers preferring more structured and programmed environments. Threpsiades, A., van Asseldonk, E., Iglesia, H. B., Groves, L., Perez, R., Matabuena, R., Kanchwala, R. & Li, Z. (2010) *Justice in the green: Being with nature*. London, UCL. Available from: <http://www.justiceinthegreen.org.uk/IMG2010/BWN/ES3%20Being%20With%20Nature%20Presentation.pdf> [Accessed 25/3/13].

¹⁸ I only noticed this leaflet on one of my visits during 2012-13

¹⁹ This is made clear in discussions with local staff and volunteers as well as in the literature available at the site

²⁰ Expert interview with LVRPA staff member with responsibility for the Filter Beds, 23/5/2012.

²¹ Roe and Taylor (2014) in their recent book, published as I was writing this conclusion, suggest something very similar to the findings that I discuss here, namely that cultural landscapes are valued precisely for the ways in which 'change is revealed in the materiality of landscape features' (p.17).

²² Raxworthy (2008, p.82) states that the idea of using an industrial palette of materials to signal past use has become clichéd. He points out that the inclusion of some materials such as Cor-Ten is now ubiquitous. My research shows it is probable that many people never recognised these materials as symbols of past use. However it is also difficult to imagine what other materials could be used in many of the sites I discuss. The blending in of materials at

Rainham is seen as important by my interviewees and the more gritty industrial palette achieves this where a gardenesque palette would not.

²³ I discuss this extended relationship approach and how it contributes to a reading of the landscape with reference to several of the phase 1 sites in my chapter *Buried Narratives* in the book *Urban Wildscapes* (Heatherington, 2012).

²⁴ I met the former miner at Easington as part of my MA research and this quote is taken from my unpublished dissertation.