

Learning-Through-Touring

Mobilising Learners and Touring Technologies to Creatively Explore the Built Environment

Juliet Sprake



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LEARNING-THROUGH-TOURING

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Scope

The rapid co-evolution of technology and learning is offering new ways to represent knowledge, new educational practices, and new global communities of learners. Yet the contribution of these changes to formal education is largely unexplored, along with possibilities for deepening our understanding of what and how to learn. Similarly, the convergence of personal technologies offers new opportunities for informal, conversational and situated learning. But this is widening the gulf between everyday learning and formal education, which is struggling to adapt pedagogies and curricula that were established in a pre-digital age.

This series, *Technology Enhanced Learning*, will explore learning futures that incorporate digital technologies in innovative and transformative ways. It will elaborate issues including the design of learning experiences that connect formal and informal contexts; the evolution of learning and technology; new social and cultural contexts for learning with technology; novel questions of design, computational expression, collaboration and intelligence; social exclusion and inclusion in an age of personal and mobile technology; and attempts to broaden practical and theoretical perspectives on cognition, community and epistemology.

The series will be of interest to researchers and students in education and computing, to educational policy makers, and to the general public with an interest in the future of learning with technology.

Learning-Through-Touring

Mobilising Learners and Touring Technologies
to Creatively Explore the Built Environment

By

Juliet Sprake
Goldsmiths, University of London, UK



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It was easy to record specific (quiet) sounds to give a real visual (easy to imagine) idea of where we were. We found it hard to be organised and switch the recorder off because we would miss things.

‘An aesthetic experience is one in which your senses are operating at their peak; when you’re present in the current moment, when you’re resonating with the excitement of this thing that you’re experiencing, when you are fully alive. An anaesthetic is when you shut your senses off and deaden yourself to what is happening.’*

* Ken Robinson, ‘Do Schools Kill Creativity?’, a talk given at the RSA and presented as an animation as part of the RSA Animate Changing Education Paradigms. Online. <http://www.youtube.com/watch?v=zDZFcDGpL4U>. Accessed October 2010.

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FOREWORD

The most memorable guided tour I've participated in as an adult was *Cruisin' the Castro* with Trevor Hailey in San Francisco (1995). Meeting at Harvey Milk Plaza, the tour lasted around 4 hours and included lunch. The easy-going conversation over lunch reflected the personality of our tour-guide who had invited questions and story-telling from the start. She explained, 'I used to be in the Navy and when I left, decided I should change my name. I was watching a film and when the credits came up I read the name Trevor and thought it sounded nice. "Treeevoooo. That's the one."' I've since found out from the English what kind of name it is ...' She was adept at weaving stories and histories of the area into the real time-space of the group of walkers. Memories of the tour include: seeing the Aids Quilt at the Names Project, calling me 'sister' and joking about cats and veggie casseroles, her greeting passers-by in the street, the nice lunch, the fact that it felt a bit risqué and alternative to be on a 'gay' tour at that time and that straight people were interested in it, the 1940s cinema, the eclectic businesses that had blossomed in a gay area, the plethora of rainbow flags, coveting the brownstone salvage houses en route, getting a bus from the cable car terminus where there were several homeless people and the contrast and irony of this with cleanliness of The Castro, the warmth of the sun on my back And because I enjoyed it so much, I learned a lot about the place.

There are many elements of this tour that combined on that day and at that time to make it a great learning experience for me. Some of this was down to luck. For example, the fine weather. Other elements were planned in advance – such as the itinerary and the tour-guide's 'script'. And then there were expected yet unpredictable elements like the passers-by, other customers in the lunch café and people in the tour group. In hindsight it felt as though I was able to make connections between all of these elements to personalise the tour. This kind of experience is very different from tours that are overtly controlling in telling you where to go and what to see without acknowledging the active and informal nature of learning. The 'public guidance system', a thick uncoiled length of royal blue or crimson rope, often velvet covered, suspended in loops between chrome stands, has been designed for just this. A polished crowd control barrier that says 'look but don't touch. Stay behind the line.' It's almost as though the really interesting stuff is always the other side of that line. As a child I remember wanting to see the stuff underneath the beds in tours of stately homes, rather than looking in from behind the rope. There is perhaps here a declared interest in wanting to explore things that are metaphorically and physically cordoned off by 'public guidance systems'.

Providing participants in tours with a 'bunch of keys' that enables them to independently get into and find out how buildings work through interactions with people and objects is the big idea in this book; making buildings and their environs visible and accessible for learning. Drawing on studies in cultural psychology I argue that buildings are simultaneously conceptual and material in that they are produced by participation and interaction, both historically and through current use. Understanding that space is produced by people is argued to be fundamental in

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exploring how buildings work in unintended ways. Acquiring knowledge about materiality and developing skills in recognising decay as a positive element of transition in seemingly planned locations contributes to understanding buildings as haptic learning environments. Although the focus for the creative practice in this book is on visitors' learning-through-touring, it is important to recognise that the methodology also provides a framework for architects and designers to consider how buildings may be designed to 'teach about themselves'. For example, knowledge about the ways in which technologies are utilised as touring devices to explore buildings offers opportunities for thinking about the ways in which they may be designed to reveal patterns of use in architectural design. I have also considered how a learning-through-touring methodology may support architects and users talking with each other in design and planning processes. Learning activities have been designed to engage non-experts in understanding architectural design practice and to communicate their contributions to the design process.

In this book learning is defined through embodied interactions with the physical built environment. And touring is defined as participation in mobile learning activity that involves taking risks as a means to understanding and contributing to the built environment. In tours of buildings and the built environment the guide (person and/or technological device) moves alongside visitors to promote engagement with the site and this book positions the participant at the centre of that experience. What visitors bring to the event – the 'take in' – is as important as what they 'take out'. Understanding and exploring the role of technologies, the tour guide and their relationship to participants is integral to developing touring as learning activity; I argue that there is an implicit contract between guide and participant based on trust that is similar to that of teacher and learner. Learning can be reinvigorated through touring and this book proposes new concepts, methods and processes for doing this.

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My friend and co-mudlarker Peter Rogers has been a constant companion to both the ideas and technologies that have shaped this work. He has been brilliant. Thank you so much Pete.

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INTRODUCTION

Tours, as leisure-based activities that aim to engage interest and develop knowledge about the built environment and to guide visitors around a site are often presented as a ‘readymade’ package in which visitors are not involved in generating content for the tour. There seems to be an apparently straightforward problem here in terms of learning. Tours can be argued to close the text of the building and define what visitors ‘take out’ from the experience. I argue that this problem is made necessarily complex in an interdisciplinary set of theoretical investigations (Part 1) and practice-based projects (Part 2) that aim to find out how the social dimension of interacting with other people and objects whilst on the move can reposition learning at the centre of designing tours of buildings.

Part 1 describes a series of analytical investigations that draw on theories and practices across architecture, art, education, geography and urbanism in new ways to shape the practice in Part 2. These theoretical investigations question standardisation and conventions associated with ‘seeing’ the buildings in predicted ways and instead explores how participants may be active in making their own meanings through using imagination, association and asking questions in relation to the experiences they have whilst moving through the built environment.

Chapter 1 outlines an understanding of subjectivity in making meaning that differentiates between passive consumption and active production of texts. I explore theories concerned with spatial practice that work across disciplines of art, architecture and education to argue for a shift in subjectivity from guide to participant in the production of tours. Jonathan Hill’s concept of ‘creative users’,¹ Jane Rendell’s notion of ‘critical spatial practice’² and Richard Edwards’ and Robin Usher’s concern with ‘pedagogies of (dis)location’³ are formative in creating an interdisciplinary intersection between learning and touring that questions notions of perceived authority in art, architecture and education. I establish a context for considering *processes* of touring in which the social dimension of interacting with other people and objects whilst on-the-move is integral in co-constructing meaning.

Chapter 2 begins by describing mobile learning. Learning is defined as mobile, and a particular perspective concerned with physical bodily movement and the situatedness of participants is developed within this field. Activity theory is presented as a basis for developing a theory for mobile learning in which different ways of understanding ‘context’ are explored. In particular Mike Sharples’ interpretation of ‘woven context’ and Richard Edwards’ and Robin Usher’s ‘polycontextualisation’ contribute towards defining a set of attributes of the mobile learner that identify how a ‘contained’ notion of context that has evolved through compulsory classroom-based learning is a problematic one. These attributes provide a platform for further investigation and analysis of what it means to be a

¹ Hill, J., *Actions of Architecture*, London/New York: Routledge, 2003, pp. 64-85.

² Rendell, J., *Art and Architecture: A Place Between*, London: I.B. Taurus, 2006, pp. 6-12.

³ Edwards, R. and Usher, R., *Globalisation and Pedagogy*, London: Routledge, 2000, pp. 115-134.

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mobile learner in tours of the built environment and so this chapter moves on to consider how buildings may also be considered as active in developing attributes of the mobile learner. Theoretical perspectives on subjectivity in archaeology and material culture (particularly those of Michael Shanks and Tim Edensor) are combined to explore how ‘context’ and, perhaps more importantly, ‘out-of-context’ and ‘recontextualisation’ are reworked through ideas of material and user transition in the built environment. This creates a need to consider how attributes of the mobile learner may be expanded upon in ways that engage a multi-sensory approach to learning through the design of ‘cues’ technologically embedded in the built environment so that they become *mobilised* learners.

Chapter 3 starts by defining the tour, tour-guide and participant from an historical perspective to produce a set of interpretative concepts for analysing contemporary conventional tours and critical tour-guides. These case studies draw on research undertaken as an active participant in a range of locations and various types of tour. They look at the structure, content and delivery of information about a location that is relevant to developing understanding about what both interferes with, and enhances opportunities for learning through guided tours. The case studies explore further what it means to be a mobilised learner within a touring context and describe specific traits of the tour that are important to consider in developing an active approach to learning.

Part 2 of the book describes three conceptual methods for learning-through-touring that were conceived and developed through a series of projects spanning 2005 to 2009 and involved working with different groups of young learners aged between 11-16 years. Working with groups of young people who do not normally expect to learn in ‘off-site’ locations as part of their learning programme in schools provided opportunities to explore in practice how mobilised learners take action through being in location. Having analysed different kinds of guided tours as an adult participant I wanted to bring findings from this to the design of learning activities for younger people, primarily to see if the attributes of the mobilised learner and the traits of the tour can be explicitly ‘taught’ through activities located in buildings and their environs. But perhaps most importantly, my experience of working with young people as an architectural educator has been underpinned by a desire to provide opportunities for them to develop knowledge about the built environment in creative and engaging ways that may motivate a lasting investment with the urban landscape. I would argue that young people’s views are not considered in urban design and planning processes and that these projects provide opportunities for facilitating better engagement with this group. The learning-through-touring methods – ‘haptic referencing’, ‘micromapping’ and ‘ground untruthing’ – initiated and developed through working with young learners are presented as practical concepts for making tours.

In differentiating between hypothesis-testing experiments and experimental practice, educationalist Donald Schön offers a way of describing the research methodology in the projects presented. He says that ‘the practitioner has an interest in transforming the situation from what it is to something he likes better. He also has an interest in understanding the situation, but it is in the service of his interest

in change'.⁴ As such, Schön argues that the design process is 'reflection-in-action' and that experimental action is simultaneously 'exploratory, move testing and hypothesis testing'.⁵ The interest in changing a situation can take precedence over understanding it and, for me, it is this that describes practice-led research in which experimental action is 'initiated by the perception of something troubling or promising, and it is terminated by the production of changes one finds, on the whole, satisfactory or by the discovery of new features that give the situation new meaning and change the nature of the questions to be explored'.⁶ Schön directly connects learning with reflection in his understanding of the design process; if the designer is primarily concerned with producing change, they do not learn by reflecting on the situation and are creating conditions for the experimentation to conform to their own views. For Schön practical experience is central to understanding the nature of research in practice contexts as 'reflection-in-action'.⁷

The parallel structure of the two parts of this book embodies this 'reflection-in-action'. For example, the analysis of contemporary tours in Chapter 3 was undertaken as both a participant and a designer. The tours were analysed in terms of my experience as a participant and also as someone who is involved in designing participatory tours and this affected the analysis. I was, for example, able to evaluate what might have been done better, understand how difficult it was to achieve certain elements and make informed judgements about processes of production. The resulting 'traits of the tour' from this analysis have therefore informed productive concepts in my own practice. My practice-led research is not about designing new tours for the visitor attraction industry but is focused on the design of learning activities in tours that may be applied more broadly in a range of contexts and situations. The intention of the projects is to critically rethink the tour as learning activity and, as such, my design process is my research methodology.⁸ In this I suggest that rather than solving a perceived problem, my practice is concerned with exploring process as outcome by doing experimental activities and working out what kinds of conceptual methods emerge from this process.

Each project is divided into sections that reflect three phases of design and development: introduction, background and brief; process and outcome; and key findings and reflections. The first phase, 'introduction, background and brief', captures where the project came from, how ideas described in Part One relate to the project and the focus for design. The second phase, 'process and outcomes'

⁴ Schön, D., *Educating the Reflective Practitioner*, San Francisco: John Wiley and Sons, 1987, p. 72.

⁵ Schön, *Reflective Practitioner*, p. 72.

⁶ Schön, *Reflective Practitioner*, p.74.

⁷ Ramia Mazé and Johan Redström have explored aspects of Schön's work and others to describe critical practice in design and research. The paper outlines what distinguishes design research as critical practice in which problematics are opened up rather than problems solved. Mazé, R. and Redström, J., 'Difficult forms: Critical practices of design and research,' *Research Design Journal*, 1(1), 28-39.

⁸ Jane Rendell makes a distinction between design *for* architecture and design *through* architecture. She suggests that design for architecture is 'driven by the sector' and that design through or 'into' architecture makes new historical and theoretical interpretations. Moreover, she states that 'the focus of such practice-led research in architecture can be process or product.' Rendell, J., 'Architectural Research and Disciplinarity,' *Architectural Research Quarterly*, 8(2), 141-147.

INTRODUCTION

describes the development of learning-through-touring activities that were explored in a series of practical workshops with different groups of young people. The content and structure of these workshops were key in developing conceptual methods for learning-through-touring. The third phase, 'key findings and reflections' describes my personal responses to the project and also references those of key stakeholders.

Establishing a co-design process underpins the practice and has informed the production of content for the tours and/or guides, technical specifications for toolkits and the way in which the projects were managed. A series of workshops involving co-designers and other experts was planned at the start of each project. Each workshop was designed to feed into the next and so review time was integrated throughout the project. For example, in *Mudlarking* the Phase 2 workshops focus on co-designers as 'seeders' to develop the concept of evolving content in tours and in *Transitional Spaces*, the concept of 'seeders' was developed further using the idea of time-lapse in tours. And in *Cracking Maps*, co-designers were conceived differently as 'critical tour-guides' to further understanding of the role of the tour-guide.

The book ends by drawing together the key elements of the learning-through-touring methodology. Rather than suggest a point of closure, my aim is to end with a 'springboard' for further thinking, design and development by offering a framework for mobilising learners and learning through wider application of the methodology.

PART ONE

PRODUCTIVE CONCEPTS

CHAPTER 1

PRODUCTIVE PARTICIPANTS

Presented as a consumer product as part of a quality assured service provision, the guided tour carries expectations of *receiving* authoritative information about a site. The ‘point, click and listen’ audio devices that allow users to select from pre-loaded content as they move around a gallery, museum or tourist attraction, for example, illustrate how technology has been used to provide visitors with the same information about objects in front of them. Users are able to choose information that provides an interpretation of the object from a particular point of view. Content for audio devices that has been designed to communicate the institution’s interpretation illustrate how these kinds of guides offer uniformity through a one-way flow of information. Although the user may be invited to imagine or look closer or make links with another object they are not asked to share this with any other people or add their interpretation to that content or question the authority of the guide. It could be argued, therefore, that there is a lack of criticality in providing a tour service based on ensuring standardised content that focuses on a unidirectional flow of information.

In their introduction to a project that explores ‘critical itineraries,’ curators Nuria Enguita Mayo, Jorge Luis Marzo and Montse Romaní describe the impact of service industries in terms of ‘social touristisation’ in which culture has been defined as a ‘definitive form, a machine for refrigerating and museumifying the reality of different peoples.’⁹ Aspects of the form of the tour, as a consumer product, are open to standardisation by national heritage institutions and tourism industries in which ‘consensus’ dominates over ‘dissent.’¹⁰ The introduction to an alternative guide to the city of Edinburgh produced in 1972 encapsulates this issue:

This special issue of *Roots* was produced partly to show visitors to Edinburgh that the city contains more than an endless display of castles and monuments, of festivals and shows. You will find it is cynical and critical of the city – if you want a eulogy to Edinburgh’s historic buildings then buy, borrow or steal any tourist guide.¹¹

The tour-guide (human and/or text) may transform the given, opening up opportunities for asking questions, posing contradictions and seeing things in new and different ways and, I argue, support the visitor in processing this by actively contributing to the tour event. (This is explored further in Chapter 3.) The guide

⁹ Mayo, E.M., Marzo, J.L. and Romaní, M. (project curators), 2004, *Tour-isms: The Defeat of Dissent*, Barcelona: Fundació Antoni Tàpies, p. 9.

¹⁰ Mayo et al., *Tour-isms*, p. 9.

¹¹ *Roots: Another Guide to Edinburgh*, No. 16, August-September 1972.

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may be described as expert through the way in which they engage with a group on a tour to enable individual opportunities for learning and thus to understand participants as active. This notion of authority as expertise, I would argue, can be differentiated from an authoritarian approach. An authoritarian approach may be concerned with conforming to a homogenous service provision which seeks to define the tour group as passive consumers. Alternatively, an approach focused on sharing expertise in response to learner-led enquiries provides opportunities for participants to frame their own questions, investigations and discoveries. In this, it is important to acknowledge that individuals may still come away with different experiences as it is they who are mobile in socially moving through space and time, and have abilities and opportunities to make interpretations, meanings and associations unintended by the tour-guide. For me, this idea originates from Roland Barthes' declaration that 'the author is dead.'

Roland Barthes' essay 'The Death of the Author,' first presented at a seminar in 1967 and published later in the same year, argues that it is the language of the text that speaks rather than the author.¹² He suggests that scripted texts are open to varying interpretations by the reader. In this, the notion of an author as a controlling authority on the meaning of the text is announced 'dead' and replaced by the birth of the reader. In a critique of authority, Barthes' essay argues that reading is not a form of consumption based on an understanding of the work as a fixed commodity, nor is it to be understood through deciphering authorial intention. Rather the text is produced by the reader who brings their own knowledge, experiences and understanding to make meaning. This view consequently challenges the role of the critic who attempts to translate, clarify or work out what the author meant. According to Barthes a text is 'a tissue of quotations drawn from the innumerable centres of culture' in which the reader's subjectivity is brought to an understanding of language as a system of signs.¹³

Barthes' essay encapsulates in a concise and provocative way several ideas that are relevant to introducing a critical discussion of the authority of the tour-guide. Barthes challenges unquestioning belief in a notion of control and authority in the mind of the author by arguing that meaning occurs through the interplay of signifiers in a process of reading that continually reproduces the text. In a sense, according to Arnold Bennett, the work is never finished or completed by working out the 'signified' and 'the theorist's interest can shift from attempting to understand the author's intentions or the way that her life, thought or consciousness defines and limits the text's meaning, to a certain thinking of textuality, of textuality without origin.'¹⁴ Barthes refers to traditional literary criticism as 'that somewhat decrepit deity'¹⁵ alluding to 'authoritative' critiques of texts that uncover

¹² Bennett, A., 2005, *The Author*, London/New York: Routledge, p. 10. Andrew Bennett cites the first publication of 'The Death of the Author' as one of a collection of artefacts in an American magazine, *Aspen*, in 1967. Most references cited here are from Barthes, R., 1977, 'The Death of the Author' in (Heath, S., ed. and trans.) *Image Music Text*, London: Fontana, pp. 142-148.

¹³ Barthes, 'The Death of the Author,' p. 146.

¹⁴ Bennett, *The Author*, p. 15.

¹⁵ Barthes, R., 1974 (Richard Miller trans.) *S/Z*, London: Cape, p. 211.

or decipher authorial intention. It is within this context of ‘old criticism’ that Barthes argues for the author to be renamed a ‘scripter’ or writer of text that the reader constructs. Through the process of reading, it is the reader who is argued to control the text’s unity as ‘someone who holds together in a single field all the traces by which the written text is constituted.’¹⁶

In April 2008 I participated in a Republican walking tour of Falls Road in Belfast that departed from Divis Tower at one end and finished at Milltown Cemetery at the other. The tour is described in a guidebook for visitors to Belfast as an ‘authentic’ and ‘detailed’ tour that visits ‘sites of historic and political significance on the Falls Road’¹⁷ and it was structured as a linear two mile walk with guide-led pauses lasting approximately three hours. The tour was led by Pádraic McCotter, a trainee development officer with Coiste na n-Iarchimi, an organisation ‘working for the social, economic and emotional well being of current and former republican prisoners and their families.’¹⁸ On the ‘political tours’ section of the Coiste website, the tour-guide describes himself:

As a former republican prisoner I have been doing political tours for Coiste for 3 years. Before that, as a member of Belfast National Graves, I was taking tours of Republican graves in Milltown Cemetery. I have a keen interest in Irish history and politics and this compliments my post as a tour guide.¹⁹

The political walking tour located in Falls Road is part of a growing training and development project in Irish political tourism that aims to facilitate trainee development officers in completing tour guiding qualifications as well as contributing to ‘increasing the levels of skills within the ex-prisoner community.’²⁰ Our tour-guide met us at the base of Divis Tower, a 22-storey residential block at the junction of Divis Street and Falls Road, West Belfast. He introduced himself as an ex IRA prisoner who had a particular history to share and made it clear that he welcomed questions and discussion but it was important that the group should understand where he was coming from. His introduction established expectations as a tour guide in terms of his personal history and the way this would affect both what buildings and objects he chose to describe along the road and what he included in those descriptions. This example illustrates that a guide-as-author, who works to scripted points of interest, is not replaced by the visitor-as-reader but by one who understands that the tour is both a personal and shared experience. Although the personal involvement of this guide in the tour could be argued to give him a strong authorial voice, his lived experience also provided access to subject matter that is outside the experiences of most people. Through the process of touring, I was able to construct my own meanings by physically walking along the street, listening to the guide’s account of events and ad hoc talk with passers-by, engaging in conversation within the group, drinking a coffee at the community

¹⁶ Barthes, ‘The Death of the Author,’ p. 148.

¹⁷ *Insight Compact Guide: Belfast and the North of Ireland*, London: Apa Publications, 1999 and 2007, pp. 69-70.

¹⁸ Online. Available <http://www.coiste.ie/mission.htm>. Accessed February 2008.

¹⁹ Online. Available http://www.coiste.ie/p_tours.htm. Accessed February 2008.

²⁰ Online. Available http://www.coiste.ie/p_tours.htm. Accessed February 2008.

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centre, drawing on previous knowledge and experiences and instigating further opportunities for learning about the Maze Prison (buying books and later going to a photographic exhibition of Donovan's Wylie's work, *The Maze* at the Photographer's Gallery in London). So although it was difficult to question authenticity of the guide's lived experience, the tour was very much open to personal and shared interpretation.

The notion of the reader as productive in making meaning can be explored further through art, architecture and educational theorists who focus on the productivity of people and their relations with space in making meaning. The first of these involves looking at how architectural writer Jonathan Hill²¹ has interpreted 'The Death of the Author' for architectural design by arguing for a different kind of professional architect and how this has impacted on my understanding of a different kind of professional tour-guide. The second considers guiding as new critical practice by exploring art and architectural critic Jane Rendell's notion of 'critical spatial practice.'²² And the last takes into account the work of educational theorists Richard Edwards and Robin Usher who suggest that sites for learning in a global world cannot be described in fixed terms but through the movements that people make.²³

CREATIVE USERS

Hill introduces the concept of the 'creative user'²⁴ when he describes two occupations in architecture: the 'activities of the architect' and the 'actions of the user' and argues that both are productive.²⁵ Through 'inhabitation,' according to Hill, users creatively occupy and experience architecture in ways that are not always considered by architects. Hill presents an argument for a new kind of architect who not only recognises the creative user but actually uses this productivity in design. He draws on his reading of Barthes' 'The Death of the Author' to make this point:

Barthes recognises that a profusion of ambiguities and interpretations inhabit the gap between writing and reading but does not imply that the writer should be without ideas. Instead, he proposes that the writer should be aware of, and indeed use, the limitations of his medium.²⁶

²¹ Hill, J., 1998, *Occupying Architecture: Between the Architect and the User*, London/New York: Routledge, 1998, pp. 136-159.

Hill, J., 2003, *Actions of Architecture*, London/New York: Routledge, 2003, pp. 64-85.

²² I was first introduced to critical spatial practice through the work of Jane Rendell in Rendell, J., 'A Place Between' in Sarapik, V and Tüür, K. (Eds.), *Place and Location: Studies in Environmental Aesthetics and Semiotics III*, Estonia: Estonian Academy of Arts, p. 223.

²³ Edwards, R. and Usher, R., 2000, *Globalisation and Pedagogy*, London: Routledge, pp. 115-134.

²⁴ Hill, J., *Occupying Architecture*, pp. 136-159.

²⁵ Hill, *Occupying Architecture*, p. 140.

²⁶ Hill, *Occupying Architecture*, p. 141.

Making a direct analogy between the text and building or literature and architecture Hill compares readers with users. He suggests that the kinds of 'relations' manifested between architect, building and user may correspond to those between author, text and reader. Hill says, 'I suggest that author-text-reader relations, as a whole, are analogous to architect-building-user relations.'²⁷ He also highlights Barthes' argument for a new kind of writer who understands that the reader has 'a role in the creation of a text.'²⁸ In this, Hill says that the architect who considers the 'profusion of ambiguities and interpretations' that come about through occupation and use of buildings, understands 'creativity of use to be the central issue of design.'²⁹

In an approach drawn from Hill's application of Barthes' essay, it is likewise important to consider different kinds of relations between guide, tour and visitor with respect to author, text and reader as well as architect, building and user. A guide who both acknowledges that the tour is never 'finished' as a consumer product, but is made through participation can be considered analogous to an understanding that 'a decentred system of language'³⁰ can never be closed into finite meanings by an author. Likewise, it could be argued that to give a building a tour is to impose a limit on that building that 'closes' the design. A standardised tour that is planned and delivered in accordance with an expected level of service can be likened to Barthes' notion of an author who controls a reader who consumes. The reader-as-critic offers a different paradigm for the role of guiding in which participation produces the tour. Developing Hill's argument that 'architecture is made by design and use'³¹ for the tour I suggest that tours are produced by both guide and visitor.

In making an analogy of tour as text it is possible to present the case that tours consist both of the walking experience and the documentation of that experience in the form of texts. These texts are read by people before they visit a location in order to plan itineraries and in location. In this way, there is an argument to be made about the way in which tours themselves are like texts but also that they exist as texts which can be critically read. What is perhaps more interesting here though, is to make an analogy between readers and visitors. Writing in 1980, literary theorist Catherine Belsey argues that the reader or spectator as passive consumer is still regarded as 'the norm in our society.'³² Her concept of active producers of meaning is one that can be applied to a notion of participation as active production of a tour. Participation suggests some kind of active involvement, whether this is personal or shared, short term or long term, in producing new meanings.³³ Drawing on Hill's idea of 'creative users,' learning can be understood through the kinds of new knowledge and experiences interactively evolved through spatio-temporal

²⁷ Hill, *Occupying Architecture*, p. 141.

²⁸ Hill, *Actions of Architecture*, p. 71.

²⁹ Hill, *Actions of Architecture*, p. 72.

³⁰ Barthes, 'Death of the Author,' p. 148.

³¹ Hill, *Actions of Architecture*, p. 72.

³² Belsey, C., 1980, *Critical Practice*, London/New York: Methuen, p. 125.

³³ This idea provides the basis for defining the nature of participation in tours in Chapter 3.

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processes of touring. Understanding the nature of this involvement and interaction and how this contributes to developing new approaches to learning through the built environment is now developed through understanding touring as a productive critical practice.

CRITICAL SPATIAL PRACTICE

Rendell presents a concept of critical spatial practice³⁴ that develops Belsey's notion of the critical reader by pointing to the importance of space and the spatial which, I would argue, is even more relevant to the tour. Rendell argues that a practice which is spatial and which critiques a site is a critical spatial practice. She describes the key characteristics of critical theory as reflectivity and transformability as providing the potential for critical practice. Rendell suggests that critical spatial practice provides opportunities for making change, for transforming the given, 'to imagine something different.'³⁵ There are many different types and forms of tours and tour-guides that have 'critiqued' the given in order to 'imagine something different.'

The Situationist International group of avant-garde Marxist activists operating in Europe between 1957 and 1972³⁶ defined one of their basic practices, the 'dérive,' as 'a mode of experimental behaviour linked to the conditions of urban society: a technique of rapid passage through varied ambiances. The term also designates a specific uninterrupted period of dérivin.'³⁷ The practice of moving through the city by responding to complex phenomena that give rise to 'combinations of ambiances' provided participants with a form of walking for feeling and knowing the urban environment in ways that are different from routines of everyday life. Although chance plays an important part in this practice, to undertake a dérive is not purposeless wandering:

In a dérive one or more persons during a certain period drop their relations, their work and leisure activities, and all their other usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there. Chance is a less important factor in this activity than one might think: from a dérive point of view cities have psychogeographical contours, with constant currents, fixed points and vortexes that strongly discourage entry into or exit from certain zones.³⁸

³⁴ Rendell, J., 'A Place Between,' p. 223.

³⁵ Rendell, J., 2006, *Art and Architecture: A Place Between*, London: I.B. Taurus, p. 8.

³⁶ 'Prologue,' *Situationist International Anthology* (Revised and Expanded Edition), 2006, Edited and Translated by Ken Knabb, Bureau of Public Secrets, 2006. Online, <http://www.bopsecrets.org/SI/preface.htm>. Accessed August 2009.

³⁷ 'Definitions,' *Situationist International Anthology*. Online, <http://www.bopsecrets.org/SI/1.definitions.htm>. Accessed August 2009. 'Definitions' originally appeared in *Internationale Situationniste* #1, Paris, June 1958.

³⁸ 'Theory of the Dérive,' *Situationist International Anthology*, 2006. Online, <http://www.bopsecrets.org/SI/2.derive.htm>. Accessed August 2009. 'Théorie de la dérive' was published in *Internationale Situationniste* #2, Paris, December 1958.

PRODUCTIVE PARTICIPANTS



Figure 1. Champions League Postcards, 2006.

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The aims of the *dérive* are reflected in contemporary ‘alternative’ or experimental urban walking practices in which the physical contour of the terrain and the ‘appealing or repelling character of certain places’³⁹ are consciously revealed and often challenge mainstream tours. Seeking out alternative tours is a deliberate choice and often the guide is provocative in exposing hidden information or asking participants to think critically. Being motivated to explore a location as a visitor in unofficial ways, I have made my own tours that are initiated by a personal enquiry related to that place. For example, I have toured Paris in response to a self-made enquiry: ‘find evidence that the Champions League final between Arsenal and Barcelona took place here 48 hours ago.’ This involved travelling to the outer suburbs to the Stade de France and finding and recording remnants of the event along the way – from stud marks on changing room benches to discarded press tickets. One of the physical outcomes from this tour was a small set of ‘souvenir postcards’ of the findings. By making a collection, I had the opportunity to reflect on what I’d found by selecting, editing and organising a series of images. This experiment provided me with a means to make a tour and process the experience in which I learned to: initiate a personal enquiry, plan a route, select and use a recording device, notice everyday objects in new ways, develop confidence in taking risks and creatively reproduce data.

Rendell describes a view of ‘interdisciplinarity’ that involves people moving ‘between disciplines and in so doing question[ing] the ways in which they work.’⁴⁰ In this she emphasises the collaborative nature of interdisciplinary ways of working that require a ‘mode of “thinking between”’ that is challenging ‘because this way of working requires us to be critical of what we do and open to change.’⁴¹ Reflecting on Rendell’s understanding of interdisciplinarity opens up possibilities for *transforming* practice that bring activities of learning to those of touring. Rendell uses the term ‘critical spatial practice’ to describe a selection of projects that challenge and stretch traditional disciplinary boundaries in ‘a place between’ art and architecture.⁴²

I have [also] argued that understandings, informed by critical spatial theory, of the place between art and architecture in terms of the spatial, the temporal and the social, allow terms like site, insertion and relationships to be reconfigured at the intersection between disciplines.⁴³

In her discussion around specific public art projects Rendell explores the importance of spatiality through reconfiguring terms such as ‘site and context in art and architecture,’ of temporality through ‘new user insertions in existing locations’

³⁹ Debord, G., 2006, ‘Introduction to a Critique of Urban Geography,’ *Situationist International Anthology*. Online, <http://www.bopsecrets.org/SI/urbgeog.htm>. Accessed August 2009. ‘Introduction à une critique de la géographie urbaine’ originally appeared in the Belgian surrealist journal *Les Lèvres Nues* #6, September 1955.

⁴⁰ Rendell, J., ‘A Place Between,’ p. 223.

⁴¹ Rendell, *Art and Architecture*, p. 11.

⁴² Rendell, *Art and Architecture*, pp. 6-12 and pp. 191-193.

⁴³ Rendell, *Art and Architecture*, p. 192.

and of subjectivity through interactions between ‘people, things and locations’ in discussing a relationship of transformation between critical spatial theory and practice.⁴⁴ I argue that spatiality, temporality and social interactivity may be drawn upon as terms developed through critical spatial practice to design new ways of learning-through-touring.

In the first part of *Art and Architecture*, Rendell describes the work of cultural geographers in establishing the ‘importance of space in producing social relationships’ during the 1970s.⁴⁵ According to Rendell, Edward Soja’s notion of the ‘social-spatial dialectic’⁴⁶ repositioned the spatially productive nature of the social in a form of critical social theory where social relations were seen as dependent on space and as producers of space. Soja argued that subjects interact with spaces and spaces interact with subjects through ‘inter-reactive’ and ‘interdependent’ relations.⁴⁷ Soja draws on the philosophy of Henri Lefebvre in developing this argument.⁴⁸ Lefebvre suggests that specialising space into multiple ‘descriptions and sectionings’ leads to a separation of social practice and spatial practice and that ‘society continues in subjection’ to a dominant authority in whose interests it is to maintain those divisions.⁴⁹ In considering the productive nature of space/the spatial and social relations it is important to note, albeit briefly, that Lefebvre argues that space is both materially and mentally produced and that social relations do not exist in an abstract form but are spatially produced. He describes attempts to abstractly rationalise space associated with political and state authorities as ‘that space where the tendency to homogenization exercises its pressure and its repression with the means at its disposal: a semantic void abolishes former meanings (without, for all that, standing in the way of the growing complexity of the world and its multiplicity of messages, codes and operations.)’⁵⁰ Lefebvre goes on to suggest that commodified space is the space of exchange in which planning may be conceived as a strategic means to promote ‘accumulation and growth.’⁵¹ This concept resonates with that of visitors as consumers and the tour as a consumer product described at the start of this chapter in which tours are designed to convey standardised information in a centralised way. The space of the tour group, however, is often productive in disrupting the conventions of the guided tour. Hanging back, asking questions, having conversations, going ‘off route,’ feeling surfaces, remarking aloud and looking through closed doors are just some of the indications that both visitors and guides are active in producing the tour.

⁴⁴ Rendell, *Art and Architecture*, p. 192.

⁴⁵ Rendell, *Art and Architecture*, p. 17.

⁴⁶ Soja, E., *Postmodern Geographies: The Reassertion of Space in Social Theory*, London: Verso, 1989.

⁴⁷ Soja, *Postmodern Geographies*, p. 81.

⁴⁸ Soja, 1991, *Postmodern Geographies*, p. 81. Soja cites Lefebvre, H. (Nicholson-Smith, D. trans.) *The Production of Space*, Oxford: Blackwell (first published by Editions Anthropos in 1974).

⁴⁹ Lefebvre, *The Production of Space*, pp. 7-9.

⁵⁰ Lefebvre, *The Production of Space*, p. 307.

⁵¹ Lefebvre, *The Production of Space*, p. 307.

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Educationalists Edwards and Usher suggest that social and spatial relations are ‘inter-reactive’ in forms of learning that are not bound by an institutionalised curriculum:

People interact with each other and objects in space and in so doing construct, disrupt, and resist meanings and understandings. They therefore invest certain meanings in their built environment through the forms of interaction in which they engage [...] The attempts to spatially order the curriculum are therefore always subject to disruption, because one cannot escape the wider networks within which it is enmeshed.⁵²

Experiencing space through the controlled movement of the guided tour can be argued to abstract learning from everyday life by managing or controlling the way in which people move through spaces of the physical environment, so that the tour becomes a specialised space for informal education. If instead, learning is conceived of as an everyday experience, an approach to ‘site’ as a context for learning may require a shift from defining site as a way of describing an ‘original’ position and intended occupation towards site defined in transitive terms as the learner’s spatial ability to orientate expressed through their actions. Site-specificity may be understood in terms of the productive potential of the physical environment to be activated by people moving through its spaces.⁵³ Art critic Miwon Kwon describes how a definition of site-specificity has changed through contemporary art practices from one in which the physical location is defined in fixed terms towards one in which site-specificity may be understood in transitive terms as ‘ungrounded, fluid, virtual.’⁵⁴ Performance art theorist Nick Kaye argues that such a concept of site-specificity is intrinsically linked to performance in which the viewer recognises him/herself as both a performer and witness in constructing the work. He suggests that ‘this effect rests upon the viewer’s awareness of an opposition, here ‘performer’ and ‘viewer,’ at the very moment in which its construction is revealed to be contingent upon her looking.’⁵⁵ In this way, I would argue that Kaye alludes to the ‘unfinished’ nature of site-specific performance through positioning the viewer as active in constructing the work. I return to this idea later, specifically in defining ‘site’ in the context of mobile learning and to explore performance as a form of interpretation in tours.

In the second part of *Art and Architecture*, Rendell describes ‘artworks and architectural projects that reconfigure the temporality of sites, repositioning the relationship of past and the present in a number of different ways,’ so opening up ways of thinking about how artists make ‘insertions’ into existing locations.⁵⁶

⁵² Edwards, D. and Usher, R., 2003, ‘Putting Space Back on the Map of Learning’ in Edwards, D. and Usher, R. (Eds.), *Space, Curriculum and Learning*, Connecticut: Information Age Publishing, p. 5.

⁵³ Although not the focus for this book, it is important to note that spaces can be designed to be transformed through interaction.

⁵⁴ Kwon, M., ‘One Place After Another: Notes on Site Specificity,’ *October*, 80, p. 95.

⁵⁵ Kaye, N., 2000, *Site-Specific Art: Place, Performance and Documentation*, London/New York: Routledge, p. 200.

⁵⁶ Rendell, *Art and Architecture*, p. 75.

Rendell draws attention to ‘insertion as montage’ as both a creative and critical experience in which ‘new insertions into locations adopt “inappropriate” materials or languages in order to displace dominant meanings and to interrupt particular contexts.’⁵⁷ I would argue that this is particularly relevant in considering spatiality and temporality in experiential learning. The antithesis of institutional preservation is perhaps everyday decay and Rendell points towards the interest in the ‘ruin’ in the work of contemporary artists and architects who are drawn towards sites ‘with the functions that once defined them removed and how these places appear as ruins of the past in the present.’⁵⁸ She explores how critical responses to work in such environments may occur as sudden initial reactions but also arise as ‘reverberations’ over time.⁵⁹ Rendell makes a strong distinction between how one might respond through an allegorical mode and a montage mode, suggesting that contemporary works that operate in an allegorical mode may be explored in their potential for politicisation (rather than ‘retrospective contemplation’) and that montages may be considered through more ‘subjective and intimate aspects’ (rather than their ability to ‘shock’).⁶⁰ I suggest that Rendell alludes to a particular understanding of participation in her notion of exploring relations between immediate reactions and responses and reverberations over time, linking concentration with contemplation in making critical responses to a work. Participation in a tour may be characterised by these linked and developmental abilities to concentrate and contemplate.

This element of critical spatial practice may be developed further by focusing on how the ways in which people notice or sense material change in the built environment might allow a critique of authoritatively controlled space. Architectural theorist John Habraken suggests that the built environment is ‘organic’ in the way it continuously grows and changes over time and that ‘restoration’ projects can be likened to ‘freezing a collage of intervention.’⁶¹ Rather than ‘freezing’ snapshots of change as the subject for a guided tour, I am interested in exploring how skills in ‘noticing’ transition may be developed by touring different sites of the built environment over time and how these may facilitate critical engagement with urban design and planning proposals. Rendell highlights the importance of prior knowledge of ‘original context’ in being able to experience ‘new relationships in a particular context at a specific time.’⁶² Being able to recognise objects as misplaced, unusual or strange requires knowledge about their original contexts in order to construct meaning through the temporal juxtapositioning of such objects in a new location (Figure 2). In this way, it could be argued that participants of tours can activate a concept of continuous change in

⁵⁷ Rendell, *Art and Architecture*, p. 83.

⁵⁸ Rendell, *Art and Architecture*, p. 82. I also note that this interest in the ruin is dominant in the gothic picturesque of the late 18th Century.

⁵⁹ Rendell, *Art and Architecture*, p. 82.

⁶⁰ Rendell, *Art and Architecture*, pp. 81-82.

⁶¹ Habraken, N.J., 1998, *The Structure of the Ordinary: Form and Control in the Built Environment*, Cambridge, Massachusetts/London: The MIT Press.

⁶² Rendell, *Art and Architecture*, p. 82.

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the built environment by developing awareness of how the notion of ‘out of context’ can be creative by making associations between the present and past, one site and another. In Part 2, I explore this idea in the conceptual method ‘micromapping’ by focusing on ways in which we can find evidence that buildings are in a constant spatial and temporal transition.



Figure 2. 'Detritus,' Deptford Creek, December 2003.

In the third part of *Art and Architecture*, Rendell highlights a shift in ‘contemporary criticism and art practice’ towards ‘understanding art as relational or dialogical’ and goes on to explore art and architectural projects that ‘operate as the place of exchanges between subjects.’⁶³ It is important to note that she describes subjects as ‘artists and architects, producers and users, viewers and occupiers’ in discussing the nature of processes and interactions that reflect the mediating capacities of objects. I consider visitors to be productive in their mobility across space and time, developing ways of interpreting or making sense of sites that may also inform how they mediate that experience through recorded data such as geolocative tags, photographs, audio narratives or annotated maps. So rather than the singular tour we may think about processes of touring in which social interaction within a mobile group of people provides opportunities for learning. Expression and exchange are suggested as key terms in considering how

⁶³ Rendell, *Art and Architecture*, p. 151.

social interactivity might *evolve* what it means to participate in the built environment. Expression as a verbalising of thought and exchange as a shared opportunity for expressing or, in other words, speaking and listening, is developed out of an understanding that ‘verbal discourse’ is a ‘social phenomenon.’⁶⁴

Literary theorist, Mikhail Bakhtin describes the dialogic nature of language as socially and historically determined. In this he distinguishes ‘unitary’ language from ‘living language.’⁶⁵ Unitary language for Bakhtin is the ‘abstract grammatical system of normative forms, taken in isolation from the concrete, ideological conceptualizations that fill it, and in isolation from the uninterrupted process of historical becoming that is characteristic of all living language.’⁶⁶ Bakhtin suggests that genre unifies language by creating stratification systems in literature that are tied up with expectations that limit discourse: ‘Certain features of language take on the specific flavor of a given genre: they knit together with specific points of view, specific approaches, forms of thinking, nuances and accents of the given genre.’⁶⁷ Bakhtin goes on to argue that there is also a ‘professional stratification’ of language which operates through specific professional vocabularies and forms for ‘manifesting intentions’ and for ‘making conceptualization and evaluation concrete.’⁶⁸ Bakhtin gives examples of such professions as lawyers, doctors, politicians and teachers. He stresses that it is important to consider how the ‘denotative and expressive dimension’ of this ‘shared’ language is intentional in its specificity to particular professions and genres. As such, he argues, ‘these languages become *things*, limited in their meaning and expression’ making it difficult for words to be used in ‘unintentional’ ways by those outside that profession.⁶⁹

In describing the intentionality of a language that is stratified according to genre and profession, Bakhtin suggests that it is the expectations and formulae embedded within these that limit discourse and describes this as being ‘situation’ dependent. Here, situation refers to the specifics of a system of expression. ‘Situation’ is thus differentiated from Bakhtin’s use of the term ‘environment’ in which he describes how words are ‘dialogised’ through being spoken. Bakhtin uses the metaphor of a ‘ray of light’ to explain how words become dialogic when uttered.⁷⁰ According to Bakhtin as the ‘ray-word’ is uttered it passes through ‘an atmosphere filled with the alien words, value judgments and accents’ making a ‘spectral dispersion’ in its direction towards the object it addresses. For Bakhtin, ‘The social atmosphere of the word, the atmosphere that surrounds the object, makes the facets of the image sparkle.’⁷¹ He describes such an environment as ‘elastic,’ one in which the word is

⁶⁴ Bakhtin, M. (C. Emerson and M. Holquist trans. M. Holquist ed.), 1981, *The Dialogic Imagination: Four Essays*, Minneapolis: University of Texas Press, p. 259.

⁶⁵ Bakhtin, *Dialogic Imagination*, pp. 288-289.

⁶⁶ Bakhtin, *Dialogic Imagination*, p. 288.

⁶⁷ Bakhtin, *Dialogic Imagination*, p. 289.

⁶⁸ Bakhtin, *Dialogic Imagination*, p. 289.

⁶⁹ Bakhtin, *Dialogic Imagination*, p. 289.

⁷⁰ Bakhtin, *Dialogic Imagination*, p. 277.

⁷¹ Bakhtin, *Dialogic Imagination*, p. 277.

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‘agitated’ in becoming ‘individualised.’⁷² The concept of an ‘elastic environment’⁷³ in which spoken words take shape is particularly important in considering the notion of relationships between people and the socio-spatial production of meaning. Is there a correlation to be explored between how individuals co-construct meaning through speaking and listening and the situation generated by generic shared expectations of the tour? I believe there is, and that investigating this relationship is crucial in furthering understanding of interactions between subjects and objects in the socio-spatial production of the tour.

Following Rendell (following Soja) spatiality, temporality and social interactivity form key elements of a framework for participatory practice in tour design. I argue that they are also vital for exploring how practices of touring and approaches to learning may be mutually transformative. It has been suggested that effecting shifts in thinking from site as fixed location to a context for learning, from the institutional preservation of buildings to everyday user activation and from consumer product to socially produced tour may be instrumental in producing a framework for evolving learner-centred approaches to touring as a form of critical spatial practice.

(DIS)LOCATING PEDAGOGIES

The work of radical educationalist Paulo Friere underpins my learning philosophy of which reflectivity and transformation are key elements in bringing about change. In 1970, Friere described a prevalent pedagogy in Brazilian schools based on an authoritarian ‘banking’ concept of education.⁷⁴ Friere’s uses the analogy of ‘banking’ to describe an education system in which students, as objects, are ‘filled up’ like a ‘container.’ He suggests that the quality of a student was based on their compliance in being ‘filled up’ and their ability to receive knowledge.⁷⁵ Friere questions the traditional teacher-student relations and argues for a shift towards learner-centred learning, pedagogy in which the experiences of the learner are fundamental to the activity. He emphasises dialogue and interactivity as key elements of this kind of learning environment:

Problem-posing education [...] enables teachers and students to become Subjects of the educational process by overcoming authoritarianism and an alienating intellectualism; it also enables people to overcome their false perception of reality. The world – no longer something to be described with deceptive words – becomes the object of that transforming action [...]⁷⁶

⁷² Bakhtin, *Dialogic Imagination*, p. 276.

⁷³ Bakhtin, *Dialogic Imagination*, p. 276.

⁷⁴ Friere, P., 1970, *Pedagogy of the Oppressed*, New York: The Continuum Press. This edition, Penguin, 1996.

⁷⁵ Friere, *Pedagogy of the Oppressed*, p. 53.

⁷⁶ Friere, *Pedagogy of the Oppressed*, p. 67.

Friere later develops this concept in a published conversation with educationalist Myles Horton concerning the role of ‘experts’ in learning.⁷⁷ Horton suggests that ‘If I’m the expert, my expertise is in knowing not to be an expert or in knowing how I feel experts should be used’ highlighting a difference he perceives in the ‘use of expert knowledge’ and ‘the expert telling people what to do.’⁷⁸ Horton describes organising and technical training as strategic practice that focuses on developing issues rather than people and this can be compared with a standardised approach to tour-guide training.⁷⁹ Horton defends a separation of organisation and education and consequently, experts and learning, in situations where the expert tells people what to do. He says that this is not to say that an organising experience cannot be educational but ‘it has to be done with the purpose of having democratic decision making, having people participate in the action and not having just one authoritative leader.’⁸⁰

Friere provides an interesting angle on this argument by pointing towards a need for a ‘dialectical relationship between strategy and tactics’ in education:

You have to have some tactics that have to do with the strategy you have. You understand the strategy as the objective, as the goal, as the dream you have, and as the tactics you raise as you try to put into practice, to materialize the objective, the dream ... A good process of mobilising and organising results in learning from the very process and goes beyond.⁸¹

I argue that responsibility for actions, intuition, capacity to make decisions and empowerment contribute to developing the ability and confidence to understand and use ‘experts’ in learning activities. Friere highlights that if the learning process is reflective it can be mobilising (strategic) and educational (tactical) at the same time. Where the expert leads the experience, participants are not involved in questioning and the process is therefore essentially non-reflective. This cannot be described as transformative. For me, this book is a practice-led enquiry that is grounded in reinvigorating the tour as a transformative learning experience and this necessitates a critique of didactic, teacher-centred pedagogy. In this it is important to recognise that there is a danger that, in adopting an inclusive learner-centred approach, this too becomes prescriptive.⁸²

Educationalist Jan Nesor has focused specifically on relations between space and learning that considers how mobility and location may be important in transformative learning experiences.⁸³ Nesor suggests that children’s bodies are

⁷⁷ Horton, M. and Friere, P. (edited by Brenda Bell, John Gaventa and John Peters), 1990, *We Make the Road by Walking*, Philadelphia: Temple University Press, pp. 130-131.

⁷⁸ Horton, and Friere, *We Make the Road*, pp. 130-131.

⁷⁹ Horton, and Friere, *We Make the Road*, p. 116.

⁸⁰ Horton and Friere, *We Make the Road*, p. 124.

⁸¹ Horton and Friere, *We Make the Road*, p. 117.

⁸² Mayo, P., 1999, *Gramsci, Freire and Adult Education: Possibilities for Transformation*, London: Zed Books Ltd, p. 67.

⁸³ Nesor, J., 2004, ‘Educational Scale-Making,’ *Pedagogy, Culture and Society*, 12(3), 309-326.

Nesor, J., 1994, *Knowledge in Motion*, London: Falmer.

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important in ‘mediating relations with the world’ arguing that as children grow up and are ‘schooled’ they are spatially redefined.⁸⁴ He suggests that schools and schooling play an important part in defining ‘regions of space and permissible forms of behaviour within these spaces.’⁸⁵ He goes on to argue that in this way schools attempt to ‘suppress bodily movement and expression and to define appropriate bodily orientations.’⁸⁶ Nespor highlights a need to consider pedagogies that are concerned with bodies, space and movement: ‘To make something meaningful is to situate it in spacetime, or better, to put it in motion along certain paths that trace out particular networks of association.’⁸⁷ Nespor uses the term ‘spacetime’ with reference to the work of geographer Doreen Massey who argues that space and time should be ‘thought together’ in that ‘the imagination of one will have repercussions (not always followed through) for the imagination of the other and that space and time are implicated in each other.’⁸⁸

The idea of ‘networks of association’ made in ‘spacetime’ is also examined by educational theorists Edwards and Usher who explore different kinds of spatial pedagogic practices in the context of globalisation.⁸⁹ They argue that the concept of ‘canons of knowledge and traditional forms of pedagogy have become problematic in contemporary conditions.’⁹⁰ In this, Edwards and Usher present ‘pedagogies of (dis)location’ as a framework for exploring more adaptable and learner-responsive pedagogies that may transgress traditional educational practices that seek to fix location for learning.⁹¹ Edwards and Usher describe how making difference is at the core of (dis)located pedagogies: ‘we are using the notion of (dis)location to deconstruct the binary of location/dislocation, the former with an emphasis on place, the latter on movement [...] As location is simultaneously a dislocation from other positions, pedagogy therefore becomes a process of constant engagement, negotiation and (en)counter, in which the latter signifies the relatedness of a position and the diverse modes of investment in it.’⁹² Movement between positions can be understood as a process which is, as Edwards and Usher suggest, always in a state of becoming.⁹³

The concept of movement between positions is important in exploring how processes of touring provide opportunities for learning. Touring between and around locations provides opportunities for learning through making connections by being mobile. To illustrate this point I describe how physical and cognitive movement between trips to Eastern Europe and Singapore in 2004-2005 enabled

⁸⁴ Nespor, J., 1997, *Tangled up in School: Politics, Space, Bodies, and Signs in the Educational Process*, New Jersey: Lawrence Erlbaum Associates, pp. 121-122.

⁸⁵ Nespor, *Tangled Up in School*, p. 122.

⁸⁶ Nespor, *Tangled Up in School*, p. 122.

⁸⁷ Nespor, ‘Educational Scale-Making,’ p. 312.

⁸⁸ Massey, D., 2005, *For Space*, London/Thousand Oaks/New Delhi: Sage, p. 18.

⁸⁹ Edwards, R. and Usher, R., 2000 (2008 edition), *Globalisation and Pedagogy*, London/New York: Routledge, pp. 15-34.

⁹⁰ Edwards and Usher, *Globalisation and Pedagogy*, p. 154.

⁹¹ Edwards and Usher, *Globalisation and Pedagogy*, p. 154.

⁹² Edwards and Usher, *Globalisation and Pedagogy* (2008 edition), pp. 139 and 141.

⁹³ Edwards and Usher, *Globalisation and Pedagogy* (2008 edition), p. 141.

me to thread together knowledge about experiences of occupation in two different countries during WWII.

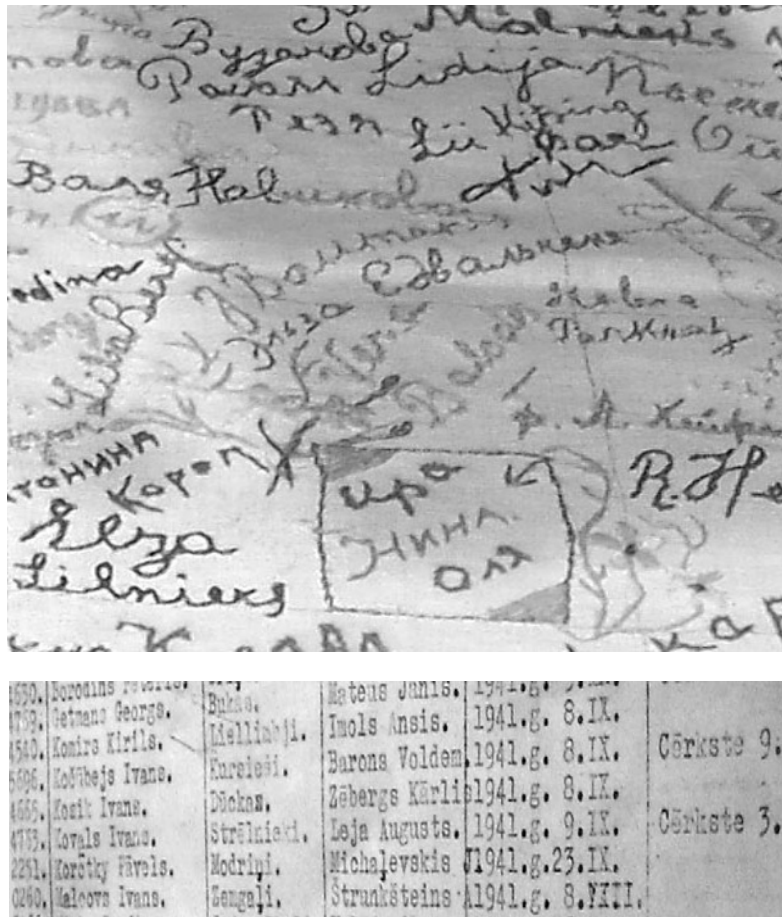


Figure 3. Embroidery Sample and Detail from List of Prisoners, Museum of the Occupation of Latvia, Riga, Latvia, July 2004.

A sample of embroidered names and messages was displayed in a glass cabinet at the Museum of Occupation of Latvia. Embroidering messages as a way for prisoners to communicate with loved ones represented an element of a history of mass deportation during the Soviet and Nazi occupation of Latvia between 1940 and 1944. Lists of names of people imprisoned in concentration camps were also on display at the museum (Figure 3). During a subsequent visit in April 2005 to Changi Museum, the site of a former ‘occupation prison’ in Singapore, I noted a similar form of embroidered communication on display (Figure 4). This time the

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piece of embroidery was a quilt that was made by women internees to tell men who were held in separate quarters of the prison that they were alive. This connection between embroidered objects and occupation was further developed through noting that the prisoner of war post cards also on display at Changi Museum used the same typeface as the lists in the museum in Latvia. The post cards were used by prisoners of war to let loved ones know they were alive by typing up to 25 words per card. The notion of officialdom generated by the typed words in both locations is simultaneously connected through a thread of 'communication during occupation.' Perhaps because the visits were separated by a year, the length of time was a factor in making such connections between different countries with histories of occupation. In making the connections, however, knowledge about occupation evolved through threading objects from different locations and that this involved shifting between small objects and wider histories.

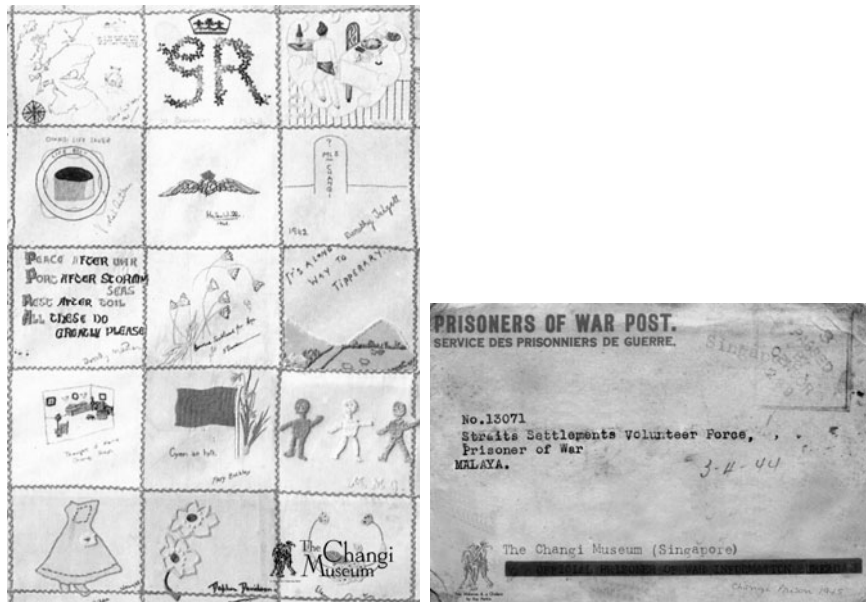


Figure 4. Postcards of 'The Changi Quilt' and 'Prisoners of War Post,' Changi Museum Shop, April 2005.

I propose that pedagogy for learning-through-touring is not defined in terms of educational programmes and their attached environments, but in terms of the learner. This challenges the notion of a predetermined educational setting and positions the mobility of the learner and environments they are moving through as active elements in creating sites for learning. Edwards and Usher suggest that

lifelong learning through ‘negotiating ambivalence’⁹⁴ questions the notion of mastery as a pedagogic framework so that ‘the ability to map different locations and translate between them, to shift and move and negotiate uncertainties and ambivalence’⁹⁵ becomes the stimulus for learning. The authors acknowledge that this kind of pedagogy may appear too risky for some who may feel more secure with a more didactic pedagogy that is teacher-centred and opens up questions concerning centralised knowledge and the lack of control in determining positioning processes enabled through bodily movement. Considering ways in which bodily movement may involve different kinds of spatial, temporal and social interactions in making networks of association in the built environment could create conditions for rethinking the design of learning activities in tours. It would seem that negotiating uncertainty, ambivalence and risk are necessary for learning if participants are able to develop confidence in this kind of pedagogical approach rather than fearing a loss of authority.

Participant production of tours

There are three key ideas that have emerged from theories discussed in this chapter. Firstly, participants in a tour can be likened to creative users in design if they are conceived as active in producing the event. Secondly, that the tour as a form of critical spatial practice opens up thinking around the ways in which people engage critically with the built environment through the medium of the tour. And the third idea is about learning by moving between positions, what propels learners to move between them and what kinds of new perspectives on the built environment this mobility offers. From a visitor’s perspective I am arguing that briefs for the design of tours should shift in emphasis from the management of one-directional information flow to consider how, where and when information can be discovered, shared and evolved by participants. Content that is designed to grow and evolve in different spaces and over time may be described as ‘seeded.’ Using the metaphor of ‘seeded content’ provides opportunities for thinking about what kind of data or information grows well, how environmental conditions interact with the content to affect growth and the spatial and temporal dispersal of content over a geographical location. Making connections in response to seeded content that involves mobile participants initiating and making threads of enquiry can be described as ‘threading.’ Another metaphor is used here to describe a horizontal mode of learning that involves participants in making imaginative associations and physical connections through interactions with seeded content and with each other whilst on-the-move. These two concepts together define what it means to be a productive participant in learning-through-touring.

⁹⁴ Edwards and Usher, *Globalisation and Pedagogy*, p. 98.

⁹⁵ Edwards and Usher, 2008, *Globalisation and Pedagogy*, p. 141.

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MOBILISED LEARNING

Mobile learning is a relatively recent and emerging field of study in technology-enhanced learning. Located within a wider field of information technologies in education, the technological, cultural and social development and use of mobile devices (such as the mobile phone, MP3 recorder/player, GPS units and pocket computer), wireless/3G networks for the transmission of data and cloud computing have provided opportunities to rethink approaches for learning that are based on the mobility of learners. Mobile learning educators Claire O'Malley, Giasemi Vavoula, Philip Glew, Josie Taylor, Mike Sharples and Paul Lefrere have put forward a definition of mobile learning that provides a useful starting point for opening up discussion around the kinds of learning opportunities afforded by using technologies in location:

Any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies.⁹⁷

In 2007, Sharples suggested that the last ten years has witnessed a growth in mobile learning 'from a minor research interest to a set of significant projects in schools, workplaces, museums, cities and rural areas around the world.'⁹⁸ A mobile learning community has evolved through these projects and it has been argued that this somewhat organic development, whilst important in allowing multiple perspectives on mobile learning to thrive, has also resulted in a new form of pedagogy and practice that is difficult to define.⁹⁹ The term 'mobile learning' can be described as one still in the process of defining itself and is interpreted differently by the various individuals and organisations that have an interest in exploring how mobile devices and technologies provide opportunities for learning. Marcelo Milrad, for example, describes how information technology in education has been named through different concepts of learning from the late 1990s: e-learning, m-learning and u-learning.¹⁰⁰ He suggests that the development of the Internet has led to the concept of 'e-learning,' and that 'advancements on mobile and wireless technologies' have generated 'a new approach for technology-

⁹⁷ O'Malley, C., Vavoula, G., Glew, J.P., Taylor, J., Sharples, M., Lefrere, P., 2003, *MOBILearn: Guidelines for Learning/Teaching/Tutoring in a Mobile Environment* (final draft version acquired 10 June 2003). Online. Available <http://www.mobilearn.org/download/results/guidelines.pdf> (accessed October 2009).

⁹⁸ Sharples, M. (Ed.), *Big Issues in Mobile Learning: Report of a Workshop by the Kaleidoscope Network of Excellence Mobile Learning Initiative*. Nottingham: Learning Sciences Research Institute, University of Nottingham, 2007, p. 4.

⁹⁹ Niall Winters 'What Is Mobile Learning?' in Sharples, *Big Issues in Mobile Learning*, p. 5.

¹⁰⁰ Milrad, M., 'How Should Learning Activities Using Mobile Technologies Be Designed to Support Innovative Educational Practices?' in Sharples, *Big Issues in Mobile Learning*, p. 29.

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enhanced learning called m-learning (mobile learning).’ According to Milrad the latest developments in technologies ‘allow learners to experience new situations regarding learning in a variety of situations’ supported by ubiquitous computing. He refers to this latest concept of learning in information technology as ‘ubiquitous learning or u-learning.’¹⁰¹

Working as a member of the Palo Alto Research Center (PARC) in 1987, information technologist Mark Weiser argued that the computer should be an integrated element in its environment and described this development as ‘calm computing.’ Rather than a concept of ‘computer walls’ based on a one person with one desktop computer scenario, ‘calm computing’ was based on invisibly networked devices enabling a ubiquitous ‘spread’ of computing throughout the environment. The research team included anthropologists who studied the ways in which people actively used computers in everyday life and this research informed development of the term ‘ubicomputing’ or ubiquitous computing at PARC. Developments in ubiquitous computing that focus on ‘human-to-human interfaces’¹⁰² can be seen in Sharples’ three phases of development in mobile learning¹⁰³ over the last ten years that mirror the three approaches to learning in information technology that Milrad proposes (Figure 5).

Milrad	Sharples
e-learning	Learning with handheld technology
m-learning	Learning across contexts
u-learning	Learning in a mobile world

Figure 5. Comparative phases in the development of IT in education and mobile learning.

Sharples suggests that the first phase, ‘learning with handheld technology’ was characterised by a focus on handheld technology for formal education and training in which there was a concern with technology implementation and fixed locations such as classrooms.¹⁰⁴ The second phase saw the development of ‘learning across contexts’ in which the emphasis was on ‘how people learn across locations and transitions.’¹⁰⁵ Sharples suggests that there was a focus on learning outside the classroom during this phase and projects based on field trips and museum visits evidenced this shift in focus from technology to learner. He describes a third phase

¹⁰¹ Milrad, ‘Learning Activities,’ p. 29.

¹⁰² Weiser, M., Gold, R., & Brown, J.S., 1999, The origins of ubiquitous computing research at PARC in the late 1980s.’ *IBM Systems Journal*, 38, 4, Pervasive Computing. Online. Available <http://www.research.ibm.com/journal/sj/384/weiser.html> (accessed December 2008).

¹⁰³ Mike Sharples, ‘Beyond Mobile Learning: Designs for Mixed-Reality, Contextual and Ambient Learning.’ Online. Available www.urbanlearningspace.com/files/presentations/BML_GLASGOW.ppt (accessed November 2007).

¹⁰⁴ Sharples, ‘Beyond Mobile Learning.’

¹⁰⁵ Sharples, ‘Beyond Mobile Learning.’

of mobile learning as ‘learning in a mobile world.’¹⁰⁶ The elements for this vision he suggests are:

Learning spaces – new types of technology-enabled indoor and outdoor space for learning, communication and knowledge working

Pervasive technology – display screen on tram seat, interactive map of the city, activity trails, place notes

Participatory design – technology to enable people to be actively involved in the design of their physical and electronic environment.¹⁰⁷

These ‘phases’ provide a platform for critically engaging with the development of mobile learning with an awareness that they can be used to pose questions and open up such discussion rather than present a seamless future scenario. Of particular relevance is his emphasis on ‘learning-enabled objects, buildings, cities’ and that public spaces and buildings should be designed to support learning and creativity and how this might engage people in the participatory design of their environments. This concept develops learning contexts from Weiser’s description of ubiquitous computing in which ‘The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.’¹⁰⁸ And I will return to the idea of ‘learning-enabled buildings’ in the next chapter.

Although there are difficulties around defining mobile learning, possibly due in no small part to the rapid developments in technologies and multiplicity of applications, this has perhaps prompted a need to develop a theory for mobile learning. There seems to be a paradigm shift from focusing on the use of technology in specialised educational spaces to one in which learning is a spatial and mobile everyday experience. I would argue that this change in focus can be traced through the development of pedagogy and practice founded on the notion of static learners and stand-alone computers to one that is initiated by the mobility of the learner in constructing knowledge and meaning in which technologies are interactive mediating tools, and buildings are understood through their capacity to be dynamic mediating artefacts. In this new paradigm, learners are engaged in processes of transformation in which they achieve new things in different ways through being mobile.

Learning that is interactively and dynamically mediated can be argued to challenge both the physical and metaphorical boundaries of the institution and a transmission model of teaching if technologies support learners in making connections in diverse locations, across spaces and times and through social

¹⁰⁶ Sharples, ‘Beyond Mobile Learning.’

¹⁰⁷ Sharples, ‘Beyond Mobile Learning.’

¹⁰⁸ Weiser, M., 1999, ‘The Computer for the 21st Century’ (draft). Online. Available <http://nano.xerox.com/hypertext/weiser/SciAmDraft3.html> (accessed December 2008). Later published in R.M. Baecker, Grudin, J., William, I., Buxton, A.S., & Greenberg, S., 1995, *Human-Computer Interaction: Toward the Year 2000*, San Francisco: Morgan Kaufmann Publishers, pp. 993-940.

interactions. This kind of learning echoes current approaches in education in which ‘learning becomes an active process of discovery and participation based on self-motivation rather than on more passive acquisition of facts and rules.’¹⁰⁹ If participants use the flexibility afforded by mobile devices to communicate with each other, locate information when and where needed, share knowledge in relevant spaces and times this could be argued to ‘disrupt’ standardised models of curriculum and assessment.

Eric Klopfer, Kurt Squire and Henry Jenkins identify five properties of mobile devices (Personal Digital Assistants or PDAs in this case) that produce unique educational affordances that I would argue also have the potential to disrupt standardisation.¹¹⁰ The ‘portability’ of mobile devices means that they can easily be carried and used in different locations as they do not require a static desktop and are lightweight. The ‘social interactivity’ afforded by communication technologies embedded in mobile devices means that there are opportunities for people to collaborate face to face and exchange data. The possibility of ‘context sensitivity’ means that mobile devices can collect and respond to ‘real or simulated data unique to the current location, environment and time.’¹¹¹ The ‘connectivity’ possibilities generated by mobile devices include: connecting to other peripheral devices such as sensors or storage cards, connecting mobile devices to each other to create a group shared network; and linking devices to a wider use common network. The last property of mobile devices defined by these authors concerns ‘individuality’ and this focuses on the flexibility of mobile devices to be customised or personalised for individual needs and uses.

Whilst connectivity and personalisation are not unique to mobile devices, I suggest that these five properties can be compared favourably against desktop devices to consider the kinds of learning opportunities afforded through mobility. Klopfer et al make reference to ‘street kiosks’ and similar located screen information displays that are static in delivering information. They suggest that these kiosks are more suited to ‘multiple user interactions’ rather than for use in personal and/or shared ways.¹¹² These ‘unique educational affordances’ of mobile devices present the possibility of reconceiving learning as mobile through portability, social interactivity, context sensitivity, connectivity and individuality. Context sensitivity is particularly important when considering how mobile devices may be developed as tools that enable reflection and action in response to a geographical location.

Mobile technologies can therefore be utilised to provide opportunities for learning in which the physical mobility of the participant and the location are together, *mobilising* elements. If we return to the definition of mobile learning put

¹⁰⁹ Milrad, M., 2003, ‘Mobile Learning: Challenges, Perspectives and Reality,’ Nyiri, K. (Ed.), *Mobile learning: Essays on Philosophy, Psychology and Education*, Vienna: Passagen Verlag, 2003, p. 152.

¹¹⁰ Klopfer, E., Squire, K. & Jenkins, H., 2002, ‘Environmental Detectives: PDAs as a Window into a Virtual Simulated World’ in *Proceedings of IEEE International Workshop on Wireless and Mobile Technologies in Education*, Vaxjo, Sweden: IEEE Computer Society, pp. 95-98.

¹¹¹ Klopfer et al., ‘Environmental Detectives,’ pp. 95-98.

¹¹² Klopfer et al., ‘Environmental Detectives,’ pp. 95-98.

forward at the start of this chapter this may be expanded for the design of tours to position geographical location as an integral element in the learning experience (as opposed to a distraction). Location describes the physical position of a participant or groups of participants using reference points on a geographical grid system (for example, using a grid reference on an Ordnance Survey map) or through location-sensitive devices such as GPS-enabled mobile phones. Although participants may use such data to locate themselves in relation to physical landmarks in the built environment it is important to note that 'situatedness' is subjectively produced.

Situated learning

Technology educationalist Kristóf Nyíri suggests that 'situation' is important in understanding the interdisciplinary nature of mobile learning. He says, 'above all, the problem of unity of knowledge is once again a topical issue. The situation-dependent acquisition of knowledge that is made possible by mobile learning transcends the boundaries of traditional disciplines.'¹¹³ Situated learning has been described as taking place within an 'authentic' context¹¹⁴ and I argue that who or what determines the authenticity of that context is a key element of critical spatial practice in tour design. If learners are provided with opportunities to transform the given by producing the tour, they engage in activities that foreground those processes of production and define what makes an 'authentic' context.

One important aspect of development in mobile learning concerns the use of mobile devices used in locations identified as educational such as a classroom, gallery or museum to record information, vote on an issue or find out more about something from an expert. Here, learning can be described as located, and the context as authentic from the point of view of a museum curator or designer of an exhibition guide. Yet situated learning also involves influence of our everyday environment on us, how we respond to events that may be incidental, unintentional or accidental as subjective learning opportunities. The following statement on the future of learning with mobile technologies alludes to an increasingly blurred distinction between formal and informal, incidental and everyday opportunities for learning brought about by connected and mobile learners:

Mobile technologies are becoming more embedded, ubiquitous and networked, with enhanced capabilities for rich social interactions, context awareness and internet connectivity. Such technologies can have a great impact on learning. Learning will move more and more outside of the classroom and into the learner's environments, both real and virtual, thus becoming more situated, personal, collaborative and lifelong. The challenge will be to discover how to use mobile technologies to transform learning into

¹¹³ Nyíri, K., 2003, 'Preface' in Nyíri, K. (Ed.), *Mobile Learning: Essays on Philosophy, Psychology and Education*, Vienna: Passagen Verlag, p. 13.

¹¹⁴ Naismith et al., *Futurelab Report 11*, p. 3.

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a seamless part of daily life to the point where it is not recognised as learning at all.¹¹⁵

I argue that situated learning involves affecting a shift in thinking from site as location to site as context for learning. In this way a site is actively produced through interactions between learners rather than as a predetermined given. Hill makes the point that the architectural profession should acknowledge ‘creativity of use’ in developing its practice; here I argue that education professionals should do likewise in designing learning activities about and in the built environment. The expectations and formulae embedded within the notion of context as only a physical location makes the learning situation dependent on the specifics of the traditional ‘classroom’ environment. We can understand the situatedness of the learner differently if we conceive of situation as an ‘elastic environment’ in which the social and spatial production of meaning situates the learner. This challenge in itself offers an innovative platform for developing learning as a social and dialogic process that relates to ways of exploring the built environment in which both learners and technologies are mobilised by taking action to change or transform something.

Constructivist and co-constructivist theories of learning also provide insight understanding into what it means to be ‘situated’ in mobile learning. In constructivist theory, advanced by art educators Lesley Burgess and Nicholas Addison, learning is ‘conceived of as a process of adaptation in which the learner’s view of the world is constantly modified by new information and experience [...] Co-constructivism emphasises that such learning is necessarily a social process in which language and dialogue are primary and highlights how these dialogues take place between individuals who are socially situated within historically and culturally specific learning environments.’¹¹⁶ This approach to learning opposes a didactic or behaviourist approach to education that identifies the teacher as the main source of knowledge and education as one-way information delivery. A co-constructivist approach to learning aims to engage *multiple* learners in collaborative activities. Educational perspectives on co-constructivism highlight the inseparable nature of people and environments. Co-constructivism has generated situated learning theory in which the emphasis is on creating opportunities for developing ‘situated and socially shared cognition’.¹¹⁷

Situated learning theory views human cognition as being embedded in and inseparable from specific sociocultural contexts. [...] At the heart of this concept of co-construction are two coexisting activities: collaboratively

¹¹⁵ Naismith et al., *Futurelab Report 11*, p. 5.

¹¹⁶ Burgess, L. & Addison, N., 2007, ‘Conditions for Learning: Partnerships for Engaging Secondary Pupils with Contemporary Art,’ *The International Journal of Art and Design Education*, 26, 2, 2007, p. 194.

¹¹⁷ Reusser, K., ‘Co-constructivism in Educational Theory and Practice,’ *International Encyclopedia of the Social & Behavioral Sciences*, 8, 2001, p. 2059. Online. Available http://www.didac.unizh.ch/public/Publikationen/2001/Co_Constructivism.pdf (accessed May 2007).

solving the problem, and constructing and maintaining a *joint problem space*.¹¹⁸

I argue that, as a term to describe a learning environment, site may be more appropriate than a 'joint problem space' since it is a term which embraces complexities of time and space. As mentioned in Chapter 1, my understanding of site comes from the work of performance art theorist Nick Kaye on 'site-specific art'.¹¹⁹ He introduces the term 'site-specific' by identifying a notion of 'exchange' between works of art and 'the places in which its meanings are defined'.¹²⁰ Kaye says 'If one accepts the proposition that the meanings of utterances, actions and events are affected by their 'local position,' by the situation of which they are a part, then a work of art, too, will be defined in relation to its place and position.'¹²¹ Kaye goes on to suggest that 'site-specificity, then, can be understood in terms of this process, while a 'site-specific work' might articulate and define itself through properties, qualities or meanings produced in specific relationships between an 'object' or 'event' and a position it occupies.'¹²² Site is thus defined by Kaye as a concept or idea rather than a particular kind of place and this can be applied to site-specific learning. I propose that Kaye's definition challenges a notion of site as a fixed and ordered location for learning to one in which the subject as participant in a tour makes unpredictable movements 'which, although subject to the place, can never wholly realise or be resolved into this underlying order.'¹²³ In mobile learning, site is understood as a subjective experience that embraces the complexities of defining place. Buildings that have traditionally been described as locations for learning may be reconceived as sites in this paradigm; the built environment is conceived as productive, unpredictable and unplanned through movements of people. Consequently, participants in a tour may learn through making movements to actively construct and co-construct new meanings.

So situatedness can be defined as an elastic environment that is socially and spatially produced through participation in mobile learning activities, activities that provide opportunities for collaborative learner interactions in relation to their location.

If site, situation and social interaction are conceived as fluid entities in mobile learning, then I argue that learning activities in tours can be designed around how individuals construct their personal and spatial contexts with others over time. The dislocation between spaces and times and the juxtaposition of familiar and unfamiliar, for example, can serve to 'jolt' learners into making new spatial contexts in creative ways. It could be argued that this dimension of mobile learning necessarily shifts the focus from the learner as a spectator of media to the learner as

¹¹⁸ Reusser, 'Co-constructivism,' p. 2059.

¹¹⁹ Kaye, N. 2000, *Site-Specific Art*, London/New York: Routledge.

¹²⁰ Kaye, *Site-Specific Art*, p. 1.

¹²¹ Kaye, *Site-Specific Art*, p. 1.

¹²² Kaye, *Site-Specific Art*, p. 1.

¹²³ Kaye, *Site-Specific Art*, p. 6. Here Kaye draws on philosopher Michel de Certeau's *Practice of Everyday Life*.

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maker of media as s/he participates in negotiating his/her way within, through and between these different contextual interactions.¹²⁴ Learning is enabled through interactions and groupings facilitated and supported by mobile technologies that allow learners to exchange and share information with each other and with other experts whilst on-the-move to evolve the activity. As tools, mobile devices are selected and utilised in terms of their capacity to orchestrate, mediate and guide action.

Cultural psychology theorist Michael Cole draws on a constructivist model of learning in a way that furthers our understanding of tools that can be applied to mobile devices and their capacity for taking action. Cole incorporates the term 'tool' into the broader material culture concept of 'artifact'.¹²⁵ In particular, Cole focuses on the 'phenomenon of mediation' rather than 'starting with the concept of a tool'.¹²⁶ 'Artifact' is defined by Cole as 'an aspect of the material world that has been modified over the history of its incorporation into goal-directed human action. By virtue of the changes wrought in the process of their creation and use, artifacts are simultaneously *ideal* (conceptual) and *material*'.¹²⁷ Cole argues that mediating artefacts are ideal in that their material form has been produced by participation and interaction, both from the past and in present use and this can be applied to mobile devices. The kinds of interactions between users and locations, different types of devices and the multiplicity of ways in which they are used provide us with interesting ways of thinking about context in designing tours. Who designs context for tours? What might context look like if mobile devices are able to provide interactivity between user, location and activity?

Context

Cole argues that context 'weaves together'¹²⁸ and as such is dynamic and fluid rather than static:

[Context is] a qualitative relation between a minimum of two analytical entities (threads), which are two moments in a single process. The boundaries between 'task and its context' are not clear-cut and static but ambiguous and dynamic. As a general rule, that which is taken as object and that which is taken as that-which-surrounds-the-object are constituted by the very act of naming them.¹²⁹

¹²⁴ A key feature of the activities on creating media narratives at the 'Beyond Mobile Learning Workshop,' Villers, Switzerland, January 2007 organised by Kaleidoscope Mobile Learning Special Interest Group.

¹²⁵ Cole, M., 1996, *Cultural Psychology: A Once and Future Discipline*, Massachusetts/London: The Belknap Press of University of Harvard Press, Chapter 5.

¹²⁶ Cole, *Cultural Psychology*, p. 117.

¹²⁷ Cole, *Cultural Psychology*, p. 117.

¹²⁸ Cole, *Cultural Psychology*, p. 135.

¹²⁹ Cole, *Cultural Psychology*, p. 135.

Sharples has developed an understanding of what it means to be a mobile learner through an application of Cole's concept of 'context which weaves together' and Gordon Pask's 'Conversation Theory' to explore how 'context' arises out of constructive interactions between people and technology.¹³⁰

In order to constitute a 'conversation,' the learner must be able to formulate a description of himself and his actions, explore and extend that description and carry forward the understanding to a future activity. In order to learn, a person or system must be able to converse with itself and others about what it knows. Central to these learning conversations is the need to externalise understanding. Learning is a continual conversation: with the external world and its artefacts, with oneself, and also with other learners and teachers. The most successful learning comes when the learner is in control of the activity, able to test ideas by performing experiments, to ask questions, collaborate with other people, seek out new knowledge, and plan new actions.¹³¹

Sharples asks what elements are necessary for a productive conversation either with another or with oneself and suggests that conversation is a necessary system for learning based on an application of Pask's notion of distributed cognition in action.¹³² He argues that context is created through the interaction between people, technology, objects and activities within a pervasive computational system that enables appropriate actions for learning. Sharples describes this view of context as one that is 'woven.' Context is here continually created by 'minds in motion' within a distributed, interactive computing system.¹³³ Drawing on Cole he also describes a more normative understanding of context as a 'shell' that 'surrounds,' an interpretation that can be seen in educational settings in which learners are recipients of information.¹³⁴ Sharples argues that an understanding of context as 'shell' is based on an illusion of stability and suggests that whilst entertainment contexts have developed from 'shell' to 'woven' contexts, educational contexts have largely remained as 'shells.' Describing the tour in terms of context as a shell means that there is an expectation that participants will be informed by a guide. Alternatively, the tour described in its capacity for weaving context opens up opportunities for context to be produced through active participation in the event.

¹³⁰ Sharples, M., 2003, 'Disruptive Devices: Mobile Technology for Conversational Learning,' *International Journal of Continuing Engineering Education and Lifelong Learning*, 12(5/6), pp. 504-520. Sharples, M., 2005, 'Learning As a conversation: Transforming Education in the Mobile Age,' *Proceedings of Conference on Seeing, Understanding, Learning in the Mobile Age*, Budapest, Hungary, pp. 147-152. Sharples, M., 'An Interactional Model of Context,' presentation at Kaleidoscope Philosophy of Technology-Enhanced Learning Workshop Knowledge and Context, London Knowledge Lab, 29 June 2007.

¹³¹ Sharples, 'Learning as Conversation,' p. 149.

¹³² Sharples, 1976, 'Learning as Conversation' cites Pask, A.G.S, *Conversation Theory: Applications in Education and Epistemology*, Amsterdam /New York: Elsevier.

¹³³ Sharples, M., 2007, 'An Interactional Model of Context,' presentation at Kaleidoscope Philosophy of Technology-Enhanced Learning Workshop Knowledge and Context, London Knowledge Lab, 29 June 2007.

¹³⁴ Sharples, 'Learning as Conversation,' p. 151 cites Cole, *Cultural Psychology*.

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Design of the tour can support participants in applying resources, skills and knowledge from one context to another.

Edwards and Usher suggest there are two ways in which context may be conceived and I argue that, whilst not referencing the work of Sharples, they do seem to echo his description of ‘shell’ and ‘woven.’¹³⁵ They describe context as ‘a bounded container within which learning takes place’ and also as a ‘networked and relational set of practices wherein a learning context is an effect of specific practices of contextualisation.’¹³⁶ This notion of a ‘container’ is expanded upon to describe context in spatial terms as a way of structuring or confining learning that produces a ‘space of enclosure.’¹³⁷ In contrast, the notion of context as a ‘set of practices’ distinguished by processes and outcomes is one in which ‘pedagogical space emerges.’¹³⁸ This concept is similar to Kaye’s notion of site, in that context is produced through a subject’s relations with other learners and their position(s) in the built environment and is therefore always changing and cannot be conceived as fixed or static.

I argue that understanding context as ‘woven’ or as a set of practices opens up opportunities for reconfiguring the concept of ‘points’ on a conventional guided tour, pre-defined points of interest that are structured around a ‘container’ or ‘shell’ notion of context. Points of closure sequenced in such a way as to provide knowledge to inform learning characterise the structure of a conventional tour. These points may be numbered or mapped to define a route and specify knowledge as discrete entities. However, if context is understood as ‘woven’ and in terms of the practices which constitute it then I argue, it is difficult to pursue the concept of ‘points’ in designing tours as learning activities. I suggest that a term such as ‘node’ may be more appropriate in enabling opportunities for participants to make incidental connections between each other, the location they are moving through and other locations. For example, nodes can be designed as a means for communicating content to others that could be expanded upon or evolved depending on personal contributions. As such, the concept of ‘woven’ context initiates thinking around how content may be ‘seeded’ and ‘threaded’ on a tour to provide opportunities for further growth.

Further Edwards and Usher suggest that:

If contexts are not inherently bounded, but are bounded through forms of interconnectedness that make certain relations and erase others, then the ways in which we understand learning between contexts is also opened up for exploration.¹³⁹

The notion of a ‘woven’ context can then be developed by considering the ways in which contexts may be subjectively conceived by being mobile in the built

¹³⁵ Edwards, R. & Usher, R., 2000/2008, *Globalisation and Pedagogy*, London/New York: Routledge, pp. 153-165 (this edition 2008).

¹³⁶ Edwards & Usher, *Globalisation and Pedagogy*, p. 161.

¹³⁷ Edwards & Usher, *Globalisation and Pedagogy*, p. 161.

¹³⁸ Edwards & Usher, *Globalisation and Pedagogy*, p. 162.

¹³⁹ Edwards & Usher, *Globalisation and Pedagogy*, p. 162.

environment and through the kind of learning and touring processes that may facilitate the weaving of this. Edwards and Usher use the term ‘polycontextualisation’ to describe the potential for learning contexts to be ‘mobilised in a range of domains and sites based on participation in multiple communities of practice.’¹⁴⁰ These authors argue that learning and practices that are ‘polycontextual’ enable application of knowledge that is not solely cognitive-based but recognises that relations are made through ‘artefacts, affinity groups, storylines, emotions.’¹⁴¹ In other words, ‘polycontextualisation’ relies on the creation of sites that may facilitate these relations rather than the cognitive ability to transfer knowledge, skills and understandings from one ‘contained’ context to another. I argue that the tour may engage multiple perspectives and voices in bringing about opportunities for weaving context. Polycontextualisation in mobile learning may involve creating conditions for making spatial, temporal and social connections between artefacts, multiple perspectives, narratives and emotions and, as such, be described as learning that is dependent on a community of mobile participants rather than a teacher. This concept is developed in the projects in Part 2 as the process of ‘threading’ in which learning opportunities can be described by making connections to form threads of enquiry.

Interaction may be defined through learners taking action in which mediating artefacts are both functional and developmental in shaping interactions. Artefacts are understood through their capacity for mediation with an emphasis on creative externalisation.¹⁴² I argue that designing activities for mobile learning should consider the ways in which devices are appropriated through participation and that this may require a paradigm shift in teaching from tools that support teaching to tools that are integrated in learning activity through user creativity. Mobile devices are by nature personal, pervasive and integrated into everyday life and therefore they already have this embedded potential for active learning. Cole has argued that mediating artefacts are developed within the culture of an activity so that we may conceive tour tools such as ‘point and click’ devices used in museums and galleries as tools that have been designed within the cultural practices of guided tours. It is important to consider how specialist ‘tour tools’ such as these and everyday mobile devices are differentiated in use and design and how this may affect capacity for polycontextualisation. If mobile devices can be modified and adapted for different purposes by users to communicate with others, store and share personal data and to orientate in relation to physical location, then they may be reconceived as media production tools to create content for a collaboratively-made tour.

¹⁴⁰ Edwards & Usher, *Globalisation and Pedagogy*, p. 162 and p. 163.

¹⁴¹ Edwards & Usher, *Globalisation and Pedagogy*, p.163.

¹⁴² Michael Cole uses Marx Wartofsky’s discussion on a three-level hierarchy of artifacts to develop his work on cultural psychology with an activity theory framework. First level artifacts are those used directly in production. Secondary artifacts are representations of primary artifacts. Tertiary artifacts enable play or games and are imaginative. Wartofsky applied this third level to works of art and processes of perception. Cole, M., 1979, ‘Cultural Psychology: Some General Principles and a Concrete Example’ in Engeström et al, *Perspectives on Activity Theory*, pp. 90-91, citing Wartofsky, M., *Models: Representation and Scientific Understanding*, Dordrecht: Reidel, 1979, p. 208.

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It could be argued that mobile learners disrupt a transmission model of education if they are provided with a framework for engaging in learning through being mobile. Learners may become dispersed physically and psychologically, individually or in groups if they decide when, how and where they engage in learning and who or what can best facilitate that process. It is therefore important to start to describe attributes of the mobilised learner that can inform the design of tours. The following provide a starting point.

Attributes of the Mobilised Learner

Stumbling upon

Utilised metaphorically as a bunch of keys, mobile devices may be placed in the hands of learners to open up doors or access spaces of their choosing. Providing the tools to unlock sites for learning in the built environment enables learners to make discoveries by accessing buildings by using mobile devices as a bunch of keys in ways that allow them to ‘stumble upon’ what’s on the other side. So rather than inventing technology that allows people to see through walls, we can create cues stored on mobile devices that are tagged with positioning data to enable learners to ‘stumble upon’ spaces in unexpected ways. A cue can be described as a prompt or lead in to action and the device as the tool to enable this.

Noticing

If the built environment is conceived of as ‘learning-enabled’ in a third phase of ‘learning in a mobile world’ or ‘u-learning,’ touring buildings is an activity initiated through interaction with what is noticed; where the action taken develops knowledge about the object. How might touring activities be designed to heighten awareness of participants? The ability to notice everyday objects in new and different ways can be supported by activities and tools that focus on finding and selecting objects from the physical environment that make context(s) for learning.

Connecting

The accelerations and decelerations, different perspectives, from top-down viewpoints to immersive jostling affect the way in which people move through space, what they notice and where they go next. The experiential physicality of motion, momentum and position throws up productive opportunities for exploring technologies that mobilise people into taking action. Such movements, motivated by the learner’s goals and intentions, can be described in terms of making connections. Designing directions and navigation activities in tours that depend on the physical mobility of participants around and between buildings opens up opportunities for learning through making imaginative associations between people, objects and places.

LEARNING THROUGH BUILDINGS

In the previous section on mobile learning, I introduced Sharples' notion of 'learning-enabled buildings' as a feature of 'learning in a mobile world' in which people are able to actively participate in the design of their environments. One application of Sharples' concept of learning-enabled buildings is the augmentation of the built environment with digital information that can be activated by learners using ubiquitous technologies. Learning technology researchers Claire O'Malley and Danae Stanton Fraser state:

In virtual reality (VR) the goal is often to immerse the user in a computational world, in AR [augmented reality] the physical world is augmented with digital information.¹⁴³

Working in 1997, Steven Feiner, Blair MacIntyre, Tobias Höllerer and Anthony Webster describe development of an application for tours that is based on a definition of augmented reality as: 'Unlike most virtual environments, in which a virtual world *replaces* the real world, in augmented reality a virtual world *supplements* the real world with additional information. [...] [and provides] users with information about their surroundings, creating a personal 'touring machine.'¹⁴⁴ It should be noted that the term 'augmented' is open to interpretation in mobile learning and the emphasis that Sharples makes is on the potential for ubiquitous technologies to create opportunities for learning-enabled buildings rather than learners wearing special toolkits that present an 'augmented reality.'

The concept of the digitally augmented environment also works in different kinds of urban location-based games and activities in which participants respond to located data using mobile devices as they move around a location in which a key aim is to make the 'invisible, visible.'¹⁴⁵ For example, *Riot1831*, a project produced by Mobile Bristol in April-May 2004 experimented with ways in which the movement and location of participants in Queen's Square, Bristol connected with fragments of an audio performance of the riot that took place there in 1831:¹⁴⁶

It's 1831. Bristol is a tinderbox and the spark is Sir Charles Wetherell, the city's visiting magistrate, widely loathed for portraying the city as anti-Reform. The people are rising up and thousands have filled Queen's Square

¹⁴³ O'Malley, C. & Stanton Fraser, D., 2004, *Nesta Futurelab Series Report 12: Literature Review in Learning with Tangible Technologies*, Bristol, Nesta Futurelab, p. 8.

¹⁴⁴ Feiner S., MacIntyre, B., Höllerer, T. & Webster, A., 1997, 'A Touring Machine: Prototyping 3D Mobile Augmented Reality Systems for Exploring the Urban Environment,' in *Proceedings ISWC '97 International Symposium on Wearable Computing*, Cambridge, Massachusetts, p. 74.

¹⁴⁵ Williamson, B., April 2004, 'Handheld Computers and Learning in Public Spaces,' web article. Online. Available <http://www.futurelab.org.uk/resources/publications-reports-articles/web-articles/Web-Article567> (accessed May 2005).

¹⁴⁶ A research project run jointly by The University of Bristol and Hewlett Packard Laboratories Bristol to 'push the boundaries of mobile computer technology and to test users' responses.' Information sheet for *1831 Riot!*

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to vent their fury and demand the Vote. [...] In your backpack there is a receiver which 'knows' the location of the GPS satellites circling the globe. The receiver transmits your position to an iPAQ computer, triggering a sound file which plays through your headset. When you move on, you will receive another file.¹⁴⁷

As a participant in this event, I was given the backpack and encouraged to wander freely around Queen's Square to trigger different audio files. As I walked from one part to another, I was in fact moving between digitally mapped active zones. The 34 zones on the digital map were 'located' using GPS and the audio files (3 in each zone) were configured so that they faded in and out to mark start and finish. If you went into the same zone again, the file would play again so you could choose to revisit a zone or use this as a reminder to go elsewhere.

Projects such as this have informed the development of active engagement with historical, social and cultural events by harnessing the mobility of participants wearing location-sensitive devices. In such projects, context awareness operates through the ways in which the application is designed to provide participants with a context that relates to their location so that they virtually 'experience' an event by triggering media files in response to their own movement. The method of using sound files in *1831 Riot!* provided the writers and producers of this event with opportunities to experiment with how participants 'heard' the story. They designed a range of sound files that captured a sense of the 'ebb and flow, hilarious moments, even peaceful moments'¹⁴⁸ of the riot triggered by walking in and out of the audio segments virtually layered over Queen's Square. This enabled participants to determine to an extent which audio segments they heard, for how long and in what order providing opportunities for personalised interpretations of the subject matter. As a participant in the event, I picked up 'threads' of different storylines as I moved around the location and became familiar with individual voices playing parts in the story that helped to make connections between them. Talking with one of the Mobile Bristol team afterwards, it was clear that some participants found the lack of linearity confusing as they were expecting a 'straightforward' account of the riot rather than the sense of 'ebb and flow' the audio material presented.

This project was innovative in experimenting with participatory performance through connecting physical movement with audio cues in which the live location is understood in its capacity for interaction rather than as a passive 'background' to the activity. Here, both geographical location and site are active in affecting relations between learners and between learners and buildings if, as Sharples suggests, context is woven through the mobility of the learner rather than predefined by others.

¹⁴⁷ Information sheet for *1831 Riot!* I participated in the event in May 2004. Online. Available www.mobilebristol.com and www.roaring-girl.com (accessed April 2004).

¹⁴⁸ Online. Available www.bbc.co.uk/print/bristol/madeinbristol/2004/04/riot/riot_stroy.shtml (accessed April 2004).

Buildings are dynamic as mediating artefacts in experiential learning. To develop this argument I will draw on the work of archaeologist Michael Shanks, architectural writers David Littlefield and Saskia Lewis, material culture theorist Tim Edensor and designer Stuart Brand who, I argue, offer an interdisciplinary perspective on material culture. This perspective contributes to new understandings of learning-enabled buildings that are important in developing the mobilised learner attributes of ‘stumbling upon,’ ‘noticing’ and ‘connecting.’

Finding Cracks in the Concrete

Shanks presents a social perspective on ‘interpretive archaeology’ that argues for decay and ruin not to be seen as a distraction to finding the essential ‘truth’ of an artefact, but as the integral makeup of the artefact itself.¹⁴⁹ Shanks defines the ‘conservation ethic’ as one in which the notion of preservation remains unchallenged and instead makes a ‘plea for pathology’ in which infestations are allowed to spread, valuing processes of decay, aging and ruin.¹⁵⁰ He suggests that by developing a ‘sensitivity to strangeness’ we may come to value the kinds of juxtapositions artefacts have in their fragmentary, broken or decaying state and in this we become able to rediscover social realities and the productive relationships people have with things. Shanks says that ‘the pot found by an archaeologist is not what it was,’ suggesting that a sensitivity to the historicity of the artefact can be focused on the materiality of the ‘pot’ in the present and the ‘way it gathers many sorts of things, people, feelings, aspirations.’¹⁵¹ In other words, the artefact embodies not only multiple cultural and social meanings from the past that can never be fully known by an archaeologist but also that decay should be valued as the life-cycle of the ‘pot.’ In this way Shanks describes the ‘pot’ as ‘witnessing its own historicity.’¹⁵² In a similar way, a building can be argued to ‘witness its own historicity.’

Architectural writers David Littlefield and Saskia Lewis argue that buildings have ‘voices’ that can be heard in different ways. In the introduction to their book *Architectural Voices: Listening to Old Buildings* Littlefield suggests that stories and narratives are embedded within the fabric of old or ‘elderly’ buildings, some of which may be instinctively heard by visitors and others that may need to be explicitly amplified in order to be heard.¹⁵³ In selecting buildings that are poised at a critical moment of redevelopment, Littlefield describes how such buildings have voices that emerge through ‘a fusion (an alchemy) of imagination, metaphor, association, memory, sensory experience, emotional response and hard

¹⁴⁹ Shanks, M., ‘The Life of an Artifact.’ Online. Available <http://documents.stanford.edu/michaelshanks/229> (accessed May 2005).

¹⁵⁰ Shanks, M., ‘The Life of an Artifact.’

¹⁵¹ Shanks, M., ‘The Life of an Artifact.’

¹⁵² Shanks, M., ‘The Life of an Artifact.’

¹⁵³ Littlefield, D. & Lewis, S., 2007, *Architectural Voices: Listening to Old Buildings*, Chichester: John Wiley & Sons, p. 14.

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architectural and historical facts.¹⁵⁴ Littlefield suggests that an authentic building is one that continues to grow ‘out of its history and becomes more alive because of it.’¹⁵⁵ The processes of use and dwelling are embedded in that history and like Shanks’ ‘pot,’ the building can be said to witness its own historicity by continuing to ‘accommodate life.’¹⁵⁶ Littlefield illustrates how architectural ‘voices’ may be heard for example, through a sample of extracts of miners’ accounts of life working at Chatterley Whitfield coal pit but he is also careful to point out that there are dangers of over-doing or sentimentalising such buildings to the point where the building is in ‘thrall’ of that history and its ‘voice is extinguished.’¹⁵⁷ Littlefield alludes to a ‘fine line’ that exists between providing visitors to an old building with facts, accounts, stories and narratives through which they may have opportunities to make imaginative and personal associations with the building, to hear its voice(s), and closing down the ways in which such ‘voices’ may be heard into ‘historical merits’ or ‘notable events.’¹⁵⁸ He expresses this fine line through the statement: ‘to uncover the joy and sorrow of Chatterley Whitfield is enough and one need not memorialise it.’¹⁵⁹ ‘Noticing,’ by developing a heightened awareness of buildings, is a mobilised learner attribute that is concerned with hearing the ‘voices’ of buildings. As such, designing touring activities that aim to amplify historicity are subject to the same ‘fine line’ warning.

I would like to briefly consider the proposition that ‘noticing’ the transitional materiality of buildings may be connected to freedom to independently explore authoritatively controlled buildings. Public institutional buildings, for example, in which the strategic movement of people and authoritative organisation of space is more visually apparent, could be argued to mask material change and transition whereas this may be much more visually evident in buildings that have been abandoned or earmarked for redevelopment. I have noticed how exposure to previously concealed ‘private’ spaces in buildings that appear to have been abandoned or are in a pre-demolition state, for example, can ‘jolt’ us into noticing material transition. The exposed interior wall of the building in [Figure 6](#) for example, unexpectedly makes private, domestic spaces open to public view. The fireplaces, various peeling wall coverings and floor/ceiling joist marks can be understood as fragmentary ‘finds’ that evidence the building witnessing its own historicity. In learning through stumbling upon unexpected kinds of exposure there is a possible connection to be considered between the extent to which a building is materially exposed and the kinds of movements that people make in exploring them. The industrial building poised for redevelopment on Commercial Road, London ([Figure 7](#)) for example could be argued to represent unauthorised access reinforced through its boundary hoardings. This sets up an expectation that the general public are denied access to this building and that any such movements to

¹⁵⁴ Littlefield and Lewis, *Architectural Voices*, p. 15.

¹⁵⁵ Littlefield and Lewis, *Architectural Voices*, p. 15.

¹⁵⁶ Littlefield and Lewis, *Architectural Voices*, p. 15.

¹⁵⁷ Littlefield and Lewis, *Architectural Voices*, p. 15.

¹⁵⁸ Littlefield and Lewis, *Architectural Voices*, p. 15.

¹⁵⁹ Littlefield and Lewis, *Architectural Voices*, p. 15.

this building would be unauthorised, disorderly and illegal. Access to such buildings may, however, be temporarily authorised through a guide or through an authorised event/project in that space.



Figure 6. 'Exposed Interiors,' London, September 2006.



Figure 7. Abandoned building, Commercial Road, London, May 2006.

An institutional building in current use, on the other hand, may represent authorised access for the public in the way it manages orderly kinds of movement within its spaces. The entrance to the V&A Museum in London, for example, is designed to facilitate ‘open’ and independent access for the public, established through clear expectations for ‘legal’ kinds of movement within its wall (Figure 8). The design of the foyer area, furnishings and employment of museum staff all contribute towards establishing expectations for orderly movement at the main entrance and this presents a challenge for stumbling upon. An abandoned building or ruin can be argued to be more accessible for stumbling upon fragmentary finds that are out-of-context. And opportunities for exploration need to be designed in relation to how access is, or is not, authorised. If stumbling upon is dependent on being given the ‘set of keys’ to make independent and unexpected finds behind the ‘closed door’ then a guide can be understood as an authorising agent in facilitating this kind of experience.



Figure 8. Main entrance to the V&A Museum, London, June 2003. Photograph: Futureplan.

Designer Stewart Brand has explored what happens to buildings after they have been built arguing that buildings change over time, adapting materially as ‘function melts form’¹⁶⁰ through use. He considers three different kinds of building: commercial, domestic and institutional. Brand describes how institutional buildings act ‘as if they were designed specifically to prevent change for the organisation inside and to convey timeless reliability to everyone on the outside. When forced to change anyway, as they always are, they do so with expensive reluctance and all possible delay. Institutional buildings are mortified by change.’¹⁶¹ Brand describes the challenge that institutional buildings such as museums must face in response to funding revenues, technological developments and fashion, the ‘three irresistible forces’¹⁶² that he argues shape all buildings. He suggests that buildings can be said to ‘learn’ in their ability to change and adapt to external forces. This ability to learn can be seen in the changes to materials and use and how these processes are evidenced over time. Brand encapsulates the rate of

¹⁶⁰ Brand, S., 1994, *How Buildings Learn: What Happens after They're Built*, London: Viking, pp. 156-177.

¹⁶¹ Brand, *How Buildings Learn*, p. 7.

¹⁶² Brand, *How Buildings Learn*, p. 5.

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change in buildings by expanding on Frank Duffy's theory which proposes that there are six layers to a building (Figure 9).¹⁶³ These are: 'site,' the often legally defined 'geographical setting' of the building; 'structure' described as 'the foundation and load-bearing elements'; 'skin,' the 'exterior surfaces'; 'services,' the 'working guts' of the building; 'space plan,' the 'interior layout'; and finally 'stuff,' 'the furniture' that moves on a regular basis.¹⁶⁴

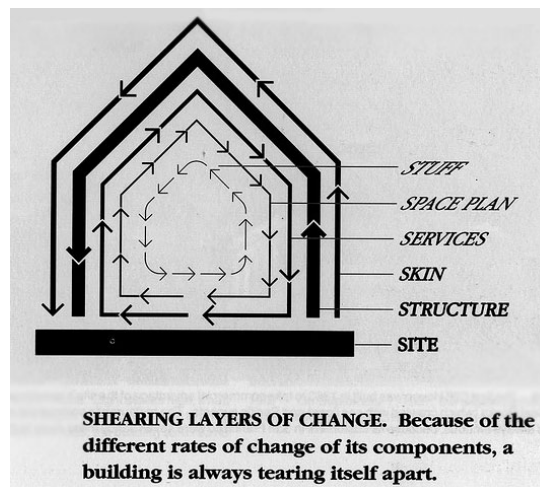


Figure 9. 'Shearing Layers of Change' taken from Brand, S., *How Buildings Learn: What Happens after They're Built*, London: Viking, 1994, p. 13.

Brand further illustrates the layers that make up a building through a visual example of a museum exhibit of an approximately 100 year old wallpaper sample (Figure 10) on display at the Cooper-Hewitt Museum in New York that consists of 13 layers of wallpaper consecutively pasted on top of each other over almost 100 years. Brand's notion of how 'buildings learn' through time gives rise to three specific ideas to consider further in developing stumbling upon as an attribute of the mobilised learner: firstly, understanding that time is an important factor when analysing processes of adaptation and change in buildings; secondly, understanding how change can be evidenced materially but may be masked or concealed in some way; and thirdly, understanding buildings are not always as regulated as people might expect after they have been built. And these ideas can be explored further through analysis of visitor movements around a building that, prior to redevelopment in 2003, was temporarily open to the public.

¹⁶³ Duffy, F., May 1990, 'Measuring Building Performance,' *Facilities*, p. 17. Cited in Brand, *How Buildings Learn*, p. 12.

¹⁶⁴ Brand, *How Buildings Learn*, p. 13.

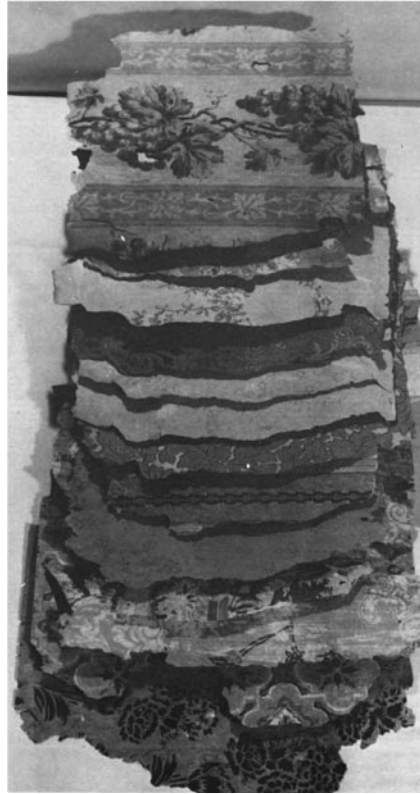


Figure 10. 'Thirteen layers of wallpaper which have been steamed apart are here arranged in the sequence they were pasted, one covering another, on one wall of the Nathan Beers house in Fairfield, Connecticut. The earliest pattern, shown at the bottom, dates from the first decade of the 19th century, while the stripe with grapes, shown at the top, was probably pasted over its predecessors about the turn of the 20th century' (courtesy of the Cooper-Hewitt Museum, New York). Online. Available http://www.nps.gov/history/history/online_books/tpsd/wallpaper/sec1a.htm (accessed July 2008).

The interior of St Pancras Chambers, London was exposed to the public during the two-day annual London Open House (LOH) event in 2003.¹⁶⁵ This was 'One of the final chances to see the Midland Grand Hotel and company offices in original state before major refurbishment.'¹⁶⁶ Designed by Sir Gilbert Scott in 1873, the

¹⁶⁵ 'Open House London, the capital's highest-profile architectural showcase, provides opportunities for people to explore more than 650 of London's exemplary buildings and to meet the architects, design teams and building users on site.' Online. Available <http://www.openhouse.org.uk/public/london/index.html> (accessed November 2008).

¹⁶⁶ London Open House, *London Open House 2003*, Information Booklet.

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building was due for redevelopment as part of the new international railway infrastructure of St Pancras and King's Cross stations. An A4, double-sided fact sheet produced for the LOH event was available as guidance for visitors and this detailed the building's history, current use and development proposals on the front and a suggested short tour on the reverse (including contact details for further information, events and other tours). Entry to the building was limited to 300 at any one time and the long queue was a constant feature over the two days. As part of a research programme instigated with LOH into visitor experience of this event, I took photographs to show how people interacted with a sample of buildings, including St Pancras Chambers. The photographs in [Figure 11](#) indicate a sense of curiosity as people were left to wander around a building that was in a state of neglect. They opened shut doors, peered into cupboards, looked through windows stating 'no admittance' and so on.



Figure 11. Visitors at St Pancras Chambers, September 2003.

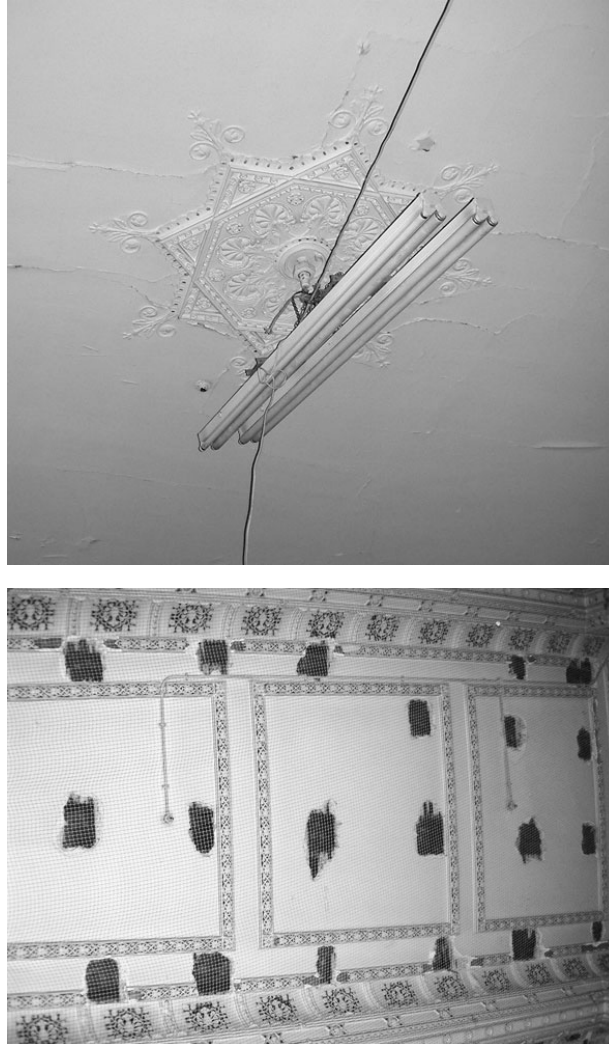


Figure 12. Ceilings in St Pancras Chambers, September 2003.

The opulence of St Pancras Chambers as a turn of the century building could still be seen in the classical sculptures and shields of the knights of England that adorned the ceiling at the top of a grandiose staircase. The transitional nature of the building was visible in the juxtaposition between the original features and the more modern decorations, fixtures and fittings. Fluorescent strip lights, for example, were wired up over original ceiling roses. Knowledge concerning original context could be learned by stumbling upon these apparent mismatches. This building in its

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state of transition gave permission for the public to independently move around and touch, open up, look into its spaces. Neglect was indicated through the grubbiness, temporary ‘quick-fix’ repairs and holes or faded marks that indicated where things had once been (Figure 12). It was almost as though the building’s old and intended function as a hotel had been forgotten for a while and processes of decay had set in.

Tim Edensor describes the exploratory potential of ‘ruins’ in a way which is relevant for understanding the apparent freedom of visitors’ movements that I noted at St Pancras Chambers:

The sensorial experience of a ruin is characterised by an immanent immersion in space rather than the mobilisation of a scopic, distanced sensing dominated by a gaze seduced by the symbolic and aesthetic placings of ornaments and images... the tactilities of ruins are profoundly distinct from the smoothed over space of much city experience.¹⁶⁷

Edensor suggests that buildings allowed to decay, to be forgotten for a while, can instigate deregulated interactions as people move about to explore these ‘industrial ruins.’¹⁶⁸ In this, he makes a connection between kinds of open exploratory tactile movements made by people and seemingly chaotic or disorganised space. In an earlier text, ‘Moving Through the City,’¹⁶⁹ Edensor suggests that in thinking about the physical stage and interpretative function of performance in making meaning in urban environments it is important to consider the potential for space to be active:

The nature of the stage varies from the carefully managed arena which contains discretely situated objects around which the performance is organised, to those theatres with blurred boundaries, or those cluttered with other actors following incomprehensible scripts, full of shifting scenes, juxtapositions and random movements coming from a range of angles ... Accordingly, there may be myriad forms of performance, following distinct roles, scripts, choreographies, group formations, instructions and cues ... Whilst meaning always overlays the material organisation and form, informing practices and assumptions which reproduce space, space also produces action.¹⁷⁰

Edensor highlights the factors ‘which act to constrict the extent of people’s physical exploration of the city and their forms of bodily expression.’¹⁷¹ These constrictions include forms of surveillance that channel movement which impact ‘upon the range of manoeuvres available’ as well as peer pressure to conform to norms in groups. He suggests that skill level, acquisition of techniques and practice are dependent on cultural context and shared understanding of the audience

¹⁶⁷ Edensor, T., 2005, *Industrial Ruins: Space, Aesthetics and Materiality*, Oxford/NY: Berg, p. 91.

¹⁶⁸ Edensor, *Industrial Ruins*.

¹⁶⁹ Edensor, 2000, ‘Moving Through the City’ in Bell, D. & Haddour, A. (Eds.), *City Visions*, Harlow: Pearson Education.

¹⁷⁰ Edensor, ‘Moving Through the City,’ p. 123.

¹⁷¹ Edensor, ‘Moving Through the City,’ p. 123.

culturally. Edensor also argues that architecture is both an incitement to movement and a stage ‘with a wealth of possible niches, paths, stairs, openings, tactile surfaces which invite physical exploration.’¹⁷² Edensor’s definition of the nature of the stage is that it also constricts movement. Although Edensor does not specifically consider processes of touring in his work, it is important to note that he describes physical movement as ‘informing practices,’ due to the way people interact with tactile, material features in the built environment that invites exploration and reproduces space. The tour may be thought of as an activity that guides participants in stumbling upon the ‘stage’ of the built environment through responding to the kinds of cues, directions or instructions that may be given to a performer.

For Brand and Edensor decay is an active process that occurs when material matter metamorphoses into something else. Transition in the built environment can thus be understood as a temporal and spatial process that is politically and culturally produced. In this way, decay in buildings may be seen to make a positive influence on the way in which we experience changing materiality through tactile explorations that engage curiosity and enquiry into the everyday. This perhaps runs counter to an interpretation of decay as a negative process which should be prevented so that buildings can be preserved in their ‘original’ state. All buildings are active in their various states and stages of transition, something that is particularly evidenced through modification, neglect or redevelopment, and this is rich environmental information for stumbling upon.

Out-of-context

In Chapter 1 I highlighted Jane Rendell’s emphasis on the temporal aspects of critical spatial practices and argued that this was important in establishing a focus on a form of learning concerned with exploring the ways in which participants on a tour notice or sense material change in the built environment. I also suggested that this might enable a critique of institutional preservation. Rendell argues that there are art and architectural projects that create ‘new insertions’ in existing locations, using ‘inappropriate materials or languages’ to disrupt the perceived or given order of things.¹⁷³ She highlights how understandings of ‘out-of-context’ situations may require knowledge about ‘original’ context. Rendell discusses the work of artists and architects whose work requires the viewer to make associations between ‘fragments’ in ways which draw on their existing knowledge concerning the original contexts of these fragments and how this may form ‘new relationships in a particular context at a specific moment in time.’¹⁷⁴

According to Michael Shanks, archaeologists also work with fragments and ‘material traces’ as evidence in order to ‘create something – a meaning, a narrative,

¹⁷² Edensor, ‘Moving Through the City’, p. 123.

¹⁷³ Rendell, *Art and Architecture*, p. 83.

¹⁷⁴ Rendell, *Art and Architecture*, p. 82.

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an image – which stands for the past in the present.’¹⁷⁵ He describes the temporality of archaeology as ‘turbulent,’ in that past and present ‘percolate’ in ‘the building of ways of life.’¹⁷⁶ He suggests that we all practise archaeology in our everyday lives and that this is a process of ‘recontextualisation’ rather than ‘reconstruction.’¹⁷⁷ Shanks goes on to name this process the ‘archaeological imagination,’ emphasising that there is no single, right method to do archaeology but rather it is a process of subjective interpretation ‘always informed by present interests and values.’¹⁷⁸ I have previously suggested that ‘site is actively produced through interactions between learners rather than a predetermined given’ and that learners operate in an ‘elastic environment’ which is ‘charged’ with social and spatial interactions in the production of meaning. The relevance of Shanks’ approach to archaeology is in the emphasis he places on the idea that the processes of excavating need not necessarily involve making interpretations of finds based on an understanding of ‘original context’ as the ‘essential truth,’ as this cannot be ever fully ‘known.’ Bringing the ideas of Rendell and Shanks to the notion of ‘woven context’ in mobile learning suggests that we might think about how learners connect finds to make threads of enquiry about a place.

Archaeological prospecting is a method for ‘detecting anomalies’ that can be used analogously to explore how mobilised learners might make and record finds in the built environment in ways that develop threads of enquiry. Archaeological prospecting has been described by archaeologist Anthony Clark as the basic process for revealing the location and depth of buried or concealed objects by detecting anomalies in disturbed ground.¹⁷⁹ He says, ‘The electrical resistance of the ground is almost entirely dependent upon the amount and distribution of moisture within it. Buried remains affect this distribution, and can be detected with instruments.’¹⁸⁰ The geophysical principle of ‘resistivity’ to sense anomalies in archaeological excavations offers a way of thinking about penetrating the seeming imperviousness of buildings. I suggest that creating a site for learning by ‘detecting anomalies’ is a method that can be applied above ground level by finding and recording the incongruous. Archiving these anomalies may provide opportunities for making personal and public connections with fragments of finds with other narratives of use over time and in different locations.

Edensor draws on a notion of ‘oddness’ in his strange, accidental and found ‘juxtapositions’ of industrial ruins and relics. He invites people to construct subjective meanings as materials and objects become ‘detached’ from expected contexts and, as such, invite intrigue in their ‘possibilities for imaginative circumspection and fantasy’:

¹⁷⁵ Pearson, M. & Shanks, M., 2001, *Theatre/Archaeology*, London/New York: Routledge, p. 11.

¹⁷⁶ Pearson & Shanks, *Theatre/Archaeology*, p. 10.

¹⁷⁷ Pearson & Shanks, *Theatre/Archaeology*, p. 11.

¹⁷⁸ Pearson & Shanks, *Theatre/Archaeology*, p. 11.

¹⁷⁹ Clark, A., 1990, *Seeing Beneath the Soil*, London: B.T. Batsford. This edition, 2001, London, Routledge: Chapter 1.

¹⁸⁰ Clark, A., *Seeing Beneath the Soil*, p. 27.

Inside ruins fragments fall out of their contexts to recombine like elements in dreams, a random re-ordering which is decided according to where things land, and how they tumble down from their assigned places to mingle. Masonry crumbles, ceilings fall down and wild arrangements of heterogeneous materials form. Mixtures of grease, plaster, reams of archaic paperwork create accidental sculptural forms out of twisted detritus. Detached from their use, class and category, objects stand in odd assemblages or become isolated. Things thus stand in curious relationship with each other and we cannot be sure how they are related. By tilting at peculiar angles, by squashing into different places and frames, things come to possess an indefinable emotional charge. They violate the usual perspectives of verticality and horizontality, the conventions of perspective and placing.¹⁸¹

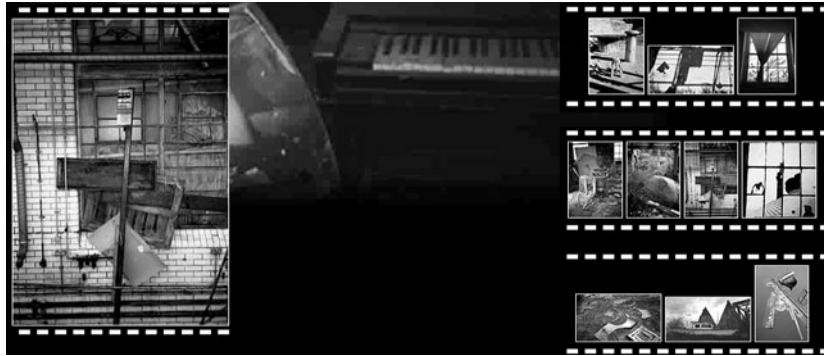


Figure 13. 'Juxtapositions,' Edensor. Online. Available http://www.sci-eng.mmu.ac.uk/british_industrial_ruins/juxtapositions.asp (accessed October 2007).

The screenshot in Figure 13 shows one way in which Edensor has organised his photographs of ruins and relics for public viewing on the internet. The images on the right-hand side are thumbnails that can be clicked on and opened to view an enlarged version that appears on the left. By clicking on the images, there are many ways in which the user can interact to construct the stories that Edensor invites us to make. The photographs are organised into strata, separated by dotted lines, encouraging movement along each strata as well as vertically, up and down. There are no dates or information concerning location as this kind of information would detract from Edensor's idea that juxtapositioning might work by noticing 'odd assemblages.'¹⁸² In this way, untagged photographs enable us to focus on what is

¹⁸¹ Online. Available http://www.sci-eng.mmu.ac.uk/british_industrial_ruins/juxtapositions.asp (accessed October 2007).

¹⁸² Online. Available http://www.sci-eng.mmu.ac.uk/british_industrial_ruins/juxtapositions.asp (accessed October 2007).

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visually present in the image and to make relations with other images visually rather than in terms of archaeological data. Edensor's website represents a way in which finds may be publicly shared and personal interpretations made. It would be interesting to find out what would happen if such a web-based platform were used in location. The idea that an archive may be both a personal collection and one for archiving finds shared with others over time and in different locations, provides a way of considering how mobile devices can be utilised as archaeological tools that invite learners to make connections.

This dimension of learning-enabled buildings works on making the seemingly invisible, visible. In bringing together theoretical perspectives from archaeology and material culture an argument that the built environment is active evidenced through transition and change has been developed this is important in exploring a shift in subjectivity, from guide to participant in tours. I have argued that a notion of out-of-context may enable opportunities for recontextualisation in learning through buildings and that this may be more effective if participants are involved in finding and recording anomalies that build an archive over time.

HAPTIC LEARNING

When researching 'haptic' within the field of technology-enhanced learning, internet searches tend to throw up results on haptic interfaces and tools that allow users to 'feel' screen-based objects in educational programmes. (For example, digital sculpting tools that provide artists with a more intuitive way of making 3D forms or haptic dentistry tools that allow trainees to feel the surface of teeth on a digital patient.) Haptic interfaces are more widespread in computer games and increasingly so in handheld mobile devices. When I switch on my phone, it makes a small 'hello' handshake. Rather than focus on haptic technologies I am going to explore an alternative way of thinking about what haptic might mean in technology-enhanced learning in tours. I suggest that an understanding of haptic learning may be developed from analysing how physical movement, perception and touch are inextricably linked in the development of a particular type of spatio-temporal awareness associated with experiencing buildings and the built environment. And I will go on to consider how technologies may nurture this kind of awareness.

Jonathan Hill's concept of the 'creative user' of architecture as someone who creates new spaces or transforms existing space argues that the 'richness and complexity of the [creative] user's experience depends on awareness of all the senses.'¹⁸³ Hill suggests that buildings are experienced through a multiplicity of sensory interactions that are integral to creative production. Making sense of these interactions is sometimes an explicit or conscious process, but not always. He says:

Buildings can be experienced in many ways at the same time. The composite of these experiences is a *particular type of awareness* in which a person

¹⁸³ Hill, J., 2003, *Actions of Architecture*, London: Routledge, p. 88.

performs, sometimes all at once, a series of complex activities that move in and out of conscious focus. Passive, reactive and creative use can occur together.¹⁸⁴ (my emphasis)

Can this experiential, spatial and everyday ‘particular type of awareness’ associated with using buildings be explored in terms of designing touring activities for mobilised learners?

The haptic realm is shown to play a tangible, tactical role in our communicative ‘sense’ of spatiality and mobility, thus shaping the texture of habitable space and, ultimately, mapping our ways of being in touch with the environment.¹⁸⁵

Architectural and film theorist Guiliana Bruno, quoted above, suggests that architecture is the ‘public housing of private voyages’ and that voyages are sensed through motion or by moving between rather than ‘seeing’ from one viewpoint. For Bruno, architecture is experienced haptically by sensing movement in space rather than understanding it through sight. Bruno argues that ‘theories of the gaze’ or the visual in film, art and architecture, have ignored the haptic medium of such cultural performances.¹⁸⁶ She describes the haptic in terms of the ‘motion of emotions’ or the ways in which the body senses through movement. Haptic movement is thus associated with emotion in that the interface of touch and touching creates an emotional space ‘by projecting us outward with other people, objects, and machines moving in space: it mobilises the human body and its representational prosthetics in a vast, sentient expanse.’¹⁸⁷ Adopting Bruno’s understanding of the haptic we can revisit how learners are mobilised into taking action. Bruno says that ‘touch teaches the eyes to see beyond themselves,’¹⁸⁸ she suggests that tactility extends the senses and in so doing that it ‘fosters curiosity, taking us from place to place.’¹⁸⁹ Although Bruno does not directly refer to the tour as a medium for haptic engagement, I suggest that her notion of haptic extension – sensing through movement – is highly relevant to understanding how mobility may develop an emotional engagement through touring the built environment and also how technologies may be engaged to *sensitise*. Art theorist Caroline Jones asks ‘Why not imagine an art that could train us to be aware, exquisitely aware, of the colour of a person’s name, the smell of an architectural plan, the sound of a given temperature?’¹⁹⁰ Understanding relations between art, technology and embodied experience is fundamental to developing what Hill’s ‘particular type of awareness’ might mean in designing touring activities. The proposition that spatial perception

¹⁸⁴ Hill, J., *Actions of Architecture*, p. 88.

¹⁸⁵ Bruno, G., 2002, *Atlas of Emotion*, London: Verso, p. 6.

¹⁸⁶ Bruno, *Atlas of Emotion*, p. 256.

¹⁸⁷ Bruno, *Atlas of Emotion*, p. 253.

¹⁸⁸ Bruno, *Atlas of Emotion*, p. 251.

¹⁸⁹ Bruno, *Atlas of Emotion*, p. 251.

¹⁹⁰ Jones, C.A., 2006, ‘Synaesthesia’ in Jones, C.A. (Ed), *Sensorium: Embodied Experience, Technology, and Contemporary Art*, Cambridge, MA: The MIT Press, p. 218.

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is inextricably linked with movement through the simultaneous synesthesia of the senses has been explored by geographical theorists and educators and which provides further insight into how we might design opportunities for haptic learning (Figure 14).



Figure 14. 'Haptic Learning,' mudlarking in Deptford, May 2005.

Paul Rodaway focuses on the role of the sense of touch within the wider context of a 'multisensual experience of the environment.'¹⁹¹ Although Rodaway does not directly refer to pedagogy and learning in his work on 'sensuous geographies,' he argues that movement, touch and perception are inextricably connected. Rodaway uses the term 'haptic geographies' to refer to 'touch as an active sense which is integrally involved with the locomotive ability of the body and specifically focuses upon the role of touch in the perception of space and relationships to place.'¹⁹² He refers to James Gibson's understanding of the 'haptic system'¹⁹³ to identify two distinct faculties of the haptic sense: physical bodily contact or 'pressure' and 'kinesthesia' or the 'ability of the body to perceive its own motion.'¹⁹⁴ Rodaway suggests that together these make a perceptual system, comprising 'presence' and 'locomotion.'¹⁹⁵ Presence refers to actual physical contact made between the body and its environment, while locomotion refers to kinaesthetic ability. According to Rodaway, then, the term haptic 'refers to the tactile receptivity of the skin, the

¹⁹¹ Rodaway, P., 1994, *Sensuous Geographies: Body, Sense and Place*, London: Routledge, p. 42.

¹⁹² Rodaway, *Sensuous Geographies*, p. 42.

¹⁹³ Gibson as quoted by Rodaway, *Sensuous Geographies*, p. 42. See Gibson, J., *The Senses Considered as Perceptual Systems*, London: George Allen & Unwin 1968, p. 97.

¹⁹⁴ Rodaway, *Sensuous Geographies*, p. 42.

¹⁹⁵ Rodaway, *Sensuous Geographies*, p. 42.

movement of the body parts and the locomotion of the whole body through the environment.¹⁹⁶

Rodaway suggests that a consideration of corporeal movement as a form of participatory engagement with the environment had been largely overlooked in geography. This is also the case in the field of technology enhanced learning where the term ‘haptic’ is most usually referred to in interface design rather than as a mode of learning itself. Rodaway defines the ‘reciprocity’ that occurs in the haptic system as the kind of relation between body and environment that is activated through touch. In other words, for Rodaway reciprocity involves the body reaching out to the environment as well as the environment coming into contact with the body, so that body and environment ‘touch and are touched.’¹⁹⁷ He goes on to identify three interrelated levels of reciprocity that give rise to what he calls ‘environmental experience.’ These are: ‘simple contact,’ ‘exploratory activity’ and ‘communication.’¹⁹⁸

Exploration provides the fine detail of a complex tactile world, communication establishes a participation or belonging to the world (and in a sense establishing our place in it) and simple contact continually maintains, often subconsciously, a connectivity with the physical world and our own bodies.¹⁹⁹

Rodaway suggests that everyday haptic experiences involve us using and relating all three levels of reciprocity. ‘Simple contact,’ he suggests, is literally two surfaces in contact with one another, while ‘exploratory activity’ describes an active agent consciously investigating an environment. Although the environment does not ‘appear to register its own tactile sensation’ the active agent can be said to absorb a ‘rich supply of information’ from it. ‘Communication’ involves an active agent making contact with another party, where each party responds to ‘tactile stimulations and messages are exchanged.’²⁰⁰

It is important to note in Rodaway’s ‘typology of haptic relationships’²⁰¹ that agents are active in making reciprocal relations with their environment. In the previous section I described how the mobile learner attributes of ‘noticing,’ ‘stumbling upon’ and ‘connecting’ could be developed by exploring what it means to describe the built environment as ‘active’ in terms of the tactile nature of buildings. Understanding how participation involves different kinds of reciprocal person-environment relations is, I suggest, integral to considering haptic elements of mobile learning. Rodaway’s typology of levels of reciprocity in a haptic system provides a useful geographical perspective on the perception of space and

¹⁹⁶ Rodaway, *Sensuous Geographies*: p.42.

¹⁹⁷ Rodaway, *Sensuous Geographies*: pp.44-45. Rodaway cites Montagu, A., *Touching: The Human Significance of the Skin*, New York/London: Columbia University Press, 1971.

¹⁹⁸ Rodaway, *Sensuous Geographies*: p.45.

¹⁹⁹ Rodaway, *Sensuous Geographies*: p.45.

²⁰⁰ Rodaway, *Sensuous Geographies*: p.45.

²⁰¹ Rodaway, *Sensuous Geographies*: p.46.

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relationships to place that is further developed through his ‘haptic matrix’ representing an ‘overall structure of haptic geographies’ (Figure 15).

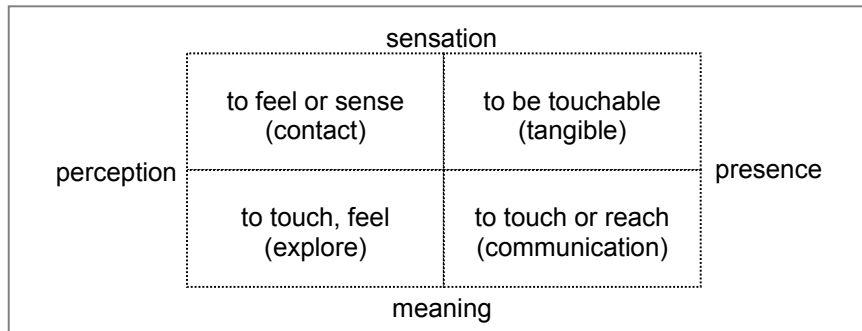


Figure 15. ‘The Haptic Matrix,’ taken from Rodaway, P., 1994, *Sensuous Geographies: Body, Sense and Place*, London: Routledge, p. 47.

The concept of ‘The Haptic Matrix’ highlights Rodaway’s central concern with reciprocity – being able to touch and to be touched – and the human ability to be in physical contact or touch with the environment:

These two axes, sensation-meaning (sense) and perception-presence (relation), represent the overall structure of haptic geographies, not just about touching but being touched, of reaching out and making oneself within reach.²⁰²

This explanation of the axes that form Rodaway’s haptic matrix embody his broader, dimensional definition of perception that is based on considering perception as culturally and socially learned over time by combining the use of our senses and by understanding how we use them to make sense of the world. It could therefore be argued that in Rodaway’s work perception is culturally defined and that since the ways in which we perceive are culturally determined each society develops a different or preferred ‘sensory style’ of perceiving an environment. Activities that aim to develop skills in learning through physical contact with the environment often reveal how we might prioritise one sense over another through habit or that we deliberately increase our sensitivity to certain environmental stimuli.

Rodaway highlights an understanding of touch that is reciprocal and he argues that a ‘sense of place is grounded in the participatory quality of haptic geography.’²⁰³ Rodaway’s understanding of how reciprocal relations with the environment operate through ‘simple contact,’ ‘exploration’ and ‘communication,’ offers a framework for considering what it means to haptically participate in

²⁰² Rodaway, *Sensuous Geographies*, p. 46.

²⁰³ Rodaway, *Sensuous Geographies*, p. 46.

learning activities through touring the built environment. As we haptically perceive space we come to know it through the ‘reciprocal nature of touch’²⁰⁴ in interactions between people, objects and places. This idea of reciprocity develops what we mean by learning through buildings – we are able to physically touch and be emotionally touched by the active, transitory nature of the built environment. And this now needs further discussion in terms of how technologies can help us to make sense of those sensations as learners.

Connections between sensory experience and technology in active learning can be seen in the work of Seymour Papert who developed the Logo programming language in the 1970s.²⁰⁵ Logo programming language supported learners in both programming and learning about their own thinking in activities that involved them in moving a physical ‘turtle’ (a mobile controllable device with a pen) as a means of exploring the transition from the personal body syntonically to abstracted represented meaning. In this, learners used knowledge about their own body movements, for example ‘one step forward’ to move the turtle.²⁰⁶ Papert understood that children could physically perform these movements, moving their own bodies in response to directional commands and recognised that this would allow them to relate with computational objects in a multiplicity of ways. He called this ‘syntonic learning.’ Syntonic learning provided a framework for understanding how personal concrete experiences connected with more abstract principles of geometry and mathematics.

Sherry Turkle describes the ‘tethering’ effects of mobile devices in which the body is retrained into different kinds of bodily position and new social relationships. ‘A train station is longer a communal public space, but a space of social collection: tethered selves come together, but do not speak to each other.’²⁰⁷ Turkle argues that rather than experimenting with identities in virtually constructed worlds or by using augmented technologies, current communication technologies enables an ‘always-on, increasingly intimate connection’ with mobile devices that provides a ‘social and psychological GPS, a navigation system for tethered selves.’²⁰⁸ There are two further points that Turkle makes that are particularly relevant to haptic learning. Firstly, that when using mobile devices people are not concerned by their physical environment and secondly, that always being connected results in a loss of isolation and risk when young people experience navigation of the city alone for the first time.²⁰⁹ Whilst these points are open to discussion, they do provide a springboard for considering how haptic learning can utilise mobile technologies to *amplify* awareness of the built environment.

²⁰⁴ Rodaway, *Sensuous Geographies*, p. 54.

²⁰⁵ Papert, S., 1980/1993, *Mindstorms* (2nd Edition), New York: Basic Books, p. 63.

²⁰⁶ Kafai, Y., 2006, ‘Constructionism’ in Sawyer, R.K., *The Cambridge Handbook of Learning Sciences*, Cambridge/Melbourne/Madrid/Cape Town/Singapore/San Paulo: Cambridge University Press, p. 37.

²⁰⁷ Turkle, S., 2006, ‘Tethering’ in Jones, C. (Ed), *Sensorium: Embodied Experience, Technology and Art*, Massachusetts: MIT, p. 221.

²⁰⁸ Turkle, ‘Tethering’, p. 226.

²⁰⁹ Turkle, ‘Tethering’, p. 221 and p. 224.

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Learning activities that provide opportunities for interplay between the senses, for example hearing an image, could be argued to be dependent on the ‘vantage point’ or position of the participant produced through movement. I have explored this concept by working with artist Lottie Child to develop her method of ‘urban street training’ in the interior environs of the British Library. This method involved participants in describing spaces of the building from a series of explicitly unusual positions – for example, from inside a lift or under a table – and involved them in amplifying their senses. I am now working on another project that involves participants exploring London from the tops of its buildings. The idea here is for participants to make a tour by accessing the top spaces of buildings, making recordings and plotting these on a map. Each recording is tagged with location and height data. These kinds of touring projects set out to support participants in extending and developing their spatial awareness of a building or city through movement between different positions that encourages sensory interplay. And these positions may be designed as waymarks and/or pauses on a tour.

At this point it is useful to draw on the work of cultural theorist Steven Feld who focuses on interplay between the senses. Feld argues that physical and emotional presence is linked to sound and balance through hearing and speaking. He also suggests that context can be understood as an ‘acoustic dimension’ in which places are experienced and produced through ‘sounding’ and ‘resounding-ness.’²¹⁰ Feld works with the perspective that it is important to study how sensory dominance is subject to change through ‘bodily emplacement’ and context.²¹¹ He suggests a new term, ‘acoustemology,’ for understanding how place is experienced and made through sound and sounding.²¹²

Because motion can draw upon the kinaesthetic interplay of tactile, sonic, and visual senses, emplacement always implicates the intertwined nature of sensual bodily presence and perceptual engagement.²¹³

Feld argues that experiencing place comes about through an interplay of ‘sensory perceptual processes’ and he describes how this interplay occurs in space-time.²¹⁴ He suggests that time is spatialised: ‘sounds are sensed as connecting points up and down, in and out, echo and reverb, point-source and diffuse’ and that space is temporalised: ‘sounds are heard moving, locating, placing points in time.’²¹⁵ The interplay of space-time he describes in terms of ‘forward, backward, side to side, heard in trajectories of ascent, descent, arch, level, or undulation.’²¹⁶

²¹⁰ Feld, S., ‘Places Sensed, Senses Placed’ in Howes, D. (ed.), *Empire of the Senses*, Oxford/New York: Berg, 2005, pp.184-185.

²¹¹ Feld, ‘Places Sensed’: pp.179-189.

²¹² Feld, ‘Places Sensed’: pp.184-185.

²¹³ Feld, ‘Places Sensed’: p.181.

²¹⁴ Feld, ‘Places Sensed’: p.185.

²¹⁵ Feld, ‘Places Sensed’: p.185.

²¹⁶ Feld, ‘Places Sensed’: p.185.

Feld argues that the sentient subject hears and feels place and there is a need to understand how we are ‘culturally attuned’ in order to realise what the environment might offer. According to Feld, Western culture has placed too much emphasis on the visual senses²¹⁷ and that it is the interplay of senses that produces a perceptual experience of place rather than the dominance of one sense over another. In my view, the more we recognise the role of cultural bias in producing sensory dominance, the greater the possibility for unblocking ‘clogged’ senses and experiencing a greater variety of environmental information. For example everyday environmental information can be used in productive ways to engage participants in ‘noticing’ their location. Feld highlights the importance of embodied experiences in making sense of place and describes this as ‘emplacement.’ If Feld’s concept of ‘emplacement’ is developed for haptic learning it is the interplay that occurs between the senses through movement that may give rise to new or different perceptions about place. Placing Feld’s argument that we are ‘culturally attuned’ alongside Littlefield and Lewis’s idea that buildings have ‘voices’ creates an interesting way of approaching the design of touring activities that may be tuned into hearing such voices as well as the tastes, smells and textures of buildings to develop spatio-temporal awareness. For example, a cue may be designed to prompt action in response to participants making connections between the surfaces of the wall they are walking by whilst listening to pre-recorded audio.

The urban built environment presents a specific challenge if, according to Mirko Zardini, cities have been planned to appeal to the sense of sight to such an extent that use of our other senses has been eroded. The Canadian Centre for Architecture (CCA) explored a ‘sensorial approach to urban phenomena’ through the organisation of an exhibition, *Sense of the City*, from October 2005 to September 2006 at the CCA in Montréal.²¹⁸ The exhibition and accompanying publication, curated and edited by Zardini, focuses on the ‘perceptual capacities’ of human beings by proposing a new approach to urban studies.²¹⁹ In suggesting ‘a broader view of the environment that takes into consideration the full spectrum of perceptual phenomena that make up the sensorial dimension’ Zardini draws on what he considers to be the radical viewpoints concerning the urban environment from the late 1960s and 1970s.²²⁰ In considering movement through, and perception of, urban environments in ways that may broadly generate action it is interesting to consider how communal city spaces have been designed largely on an appeal to our sense of vision. Zardini goes as far as to say that ‘all sounds and odours have been considered disturbing elements, and architecture and city

²¹⁷ For example, Carpenter, E. & McLuhan, M., 1960, *Explorations in Communications*, Boston: Beacon Press, 1960.

²¹⁸ Zardini, M. (Ed.), 2005, *Sense of the City*, Montréal/Baden: Canadian Centre for Architecture and Lars Müller Publishers.

²¹⁹ Lambert, P., ‘Preface’ in Zardini, *Sense of the City*, p. 14.

²²⁰ Zardini, M., ‘Towards a Sensorial Urbanism’ in Zardini, *Sense of the City*, p. 19. Zardini cites Buckminster Fuller, Superstudio and Cedric Price amongst others from the late 1960s and 1970s who dealt with qualities of improving the urban environment that were not primarily concerned with the visual.

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planning have exclusively been concerned with marginalising them, covering them up, or eliminating them altogether' through forms of sanitisation and standardisation that have resulted in a 'continuous erosion of the perceptual sphere.'²²¹ We can heighten our sensory awareness of the city by making explorations at times when our vision is challenged in different ways, for example at night or during a power cut. Or when seasonal weather disrupts our everyday routines. Or asking what do our feet feel? What noises or sounds orchestrate a soundscape of the street where I live? Why do foreign places smell different? How are invisible smells represented in describing the built environment? How do climatic conditions affect the city – from the weathering of buildings to activities marked in snow?



Figure 16. Railway bridge wall for snowball making, Brockley, London 2009.

²²¹ Zardini, 'Towards a Sensorial Urbanism', p. 21.

Educational projects could aim, therefore, to work against such erosion by developing attributes and activities associated with ‘noticing,’ ‘stumbling upon’ and ‘connecting’ that focus on how the urban environment is experienced through interplay of the senses. This can be illustrated in the work of Proboscis who have developed processes and toolkits that enable people to use and/or home-make a range of sensory devices to explore the city through ‘participatory sensing.’²²² Their aim is for local people to learn about their environment by sensing what is intangible, such as noise or carbon monoxide levels, using mapping tools ‘scavenged’ from the web to map and share their findings.²²³ I suggest that focusing on sensory interplay enables an exploration of non-visual approaches to designing cues in tours. Rather than creating ‘shells’ for learning in which sounds, smells and textures are blocked out, this rich and ever-changing environmental information should be conceived as a stage for action. I would like to explore this idea by looking at a sample of leisure-based mobile technology projects and artists’ walks that have developed ways of engaging participants in sensory interplay through the use of technologies in ways that can be applied to haptic learning.

Technologies that Enhance Spatio-Temporal Awareness

Research into social networking linked with sport activities reveals interesting and relevant connections between technologies as bodily extensions, physical movement and communication. Work around ‘exertion interfaces’ has explored the impact of sociality in producing a motivation to exert oneself physically by doing sport ‘over a distance.’²²⁴ Computer-human interaction designers Florian ‘Floyd’ Mueller, Shannon O’Brien and Alex Thorogood have researched how mobile technologies may encourage active physical exertion from individuals who enjoy taking part in sports for social reasons but who do not necessarily have the time slots or resources for actually joining a group on a regular basis.²²⁵ An exertion interface is an interface that deliberately requires intense physical effort to work and when linked up to another person doing the same activity, but not in the same physical location, can prompt participants into ‘doing’ sport (for example, going out for a run) whilst also maintaining social friendships through the activity.²²⁶ Mueller et al describe how this concept works through building and testing a prototype mobile device that uses spatialised audio:

We decided to build a prototype that further pushes the idea of jogging ‘together’ with geographically distant jogging partners by creating a

²²² Online. Available <http://socialtapestries.net/feralrobots/> (accessed August 2007).

²²³ Two specific projects to mention are ‘Feral Robots’ and ‘Snout.’ Online. Available <http://socialtapestries.net/feralrobots/> and <http://snoutlondon.ning.com/> (accessed August 2007).

²²⁴ Mueller, F., O’Brien, S., & Thorogood, A., 2007, ‘Jogging over a Distance,’ *CHI 2007*, April 28–May 3, 2007, San Jose, California, USA. Online. Available <http://exertioninterfaces.com> (accessed July 2007).

²²⁵ Mueller et al., ‘Jogging over a Distance.’

²²⁶ Online. Available http://exertioninterfaces.com/exertion_interfaces/definition.htm (accessed July 2007).

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prototype that not only supports conversation but uses the audio to communicate pace. Similar to jogging side by side and adjusting pace with one's partner, the *Jogging over a Distance* prototype transforms the conversation into spatialized audio to simulate hearing one's partner in front, to the side, or behind.²²⁷

What is interesting about this technology is that it depends on spatialised conversations over a distance in order for it to work. The physical distance between two runners, for example, is significant only in that they are unable to meet face to face. The exertion interface system allows them to run in different locations and to socially connect through an audio device. This does more than provide a chat link between the participants as it is programmed so that each runner can hear the other's voice as a position in relation to their own. For example, if one person is running faster than the other, then this voice (or whatever sound is being communicated) will sound as if it is ahead of the other, so allowing the running partner to choose to speed up or to maintain their current pace in order to maintain a running partnership.

The use of audio to both chat and communicate pace in sporting activities is a relevant area of technological research for developing learning activities where pace, distance, time and location are also key elements of the experience. Audio both allows and prompts users to look around them while they are on the move and, in particular, spatialised audio provides a form of simulated positioning within a 360° circle. Audio spatialisation allows the user to 'hear' who is off to the left, who is far ahead, who is just behind and who is abreast to the right and a multitude of other positions in relation to others. In haptic learning, this could describe a method of technologically extending and enhancing the senses.

To experience the item as off to the left is to experience the object as occupying a certain position in one's egocentric space Here, 'left' and 'right' are used egocentrically, not to denote regions of space but to denote spatial regions thought of in relation to the perceiver's body.²²⁸

Other commercially available products and prototypes also offer interesting uses of audio to stimulate movement and new kinds of interaction that could easily be applied to a wider spectrum of mobile uses, including walking tours.²²⁹ One key function of some of these products and prototypes is that they aim to support the user in staying on track, either through GPS-enabled navigation systems or through the monitoring of personal goals and performance targets whilst on the move. Audio cues can provide appropriate signals to redirect or make changes in order to aid the user to stay on track as s/he does not have to watch a screen. In this way, an

²²⁷ Mueller et al., 'Jogging over a Distance.'

²²⁸ Noë, A., *Action in Perception*, Cambridge, MA: The MIT Press, p. 87.

²²⁹ 'Melodious Walkabout' (<http://www.pervasive.ifi.lmu.de/adjunct-proceedings/poster/p043-047.pdf>), 'Nike/iPod Sport Kit' (www.apple.com/ipod/nike) and 'Actively Mobile' (http://www.activelymobile.com/jbove_thesis_web.pdf) are examples of mobile technologies being utilised to support running and exercise.

audio cue prompts an action that aims to involve the user in a physical exertion. In a sense, the user is being prompted to go in a certain direction or change pace in response to the audio signal or hint that is heard and processed in relation to their body position. If the spatialisation of audio occurs as participants localise or position the audio sources in relation to themselves and the environment they are moving through then this can foster engagement in decision-making with others and be used to make associational connections with the physical environment. Spatialised audio cues could therefore be argued to support going ‘off-track’ as much as staying ‘on-track’ in locative-media based learning activities depending on the type, organisation and communication of the audio cues and who or what triggers them. The idea of orientating oneself through identifying ‘landmarks’ that are to the front, side and/or behind means that there are not only opportunities for participants to independently work out where they are, but also for the navigational system in the tour to be designed to facilitate this. A system in which landmarks are made conspicuous by the user responding to navigational cues that heighten awareness through sensory interplay.

Auditory Scene Analysis (ASA) studies how we perceive simultaneous audio sources as fused or separate under different conditions.²³⁰ Information technologists, David McGookin and Stephen Brewster have explored the potential for audio cues to reduce visual screen dependency in mobile technology devices within ASA through development of a system they call *Dolphin*.²³¹ *Dolphin* is a ‘technique that uses a hybrid visual and spatialised audio display space to overcome the limited visual displays of mobile devices.’²³² They demonstrate the practical application of the technique by applying it to maps of theme parks which they suggest are difficult to navigate due to their large size and the relatively limited amount of time people have to use them.

The concept of information space in *Dolphin* differentiates between ‘focus’ and ‘context’ in designing a system that creates a hybrid of the two. McGookin and Brewster define focus as ‘the part of the information space that is of most interest to the user’ and is therefore presented in the most detail. The context makes up the rest of the information space and is presented in much less detail to meet the requirements of the display space available. *Dolphin* was designed to allow users to navigate a theme park where using the mobile devices reduced the need to constantly look at a handheld screen to find one’s way or plan a route. Instead these authors used audio to structure the context, providing constant audio cues to help locate users as they actually looked around their environment.

²³⁰ McGookin, D., September 2002, ‘The Presentation of Multiple Earcons in a Spatialised Audio Space, *Proceedings Volume 2 of the 16th British HCI Conference London*, p. 1, cites Bregman, A., 1994, *Auditory Scene Analysis*. London: MIT.

²³¹ McGookin, D. & Brewster, S., 2002, ‘Dolphin: The Design and Initial Evaluation of Multimodal Focus and Context’ in *Proceedings of the 2002 International Conference on Auditory Display*, Kyoto, Japan, July 2002.

²³² McGookin & Brewster, ‘Dolphin,’ p. 1.

Our new focus and context system augments the visual display with a new modality, specifically spatialised (3D) audio, to increase the available display area for information presentation.²³³

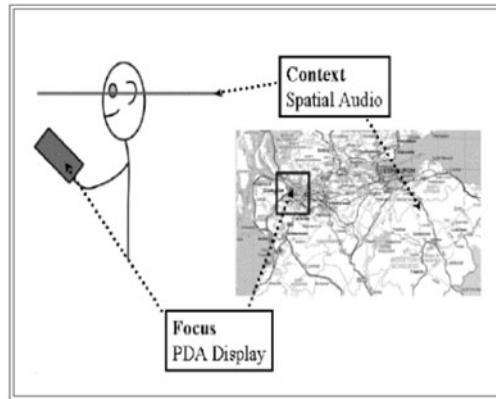


Figure 17. 'Overview of Multimodal Focus and Context' taken from McGookin, D. & Brewster, S., 2002, 'Dolphin: The Design and Initial Evaluation of Multimodal Focus and Context' in Proceedings of the 2002 International Conference on Auditory Display, Kyoto, Japan, July 2002, p. 2.

Figure 17 shows how the visual display is the focus (high detail) and the audio is the context (lower detail) of this system when used on a Personal Digital Assistant (PDA). These authors apply their concept of multimodal focus and context to a real environment (in this case, a theme park) where navigation, defined amount of time and awareness of context provide the key factors in determining the kind of environment chosen for testing the system. To create spatialised audio the authors encode cues that the human auditory system uses to localise sound sources through use of a Head-Related Transfer Function (HTRF). According to McGookin and Brewster 'An HRTF is in essence a function, which takes an audio source and a position, and filters the audio source such that it is perceived to come from the supplied location.'²³⁴ They also use a concept they call 'priority zones' (Figure 18) to work out how to select audio or, in a sense, how to structure the cues being fed into the system so that the user can make sense of them and not be confused by the simultaneous cacophony of spatialised sounds. Priority zones mean that the position of the user determines what sounds are selected for them to hear:

The idea is that less important things that are far away should be given less display resource than closer, more important things. Far away, but very important things should have more resource than very unimportant but close

²³³ McGookin and Brewster, 'Dolphin': p.1.

²³⁴ McGookin and Brewster, 'Dolphin': p.3.

things [...] Extending out from the focus, and fixed relative to it, in concentric circles, are the priority zones. For a sound (representing a ride) to be played, it must lie in a priority zone with a number less than or equal to its own number. This means that sounds are switched on and off dynamically as they *move* between zones. In doing this we can remove those audio sources that are unlikely to be important based on the user's current map location.²³⁵ (my emphasis)

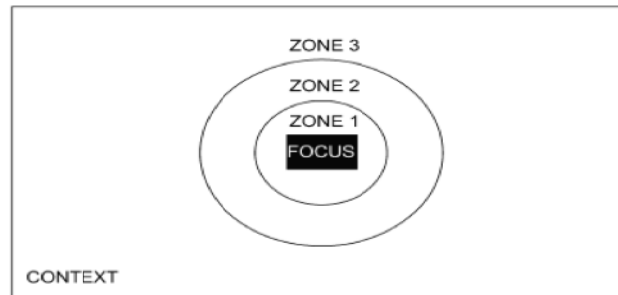


Figure 18. 'Relationship of Priority Zones to the Focus and Context' taken from McGookin, D. & Brewster, S., 2002, 'Dolphin: The Design and Initial Evaluation of Multimodal Focus and Context' in *Proceedings of the 2002 International Conference on Auditory Display, Kyoto, Japan, July 2002*, p. 3.

The making of the audio cues and the priority zone system potentially give the authors a high level of control in determining what users hear and consequently how they navigate their way around the theme park. As the user moves around the park, the level of importance attached to a particular ride determines the auditory cues they hear. If the ride does not merit a certain level of importance expressed as a number, then the cue for that ride is not triggered. In the evaluation of the system, participants tested *Dolphin* by using it to find types of ride they would most like to go on in the theme park and connected these into a route.

Those concerned with creating immersive experiences in location-based games have also explored the potential of spatialised sound to increase the level of immersion experienced by participants in the game. Human-computer interaction designers Kirsten Cater, Richard Hull, Tim Melamed and Robin Hutchings hypothesise that players in a location-based game become more immersed in the experience through the use of spatialised sound.²³⁶ These authors investigate how navigation in locative games may be transformed from the use of spoken directions given to players finding their way, to filtered spatialised sound that creates a feeling of sensing which way to go rather than being told this information. Their

²³⁵ McGookin & Brewster, 'Dolphin,' p. 4.

²³⁶ Cater, K., Hull, R., Melamed, T., & Hutchings, R., 2007, 'An Investigation into the Use of Spatialised Sound in Locative Games,' *CHI 2007*, San Jose, USA, April-May 2007. Online. Available <http://www.cs.bris.ac.uk/Publications/Papers/2000708.pdf> (accessed July 2007).

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particular interest is in making this kind of technology run on small specification mobile devices. To do this they took Head-Related Transfer Functions and produced base spatial filters for time delay, panning and scaling to make efficient and quick audio filters suitable for running on PDAs. In this way, we can see how audio cues may be designed to facilitate participants in sensing their way rather than being given conventional directions by a guide.

Using mobile devices to send and receive live RSS and GeoRSS feeds provides a more widely available platform for experimenting with ways in which we understand how technologies based on cloud computing may be used to enhance spatio-temporal awareness. Websites that offer a microblogging service can be utilised to record and share personal perceptions of locations through the production of short messages using mobile devices.

As RSS and Atom become more prevalent as a way to publish and share information, it becomes increasingly important that location is described in an interoperable manner so that applications can *request, aggregate, share* and *map* geographically tagged feeds. GeoRSS was designed as a lightweight, community driven way to extend existing feeds with geographic information.²³⁷

If we go back to the idea that locations are rich in ever-changing environmental information, RSS feeds provide opportunities for generating and sharing user content between participants whilst in location. Applying this concept to tour design, a series of located waymarks may be defined by an activity or set of activities that requires participants to record and send their responses as they move to and from them. These responses are can then be represented as tag clouds on a website. The screendumps in [Figures 19 and 20](#) illustrate how a Geography fieldwork course has utilised a microblogging website to enhance students perception of their fieldwork environment in Malta. By recognising and reporting on their surroundings, students were involved in ‘mapping spatially coincident points’ in a collaborative learning activity.²³⁸

The concept of ‘sensing your way’ described by Cater et al can also be seen to work through disparate participants sending and receiving geolocated data whilst on-the-move. Location, height and time data produce tag clouds that can be interrogated to track paths taken, deviations, speed of movement, time-lapse and so on as well as the evolving content and multiplicity of other waymarks generated by participants.

²³⁷ Online. Available http://www.georss.org/Main_Page. Accessed November 2010.

²³⁸ Field, K. & O’Brien, J., July 2010, ‘Cartoblogography: Organising and Visualising the Spatial Context of Micro-blogging,’ *Transactions in GIS, 14*, Supplement s1, pp. 5-23.




Figure 19. 'Malta Tweets.' Online. Available http://studyspace.kingston.ac.uk/bbcswbdav/xid-2974915_1 Accessed November 2010.

The exercise

Students given either paper map or GPS device to navigate through 6 waypoints.

At each waypoint, a range of exercises was completed including sending a tweet with keywords to describe the environment

Each waypoint can be subsequently mapped with the keywords visualized as a mapped word-cloud



Kingston University London www.kingston.ac.uk/centreforgis

Figure 20. Waypoints into Word – Clouds. Online. Available http://studyspace.kingston.ac.uk/bbcswbdav/xid-2974915_1. Accessed November 2010.

Artists' Walks that Enhance Spatio-Temporal Awareness

The walks created by artists Janet Cardiff and Graeme Miller, in different ways, illustrate how the technologies and ideas around spatio-temporal awareness discussed so far may be brought together to investigate how they use cues to engage and motivate participants into making meaning and movement. Both artists invite participants to make connections between the everyday environments they are walking through and the content they are listening to. This provides opportunities for exploring ways to nurture imagination in learning-through-touring. I focus on the artists' walk, in order to consider walking as an activity that creates opportunities for imaginative thinking, a method for learning-through-touring in which the participant is simultaneously, and necessarily, cognitively and physically in touch with their location.

Janet Cardiff

The spatio-temporal operations of the tour can be further examined as mobile learning experiences through architecture theorist Peg Rawes' notion of 'sonic envelopes' in which relations between the perceptive abilities of the individual and the physical environment are explored through the artistic construction of 'sonic and aural images, memories, voices, spaces and events.'²³⁹ She describes Cardiff's walks as 'spatial audio art works'²⁴⁰ in which participation in artists' walks is understood, like the use and inhabitation of architecture, through the 'cultural, aesthetic and political agency of the individual.'²⁴¹ Among other expressions, Rawes uses the phrase 'sonorous images' to describe an element of the content on a Cardiff audio walk. She describes the 'sonorous images' produced by the artist as forms which enable a relationship to develop between the piece of work or aesthetic expression and the participant. Images produced by the artist can be said to have a potentially resounding quality enabled though the mobility of the individual and their active engagement with the environment. Rawes argues that it is the individual who produces the 'spatio-temporal experience' and this resonates with learner-centred pedagogy in which the individual is intrinsic to the activity but in such a way that the importance of location-specificity is also emphasised. Indeed, Rawes highlights how Cardiff's walks cannot just take place anywhere, but are constructed in and through a defined location.

Cardiff constructs a complex relationship between the specific location for the walk, the individual's imagination, senses and physical presence in the city and the remote voices and bodies of the artist and others.²⁴²

Cardiff has made installations and audio walks (some as collaborations with George Bures Miller²⁴³) that embrace the audience as participants. Participating in

²³⁹ Rawes, P., 2008, 'Sonic Envelopes,' *Senses and Society*, 3(1), Berg, p. 62.

²⁴⁰ Rawes, 'Sonic Envelopes,' p. 63.

²⁴¹ Rawes, 'Sonic Envelopes,' p. 64.

²⁴² Rawes, 'Sonic Envelopes,' p. 67.

²⁴³ At a talk given by Janet Cardiff and George Bures Miller at Tate Britain, October 2006, Bures Miller described his involvement in co-editing the audio work made by Cardiff which was largely technical.

a walk or installation by Cardiff is to engage in dimensions of speaking, listening and walking with her through the physical environment of the space of the work. Cultural geographer David Pinder suggests that the meaning of this artwork is created ‘through its embodied enaction’ by participants who are invited to work with the audio content and its physical location and in this sense may be described as ‘co-creators.’²⁴⁴ Cardiff has been making audio walks since 1991 and it was in 2003 that some of her recent work, an audio walk *The Missing Voice (Case Study B)* and a sound installation, *Forty Part Motet*, were exhibited at the Whitechapel Art Gallery in London. *The Missing Voice (Case Study B)*, commissioned by Artangel, was first exhibited at the Whitechapel Library, the starting point for the walk, from June to November in 1999.

When you are walking down the street, you don’t normally hear all that’s going on around you. But when you record it, you can accentuate one sound or another, like a car driving by, for example. You really feel it, you really hear it and you feel more alive because your senses are heightened.²⁴⁵

In *The Missing Voice (Case Study B)* Cardiff asks participants to ‘walk with me,’ inviting them to put on set of headphones, keep in step with her and listen to her ‘guide’ them through the streets of Whitechapel in East London. The guide for the walk operates through two voices. One voice is that of the artist herself who appears to be ‘actually’ walking with the participant. This voice provides directional information about which way to go, points out landmarks along the way and her footsteps seem to set a pace for the walk. The second voice narrates a story that unfolds during the walk. In this way, Cardiff adopts two voices, one which operates in ‘real’ time-space (the artist’s voice) and the other as a ‘play-back’ in fictional time-space (the artist as narrator of the story). Cardiff invites participants to engage in a practice of walking that involves developing a heightened sense of awareness with their surroundings for the duration of the event and beyond.

Participants are asked to enter the Whitechapel Library where the walk begins and to locate a specific book on one of the shelves. The book is a murder mystery whose subject and characters are threaded into the narrative of the walk. Rather than taking an audio story out on a walk, in a way that might be argued to ‘relive’ the story, Cardiff weaves real, live reference points from the site itself into the fictional narrative. The photographs in

Figure help to show how other people, dwellings, road surfaces, street scenes and buildings are woven into the narrative. Some of these are directly referenced such as the newspaper billboards, so that the newspaper headlines from the past read out by Cardiff are juxtaposed with new ones seen by the participant in place on that day of their walk. Likewise, sitting on the benches outside St Botolph’s church, the

²⁴⁴ Pinder, D., 2002, ‘Ghostly Footsteps: Voices, Memories and Walks in the City,’ *Ecumene, a Journal of Cultural Geographies*, 8(1), p. 2.

²⁴⁵ Janet Cardiff in conversation with Carolyn Christov-Bakargiev. Christov-Bakargiev, C., 2001, *Janet Cardiff: A Survey of Works Including Collaborations with George Bures Miller*, New York: P.S.1 Contemporary Art Center, p. 18.

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guide voice directs participants to look at a man in a blue jacket who is sitting opposite, when in fact the bench might be occupied by a woman eating a sandwich. Pinder describes how, sitting in the same place but at a different time of year from Cardiff, he finds that the ‘description of tulips and smell of flowers’ evokes a ‘wistful’ longing for springtime on a winter’s afternoon.²⁴⁶ Other ‘cues’ also work in this sensual way. For example when I participated in the walk the cobbles under the tarmac road surface operated as a tactile reference point under my feet and the smell of the church created a hushed ambience for me.

Cardiff herself heightens this sensual awareness of a ‘gap’ between reality and recording by enhancing the interplay between her voices as guide and as narrator and between her descriptions of the past and present time experienced by each participant in their specific walk. As art critic Kitty Scott says, it is ‘in the gap between the listeners’ reality and the origin of the recorded sound, the work itself performs.’²⁴⁷ The participant is invited to make connections between what the guide requests is noticed, the live references that are also part of the story and other events and things that just happen to occur during the walk. Cardiff employs a sophisticated audio technology to invite participation in this way. She uses binaural recording and playback to produce a suggestion of three-dimensional space in her audio walks that also draws on the participant’s ability to spatialise sound, thus enriching the notion of an ‘elastic environment.’ Binaural recordings are made by positioning a microphone on each side of a dummy (to avoid recording movement sounds made by a real person walking with microphones attached) while moving along. The sound is recorded in stereo. When these are played back through headphones, this creates the impression of three dimensional sounds that when played simultaneously in real time engages participants in interplay between what is recorded and real. Connections between where and how fast to go and what to notice are processed by the participant through their ability to spatialise the audio cues produced by the artist.

Pinder suggests that the ‘relationship between what she says and conjures up in the imagination and your own experiences and perceptions is critical.’²⁴⁸ I argue that this ‘relationship’ is created through the specific combination of technologies employed to make the audio recordings, the invitation to practice space through walking whilst listening to the track on a portable player, and the way in which Cardiff shifts between voices to both direct and narrate fragments of a story that is played out through the participant’s actions.

²⁴⁶ Pinder, ‘Ghostly Footsteps’: p.5.

²⁴⁷ Scott, K., ‘Janet Cardiff’ in McShine, K., *The Museum as Muse: Artists Reflect*, New York: The Museum of Modern Art, 1999, pp.166-167.

²⁴⁸ Pinder, ‘Ghostly Footsteps’: p.5.



Figure 21. *Missing Voice (Case study B), walking from Whitechapel Library to Liverpool St Station, London, August 2003.*



Figure 22. Participant, *LINKED*, Leytonstone, November 2003.

Graeme Miller

The sound walks of Graeme Miller have been described by art critic Andrea Phillips as ‘making the ordinary special’ by ‘turning up the heat’ on ‘ordinary practices and everyday codes.’²⁴⁹ It could be argued that although Miller does not necessarily use spatialised audio technologies, his work also heightens spatio-temporal awareness of particular events and histories by asking participants to make connections with the environment they are moving through. Like other walks composed and produced by Miller, *LINKED* is located in a landscape of streets, roads, buildings and pavements. This sound walk involved participants walking a route (or parts of it) between Leyton and Redbridge in East London in 2003.²⁵⁰ They could pick up a receiver and map at a number of collection points that were positioned along the route that ran alongside or near to the newly built link road for the M11 motorway (Figure 22). Using the map and receiver set, participants walked along the three-mile route listening to an audio track that played when they approached one of 20 radio transmitters positioned along the way. The transmitters were positioned on the posts to create an ‘umbrella’ close to the transmitter so that when a participant walked into range, they received a signal that activated the soundtrack (Figure 23). It is important to note that when using this kind of technology, the transmitter signal was strongest closer to the post and weakest

²⁴⁹ Phillips, A., 1998, ‘Borderland Practice: The Work of Graeme Miller’ in Childs, N. & Walwin, J. (Eds.), *A Split Second of Paradise: Live Art, Installation and Performance*, London: Rivers Oram Press, p. 104.

²⁵⁰ *Linked* was launched in July 2003 and is on-going to date. Online. Available <http://www.linkedm11.info/index2.html> (accessed March 2007).

further away so that the participant experienced the recording as ‘coming in’ or ‘going out’ of range. As such, the quality and pace of the continuously playing transmission was controlled by participants moving in and out of range along the linear transmitter route (Figure 24) rather than through episodes being technologically synchronised to the location. Miller used radio transmission rather than a portable player and this contributed to his intention that ‘the vividness of these moments’ should ‘emerge from the otherwise cloudy pool in which our memories lie.’²⁵¹ As the participant walks along the route, the transmissions move in and out of reception so that voices seem to emerge from the very streets and houses themselves.

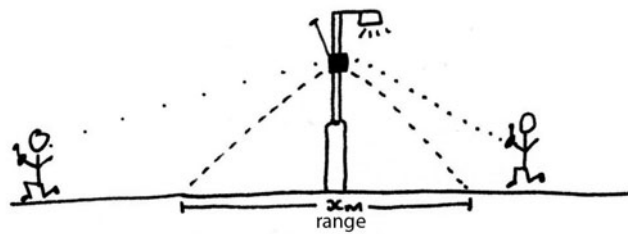


Figure 23. Transmitter umbrella.

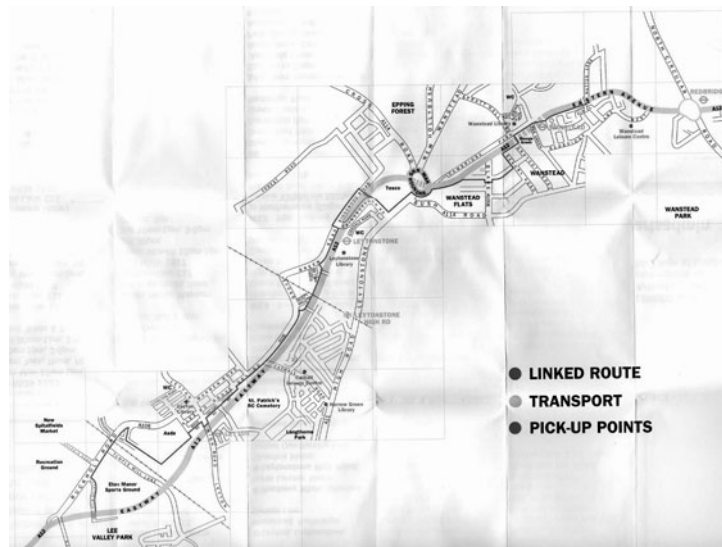


Figure 24. Map of LINKED route taken from participant information sheet.

²⁵¹ Miller, *LINKED* catalogue, p. 2.

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Miller lived for ten years in Grove Green Road in Leyton, East London in one of 400 houses that were demolished to make way for the new link road and the project evokes a sense of community archived by him through audio and video recordings now held in the Museum of London. The archive of recordings is described by Miller as ‘fragments of recollection’ from 120 hours of interviews with the people who lived there.²⁵² The content for the audio walk was edited from these recordings. Miller describes his view of history as one that is rooted in community and suggests that the project may be active in understanding the value of a sense of place:

Motorways and roads in particular are no-go zones for history. They are sterilisers of history. You have to take a leap of faith to believe in reality after they have been built because you no longer project on to them. These places are simply unavailable. I am now interested in creating a tactile document that will form part of a turning point in the way such schemes are envisaged.²⁵³

Miller describes his recordings of testimonies (produced for the audio of *LINKED*) as now in ‘smithereens,’ as ‘audible chips.’²⁵⁴ He alludes to a ‘real’ narrative that is for him the everyday life of the neighbourhood:

As the particles of speech of *LINKED* face the future there lies a hope that they will connect with the triggered rememberings, counter-stories, gross omissions and alternative versions of the same event that may renew the narrative tissue of the neighbourhood.²⁵⁵

Performance theorist Alan Read suggests that there are ‘two presences’ in *LINKED*. I argue that the notion of how ‘presences’ might work in location may be relevant for developing understanding of mobilised learners ‘making connections’ by juxtaposing recorded content with the live location. Read describes the first ‘presence’ in terms of the ‘first person narrative of the speaker speaking, now in a present that must have been back then, at least eight years ago if the words are to be taken at face value.’²⁵⁶ The fragments of lives as told by the community prior to demolition are spoken in the present tense. For Read, the ‘second present is the insistent present of the landscape transformed.’²⁵⁷ The ‘gap’ that Read alludes to between these presences in *LINKED* is clearly felt on the section of the walk that runs directly alongside the link road to the M11 motorway (Figure 25). Here one listens to the voices recorded in the present tense of the people who once lived in the street that was demolished to make way for the motorway link road juxtaposed with the present reality of the motorway traffic noise and the seemingly enormous

²⁵² Miller, G., 2003, *LINKED* catalogue, an Artsadmin project commissioned by Museum of London, p. 2.

²⁵³ Miller quoted in Phillips, ‘Borderland Practice,’ p. 114.

²⁵⁴ Miller, *LINKED* catalogue, p. 2.

²⁵⁵ Miller, *LINKED* catalogue.

²⁵⁶ Read, A., ‘The Arithmetic of Belief’ in *LINKED* catalogue, p. 5.

²⁵⁷ Read, ‘The Arithmetic of Belief,’ p. 5.

road signs positioned at eye level. In this way, Miller guides us through the landscape by evoking fragments of past histories and inviting us to make associations between these and the present environment in ways that draw upon sensory interplay.



Figure 25. Walking alongside the M11, LINKED, November 2003.

Missing Voice (Case Study B) by Janet Cardiff and *LINKED* by Graeme Miller illustrate how learning in artists' walks can happen when participants occupy a spatio-temporal 'gap' between narrative and location and simultaneously between voices past and present. This gap may be designed into tours to support haptic learning. An activity or project may involve several different kinds of cue that aim to develop learners' spatio-temporal awareness so enabling them to notice things in their environment for the first time and to make new associations between locations (Figure 26). This idea is developed further in practice as the process of seeding. Seeded content is presented in the form of a cue that prompts action. For example, participants may be asked to find a real or imaginary object in a location by moving about and listening for the recorded sound of it triggered by GPS.

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Figure 26. 'M11 Links,' Leytonstone to Wanstead, November 2003.

A haptic approach to learning involves understanding ways in which the built environment may be experienced through bodily movement and sensory interplay, where experience is extended and enhanced by developing skills in noticing things and weaving contexts using appropriate technological 'antennae.' Research into spatialised sound technologies highlights how multi-sensory cues can be designed that may precipitate different kinds of physical movement. The work of artists such as Cardiff and Miller shows how the creative production of audio content can produce cues that prompt, provide clues or fragments of a narrative which the participant is invited to develop. To suggest that cues might be location-sensitive is to propose that the spatio-temporal positioning of participants is integral to the learning experience, and in doing so to develop the notion of space-time in learner-

responsive environments introduced in Chapter 1. Rather than imposing a narrative on a specific location, these artists invite stories to be evolved by locating and developing cues whilst walking. In this way, the content of the narrative is not predetermined by a single author or guide, but the selection and arrangement of content invites the conjecturing, juxtapositioning, questioning and orientating of connections that form the narrative for that participant. The specificity of the location of cues may also offer opportunities for experiencing the built environment from new or different perspectives.

In the introduction to haptic learning, I drew on Hill's discussion of how users experience buildings through a 'particular type of awareness' as a springboard for exploring the complexities of haptic forms of engagement with the built environment. At the outset I posed the question: Can a 'particular type of awareness' be developed through participation in touring activities in the built environment? In attempting to answer this question, I have drawn on theories of sensory perception that inform how we make sense of place and how these may be realised in practice in the design of mobile and haptic learning experiences through guiding and touring. In this way physical bodily movement and sensory interplay are connected in a 'particular type of awareness,' that of experiencing the built environment. Cues can be designed to take into account the effect of cultural bias and social interactions in influencing the way preferred or habitual 'sensory styles' determine how we notice and select environmental information. They can also be designed to develop a sense of critical reflection in which it is possible to notice and select processes for referencing the built environment.

I reach my left arm up. I control the fountain. I press the button. (sound of water). Put your left leg on the metal bar at the bottom of the sign. Take a couple of steps forward and turn to your right. You will see a cash machine. Try and press the numbers on the cash machine (sound of buttons being pressed). Stop and touch the opposite bar with your left foot and see on the wall on your right a light – touch it and try and not burn your hand. Go up the stairs and jump on every step. (sound of jumping on steps). You are at the top and go towards where you can smell coffee. The smell of coffee is getting weaker.²⁵⁸

The built environment dynamically affects a multiplicity of interactions through human spatial positioning abilities and sensory cues (passive or active, planned or found) that mediate different kinds of environmental information but cannot control learning. In this way, haptic learning may occur through participation in activities that explicitly acknowledge the reciprocal nature of touch and being touched.

²⁵⁸ 'Finding your way round the British Library,' *Cracking Maps at the British Library*, October 2006.

CHAPTER 3

TRAITS OF THE TOUR AND TOUR-GUIDE

THE TOUR

The dictionary definition of the tour as a noun is a ‘journey from place to place [that comprises] of visits to a number of places on a route through an area.’²⁵⁹ The transitive definition of the tour as a verb is to make a tour or ‘circuitous journey, in which many places are visited, usually without retracing one’s steps; to make a prolonged excursion for recreation or business’²⁶⁰ and the action of making a tour is described as ‘arranging’ for a ‘series’ of visits.²⁶¹ The term ‘circuitous’ can be used to describe an indirect or meandering route towards a destination. In seventeenth-century London to ‘take a turn’ was described as a ‘tour’ which involved movement, often in a coach, around a place such as a park. The Oxford English Dictionary cites ‘The coach is ready for me to tour in the park, and to see my lord’s improvements’ from Mary Delaney, *The Autobiography and Correspondence*, 1779-88. The tour can thus be defined in terms of a series of visits to different places and also around a place. A tourer is described as the kind of person who ‘goes on tour’ and also as the means of transport used for touring (and may be adapted for that purpose) such as bicycle or car.²⁶²

The activity of writing about tours can be traced as a pastime from the late eighteenth-century in the Oxford English Dictionary description given for ‘tour writing.’ ‘The rage for tour-writing’ is cited from 1794 through to ‘I shall be obliged to write a tour book myself’ in 1824.²⁶³ Historian John Vaughan argues that one of the reasons for travelling between 1780 and 1870 was to ‘broaden the mind.’ For Vaughan ‘education’ is included along with ‘piety, curiosity, trade and health’ as a motivation for making a tour at this time.²⁶⁴ He proposes that the origins of touring for pleasure can be seen in a twelfth century guide ‘for pilgrims to St James of Compostella,’ a form of guide that was ‘adaptable’ in that it could be used by ‘serious travellers’ taking a religiously-inspired tour and by those with more interest in leisure-based activities.²⁶⁵ He says that the material for leisure

²⁵⁹ Shorter Oxford English Dictionary (SOED) 5th Edition, 2002, Oxford: Oxford University Press.

²⁶⁰ Oxford English Dictionary (OED). Online. Available <http://dictionary.oed.com> (accessed August 2008).

²⁶¹ Oxford English Dictionary (OED). Online. Available <http://dictionary.oed.com> (accessed August 2008).

²⁶² SOED.

²⁶³ The OED cites these examples of tour writing from: William Roberts, 1794, *The Looker-On; A Periodical Publication by the Rev Simon Olive-Branch*, p. 71 and John MacCulloch, 1824, *The Highlands and Western Isles of Scotland*, p. 41.

²⁶⁴ Vaughan, J., 1974, *The English Guidebook c.1780-1870*, London/Vancouver: David & Charles, p. 15.

²⁶⁵ Vaughan, *The English Guidebook*, p. 15.

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seekers in this text was ‘additional’ and described ‘different interests’ that, according to Vaughan, were more culturally than religiously inspired. For example, ‘In place of shrines and relics there were the gentlemen’s houses to be seen.’²⁶⁶ Vaughan suggests that leisure time and money were necessary requisites for travelling in this period and that, later, during the eighteenth century ‘men and women alike began to travel further afield in search of culture and relaxation,’ that in his view was reflected in texts written about tours at the time extolling the pleasures of ‘landscape’ or ‘atmosphere’ of places.²⁶⁷ For example, *A Grand Tour on a Coach Box* by D.N. Shury published in 1811²⁶⁸ describes a coach tour of Britain and the preface highlights the momentary pleasures of encountering scenes and views in ‘sight-seeing’:

The following is a slight Sketch of Scenes hastily passed through. The whole Rout, 1336 Miles, was run over in little more than six weeks. Deep research (or) Learned Remarks, are totally out of the Question. The Observations, ludicrous and serious, were the Impression of the Moment – As such, and as a mere Trifle, the Tourist presumes to offer them.²⁶⁹

The pleasures of making a tour are expressed through graphic descriptions of located ‘scenes’:

It is almost impossible to describe the rich and various scenery you have from the top of this mountain ... After having half-blinded our eyes and bewildered our brains with looking and looking, gazing and gazing, we thought it prudent at length to descend ... (And) The whole scene, with the noise of the rushing down of the river, the deep recesses covered with wood and the approach of night, arrested and pleased the attention.²⁷⁰

Historian John Brewer echoes this movement towards travel for pleasure in his description of a development in the production of topographical and landscape prints. He proposes that from the early eighteenth century they were made to be informative and by the late eighteenth century these prints were intended to ‘please’ instead. Brewer suggests that ‘this proliferation of reproduced images created a public at one remove, able to enjoy art they had little or no possibility of ever seeing in the original.’²⁷¹ It could, therefore, be argued that by the early-nineteenth century, topographical and landscape prints approximated the actual experience of seeing these views for a wider public. In terms of defining the tour, these wider developments in touring for pleasure and topographical printing contribute to understanding the tour as an educational and cultural operation.

²⁶⁶ Vaughan, *The English Guidebook*, p. 15.

²⁶⁷ Vaughan, *The English Guidebook*, p. 26.

²⁶⁸ Shury, D.N., 1811, *A Grand Tour on a Coach Box*, London: Berwick Street Publishers.

²⁶⁹ Shury, *Coach Box*, Preface.

²⁷⁰ Shury, *Coach Box*, pp. 97, 98 and 174.

²⁷¹ Brewer, J., 1997, *The Pleasures of the Imagination: English Culture in the Eighteenth Century*, London: Harper Collins, p. 459.

Movement around and between locations in ‘tour books’ in the first part of the nineteenth century emphasise how a heightened sense of awareness may be brought about by participating in a tour in ways that invoke the benefits of *curiosity* in educating oneself. For example, the introductory pages of William Hutton’s, *A Journey to London* published in 1818, emphasise how touring may engage people’s curiosity in seeing objects in new and different ways suggesting that ‘What a man sees every day, he sees without attention; but when he first beholds those objects, he feels what he sees.’²⁷² Hutton expands on this by highlighting that confidence in navigational abilities may be developed by a sense of curiosity:

‘I should be lost,’ says the stranger, ‘in that vast metropolis.’ There is nothing more unlikely. A man among men can scarcely be out of his way. His eye is continually caught with something new. He is ever seeking, and ever finds. If he hungers and thirsts after curiosities, here he may be filled.²⁷³

The idea of a visitor as a stranger to a place is here linked with the term ‘curiosities.’ The noticing of everyday objects as a stranger is described as engaging a sense of ‘curiosity.’ This may account for the contents selected for commentary in accounts of tours such as this. For example, ‘lamps,’ ‘houses’ and ‘streets’ as metropolitan utilities are visually described as curiosities alongside landmark buildings such as ‘Westminster Abbey’ and ‘The Tower’ in *A Journey to London*:

The lamps are well disposed. Not a corner of this prodigious city is unlighted. They have every where a surprising effect; and in the straighter streets, particularly at the west end of town, and where those streets cross each other at right angles, the sight is most beautiful.²⁷⁴

In this example, there is a desire to describe everyday urban features in picturesque terms as scenes that are pleasing to the eye. Historian James Buzard observes how the domestic travel scene between 1780 and 1840 saw the development of ‘the picturesque’ and that this ‘profoundly affected the way travelling got done and written about especially within Britain itself.’²⁷⁵ For the purpose of defining the tour, it is important to note that the urban built environment was described in picturesque terms, emphasising the enjoyment of the visual pleasures to be gained in observing the peculiarities and curiosities of the city. Although the purpose of

²⁷² Hutton, W., 1818, *A Journey to London; Comprising a description of the Most Interesting Objects of Curiosity to a Visitor of the Metropolis* (2nd edition), London: J. Nichols, Son and Bentley, p. 3.

²⁷³ Hutton, *A Journey to London*, p. 33.

²⁷⁴ Hutton, *A Journey to London*, pp. 13-14.

²⁷⁵ Buzard, J., 2002, ‘The Grand Tour and after (1660-1840)’ in Hulme, P. & Youngs, T. (Eds.), *The Cambridge Companion to Travel Writing*, Cambridge: Cambridge University Press, p. 38. Richard Gassan also references how ‘the sublime’ was used in a similar to the picturesque in America to describe views of the natural landscape in Gassan, R., 2005, ‘The First American Tourist Guide-books: Authorship and the Print Culture of the 1820s,’ *Book History*, 8, p. 72. Online. Available http://muse.jhu.edu/journals/book_history/toc/bh8.1.html (accessed November 2007).

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recording the tour is not explicitly stated, there are several clues provided which suggest that the author's view in writing down his account was to benefit the education of others:

The mind, unimproved by letters or conversation, deals in trifles, is hemmed in by itself, and never extends far from its own centre; while that which is enlightened by education, and improved by study, rises to a more elevated height, and takes in a more extensive compass.²⁷⁶

The tour, according to Hutton, may be described as educational in that it requires making a journey in which objects are viewed with fresh eyes. In moving from site to site, one's personal 'compass' can be extended. Hutton alludes to educational aspects of the tour as middle class activities that improve the mind. Another 'tour book,' Priscilla Wakefield's *A Family Tour*, published in 1835, is an account of a tour that also focuses on viewing curiosities as pleasurable activity with a particular focus on the 'amusement and instruction of youth.'²⁷⁷ The 1804 and 1835 editions have the same preface, both of which emphasise the educational value of the tour to the extent that reading the text should be done in the 'air of a real tour.'²⁷⁸ This text is written as a story about a family who decide to make a tour for reasons of education rather than improving health. The author makes it clear that she does not approve of making tours to 'watering-places' as spending time in them 'has a tenancy to form habits of idleness and trifling.'²⁷⁹ Instead she proposes a tour 'for the sake of collecting useful knowledge' through viewing 'objects of curiosity' whilst travelling from place to place on the way to Cumberland and back from Richmond in London. She writes, 'I intend to take sufficient time to inspect every thing worth observation, though it should lie a little out of the direct road.'²⁸⁰

In the mid-nineteenth century Harriet Martineau describes the pleasures to be found on a 'pedestrian tour' in finding picturesque scenes that, she argues, cannot be gained from touring on a coach or other means of transport. She suggests that walking offers opportunities to pause at will and the ability to gradually come upon a view, taking note of detailed observations along the way. 'One peculiar advantage of pedestrian travelling is the pleasure of a gradual approach to celebrated or beautiful places. Every turn of the road gains in interest; every object that meets the eye seems to have some meaning [...].'²⁸¹ Martineau offers an insight into the importance attached to finding a landscape view at this time and describes how 'mechanical methods' such as recording observations in notebooks

²⁷⁶ Hutton, *A Journey to London*, pp. 6 and 11.

²⁷⁷ Wakefield, P., 1835, *A Family Tour through the British Empire; Containing Some Account of Its Manufacturers, Natural and Artificial Curiosities, History and Antiquities: Interspersed with Biographical Anecdotes, Particularly adapted to the Amusement and Instruction of Youth* (14th edition), London: Darton and Harvey.

²⁷⁸ Wakefield, *A Family Tour*, preface.

²⁷⁹ Wakefield, *A Family Tour*, p. 1.

²⁸⁰ Wakefield, *A Family Tour*, p. 2.

²⁸¹ Martineau, H., 1838, *How to Observe: Morals and Manners*, London: Charles Knight and Co., p. 53.

and journals were crucial in ‘intellectual accomplishments’ on these tours.²⁸² She stresses that these methods were important in making observations and consequently having conversations with others ‘he will still not understand if his heart be idle, – if he have not sympathy.’²⁸³ Martineau’s phrase brings to mind the notion of experiential learning discussed earlier as one that emphasises the importance of having direct or actual experience in developing empathetic responses to places. What is particularly interesting to draw on here from a learning perspective is the connection made between recording observations and having conversations that relate to the location. This suggests that recording and social conversing are integrated as key elements of the educational tour.

The tour can also be described as a ‘safe,’ recreational method for experiencing ‘foreign’ or strange culture, locations and objects with an expectation that one will learn by making a tour and that part of that process involves recording observations and discussing these with others. The tour, as an opportunity for experiential learning, can be further explored through a brief discussion of the development of the Grand Tour, particularly from the mid-eighteenth to mid-nineteenth century in which the activity of recording observations was an expected accomplishment.

The Grand Tour presented an opportunity for education and self-improvement for those who could afford it, by travelling following an extensive European itinerary using private means of transport before the development of the railway systems made travel more widely available in the latter part of the nineteenth century.²⁸⁴ Several secondary sources such as James Buzard’s ‘The Grand Tour and After (1660 – 1840)’ and Jeremy Black’s *The British Abroad* point to John Locke’s *Essay Concerning Human Understanding* published in 1690²⁸⁵ as a text that influenced the expansion of domestic travel in Britain and the Grand Tour in Europe over the next two hundred years.²⁸⁶ Here Locke argued that knowledge is produced from impressions perceived via our senses and that in exposing ourselves to physical or environmental stimuli, we learn through those experiences. Buzard suggests that a ‘new paradigm for travelling’ emerged from 1660 to 1837 following colonial expansion in which there was a belief that as you could travel, you should and that this was followed by the emergence of ‘another paradigm,’ that of mass tourism.²⁸⁷ During the period of the Grand Tour obligatory destinations for acquiring ‘the proper *kind* of experience’²⁸⁸ in Europe meant that travelling for education was linked to a particular kind of social and cultural experience.

²⁸² Martineau, *How to Observe*, p. 238.

²⁸³ Martineau, *How to Observe*, p. 238.

²⁸⁴ Vaughan, *The English Guidebook*, p. 35.

²⁸⁵ Locke, J., 1690, *Essay Concerning Human Understanding*, London: Thomas Bassett.

²⁸⁶ Buzard, J., 2002, ‘The Grand Tour and after (1660-1840)’ in Hulme, P. & Youngs, T., *The Cambridge Companion to Travel Writing*, Cambridge: Cambridge University Press. Black, J., 1992, *The British Abroad: The Grand Tour in the Eighteenth Century*, Gloucestershire: Sutton Publishing.

²⁸⁷ Buzard, ‘The Grand Tour,’ p. 37.

²⁸⁸ Buzard, ‘The Grand Tour,’ p. 38.

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The Grand Tour was, from start to finish, an ideological exercise. Its leading purpose was to round out the education of young men of the ruling classes by exposing them to the treasured artifacts and ennobling society of the Continent.²⁸⁹

Buzard goes on to identify the educational aims of the Grand Tour.²⁹⁰ He argues that a main aim was to favourably compare the classical tradition of Ancient Rome with that of the expanding British Empire and to understand how the British Empire was heir to the former greatness of Rome. Acquisition of art and antiquities for display back at home supported cultivation of a horizontal ruling class consciousness across Europe. He goes on to describe the kind of people who became ‘tutors’ to accompany young adults on making their tour. These tutors had usually been abroad before and were therefore conversant with the ‘ways of foreigners’ and could both serve and protect their charges accordingly against the potential hazards of touring abroad and provide advice on how to avoid them.²⁹¹

Black also asserts that education was the ‘central theme’ in British travel abroad in the eighteenth century.²⁹² The kind of education he describes through extracts from letters and journals of tourists on the Grand Tour and their families at home exposes a tension between the quality of formal education in the form of lessons with ‘expert’ tutors and the education acquired through social functions and lifestyle. Black cites Thomas Pelham who in a letter to his father in England from Europe in 1776, said that travelling gave rise to opportunities for questioning attitudes with regard to one’s own birthplace and the rest of the world and for making critical comparisons between different places.²⁹³ Pelham goes as far as to say that the value of educational travel was in seeing the differences between places:

I think it is very necessary and right that every young man should know that there are other countries than those he lives in [...] The seeing those countries which are famous as scenes of so many actions in History are highly conducive to the enlarging and opening of understanding – the total change in the face of those countrys is the most convincing proofs of the uncertainty of things in this world [...] In short visiting other countrys is the best indeed the only way of learning how to weigh the perfections and imperfections of your own.²⁹⁴

Cultural historian Jill Steward notes that in Italy in the 1840s the Grand Tour had changed as more people had the opportunity to travel abroad through

²⁸⁹ Buzard, ‘The Grand Tour,’ p. 38.

²⁹⁰ Buzard, ‘The Grand Tour,’ pp. 39-41.

²⁹¹ The notion of a ‘tutor’ advising on the potential hazards of a foreign place is explored later in this sub section in a discussion on the guides of rambles.

²⁹² Black, *The British Abroad*.

²⁹³ Black, *British Abroad*, pp. 236-237. Black cites ‘from Pelham to father 2 June 1776, to mother 27 May 1777, BL Add. 33126.’ Black highlights that the value of the Grand Tour as an educational experience was complex and that not everyone felt the same as Thomas Pelham.

²⁹⁴ Black, *British Abroad*, pp.236-237.

improvements to the transport infrastructure.²⁹⁵ She argues that well-educated middle class tourists were encouraged to better themselves through cultural pursuits by making judgements on specific locations and writing journal entries full of historical associations. Steward highlights the fact that the handbooks published to accompany tours to Italy in the mid-nineteenth century offered practical ways of planning itineraries that would inform the route and locations to be visited on the tour. She comments on the way in which the itineraries published in handbooks by John Murray²⁹⁶ and Karl Baedeker²⁹⁷ in the 1830s and 1840s became ‘key agents in the acculturation process’ as they ‘promoted and reinforced particular ways of seeing people and places.’²⁹⁸ Steward notes that ‘read in front of the actual buildings, guidebooks appeared as “scripts” controlling what and how they were seen.’²⁹⁹ Locke’s ‘Essay’ in 1690 that argued for knowledge to be gained through experience can be argued to be evolved over a century later through the notion of travelling in order to make ‘eyewitness observations.’ Acculturation, as the adoption of, or adaptation to, an alien culture opens up possibilities for considering how the subject matter of the tour or itineraries not only pointed out what to see but how to view it as well.

The tour as a recreational excursion has developed as educational activity in which learning through witnessing ‘with your own eyes’ appears to be an important feature. A sample of texts published in the early decades of the nineteenth century describe one of the educational benefits of recreational touring as gaining a sense of curiosity. Making a tour is understood as an activity that involves describing topographical features of a location by recording the peculiarities and particularities of sites. I suggest that the tour handbooks identified by Steward also seem to promote the role of eyewitnesses in describing places and that these books aimed to be a portable aid or tool for making a tour. Navigational and orientation abilities may be developed through understanding touring as a process that extends one’s personal compass by making circuitous movements from site to site, or around a site. The tour may also be described as a method for making observations in a ‘safe,’ structured way that potentially enables participants to notice the everyday and the different through a heightened awareness. If the tour is a method for exploring different or alien places then its low-risk element may be explained in terms of acculturation.

Tourism theorist John Urry suggests that the pleasures of touring are heightened through the ‘distance between’ leisure activities and everyday life.³⁰⁰ Urry argues that the physical and psychological distance between our everyday lives and the time spent ‘on holiday’ from this, creates a sense of curiosity and heightened awareness in the way we look at unfamiliar environments. Urry says that ‘when we

²⁹⁵ Steward, J., 2004, ‘Performing Abroad: British Tourists in Italy and Their Practices, 1840-1914,’ in Lasansky, D.M. & McLaren, M., *Architecture and Tourism*, Oxford/New York: Berg, p. 54.

²⁹⁶ The first handbooks to the continent by John Murray were published in 1836.

²⁹⁷ Karl Baedeker’s first handbook to Holland and Belgium was published in 1839.

²⁹⁸ Steward, ‘Performing Abroad,’ p. 59.

²⁹⁹ Steward, ‘Performing Abroad,’ p. 59.

³⁰⁰ Urry, J., 2002, *The Tourist Gaze*, London/California/New Delhi: Sage.

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“go away” we look at the environment with interest and curiosity. It speaks to us in ways we appreciate, or at least we anticipate that it will do so. In other words, we gaze at what we encounter.’³⁰¹ In addition I suggest that the ‘distance between’ places may be an operational feature of the tour, dependent on variety and mobility for producing pleasurable experiences through a heightened awareness. Previously I have argued that situated learning involves thinking about buildings as actively produced through interactions between learners and also that concepts of out-of-context and recontextualisation provide a way of understanding the fluid and changing nature of the urban environment. To develop this argument further, I propose that a contemporary tour may initially be described through four features that are significant from a learning perspective. Firstly, that the tour is a circuitous movement from location to location that involves participants in making detailed observations and reflecting on these with others whilst on-the-move; secondly, that the tour is a recreational activity in which the distance between locations is a contributory factor in developing understanding of the built environment; thirdly, the tour is a means of becoming sensitised to, and gaining respect for, other cultures and civilisations (‘broadening one’s mind’), which apply equally to conventional and alternative tours. And lastly, that the tour is an incentive for learning by creating opportunities for developing a heightened sense of awareness of changes in urban topography.

THE TOUR-GUIDE

The Oxford English Dictionary describes a guide as ‘one who leads or shows the way’ with particular reference to strange or unfamiliar locations or activities. In a more specialised definition, the guide is a person who is hired to ‘conduct’ visitors and travellers ‘over a city or building’ and ‘point out objects of interest.’³⁰² According to this definition, the tour-guide is one who leads people towards ‘objects of interest,’ and structures those objects of interest into an itinerary and associated movements of the tour. In leading and directing, the actions of the tour-guide influences the way in which people experience sites, adopting techniques and devices that aim to engage those who tour in different ways. These techniques and devices may be selected based on a story or theme of a tour, the physical landscape of a location, the mode of locomotion, economic, social and cultural considerations and preferences as well as the individual ‘expertise’ or characteristics of a guide. In this, the tour-guide is an active interface between the visitor and the site, providing opportunities for interaction between the physical environment and a group of participants.

The tour-guide actions of leading and directing can be interpreted through different voices of advising and commentating. The tour-guide offers advice on what to see and how to see it, thus having an important part to play in determining

³⁰¹ Urry, *Tourist Gaze*, p. 1.

³⁰² Oxford English Dictionary (OED). Online. Available <http://dictionary.oed.com> (accessed August 2008).

the user experience. For example, in communicating a description of urban topography they may combine factual information with personal embellishments. The interpretative role of the tour-guide can be seen in the tour-guide ‘in character’ or as a part in a narrative acted out on the stage of the built environment. And this may be linked to the kind of voice – moralising, informative, critiquing, instructive or questioning – that the tour-guide adopts. How do contemporary tour-guides embody different kinds of voices and/or figures in leading and directing the tour? And how may these affect the participant’s involvement and experience as a mobilised learner?

Vaughan’s work on the history and development of the English guidebook highlights personal, entertaining qualities of the authorial voice in guidebooks at the turn of the eighteenth century that is useful in exploring these questions. Guidebooks are differentiated from ‘tour books’ in that they are written to inform people about a place rather than as an account of a tour undertaken. Vaughan suggests that modern ‘official’ guides ‘lack the personality of the author, discernible in the earlier publications, and avoid certain topics.’³⁰³ The ‘voice’ of the guide during the nineteenth century according to Vaughan, changes from explicit opinion and personal feeling in describing objects of interest towards a less direct approach in which judgement emerges by implication. Vaughan presents a development of the guidebook that seems to hinge around a shift in content, style and production method about half way through the nineteenth century. From around 1780 until around 1850 he argues that the guidebook is less standardised, more colloquial, characterised by overt opinion and personal judgments about a place and that it contained what we might now perceive as ‘damaging’ information such as lists of diseases and hazardous menaces associated with a place. The authorial voice in *The Picture of London for 1804*, for example, clearly merges such information with personal opinion:

Deptford is remarkable for its spacious dockyard, where second and third rate ships may always be seen upon the docks. The whole extent of the yard is thirty-one acres. It contains a double-wet dock, of two acres, and a single one of an acre and a half, and two mast ponds, a large quadrangular store-house [...] Deptford itself is the dirtiest place in his majesty’s dominions.³⁰⁴

The later ‘original’ edition of this guidebook in 1826 makes this approach to guiding explicit in describing the ‘design’ of the text as a ‘Topographical Manual’:

A Literary ‘Picture of London’ must necessarily be compiled from a multiplicity of materials, selected from a variety of sources, and composed of a miscellaneous and heterogeneous mass of discordant matter. There can be nothing like unity of design – congruity, and symmetry of composition –

³⁰³ Vaughan, *The English Guidebook*, p. 74.

³⁰⁴ Phillips, R., 1804, *The Picture of London for 1804* being a correct guide to all the curiosities, amusements, exhibitions, public establishments, and remarkable objects, in and near London; with a collection of appropriate tables, two large maps, and several views, London: Printed by Lewis and Roden, pp. 319-320.

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harmonious distribution of parts and effects, to attract, and command attention. It must consist rather of a series of miscellaneous *Sketches*, and these marked with fidelity of outline, with strong characteristic touches, if they aspire to be appropriate, intelligent, and effective.

The introduction proceeds with a ‘sort of *Panoramic Sketch of London*’ that highlights the ‘remarkable alterations that have recently been made’ in terms of the built environment of the city. This takes the form of a descriptive ‘tour’ that moves from the ‘western extremity’ to north-west and north London to the ‘Surrey side of the river’ that is peppered with judgments the author-editor makes about the ‘alterations.’³⁰⁵ Some judgements are clearly in favour of new designs such as the proposed move of Smithfield Market and Bartholomew Fair to the outskirts of the city where more spacious slaughterhouses might be accommodated along with large cemeteries in the same environs.³⁰⁶ Other changes are received less favourably such as the new houses being ‘put up’ south of the river.³⁰⁷

This is a technical and very descriptive phrase used by some of the modern builders, who ‘put up’ houses, with such slight materials, and such rapidity of placing together, that they can only last for a very short time, and for that time be comfortless and insecure. Our legislators and respectable architects should revise, amend, and enforce the provisions of the *London Building Act* of 14th George III.³⁰⁸

At the same time, a list of references for further study of the city’s ‘civil, religious, political, commercial, literary and scientific characteristics at different epochs of time’ are provided for those readers whose curiosity has been aroused and who desire further, more in-depth study. In this way, a comprehensive feature of this guide is acknowledged through the provision of a directory of other ‘authorities.’³⁰⁹ The later edition of this text explicitly addresses the civic authorities as its readers: ‘To the Members of the British Legislature, whose laws can command new streets and palaces to be formed and raised; and bridges to be thrown over, and tunnels to be excavated beneath the Thames’ and ‘To the Parochial and Local Commissioners, who are vested with authority to render “our ways” safe and pleasant, abate nuisances, and afford new accommodations both to the Londoner and to the stranger’ are just two of the authorities addressed on the title page of the publication.³¹⁰ It is interesting to note that this text addresses the large-scale transitions in the built environment documented in smaller scale detailed observations made throughout the tour, suggesting that this kind of tour-guide is

³⁰⁵ *Picture of London for 1804*, ‘Introduction.’

³⁰⁶ *Picture of London for 1804*, p. xxiii.

³⁰⁷ *Picture of London for 1804*, p. xxi.

³⁰⁸ *The Original Picture of London*, enlarged and improved: being a correct guide for the stranger, as well as for the inhabitant, to the metropolis of the british empire together with a description of the environs (24th edition). London: printed for Longman, Rees, Orme, Brown, and Green, 1826, p. xxi.

³⁰⁹ *Picture of London for 1804*, p. xxix.

³¹⁰ *The Original Picture of London*, ‘Frontispiece.’

involved in a process of critically surveying the city by making connections between the near and far as they move from one location to the next.

*Metropolitan Improvements or London in the Nineteenth Century: Being a Series of Views, of the New and Most Interesting Objects, in the British Metropolis and its Vicinity*³¹¹ published in 1829 can also be described as a ‘recreational survey’ that is structured in the form of a tour of London. The focus of the subject matter for the ‘tour-guide’ is on describing major changes and rapid improvements that the city had undergone in recent years – from the Great Fire and subsequent rebuilding programme to the removal of ‘projecting water spouts and dripping eaves’ to improve the pedestrian’s experience.³¹² James Elmes, an architectural lecturer and writer, states that the intention of his work is a ‘succinct, but COMPLETE HISTORY of the BRITISH METROPOLIS.’³¹³ The intention of moving from one place to another to survey the built environment is organised through a series of recreational excursions. Phrases such as ‘Our next excursion shall be, from this interesting spot, through Regent Street to Westminster’³¹⁴ and ‘Let us walk round by the new church, and take a survey of this very elegant façade, which is nearly lost to the eye of taste, by the dirt with which it is covered’³¹⁵ concisely encapsulate navigational directions, mode of observation, architectural detail and critical comment as elements that define activities of the tour-guide. The excursions, in this text, include references to recreational elements of the tour, for example, ‘A cup of coffee, or some other light refreshment, would, I conceive, be very agreeable to us; and after a short repose from our labours, this very hot morning, we can resume our excursion.’³¹⁶

From the 1850s onwards, Vaughan describes how the guidebook generally develops into a more standardised format as a practical ‘handbook’ for travel.³¹⁷ For example, pocket guides published by William Kidd in the mid-nineteenth century aimed to provide practical information for visitors to London at that time:

The pretensions of this Volume being those of utility rather than novelty, little need be said by the way of preface. It has been the object of the Compiler to be as concise as possible, and to give such information only, as he considered actually requisite, at the same time having a regard to the purchaser’s pocket. For this purpose, much diffuse matter, that will be found in other Guides and Perambulators around London, has, here been

³¹¹ Elmes, J., 1829, *Metropolitan Improvements or London in the Nineteenth Century: Being a Series of Views, of the New and Most Interesting Objects, in the British Metropolis and its Vicinity: From the Original Drawings by Thomas H. Shepherd. With Historical, Topographical and Critical Illustrations by James Elmes*, London: Jones and Co.

³¹² Elmes, *Metropolitan Improvements*, pp. 6-7.

³¹³ Elmes, *Metropolitan Improvements*, p. 7.

³¹⁴ Elmes, *Metropolitan Improvements*, p. 87.

³¹⁵ Elmes, *Metropolitan Improvements*, p. 94.

³¹⁶ Elmes, *Metropolitan Improvements*, p. 102.

³¹⁷ Vaughan, *The English Guidebook*, p. 74.

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intentionally omitted, and the deficiency – if such it may be called, - has been supplied by a number of engravings on wood, illustrative of the different objects of attraction that more particularly arrest the attention of the Stranger.³¹⁸

Vaughan cites as the reason for this the decline of commercial lending libraries who published guides in the early part of the nineteenth century and the ‘faltering’ of companies who needed to regularly revise guides as contributing factors towards this transformation.³¹⁹ He states that during the railway expansion of the nineteenth century, ‘existing guide books had to be revised to chronicle this progress and specialist books written to assist the traveller to cope with this new means of locomotion.’³²⁰ Vaughan also highlights the fact that some guides did comment on such developments to critique them but these were in a minority in the face of the advent of mass tourism and its ‘benefits.’³²¹ The critical ‘voice’ in recreational surveys and accounts of tours published in the first part of the nineteenth century is clearly present through subjective commentary and observations made about the city. The ‘voice’ in these texts guides visitors and inhabitants alike around the urban environment ‘from a distance.’ The texts are not designed to be used in location but to provide an account of transition and change from a particular point of view. This ‘voice’ becomes less judgemental in the later guidebooks that were published as handbooks for travel towards the end of the nineteenth century. These guidebooks were described as ‘handy,’ ‘portable’ and ‘concise’ and were designed for use in location to assist the visitor in making tours. The tour-guide can, therefore, be described in terms of making critical commentaries about a place and also providing the means for others to make personal observations.

Technologies that informed production of devices specifically used to guide visitors making a tour are important in exploring a definition of the tour-guide specifically in the ways in which they were and are used to find or locate ‘views’ and the methods they generated for defining how to make observations in the nineteenth century. In this, it could be argued that such devices have contributed to defining the role of the tour-guide by assisting in the selection of what to see and structuring the itinerary of a tour in ways that accommodated the ‘deficiencies’ of the human eye.

³¹⁸ Kidd, W., 1832, *Kidd's New Guide to the "Lions" of London*; or the Stranger's Directory to The Tower, St Paul's, The Parks, The Theatres, The Bazaars, The Diorama, The Colosseum, Thames Tunnel, The Zoological Gardens Regent's Park, The Surrey Zoological Gardens, Westminster Abbey Etc. Etc. with numerous illustrations of the different places and objects, designed and engraved by G.W.Bonner, London: William Kidd. One of a series of *W.Kidd's Popular Picturesque "Guides"*, p. 5.

³¹⁹ Vaughan, *The English Guidebook*, p. 13. Vaughan names Adam & Charles Black as one such firm who had editorial problems in revising guides on a regular basis.

³²⁰ Vaughan, *The English Guidebook*., p. 35.

³²¹ Vaughan cites William Wordsworth's *A Guide Through the District of the Lakes in the North of England with a Description of Scenery, etc.*, for the use of tourists and residents.

Art historian Arnaud Maillet suggests that the Claude Mirror's 'golden age' was the end of the eighteenth and the beginning of the nineteenth century.³²² He describes the Claude Mirror in its simplest terms as a 'convex tinted mirror' of which there were many variations in types of model and uses.³²³ A Claude Mirror exhibited today at the Cuming Museum in London demonstrates that a more convex curve in the mirror is better for viewing near objects and flatter degrees of convexity are more suitable for viewing far views or objects at a distance. A Claude Mirror in the V&A Museum collection shows the mirror contained in a travelling case so that, as a portable device, it could be used in location (Figure 27).

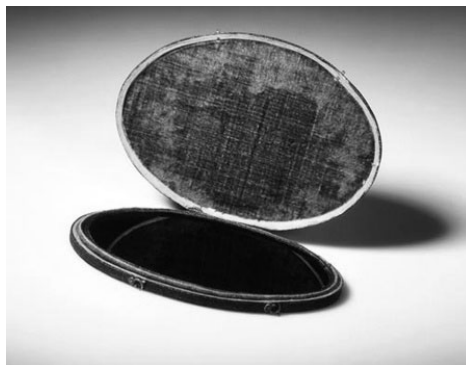


Figure 27. Image of a 'Claude Glass' from the V&A Museum collection (V&A P.18-1972).
Online. Available www.vam.ac.uk/images/image/5470-popup.html.

Maillet notes that the terms 'mirror' and 'glass' have been used interchangeably to describe this device but that 'glass' should strictly speaking be used to refer to tinted filters that were thin and flat and used to change the colour of what you were viewing rather than the shape, whereas mirrors were used differently to actually change the shape or form of the landscape.³²⁴ Maillet also describes a shift towards 'physio-logical optics' that occurred at the end of the turn of the eighteenth century in which the optical 'problem' of not being able to physically see near and far at the same time was described in physiological terms and the mirror compensated for the 'accommodative impossibilities of the eye.'³²⁵ An important point to make here is that technological inventions and trends of this kind can affect the ways in which people view a place. Vaughan argues that Thomas West's *Guide to the Lakes* published in 1778 provided a vocabulary for describing a view of the Lakes in Cumbria, the station from which to view and the apparatus for viewing it:

³²² Maillet, A., 2004, *The Claude Glass: Use and Meaning of the Black Mirror in Western Art*, New York: Zone Books.

³²³ Maillet, *The Claude Glass*, p. 15.

³²⁴ Maillet, *The Claude Glass*, p. 32.

³²⁵ Maillet, *The Claude Glass*, p. 151.

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Armed with a landscape mirror or Claude glass, the visitor was directed to a series of stations from which to examine the scenery rather than to explore the area in general. Outlines of ready-made views were composed for the tourist and illustrated the guides.³²⁶

The stereoscopic viewer developed from the process of stereographic or three-dimensional imaging was invented by Charles Wheatstone in 1838.³²⁷ The technique involved simulating human binocular vision through a device that shows two slightly different views of the same object simultaneously. The two views are separated horizontally to correspond with the slightly different views our eyes see through binocular vision. Stereoscopic cameras that have two lenses and can take two pictures at the same time (stereographs) were used by those on tours during the 1840s and beyond to create sets of paired views that others could look at through the acquisition of a stereoscopic viewer. The British Library archive of stereoscopes states that the Great Exhibition in 1851, which exhibited stereographs of views from tours around the world, marked the start of a huge trade in stereoscopic viewers and card images and that by the mid-1850s over a million homes owned a stereoscopic viewer.³²⁸ The advantages afforded by the stereoscopic viewer include being able to examine a view in greater detail as the card image is magnified and the field of vision is made wider through the production of a three-dimensional effect. This enables users to imagine that they are part of the view they are seeing. For example, stereoscopic tours published in the Underwood Travel Library from approximately 1900, 'enabled observers to imagine that they were really 'touring' distant parts of the world.'³²⁹

The stereoscope is the climax of all in giving the emotions of actual sight. While looking at the stereoscopic representation of a place it is possible for a person to lose all consciousness of his immediate bodily surroundings, and to gain, for appreciable lengths of time, a distinct consciousness or experience of being in the place itself.³³⁰

In his treatise of stereographs and stereoscopes from 1909 Albert Osborne promotes the series of guidebooks published by Underwood & Underwood to accompany their collections of stereographs. The treatise draws on environmental educational theory of the time to specify how the aims of these guidebooks were to 'give information' and 'aid people to gain [from] the travel experiences.'³³¹

³²⁶ Vaughan, *English Guidebook*, p. 58

³²⁷ The Science Museum, London dates Wheatstone's invention as 1838.

³²⁸ British Library, 'Collect Britain Archive of Stereoscopes at the British Library.' Online. Available www.collectbritain.co.uk/dlo.cfm/svadesh/ Accessed 20 August 2007.

³²⁹ British Library, 'Collect Britain Archive of Stereoscopes at the British Library.' Online. Available www.collectbritain.co.uk/dlo.cfm/svadesh/ Accessed 20 August 2007.

³³⁰ Osborne, A.E., 1909, *The Stereograph and The Stereoscope with Special Maps and Books Forming a Travel System: What They Mean for Individual Development. What They Promise for the Spread of Civilisation*, New York/London: Underwood and Underwood, pp. 26-27.

³³¹ Osborne, *The Stereograph*: pp.95-96. See also 'The Importance of Environment' pp.119-135.

(continued)

The first aim according to Osborne is that the ‘author strives to serve as an actual guide, and answer the questions that people would be likely to ask about each place on the actual visit.’³³² Here Osborne suggests that the Underwood & Underwood guide books provide a one-to-one personal guide who is an authoritative expert on the place being visited. Osborne states that the majority of guides who accompany travellers are ‘ordinary,’ ‘often unreliable,’ ‘careless and unsympathetic’³³³ but that the Underwood & Underwood guides are guiding authorities, in particular for stereoscopic tours as the authors are highly regarded in their field.

The second aim, according to Osborne, is that tours should be led by expert guides so that people gain a travel experience. In order to experience the sites they are viewing, Osborne describes how the guides engage people through activities. He says, ‘they [the guides] try to put what they have to say in the form of exercises that a person going through them might easily and yet surely gain the experiences desired.’³³⁴ These ‘exercises’ include using ‘special maps’ to make connections between compass bearings and the scene and ‘noticing the details of a scene’ in which the guide is used as a tool for engaging a heightened sense of awareness: ‘it is considered wise in these books to turn aside to notice spears of grass, the texture of stone [...] not because of any particular importance these details might have in themselves, but for their effect in fixing the attention and inducing the desired experiences of presence in the place itself.’³³⁵

Osborne differentiates between the ‘language of travel’ and the ‘language of pictures’ to suggest that subjective reality is the ‘standpoint of people’s experience in the presence of each one of these stereographs.’³³⁶ This point is important he says, because there is a strong connection between our experience of a site and how we describe it:

The only language that would really be descriptive of the facts of our experiences in connection with the stereoscope and the stereograph, would be the language of the place, or the language of travel – that we had been looking at or learning about this or that particular place... Not only is this language justified, but it is the only language that is justified by the facts of our experience.³³⁷

According to Osborne when we use language to describe what we are seeing in relation to what we are feeling about that place then we are learning through

Although not explicitly stated in the text Osborne follows thinking from Locke’s essay in that he states two sets of factors that affect the development of life – internal and external. He makes the point that the external is highly influential on a person’s development in making an intellectual argument for the stereoscope and stereographs. The physical benefits of travelling, for example, are described so as to support the ‘reality’ of place that the stereoscope offers.

³³² Osborne, *The Stereograph*: p.95.

³³³ Osborne, *The Stereograph*: p.95.

³³⁴ Osborne, *The Stereograph*: p.96.

³³⁵ Osborne, *The Stereograph*: p.97.

³³⁶ Osborne, *The Stereograph*: p.97.

³³⁷ Osborne, *The Stereograph*, p. 98.

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experience. So the point he makes in relation to the Underwood & Underwood guidebooks is that the authors use a specific language of travel that emotionally attaches the reader to a place and this positions the guide 'alongside' the guided person, using the first person to describe aspects of the scene and adopting phrases designed to help orientate such as 'at our feet,' 'in the distance' and 'our next position.'³³⁸ Portable devices have been shown to act as viewfinders that can be operated both in location and at a distance to help position (physically and emotionally) users in a landscape. And the tour-guide may employ or be a technological device that supports users in developing a heightened awareness. These features can be seen in contemporary guiding technologies that mark geographical position, locate objects and provide directional information on progression of the tour to help structure the activity (Figure 28).



Figure 28. Roman Baths Tour-Guide, Bath, November 2008.

³³⁸ Osborne, *The Stereograph*, p. 99.

There are three main points that can be drawn from this analysis that are relevant in re-defining the tour-guide in contemporary terms to support mobilised learning:

1. The tour-guide may embody different kinds of voices that present alternatives views, opinions and judgements in a personal, colloquial way. The 'voice' or 'figure' of the guide merges factual information with personal opinion in a less-standardised interpretation of the role that encapsulates navigational directions, mode of observation, architectural detail and critical comment.
2. The format of the tour-guide may be conceived as a topographical manual that provides methods for describing change and transition in the built environment to assist people in independently making tours. If portable, it can be used in location to describe and comment on civic change as learners are mobilised by making connections between small scale details and wider panoramas.
3. Magnification to view in greater detail and wider field of vision generated by three-dimensional effects enables users to find or locate 'views.' By accommodating the 'deficiencies' of eyesight, the stereoscope aimed to position users in a landscape by imagining that they were part of the view. The Claude Glass reduced the landscape to a handy size so it became a picture that could be contemplated rather than experienced. In thinking about sensory deficiencies in light of Jane Rendell's description of contemplation and its potential for politicisation (chapter 1) and haptic learning (chapter 2), we can explore these features in contemporary technologies so that the guide is a tool for engaging a heightened sense of awareness.

THE PARTICIPANT

Direct experience, informed by making eyewitness observations and noticing the everyday in new and different ways argues for the importance of acquiring experiential knowledge through environmental or physical stimuli. This kind of knowledge is procedural in that it is acquired by being curious and in constant engagement, negotiation and encounter with the physical environment. Learning through and about the built environment and raising awareness of this has been a remit for organisations and architecture centres concerned with promoting the direct experience of buildings.

Open House Learning's approach is unique: its starting point is always direct experience. It takes education out of the classroom, off the library shelves, and into some of the finest examples of architecture the capital has to offer. We have found that this brings buildings alive for young people, stimulates discussion and leads anyone who participates to feel a sense of ownership of their own city.³³⁹

³³⁹ Online. Available <http://www.londonopenhouse.org/learning/home.html> (accessed September 2007).

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The Open City (formerly Open House) approach is to facilitate learning by ‘opening up’ buildings in London to the general public, organising annual events such as *London Open House* and *Open Up* as well as longer term partnerships between education centres and visiting architects. This approach values direct experience as a way of learning about the built environment and adopts the architectural tour as a means of providing access and opportunities for learning about a building that may be transferred and applied to other situations and contexts. One example of this is when architectural tours of buildings organised during the annual *Open Up* event for young learners are followed up by creative projects in other locations and contexts. In this way, I argue that the emphasis on participation is as much on the *way* in which people learn through direct experience as well as *what* they learn.

Is it more about asking people to ask their own questions? Some people want to know the definitive answer but I think that the experience says it is better to be facilitated towards discovering answers. Not closing down is very important; if everything is explained then no-one asks questions as creative, problem-solving responses are driven out. In this way, visitors become dependent rather than taking away questions and exploring them in different contexts – there are many ways of posing questions and checking answers.³⁴⁰

In 2000-01 I worked alongside architect Christophe Egret from Alsop Architects to devise a route for a ‘site visit’ in New Cross, London involving a group of young learners in an architectural design project organised by Arts Inform.³⁴¹ In walking the location we focused on what kinds of objects might be interesting to ‘pause’ on in order for learners to make associations with local history, current regeneration issues and the range of actual street activities taking place. The direct experience of touring around a location was valued as a research method in this architect’s design process in which outcomes are not necessarily predictable or definable at the start.

Architecture writers Peter Blundell Jones, Doina Petrescu and Jeremy Till have highlighted a need for a wider participation in architecture and the built environment that involves non-specialists working alongside professionals in which outcomes emerge through the process of active collaboration. They argue that ‘As such, participation is not always regarded as the guarantee of sustainability within a project but as an approach that assumes risks and uncertainty.’³⁴² It could be argued that active participation in the built environment involves taking risks if

³⁴⁰ Participant interview, *London Open House*, 2003.

³⁴¹ *Designs on London* was organised by Arts Inform working in partnership with The Royal Institute of British Architects, The Crafts Council, Alsop Architects, Barfield Marks Architects, Edward Cullinan Architects, Nicholas Grimshaw & Partners, Zaha Hadid Architects, Rick Mather Architects, Penoyre and Prasad Architects, Richard Rogers Partnership, Wilkinson Eyre Architects, Department of Design Goldsmiths College, The Stephen Lawrence Charitable Trust and 18 London schools. The aim of this project was to enable students aged 14-19 to contribute their proposals for urban regeneration to Mayor Ken Livingstone’s consultations on a spatial development strategy for London.

³⁴² Blundell Jones, P., Petrescu, D., & Till, J., (Eds.), 2005, *Architecture and Participation*, Oxford: Spon Press, p. xiv.

the partnership is to be collaborative and the non-expert 'voice' is valued and integrated into the process. Architectural writer Prue Chiles describes how narrative processes enable wider participation in architecture and built environment projects by involving local people. She suggests that 'almost everyone can place themselves somewhere within them' and in this way narrative opens up possibilities for people to 're-imagine' the urban landscape.³⁴³

Participatory practice that involves users in design processes provides a context for reconceiving the guided tour as a bridge between centrally controlled planning processes that shape the built environment and local people. The tour is a form of engagement that can be integrated into existing design methods such as the architects' site visit. The site visit can be operated as a collaborative event in which there are opportunities for conversations between a range of users and architects that are arranged centrally by organisations specialising in community participation, through an educational remit of an architectural practice or via statutory consultative requirements of planning authorities. And these kinds of conversations may also be facilitated by the use of locative technologies in which users make their own site visit – as a one-off event or through several visits over time. Locative technologies offer opportunities for participation through user creation and shared publishing of media that feeds off conversations between planners and people and also between people and their location. So how does this help define the participant more broadly in guided tours? To do this we can reintroduce the idea of the tour as an 'elastic environment' formed in Chapter 1 in which verbal expression and social interaction are key components of making meaning. I suggest that the elastic environment of the tour can now be described as one that is responsive to the inputs of those participating and the everyday happenings of the location. An elastic environment is characterised by experts and expertise being readily accessible on a need-to-know basis so that participants are encouraged to use information 'naturally.' This can be done by designing content that instigates social interaction and personal enquiries. Guides are able to nurture participation if they reward risk-taking, share ownership of the experience and are flexible about itinerary planning and route-making.

Attributes of the Mobilised Learner Revisited

Behind the scenes

The mobilised learner attribute of 'noticing' can be developed from the argument that in undertaking a tour, participants are involved in using a heightened awareness to make detailed observations. In this, they are described as having 'experiences of presence in the place.' I suggest that the tour can provide access to places in ways that support noticing with 'fresh eyes,' turning each corner and finding something of interest. Making a tour may be understood as going 'behind

³⁴³ Chiles, P., 2005, 'What if? ... A Narrative Process for Re-imagining the City' in Blundell Jones, P., Petrescu, D., & Till, J. (Eds), *Architecture and Participation*, London/New York: Spon Press, p. 191.

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the scenes' of what is usually presented for public view. Touring devices in a 'behind the scenes' tour would compensate for 'deficiencies of the eye,' engaging other senses in making sense of objects and acting as a viewfinder in focusing in on specific details or objects of interest. This develops the idea of touring technologies being utilised as antennae to support haptic learning.

Staging authenticity

By considering the tour-guide as an acculturator it is possible to argue that, rather than defining this role in terms of a service provision for 'strangers,' the tour-guide may instead supports participants in re-imagining themselves in that location. The tour-guide provides a narrative that is designed in such a way as to engage participants in 'stumbling upon' located cues. Authenticity can then be defined by the participant and developed through their abilities to orientate themselves in relation to the site using cues provided by the tour-guide. The tour-guide's capacity for supporting 'stumbling upon' can be explored through the way they stage authenticity for participants. This invites exploration about how the tour-guide describes aspects of a location and adopts phrases such as 'at our feet,' 'in the distance' and 'our next position' to help to orientate participants in the creation of sites for learning.

Filling the gaps

Rather than operating from a single viewpoint, touring can be understood as a method for critiquing the given; so providing opportunities for making commentaries that challenge a centralised notion of authority.³⁴⁴ I argue that the third mobilised learner attribute of 'connecting' can be used to develop this idea by focusing on the productive nature of what it means to move between locations in order to form a series of 'views' or perspectives. The content of the tour can, in this way, 'fill the gaps' and make dynamic connections with other 'authorities,' sources of information and other participants on the tour to build an overview of a place that creates a platform for exchange and collaboration. This could, for example, involve making recordings about a place and connecting these in multiple ways. This questions the ways in which tours provide a platform for civic commentary that enable participants to connect their observations across a city. It also explores how this involves shifting perspectives, for example, between near and big and far and small.

These traits of 'behind the scenes,' 'staging authenticity,' and 'filling the gaps' are now explored through a sample of conventional guided tours in order to investigate how they may be productive in developing attributes of the mobilised learner in contemporary practice.

³⁴⁴ This can, and has, been accommodated within the genre of mass-market visitor guide. For example the Lonely Planet Guide to Britain describes the Thatcher years as: '[...] with a new trench dug between the people who prospered under the Thatcher years and the many others who found themselves not only jobless but jobless in a harsher environment.' *Lonely Planet Guide to Britain*, 4th Edition, Melbourne/Oakland/London/Paris: Lonely Planet Publications, 2001, p. 137.

CONVENTIONAL TOURS

'Behind the Scenes': Camp Nou Stadium, Barcelona

Among Barcelona's most visited museums – hard on the heels of the Museu Picasso – comes the Museu del Futbol Club Barcelona at the club's giant Camp Nou stadium.³⁴⁵

The stadium is a magnificent, sweeping structure, built in 1957 to a design by Francesc Mitjans. An extension was added in 1982 and it can now comfortably seat 98,000 fans, with standing room for 17,000 more.³⁴⁶

The Museu del Futbol Club in Barcelona is more commonly known as Camp Nou or the home of Barcelona FC. As a visitor to Barcelona in April 2004 I participated in a tour that goes 'behind the scenes' to access parts of the stadium that are not seen on live football matches or through media coverage of this internationally-renowned football club stadium. The tour of Camp Nou Stadium is an example of a guided tour that incorporates official guides with supplementary sign-based information to direct visitors around parts of a building that are opened for public access via the tour. In going 'behind the scenes' of the stadium it is possible to draw out some specific features of this kind tour which may then be applicable to developing 'noticing' in tours that aim to make the private, public.

The tour at Camp Nou was managed by an official guide whose role was largely to oversee group movement along a prescribed route through parts of the stadium. The group consisted of ten people and there were several guides available to set off at staggered times. Once on the tour, the guide did not appear to have a set time in which to 'get people round' the tour and so members of the group were able to split off as individuals to move at their own pace through the different parts of the building. At various points, information boards indicated the use of a space and described the activities that might go on there (Figure 29).

In hindsight, it became clear that the tour had been organised into three sections, although this was not announced at the outset or during the tour. The first part involved participants moving through the underside of the high-rise seating tiers through a selected sequence of spaces, these included – stairways, passages, chapel, locker room, changing rooms, toilets – which seemed to be linked into a route as the 'pre-match' spaces. At various points along the way, a 'TOUR – this way' sign would indicate the right direction to take. The second section of the tour, where the tour guide waited for the group to 'catch up,' was the entrance to the football pitch itself.

³⁴⁵ Simonis, D., 1999, *Barcelona*, 1st edition, Victoria, Australia: Lonely Planet, p. 134.

³⁴⁶ Williams, R., 1999, *Barcelona and Catalonia*, London: Dorling Kindersley, p. 86.



Figure 29. Information sign in the players dressing room, April 2004.

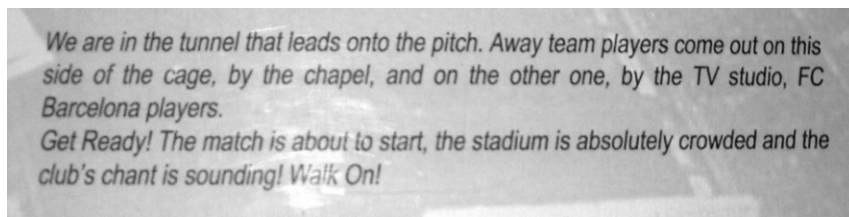


Figure 30. Tour Signage at Entrance to the Pitch , April 2004.

At the entrance to the pitch, a sign (Figure 30) suggests to the visitors how they might feel as they walk along the players' tunnel that offers a first glimpse of the pitch. There seems to be a clear appeal to the viewer's imagination, prompting the visitor to imagine they are a player in a football game.

The final section of the tour is completed with a visit to the museum of the football club and this marks the exit. On the way to the museum, visitors are directed past the media interview spaces and a wall of photographic portraits of past players. The museum itself houses an eclectic collection of football memorabilia associated with the club and includes life size models, a set of players changing for a match and an old programme kiosk. The end of the tour is marked by a display of replica trophies that provide a popular photo opportunity where many visitors may have their pictures taken with the silverware.

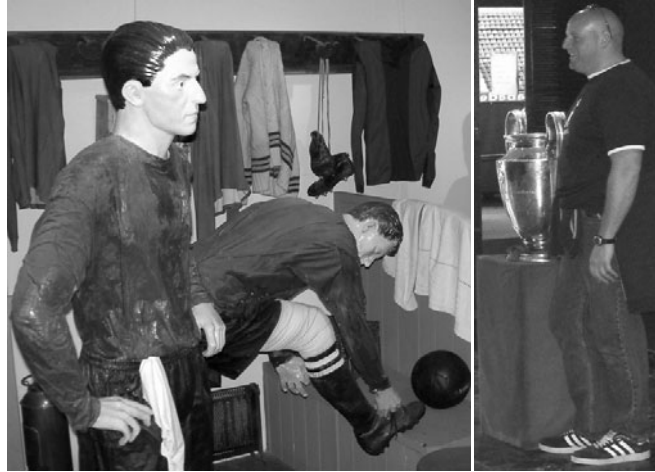


Figure 31. *Models in the Museum, Old Programme Kiosk, Visitor with Trophy, April 2004.*

Several features of this tour engender a sense of ‘behind the scenes’ which has relevance for understanding how this may shape participant experiences. The motivation for going on this tour seems to be generated through the desire to find out about the workings of a building (in this case, a sports stadium) that are usually hidden in the hosting of its main function (a football game). A building that is most commonly presented to the public from only one perspective invites visitors’ curiosity and their eagerness to find out what else might be going on ‘behind the scenes.’ This kind of tour enables participants to ‘glimpse’ or ‘peek’ at what is usually ‘hidden’ in the primary function of the building.

Text-based signage is used during the tour to encourage visitors to imagine they are ‘real’ performers in that space. The sign in Figure 30 is designed to do this by bringing to the visitor’s mind the experience of a player performing the walk to the pitch. In the tour I was on, several people started jumping up and down and running towards the exit on to the pitch. The choice of texts and the way they are presented do not explicitly ask that a visitor imagines, but prompts them to do so by making a connection between the space they are moving through and what a player might be hearing and seeing in that same space at a different time.

Replica shirts of players currently in the team are displayed on individual locker doors. The tour takes visitors into spaces that are usually associated with more private ‘behind the scenes’ activities of players such as washing and changing. The making of private spaces public is a key feature of this ‘behind the scenes’ tour and could be argued to engage visitors in gaining an authentic experience of how the building operates in ‘everyday’ use on match days. Visitors are not however provided with information as to how these spaces are actually used. Rather the named players’ shirts provide the only personalised link in otherwise pristine, showroom facilities (Figure 32). This may be an important feature of a ‘behind the

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scenes' tour that visitors are not told how to engage with the threshold between public and private but prompts such as the shirts are put in place to play a suggestive role.



Figure 32. Urinals and team boards near Media Suite, April 2004.

This concept of a 'behind the scenes' experience is further amplified when visiting spaces that have already been viewed as media images on television, newspapers, guidebooks or the internet. An example of this at Camp Nou is the space where players are interviewed after a match. Visitors in my tour group commented on how small the space was compared to how they had imagined it from TV news and some of them positioned themselves for interview against the background of sponsors' logos. The team boards near to the media suite were

marked with the player selection for the previous game and this reinforced a sense of authenticity.

Guided access to spaces on this tour was visually made clear through the use of the posts connected by a red 'rope' to indicate areas that were cordoned off to public access. This is a typical feature of many guided tours and is sometimes additionally policed by security officers. In a 'behind the scenes' tour, the 'rope' specifically blocks doorways or passages that may lead to no-go areas on the tour. This is an ambivalent mechanism as the point of the tour is to do just that, to 'see behind' what the public is normally able and allowed to see. These tours clearly demark what 'behind the scenes' means in terms of physical space. It could be argued that such tours create an illusion of access since the use of 'red ropes' indicates that there remain spaces they are not authorised to see. They expect to see spaces not normally viewed but accept that this experience is permissible by being managed and guided by the host.

The walk from the stadium to the nearest train station takes visitors through an area of Barcelona that is on the outskirts of the city where there is little of the tourist directional information that is common in the centre. It is, however, a journey which adds interesting aspects to the 'behind the scenes' experience of visiting the building in ways that are unintended. People were climbing on a gate to the club training pitch adjacent to the stadium, in an attempt to get a view of Barcelona players practising their skills (Figure 33Figure). Further along this road, people peer through holes in the pitch fence in ones and twos. This desire to see the real thing in action is important to consider what motivates mobile learning. Does the physical barrier present a problem or an opportunity? In the guided tour of the stadium, barriers that roped off areas could be argued to invite permissible curiosity whilst the fence outside motivates noticing without invitation. And these prompt very different kinds of responses.



Figure 33. Training pitch fence, April 2004.

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'Staging Authenticity': Alcatraz

Alcatraz, once a federal penitentiary known as 'The Rock,' is located on an island accessed by a short ferry ride from the wharf in San Francisco. On landing, visitors approach the cell block via a visitor centre where there is an opportunity to hire an audio tour. When I visited Alcatraz in October 1998, the audio tour was produced on a cassette and has since been available as a CD and a new digitised version in 2007. Alcatraz is part of the Golden Gate National Parks Conservancy and the visitor centre includes a bookshop, film show and other information on the history of the penitentiary.³⁴⁷ From the visitor centre, an uphill path leads through the Sally Port guardhouse and on to the cell block, the main building and location for the audio tour.

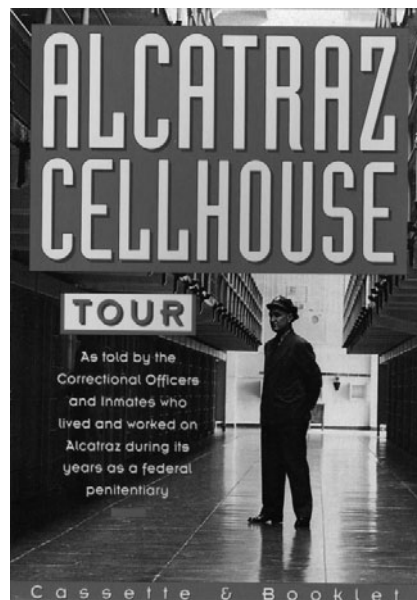


Figure 34. Box Cover of the Alcatraz Tour (Audio Cassette Version).

The audio tour can be paused at any point as visitors move around the building, directed by a range of guides including 'Correctional Officers, inmates and residents who lived this stirring and dramatic tale of 'The Rock.''³⁴⁸ Tours of Alcatraz National Park started in 1977 and the audio tour, produced by Antenna Audio and the Golden Gate National Parks Association, focuses solely on the time that Alcatraz functioned as a high security state penitentiary between 1934 and

³⁴⁷ Alcatraz became part of the Golden Gate National Recreation Area in 1972.

³⁴⁸ Antenna Audio Tours, *Alcatraz Cellhouse Tour*, Golden Gate National Parks Conservancy, 2007. Blurb on packaging for the CD version of the tour.

1963. The main tour-guide, a Correctional Officer who provides orientation information to guide visitors around the building, states that ‘A new super prison was needed to isolate these men ... This was America’s prison within the prison system’³⁴⁹ emphasising the high security status of the penitentiary. Antenna Audio cite two awards for the tour as an interpretation device in its initial period of use at the site:

1989 National Association of Interpretation First Place Award for the audio tape Alcatraz Cellhouse Tour

1988 National Park Service Cooperating Association Director’s Choice Award for Best Interpretive Media 87/88 for Alcatraz Cellhouse Tour³⁵⁰

On the occasion of my visit it was clear that the audio tour was the most popular guide for most visitors and since then, in informal discussions on what makes a ‘good’ audio tour, Alcatraz is usually mentioned. Heritage interpretation researchers Angela Phelps and Graham Black also state that the Alcatraz audio tour was cited by people who had ‘wide experience of audio tours’ and remark that this tour provides a benchmark for evaluating the qualities of other audio tours.³⁵¹ My focus is to analyse how features of this tour ‘stage authenticity’ in ways that engage visitors in ‘stumbling upon’ cues provided by the audio tour in a building that is highly institutionalised and is a major tourist attraction for visitors to San Francisco.

Guide: Please begin our tour by walking down Broadway to its Times Square until you arrive at a large photo panel entitled ‘cellhouse tour narrators. I’m Thomas Donoghue, a former Alcatraz correctional officer and for the next 35 minutes, I’ll be your guide.’³⁵²

The tour-guide is a former Correctional Officer and all other voices are either those of former inmates or Correctional Officers. This fact is announced as the tour starts and in doing so, makes clear for visitors that the experience is constructed around ‘authentic’ accounts. This is exemplified when the guide tells us that the space where we start the tour was called ‘Broadway,’ a linear corridor with cells lining each side, and the first inmate who speaks says ‘They marched us into the cellhouse and we marched down Broadway and this was like an introduction to Alcatraz... They try to humiliate you in front of the other convicts by parading you down Broadway.’ This is accompanied by reconstructed calls of inmates from cells as the inmate ‘walks’ past. The guide uses the same colloquial terminology to

³⁴⁹ Antenna Audio, *Alcatraz Tour*, words of a Correctional Officer.

³⁵⁰ Online. Available <http://www.antennaaudio.com/> (accessed October 2007).

³⁵¹ Phelps, A. & Black, G., 2005, ‘Voices in the Void’ in Picard, D. and Robinson, M. (eds.) *Tourism and Performance: Scripts, Stages, Stories*, Centre for Tourism and Cultural Change, Sheffield, p. 12 The other tour mentioned by respondents in this research study and presented as an example of a popular tour was the audio tour of the Bayeux Tapestry, Bayeux, Northern France.

³⁵² Antenna Audio, *Alcatraz Cellhouse Tour* (cassette and booklet), San Francisco, Golden Gate National Park Association, c. 1989. Introductory words of the Guide.

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name spaces in the cellhouse as the inmates and other Correctional Officers. Other terms used in the tour include 'Michigan Avenue,' 'Park Avenue' and 'The Hole.' It is also clear that experiences of the inmates are reconstructed for the audio tour through interplay between past and present tense. For example, an inmate introduces himself as a 'man back in them days who was full of hate' and this is followed by a Correctional Officer voicing an introductory speech to inmates in the present tense. 'Now if you don't behave yourself, we're gonna come down on you like a ton of bricks.'

The inmates are introduced to visitors early on in the tour. Passing a wall-mounted panel of photographs of 'inmates of Alcatraz,' you hear the repeated click of a camera shutter which indicates a different photograph to look at on the panel. This sound effect precedes the voice of each inmate in the photographs introducing themselves to the listener. In this way, the visitor is alerted to the use of sound effects as cues in the tour. Windows, for example, are a physical feature of the cellhouse that are important in several stories. The sound of a ship's horn is repeatedly used as a cue to look at or out of a window on the tour, enabling opportunities for focusing on physical features through sound cues.

As the tour proceeds towards the first cell block, visitors are surreptitiously invited to experience a particular space as an inmate might without being told to do so. For example, the tour guide may give directional instructions about where to go but not say 'now you've arrived here.' He will instead indicate this by announcing the 'rules of the cellhouse' as though you are an inmate arriving at Cell Block A. These 'rules' operate in this way later on in the tour as they are integrated as fragments to guide visitors to different parts of the building. For example, at the end of the tour we are directed to walk towards the sign that says 'Alcatraz tour ends here' and whilst moving in this direction an inmate starts to recount his release day. Again, visitors are invited to connect their own physical movement with that of the inmate going out, orientating themselves by moving 'with' him.

Once in Cell Block A, the direction to walk to cells with flat bars is given indirectly by a statement from an inmate: 'A Block, that's the old block. OK the old block ... you can tell by the bars, they're not round bars they're flat.' The tour guide then says 'Go ahead. Grab the bars. Note their temperature Now go across the aisle to cell 122. Put your hands on the bars. Two resistant round steel bars feel entirely different from the mild steel of A Block.' The strength of bars is referred to again later in the tour when the tour guide describes a material weakness in the structure of the gun gallery that was broken apart in an inmate breakout (known as 'the Battle of Alcatraz'): 'At the top [of the gun gallery] there was a section of weak bars that could be spread apart with a homemade tool.' At this point in the tour, visitors are invited to look at the specific bars and spot the weakness, thus making connections with our previous knowledge gained of material properties of bars whilst in Cell Block A.

Having listened to a correctional officer describe the contents of a cell through an inventory of objects and then been directed by the tour guide to go into one, there follows an inmate's account of what the cell meant to him: 'I knew every mark, every thing in that cell. Pretty soon that cell became like a part of me or I

became a part of the cell. And I couldn't visualise living anywhere else in the prison other than my cell. It was like coming back and greeting an old friend. Really. 'Cos er, it was part of me.' I would argue that this juxtaposition of perspectives enables the visitor to empathise with the inmate and to see his cell as a personal space in contrast with the official inventory description. Three other cells are subsequently described in the tour, the cell of Al Capone, the cell from which an inmate made an escape from Alcatraz and a cell in the solitary confinement block known as 'The Hole.'

When moving into D Block (the isolation block) for example, there are sounds of doors clanging shut as though behind you and as the tour guide continues describing the function of the block, his words appear to echo, creating a sense of emptiness. Having invited you into the solitary confinement cell, and 'banged the door shut,' visitors listen to how a former inmate occupied himself in such a cell in 'The Hole.' This part of the tour is introduced by three different voices:

Inmate: 'When the cell was occupied the regulations required that the light be on'

Correctional officer: [as part of another conversation] 'Well we kept the lights off when they were in there. They were in the dark' [voice cut off]

Tour-Guide: 'You may enter the solitary confinement cell if you wish' [door bangs shut]

The former inmate goes on to describe how he ripped a button from his overalls and threw it into the air, letting it drop on the floor and then finding it again. The sense of darkness is evoked through a description of an occupational activity that only works in the dark. The inmate asks a visitor to do something physical, like putting their hands over their eyes, in order to produce a heightened awareness of the space:

Inmate: 'If you would close your eyes, like, right now, close you eyes and seal it off, seal your eyes off with your hand... With a little concentration you can see a light and, er, you can see a light, and 'er pretty soon that light'll get brighter and you got to concentrate on this. And after a while, er... Not a short while, this takes time and practice, but pretty soon you can almost put your own TV there and you can visualise, you can see things, and you can go on trips and this is what I did.'

[faint sound of thunder outside]

Tour-Guide: 'Now open your eyes, step out of The Hole...'

The other cell that visitors are specifically directed towards is that of one inmate who attempted to escape from the 'The Rock.' Visitors are directed towards a cell that is lit up. It appears to be reconstructed to represent the living conditions of a cell, with various artefacts and personal items adorning the walls and a figure 'asleep' in the bed (Figure 35Figure). The audio, however, invites us to take a different perspective on the sleeping dummy:

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Tour-Guide: 'The head that I saw was extremely realistic. It was certainly a realistic enough one that I could see where somebody could easily have counted it.'

Inmate: 'To paint the dummy's head, to get the hair from the barber's shop, it all took the co-operation of other convicts. So the word gets out.'



Figure 35. Cell No. 138, Alcatraz, October 1998.

In this case the 'stage set' presentation of the cell is designed to invite closer inspection of the 'human hair,' not to simulate a prisoner but how the prisoner creates a mannequin to fool the guards. The cell is lit but locked and, as such, is viewed from the similar position a passing guard might experience.

Experiencing other spaces of the cellhouse through 'staging authenticity' that engages visitors in 'stumbling upon' can be seen in the way the tour guide asks visitors to 'notice' small details that connect with wider themes through the tour. For example:

Tour-Guide: 'Notice the keys hanging on a cord from the gun gallery.'

Former correctional officer: 'You may wonder what that is? Well that hook was the specific purpose of allowing the officer on the floor to send his keys up to the [gun] gallery for safekeeping.'

Tour-Guide: (in kitchen area) 'Notice the knife rack on the left. Each knife in the rack had its silhouette painted to check inventory.'

Tour-Guide: 'Look into any cell. Notice the small metal box with the two jacks on the wall of each cell.'

Former Inmate: 'And if you notice up on the ceiling there, you see these canisters up there dotted around. Er... That's tear gas and er... we nicknamed the dining room, the gas chamber.'

Acknowledging the position of these objects is made important as they have parts to play in other stories that are threaded through the tour. For example, the knife rack that the tour-guide asks visitors to notice in the kitchen is alluded to later in the story of the 'Battle of Alcatraz' when the knives have been removed:

Inmate 1: '... the cell block officer, he could be distracted' [Sound of knife being stuck into flesh]

Inmate 2: 'And I heard that old familiar 'pop slap' you know ...'

Visitors are directed to move towards the Library, a room used by an inmate who had the special privilege of collecting books from there to distribute to other inmates. This is the introduction to the 'bloodiest' escape attempt from the prison known as the 'Battle of Alcatraz.' The attempt was led by the 'librarian' inmate. This plays on visitors' expectations of what makes a 'troublemaker' and also prompts us to question the relevance of the job of librarian to escape and the 'battle.' The Battle of Alcatraz in May 1946 was an escape attempt in which the inmates took over the gun gallery, captured eight officers who were 'shot in cold blood' causing the prison governor to call in the Marines. It took the Marines two days of grenade bombardment to quell the escape attempt. Later in this part of the tour we are invited to look for physical evidence of the 'battle':

Former Correctional Officer: See those patched holes in the ceiling? The Marines dropped explosives through those holes' and 'See the scars on the concrete? That drove the escapees out of their hiding place into the Utility Quarter.

The theme of isolation which reappears throughout the tour also draws on our ability to empathise with the lives of the inmates as presented on the audio. The fact that visitors travel by ferry to Alcatraz is important in physically experiencing the actual distance between the island and mainland. The following two extracts have been selected from different parts of the tour to show how some of the features of this tour described above, come into play to engage listeners in feeling that physical distance emotionally:

Tour-Guide: 'Please get up now and look out the window nearest you.'
[sounds of church bells marking time]

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Former Inmate 1: ‘You couldn’t beat Alcatraz for the beautiful view out there. You had the Golden Gate out there, and the fresh air... See all the ships that come in...’ [sound of ship’s horn]

Former Inmate 2: [church bells continue quietly] ‘So there was never a day you didn’t see what the hell you were losing, what you were missing, you know... It was all there for you to see, y’know, there’s life, there’s everything that I want in my life and it’s there. It’s a mile, or a mile and a half away and yet I can’t get to it...’ [fade up church bells]

Former Inmate: ‘New Year’s Eve. Everybody would’ve heard a saxophone or clarinet or a guitar or whatever, start playing. And then they’d take a tin cup and they’d rack ‘em back and forth across the front of the bars’ [sounds of the cups against the bars and cry of ‘Happy New Year!'] and fade out cheering]

Tour-Guide: ‘Turn around and look up at the windows which face San Francisco and the setting sun.’

Former Inmate: ‘The Yacht Club which was directly across from the island would always have a big New Year’s party.’ [party sounds continue faintly in background] ‘If the wind was blowing from that direction to The Rock, you could actually hear people laughing, you could hear music, you could hear the girls laughing, y’know could hear all the sounds that were coming from the free world at The Rock. But New Year’s was always the night we heard it.’

Standing by the window as directed by the tour-guide, I looked out across the water towards the sights and sounds of San Francisco. Hearing the ‘party sounds’ of firework celebrations through the audio contributed to a simultaneous sense of close proximity to, and physical segregation from the mainland that enabled me to feel isolated in the way that the former inmate described.

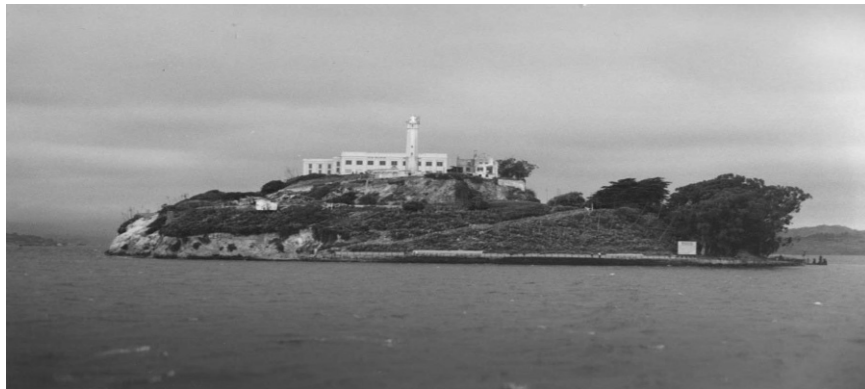


Figure 36. View of ‘The Rock,’ October 1998.

Cues such as these enable visitors to physically orientate themselves within the building and emotionally locate themselves in the story being told. The real-time actions of the visitor are acknowledged by the main guide who narrates the tour and provides directional information. Visitors are frequently invited to engage with the story of the cellhouse by stumbling upon scenarios and by being prompted into recalling information previously inserted into the tour. In this way, the audio tour of Alcatraz demonstrates features of ‘staged authenticity’ that uses the location as a stage on which visitors are an integral element in the performance.

‘Filling the Gaps’: The Workhouse

Describing the Alcázar of Toledo in Spain as a ‘site of memory,’ cultural tourism theorist Miriam Basilio draws on how one of the aspects of the role of the tour guide is to create a sense of involvement with a historic building by generating an element of shared experience.³⁵³ She describes the siege of the Alcázar, a sixteenth century fortress in Toledo, as a significant battle in the Spanish Civil War in 1936. A war museum was created here, according to Basilio, to house objects that ‘perpetuated’ the victorious dictator General Franco’s version of events.³⁵⁴ These objects are selected to act as evidence of the siege so they engage visitors in reliving this version of events. She says, ‘At the Alcázar, the evidentiary quality of objects associated with the siege would elicit visitors’ emotions, contribute to the coalescence of a sense of collective ‘conscience’ and transform visitors into witnesses of the dramatic historic events.’³⁵⁵

In this way, it could be argued that ‘small scale’ objects may act as connectors with larger scale events or issues through the emotions shared by the group. The concept of a ‘collective conscience’ has been explored by the International Coalition of Historic Site Museums of Conscience, an organisation that is concerned to overtly embrace the notion of a ‘critical conscience’ through its ‘Dialogue for Democracy’ programme.³⁵⁶ This organisation not only identifies historic sites of conscience across the world but also highlights the value in visiting such places. Their commentary on the National Trust education programme at The Workhouse in Southwell, England reflects this:

It [The Workhouse] offers the chance to raise awareness of ongoing struggles with poverty among traditional visitors to National Trust sites, to engage new kinds of visitors, and to introduce historical perspective to contemporary conversation on British welfare and social exclusion [...] At the conclusion of its tour of the Workhouse, the museum will offer a special exhibit

³⁵³ Basilio, M., 2004, ‘A Pilgrimage to the Alcázar of Toledo: Ritual, Tourism and Propoganda in Franco’s Spain’ in Lasansky, D.M. and McLaren, M., *Architecture and Tourism*, Oxford/New York: Berg, pp. 93-107.

³⁵⁴ Basilio, ‘Alcázar of Toledo’, p. 95.

³⁵⁵ Basilio, ‘Alcázar of Toledo’, p. 98.

³⁵⁶ Online. Available <http://www.sitesofconscience.org/en/> (accessed November 2008). The organisation has changed its name to International Coalition of Sites of Conscience.

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designed to stimulate visitors to explore today's issues of poverty in Britain in historical perspective – including unemployment, homelessness and social exclusion. The exhibit will not draw conclusions or make judgments, but will encourage visitors to ask questions, make connections, and participate in finding solutions.³⁵⁷

The description of a visitors' programme at The Workhouse refers to the desire to promote a collective consciousness by participating in an audio tour of The Workhouse and further, to make associations with wider issues of social exclusion highlighted by the exhibition at the end of the tour.

It could, however, be argued that the 'Dialogue for Democracy' programme assumes a group of people with a pre-existing like-minded 'collective conscience' who are attracted to buildings like The Workhouse because they are already interested in matters of social justice. The National Trust visitor literature on the site aims to present The Workhouse in different ways to the various communities of visitors who participate through their 'Untold Story' programme.³⁵⁸ From a learning perspective we need to question how the audio tour and associated educational programmes are designed to tell diverse groups different things about the building and its contents and/or developed as a way for people to make and share their own interpretations. A learning policy that is constructivist, for example, may favour producing dialogue between communities of visitors in order to share individual knowledge and experiences brought to the place. Professor of Museum Studies, Eilean Hooper-Greenhill³⁵⁹ adopts constructivist learning theory in the concept of 'interpretive communities' with particular reference to learning in museum environments. She quotes literary critic Stanley Fish who defined the term 'interpretive communities' in relation to reading texts in which the subject is active in making meaning. Fish emphasises the role of other 'readers' in sharing those meanings and validating them:

Interpretive communities are made up of those who share interpretive strategies for writing texts, for constituting their properties and assigning their intentions.³⁶⁰

Hooper-Greenhill asks for those concerned with making interpretations through objects to consider how visitors might use the pre-existing repertoire of interpretive strategies they bring to the objects rather than be told what to see and how to understand objects in a one-way transmission model of education. I develop this point further by focusing both on how participants in tours make connections by

³⁵⁷ Online. Available <http://www.sitesofconscience.org/en/> (accessed November 2008).

³⁵⁸ The 'Untold Story' project at The Workhouse in 2005 was one of eight National Trust properties taking part in a 3-year nationwide project to develop new ways of engaging diverse community groups.

³⁵⁹ Hooper-Greenhill, E., 'Museums and Interpretive Communities.' Online. Available <http://amonline.net.au/amarc/pdf/research/paper2.pdf> (accessed August 2007).

³⁶⁰ Fish, S., 1980, *Is There a Text in This Class? The Authority of Interpretive Communities*, Massachusetts/London: Harvard University Press, p. 171. Cited in Hooper-Greenhill, 'Interpretive Communities', p. 5.

physically being in the same place at the same time and also by using their own interpretive strategies to contribute to a shared understanding of that site. In this way, the tour as a spatio-temporal operation is argued to provide a means for ‘filling in the gaps’ by bridging pre-existing interpretive strategies with new locations in ways that support participants in making connections with their environment and with other people in the group.



Figure 37. Exterior of The Workhouse, Southwell, March 2009.

The Workhouse in Southwell, Nottinghamshire was built in 1824 by the Reverend John Becher to accommodate paupers and did so for the next 150 years. The workhouse system introduced in this building became national policy under the Poor Law Amendment Act (New Poor Law) in 1834. Rather than provide individuals with income to support themselves in their own homes, Southwell Union Workhouse (as it was named in 1836) was funded jointly by several parishes in the area to house up to 158 people ‘who had nowhere else to turn.’³⁶¹ This workhouse continued to house those deemed destitute into the 1970s when it was used to accommodate the homeless and then as a home for the elderly under the modern welfare system introduced in 1948.

³⁶¹ Online. Available <http://www.nationaltrust.org.uk/main/w-vh/w-visits/w-findaplace/w-theworkhouse/w-theworkhouse-history.htm> (accessed February 2009).

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The importance of the building resides in its important historical role as prototype and its unusual survival of 19th-century workhouse features but also in the ability to demonstrate this later typical development of workhouse sites.³⁶²

Restoration of The Workhouse by the National Trust was started in 1997 to preserve the building and open it up to the public. During the restoration process, the National Trust decided not to refurnish the interior spaces as ‘reproduction furniture would have jarred and diminished the authenticity of the setting’ and instead to produce an audio tour to ‘re-people the rooms with sound.’³⁶³ They state that ‘the architecture of the building, the reason for its preservation, was strong enough to tell the story on its own.’³⁶⁴ The interior is painted in nineteenth-century colours (shades of brown, beige and chalky white) apart from some rooms in the top-floor male wing which have been left as found in 1997. The walls of these rooms are dark green with layers of distemper revealed under the top coat.



Figure 38. Audio tour, *The Workhouse*, Southwell, March 2009.

The audio tour of *The Workhouse* was produced by Antenna Audio. On arrival at *The Workhouse*, visitors can opt to take the audio tour and are introduced to the building and the concept of workhouses by watching a short film near the entrance. The film is narrated by the voice of the founder, The Reverend Becher who describes the necessity for deliberately dull and repetitious work to deter people from applying for ‘relief.’ He says ‘an empty workhouse is a successful workhouse’ in describing Southwell as a ‘fine example’ of the workhouse principle in action. The main guide is a male voice who provides orientation information and directions for visitors to follow. This guide also describes the spaces of *The*

³⁶² Online. Available <http://www.nationaltrust.org.uk/main/w-vh/w-visits/w-findaplace/w-theworkhouse/w-theworkhouse-history.htm> (accessed February 2009).

³⁶³ The National Trust, 2002, *The Workhouse*, Southwell, Swindon, Wiltshire: National Trust (Enterprises). This edition of the booklet published in 2008, p. 31.

³⁶⁴ The National Trust: *The Workhouse*, p. 31.

Workhouse, providing verbal descriptions of the furniture and furnishings, smells and sounds of the building. The audio tour also includes a narrative of a fictional visit to The Workhouse made by an agent to the Duke of Newcastle who has come unannounced to ‘see how the rates are being spent.’ The agent is taken around the building by the Master and various other characters such as the Matron, Master’s son and a range of ‘inmates’ are introduced as the tour moves from room to room and outdoor yards.

The audio tour starts by inviting visitors to enter a wash house in which there are figures of inmates ‘entering’ the building painted on to the walls. An audio recording of a voice announcing names of those ‘entering’ can be heard via a loud speaker (Figure 39).



Figure 39. Wash house, The Workhouse, Southwell, March 2009.

Moving through to the back courts, one for male, the other for females and each with a water pump in the centre the main guide asks us to ‘Find somewhere comfortable to stand and imagine you are surrounded by men working. Now press the green button.’ The sound of a corn grinder can be heard as background to a conversation between an inmate and the agent visiting the workhouse. The Master arrives and after questioning the nature of an unofficial visit in which the agent makes it clear that such visits often reveal more, fetches his keys to conduct a ‘tour’ of the building. This narrative tells a story of the workhouse by actors playing different parts or roles to relay information about ‘life in the workhouse’ in the mid-nineteenth century – for example, reasons for admission into the workhouse, segregation procedures, diet and so on – and this is supplemented by other contextual descriptions made by the main guide about the layout, content and ‘feel’ of each space. Most of the spaces in the building are sparsely furnished with a few objects that are intended to be representational. Throughout the tour, the main guide encourages visitors to locate folders and laminated cards for further contextual information and to ask the National Trust ‘live’ guides positioned at various points if they have any questions.

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Figure 40. Typical indoor space in The Workhouse and a further information resource.

The tour continues into the outdoor enclosed able-bodied men's exercise yard and the narrative picks up with the agent spotting a small grid-like pattern scratched into the surface of a couple of bricks in the exterior wall of the back of the main building. The angry Master describes how this is the only place that inmates cannot be seen from his window, reinforcing the importance of constant surveillance. The agent asked to see the privies to which the Master responds, 'See the privies? You can smell them from here!'



Figure 41. Men's privy viewed from the interior upper floor and the 'scratched grid' on the exterior wall of the main building in the exercise yard, The Workhouse.

As the main guide directs us to move on into the infirm men's exercise yard, the narrative continues with the Master saying that 'some call them [the infirm] the blameless paupers.' Such details contribute to the 're-peopling' of the rooms with information from The Workhouse archives.

In the infirm men's day room there is a model of the layout and furniture of room and a printed text that tells visitors why many of the rooms are seemingly bare and invites them to speculate on how it might have looked (Figure 42).

How did the Old & Infirm Men's Day Room look in the 1800s?

The honest answer is "nobody really knows", because not one piece of original furniture survived, and no paintings or drawings of this workhouse have ever been found. (That's the main reason why we have left many rooms empty instead of filling them with reproduction furniture.)

You decide!

Choose from the selection of model furniture and arrange the room how you think it might have been. How would it feel to live in this room?

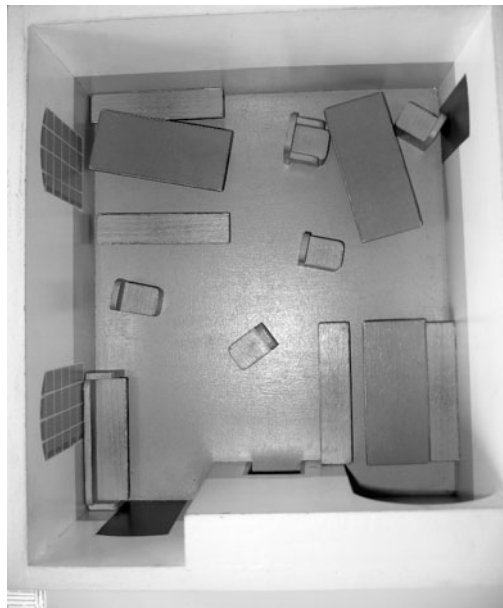


Figure 42. Text and model in the infirm men's day room, *The Workhouse*.

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Later on in the tour in the Master's Office, the main guide again tells visitors this is 'where a National Trust guide can show you pictures of furniture that would have been there.' The narrative in this space describes the furniture, fireplace and paper on the floor and a small boy [the Master's son] sitting at a desk. The son reads from a ledger an inventory of inmates' names, ages, length of stay and disposition. In a previous room, the Clerk's Office, a ledger is also described to account for the costs and efficiencies of running the workhouse in response to the agent's enquiry 'But does it [the system] work?' The Clerk argues that the system running at this workhouse is good value for money and 'far less of a burden on the rates.'

The tour progresses below stairs to the cellar and scullery, areas that 'needed little restoration apart from repairing rotting doorways.'³⁶⁵ In the cellar the narrative continues with descriptions of the stone benches that were used to store potatoes underneath and the coolness that made it an ideal space for storing milk and meat. As we enter the Scullery, the Master says 'There are female inmates washing up here ...' alluding to the segregation of and dull natures of the work under the new workhouse system. Going upstairs again towards the kitchen, the narrative suggests that 'there is a strong smell of boiled cabbage' and it is here that the role of the Matron of the workhouse is introduced. The wife of the Master, the matron was responsible for the kitchen, laundry and organisation of household chores. References to certain foods being cooked for punishment and/or treats are brought into the narrative and the agent asks to taste the gruel being prepared whilst the Cook describes how horrible it is. The menu for each day is recited by the Cook, providing information on a typical workhouse diet which was described as nutritious, plain and filling.



Figure 43. Upper floor men's wing, The Workhouse.

³⁶⁵ The National Trust: *The Workhouse*, p. 31.

Several other rooms are visited to conclude the tour downstairs including the Committee Room where the Board of Guardians, representatives of the ratepayers, met in a room where there would have been ‘curtains, a handsome fireplace and a door not open to paupers’ as well as a Schoolroom where 30 children would have sat in rows.

Proceeding upstairs to the sleeping quarters I became increasingly aware of the audio guide directing me what to see and how to imagine the building in the mid-nineteenth century. I had also become dependent on the audio guide in following navigational direction such as ‘now turn immediately left through the door to ...’ and experienced a sense of disorientation on looking out through the window in one of the top floor rooms. Spatial awareness to get a sense of the place has been put on hold whilst listening to the audio guide for directions. At this point I decided to wander at my own pace and make decisions about where to go and what to see. So far on the tour I had not approached any of the National Trust guides strategically positioned around the building, preferring to plug into the audio device to receive information.

These guides wear a badge describing their function as ‘visitor support guide’ and the several references to their presence along the way made it clear that they could provide additional contextual information about each space to help ‘fill the gaps.’ A guide approached me as I wandered along and said she’d spotted me from the window writing notes in one of the exercise yard’s below. (On reflection, this personally reinforced the idea that inmates could be seen at all times in the workhouse.) The guide asked what I was doing and walked along with me, describing as she went how the divorce law introduced in 1978 gave women the right to be ‘destitute’ without a husband. She expanded on this in the last room along the top floor corridor, a bedsit set up as it was in the 1970s. She then retraced our steps back towards the previous room next door that had a few beds in it and started to recount her own experience of lying in such beds during wartime in Britain. She pulled back the linen sheet, describing why such a fabric was used, to show the herringbone weave of the straw mattress cover the purpose of which was to stop the straw poking through. She then went on to describe how divan bed design evolved from this. On walking back with her into the ‘bedsit’ I listened to a further conversation between herself and another visitor on the divorce law, washing machines, wartime evacuation and the recognition of women’s household work. This personal engagement enabled me to ‘fill the gaps’ in ways very different from the linear audio guide in that I was noticing small details to make wider connections through the guide recounting from her own history and talking with other visitors.

The intention of the audio tour of The Workhouse to ‘fill in the gaps’ for visitors, was evaluated in a research project over a two-year period from 2002-2003.³⁶⁶ Phelps and Black, the authors of the research, suggest that the main objective of the audio trail was as a ‘tool for conveying messages about the site and

³⁶⁶ Phelps and Black, ‘Voices in the Void.’

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the issues it represents.³⁶⁷ This clearly links in with the interpretation plan for the Workhouse and the agenda described in the National Trust document, *Making History Matter*, both published in 2001.³⁶⁸ Phelps and Black state that ‘the Interpretation Plan was designed to do more than inform visitors about the period; as a departure from their usual approach, the National Trust decided to use a visit to convey carefully devised thematic messages relating to contemporary as well as historic life.’³⁶⁹



Figure 44. Dormitory and detail of the herringbone weave, *The Workhouse*.



Figure 45. A visitor support guide in the bedsit room, *The Workhouse*.

³⁶⁷ Phelps and Black, ‘Voices in the Void,’ p. 4.

³⁶⁸ The National Trust, 2002, *Making History Matter: How Children Can Discover Heritage*, Centurion Press. Citing a paper from The Department for Culture Media and Sport published in December 2001, *The Historic Environment: A Force for Our Future*, DCMS/DTLR.

³⁶⁹ Phelps & Black, ‘Voices in the Void,’ p. 5.

It is interesting to note here, that one of the outcomes concerns visitors being able to recall information on leaving The Workhouse. This is made clear through the notion of visitor ‘take-outs’ cited by Phelps and Black from the Workhouse interpretation plan. There is an underlying notion here that the audio trail will aid visitors in being able to recall themes of the tour, leaving the Workhouse with a defined set of ‘take-out messages’: understanding the purpose of a workhouse, understanding the awful hardships of a workhouse, recognising that the building is simultaneously typical and special (and therefore worth preserving) and presenting a contemporary context of poverty and its associated problems. Phelps and Black have mapped these against the sequential content of the audio narration and the corresponding rooms in the Workhouse:

Table 3 Audio narration related to interpretative messages

Time	Gallery guide	Content	Narrator message	Story-line message
1	1. Reception	Welcome and instructions		
1/2	2. Washhouse	Function - segregation	a	
1/2	3. Women's work yard	Instructions		
2 1/2	4. Men's work yard	Intro to characters in story: Master, visitor & male inmate 1	b	b
2 1/2	5. Able bodied men's day room	Decorations & furnishings; rules Master, visitor & male inmate 2	c	a, b
1 1/2	6. Able bodied men's exercise yard - privies	Supervision Master & visitor		b
2	7. Infirm men's exercise yard	Segregation and supervision Master, visitor & male inmate 3		b
2 1/2	8. Infirm men's day room	Role of staff Master, visitor, school mistress & male inmate 3		a, b
2	9. Clerk's office	Staff accommodation, financial support Master, visitor & clerk	a	a, b, c
4	10. Master's office	Room furnishings, records of inmates, food (Master/schoolmistress relationship) Master, visitor, male inmate 2 & master's son	a	a
2	11. Cellars	Description, women's work Master, visitor & female inmate 1		b
1	12. Cellars	Poor quality of food		b
1/2	13. Scullery	Description – no story		
3 1/2	14. Kitchen	Description, food Master, visitor, matron, female		b

Figure 46. Section of table showing Mapping of Audio Content against ‘Take-out Messages’ taken from Phelps, A. & Black, G., ‘Voices in the Void’ in Picard, D. & Robinson, M. (Eds.), *Tourism and Performance: Scripts, Stages, Stories*, Centre for Tourism and Cultural Change, Sheffield, 2005, p. 11.

Phelps and Black describe how the content is structured sequentially and designed for visitors to listen to everything in a particular order to get the whole picture. Inevitably, a sequential design can control movement and pace around a site. If visitors feel they need to listen to everything in order to follow the narrative,

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and this is organised as a linear route, then this can determine how fast they move and where they go next. Perhaps, more importantly, the content also attempts to clothe ‘empty’ spaces with authentic auditory information that can also be easily recalled once away from the building.

Another important issue raised by the research case study on The Workhouse audio tour is the quietness and isolation produced in visitors when ‘plugged into’ headsets and audio player control at the expense of interacting with each other and with opportunities for tactile engagement afforded by moving through the physical environment. This issue appears in several sections of the case study and I have extracted some of these and tabled them to identify the key elements concerning ‘silence’ and ‘choice’ in the research case study of the tour:

<p>Issue of silence</p>	<p>[The radio 4 style dramatic story] ‘lacks the spontaneity of the freer forms of museum theatre which aim to engage visitors in third and first person exchanges.’ P. 9</p> <p>‘Stewards are stationed at intervals, carrying folders with illustrative materials. However, despite prompts in the script to ask questions, few visitors seem willing to break the silence.’ P. 11</p> <p>‘[The volunteers acting as room stewards] agreed that, because of the isolating effect of the audio, it was difficult to approach visitors to engage them in discussion, or provide additional information.’ P. 12</p> <p>‘In the 2002 season they [visitors] were given a scrapbook of illustrations to look through in the Committee room, which prompted reminiscence and discussion within the group... However, even here it is still largely a silent experience, as most are listening to the audio while they queue to look at these pictures.’ Pp. 13-14</p> <p>‘The silence of the tour indicates an unusual degree of introverted thought. Although this may well suit the sombre messages being conveyed, it cannot help but contradict the interaction usually expected both to produce a “good day out” for a group and to support reflection and learning.’ P. 15</p>
<p>Issue of choice</p>	<p>‘Visitors physically control the equipment, but they are not really in control of the experience as there is no opportunity to scan contents or vary the route.’ P. 9</p> <p>No advantage is taken of ‘random access digital technology.’ P. 9</p> <p>Visitors ‘must listen to almost all of the audio if they seek a coherent story.’ P. 9</p> <p>‘Nearly all visitors accept the audio trail and “follow through”.’ P. 13</p> <p>Visitors are increasingly familiar with the technology and showed little difficulty using it, consequently there is the longer term opportunity to allow visitors to take more control, constructing their own tour by selecting from the information available.’ P. 16</p>

Figure 47. Table showing a selection of problems identified around silence and choice taken from Phelps, A. & Black, G., ‘Voices in the Void’ in Picard, D. & Robinson, M. (eds.) *Tourism and Performance: Scripts, Stages, Stories*, Centre for Tourism and Cultural Change, Sheffield, 2005. (Page numbers refer to pages in the Research Case Study.)

The audio tour of The Workhouse, according to Phelps and Black, sits between a more traditional form of cassette audio tour that operates in a linear way and one that experiments with the layering of information enabled by designing the tour using digital technology. In this tour, digital technology is used by designers to produce the trail but not by visitors to interact with the content. The lack of interactions tends towards visitors being passive and acquiescent in following the trail. Volunteer observations and comments agree that 'Generally speaking, the visitors do exactly what they are told on the tape.'³⁷⁰ In this way, compliancy is a key factor in the design of this kind of trail if the objective is to make sure visitors stay on a prescribed track. It is important to note that linearity is not necessarily linked with 'play and listen' cassette audio tours but on the way in which cues are provided for interaction.

This tour, then, could be argued to 'fill the gaps' in two ways. Firstly by compensating for the lack of furniture and contextual environmental information (that is acknowledged as an expectation of National Trust visitors to their historic properties) and secondly by providing visitors with 'take-outs' identified by the interpretation plan. The Workhouse is an example of a tour where the building is, due to its emptiness, a backdrop that perhaps instead could be reconceived as an evolving 'canvas' for visitors to write their own scripts in a 'fill the gaps' tour. Provision of choice and opportunities for social interaction can then be designed into a visitor experience that is founded in co-constructivist approaches to learning that draw on the range of interpretation skills and strategies that people bring to a place. This might be tangibly demonstrated not only by facilitating opportunities for participants to ask questions of 'experts,' but also by designing tours that support them in moving around a building in order to *form* those questions.


In their research case study on the audio tour of the Workhouse, Phelps and Black acknowledge that 'audio may improve the experience for many visitors, but there is still work to do to make it more effective, and identify and address its weaknesses.' It could be argued that a shift towards a constructivist approach to learning may develop abilities to make shared new meanings rather than focus on skills of selection and recall for 'take-outs.' Maybe a change in terminology to 'take-ins' could offer an alternative approach to what makes a 'quality learning opportunity' in which the visitor brings their knowledge and experiences to the event.

The concept of 'filling the gaps' is discussed further through navigation of a virtual 'workhouse tour' that provides an alternative way of touring not dependent on participants being in an actual workhouse building. My analysis of an example of one such website reveals opportunities for looking at other archives of photos, travelling across different types and ages of workhouse, calling up census information, inspection reports, staff and inmate records and photographs that compare the spaces of how the building 'was' historically and in the present.³⁷¹

³⁷⁰ Phelps & Black, 'Voices in the Void,' p. 13.

³⁷¹ Online. Available www.workhouses.org.uk (accessed April 2005).

William Golding



In 1925, four-year old William Golding and his mother entered the Stockbridge Union workhouse in Hampshire. A little later, he was placed in the Southampton Union's Hollybrook cottage homes at Shirley Warren where he spent the next ten years.

The following reminiscences were recorded in January 2005. The audio clips (each approximately 2 minutes long) are in MP3 audio format.

- ⏏ A non-existent birthplace
- ⏏ Smells and sounds of Stockbridge workhouse
- ⏏ The Southampton children's homes
- ⏏ Names, numbers, and a pauper's grave
- ⏏ Entertainment and escapes
- ⏏ Punishment and the Ponte Vecchio
- ⏏ Pigs, plums, and castor oil

Mr William Golding, 2005
©Peter Higginbotham

Figure 48. Audio Files in 'Workhouse Memories.' Online. Available www.workhouses.org.uk (accessed October 2007).

The voice of William Golding is played by clicking on an MP3 audio file to hear him recount aspects of his 'life in the workhouse.' The titles of the audio files indicate Golding's personal choice of subject matter, reflecting his own experiences as a way of describing workhouses in the 1920s and 1930s.

The most vivid memory was the smell, the smell of carbolic soap and stale bread. There were old women who were forever on their knees scrubbing the floor ... And the bare wooden floors, the mixture of carbolic soap and stale bread, seemed to cement the floorboards together. There were long wooden tables and benches in the dining hall, they were subjected to the same treatment, carbolic soap and scrubbing... And these old women, no-one spoke, as if they were ordered not to. You know the sound of scrubbing and the smell of carbolic soap and stale bread lingers to this day.³⁷²

The set of MP3 audio clips are interesting not only in terms of the choice of titles but also in how these may appeal to a wide range of interests and invite listening in non-linear ways. Knowing that each clip is about two minutes long is helpful in deciding whether to open a file or not and once open, there are options to use commands to stop, pause, go back or fast forward a file when listening for the first time. There are further opportunities for downloading the file onto portable players and for listening in different locations, manipulating and re-creating the content or compiling personal databases of topic-specific or media-specific content. I argue that this kind of activity illustrates the way in which the concept of 'interpretative communities' introduced earlier may work through public sharing and the interpretation of the subject matter through this website and also through the opportunities made available for downloading the files and using them in different ways.

³⁷² Online. Available www.workhouses.org.uk (accessed 25 April 2005). 'Smells and Sounds of Stockbridge Workhouse,' transcription of MP3 audio file from 'Workhouse Memories.'

This website on ‘workhouses’ also offers a web-based tour of a ‘typical’ workhouse building. Figure 49 shows how users are provided with opportunities to follow their own tour by clicking on a menu of ‘space’ choices. The content for the tour is taken from several different workhouses in the UK and this is clearly indicated in the hyperlink that denotes the source for each image or text box. The menu links change in colour once an area has been visited so that the user can work out where they have been. It is important to note that the web site appears to be produced by an ‘expert’ on workhouses, and this is particularly evidenced through the wealth of information available and the way in which this is managed through use of hyperlinks to follow particular lines of enquiry.

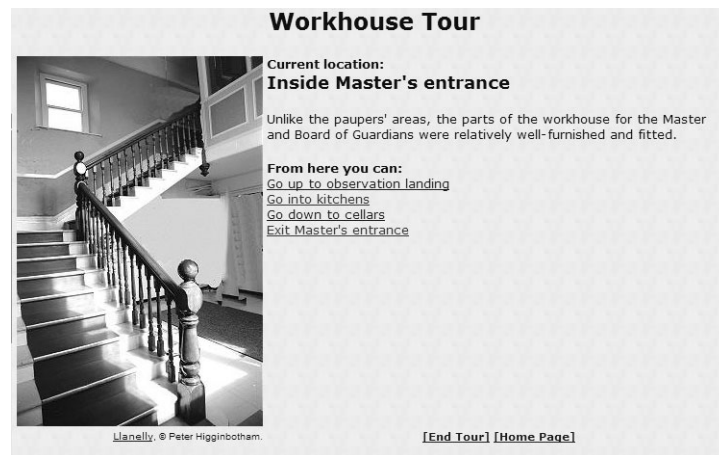


Figure 49. Web-based Workhouse tour. Online. Available www.workhouses.org.uk (accessed October 2007).

‘Off-site’ resources such as this offer opportunities for users to glean information and form questions that prompt movement between, and selection of, different types of media and content. The website does not take the place of an actual visit, but demonstrates the ways in which visitors may create their own learning trails through carefully designed menus that help them to manage this process in developing knowledge and understanding. In this, ‘expertise’ is shared through multiple user contributions that are organised through a central website structure.

Having applied the traits of the tour and tour-guide ‘behind the scenes,’ ‘staging authenticity’ and ‘filling the gaps’ to a small sample of conventional tours, the same process will now be used develop these concepts further in ‘unconventional’ or critical guiding practices.

CRITICAL TOUR-GUIDES

This section specifically focuses on the idea that interpretation is a form of performance, an argument that is developed from Barthes' notion of the 'subjective reader' and Hill's concept of the 'creative user' presented in Section 1.1 and in the analysis of the work of Tim Edensor, Janet Cardiff and Graeme Miller in Section 1.2. Here I have argued that interpretation can be explored through the work of performance artists who engage with the productive nature of site-specificity to provide opportunities for critical and imaginative engagement with the physical environment in guided walks.

Curator Joan Roca I Albert suggests that the production of an itinerary is an 'artistic construct' that should be part of an educational agenda in urban citizenship programmes.³⁷³ He argues that urban environments afford great opportunities for learning to itinerise but that tours rarely provide activities for learning these skills. Instead, urban tour-guides, in his view, employ a range of well-known narrative techniques that aim to make people feel as though they are reliving historical events in their original location. Roca I Albert proposes that 'visits to central urban spaces tend to be parades past long strings of buildings and urban treasures, counted off like beads on a rosary in a naïve accumulation of the quaint and picturesque'³⁷⁴ and this is echoed by Barthes when writing about guides in the 1950s:

To select only monuments suppresses at one stroke the reality of the land and that of its people, it accounts for nothing historical, and as a consequence, the monuments themselves become indecipherable, therefore senseless. What is seen is constantly in the process of vanishing, and the guide becomes, through an operation common to all mystification, the very opposite of what it advertises, an agent of blindness.³⁷⁵

Art critic Andres Kurg critiques the tour-guide as an 'agent of blindness' in *Stone Tour '99*, an enacted parody of a conventional city bus tour of Tallinn, Estonia that was subsequently published as a script in an alternative guide to the city, *A User's Guide to Tallinn*.³⁷⁶ *Stone Tour '99* involved producing a film of Kurg performing the role of a tour-guide for tourists on a city bus tour of the city. A pre-planned itinerary of 'must see' sights and a transmission mode of information delivery were established as the key expectations of a tour group and his script included references to significant buildings that alluded to a 'folklore genre' that had tenuous links to the theme of 'stone.' Kurg inserted references to 'limestone' throughout the tour, starting with a 'factual' introduction of its material properties until it became obvious to the viewer of the film that this was a deliberate tactic to

³⁷³ Roca I Albert, J., 2004, 'Itinerary as Art-Form, Cities and Citizenship' in Mayo, N., Marzo, J. & Romani, M., *Tour-isms: The Defeat of Dissent*, Barcelona: Fundació Antoni Tàpies, p. 104.

³⁷⁴ Roca I Albert, 'Itinerary,' p. 106.

³⁷⁵ Barthes, R., 1957, 'The Blue Guide,' *Mythologies*, Paris: Editions de Seuil. This edition published by Vintage in 2000, p. 76.

³⁷⁶ Laanemets, M. & Kurg, A., (Eds.), 2002, *A User's Guide to Tallinn*, Tallinn: Eesti Kunstiakadeemia.

expose simplistic and stereotypical ways of presenting a city such as Estonia. Out a total of nineteen speeches to his tour group, delivered from the front of the bus using a microphone, Kurg inserted references to ‘stone’ or ‘limestone’ in eleven of them:

To the left we also see one of the limestone monuments from the Soviet days [5/19]

It [the old town] is situated on a natural limestone cliff and all the city is built of limestone. This is the national stone of Estonia from the year 1992. All the buildings are of that same stone. Also the city wall and the towers that we will be able to see a bit later. And then as I said already that the national stone being limestone. In there are small animals who lived once, like fossils who have remained in the stone. So if limestone is our national stone, then the small animals could be our national animals. [6/19]

The Viru hotel was built in 1970. Quite a nice building, but unfortunately it’s not of limestone. [7/19]

We pass then to the left St Charles Cathedral from 1870. It’s a Lutheran church, built also of limestone, the traditional building material [8/19]

The Danes started to build stone buildings in the upper part of Tallinn. [9/19]

As the colour of black on the flag is a sad colour in itself or tragic, there have been nowadays some talks to change it into grey, that is, the limestone colour of Estonian national stone. [10/19]

It should be noted that it’s built of the same traditional limestone and it is the oldest Town hall [11/19]

And dog is then depicted in the very beginning of the portal there, of limestone. [13/19]

And you’ll be seeing then the limestone bank on both sides of the road [16/19]

The stones that are around here, what are these for? [17/19]

That is really iron, but if you mention stone then that’s very good. If you think of the name ESTONIA, then the word “STONE” is written right into that name. [18/19]³⁷⁷

Those who are able to appreciate the increasingly satirical use of references to ‘stone’ in Kurg’s script enter a complicit relationship with him, understanding how he has used the conventions of the city bus tour to expose and ridicule the idea of a catchphrase theme that is commonly used to make itineraries for such tours. The *Stone Tour ’99* script is published as one of a range of visual and written texts that

³⁷⁷ Taken from Laanemets & Kurg, *Users Guide to Tallinn*, pp. 193-194.

present the ‘other’ side of Tallinn as an alternative ‘guide’ to the city produced by people who live there. The audience for this book is the critical visitor.

Performance artist and writer Tim Etchells describes an ‘audience/witness distinction’ in performance art in which to witness means to ‘feel the weight of things and one’s own place in them.’³⁷⁸ He suggests that participation can be evidenced in the way participants will talk about an event afterwards as having left its ‘mark’ in some way. I have selected three critical guiding practices whose methods, I argue, engage with this concept: Wrights & Sites, Tim Brennan and PLATFORM. These critical spatial practices are now analysed to explore how the interpretative concepts of ‘behind the scenes,’ ‘staging authenticity’ and ‘filling the gaps’ may be further developed as productive concepts in defining the role of the tour-guide.

‘Behind the Scenes’: the Work of Wrights & Sites

Wrights & Sites, an organisation committed to exploring new practices in making physical explorations of urban environments, allude to new kinds of participation in their ‘Manifesto for a New Walking Culture’:

Disrupted walking as the new designing of the city. How does a new kind of walking engage with the planning of the city and the powers that initiate and deliver it? Strategies for a new walking, to become more like an active re-designing of public place, generating a ‘culture’ that changes specific spaces. The creative pedestrian as the new architect of the city.³⁷⁹

The ‘Manifesto’ put forward by Wrights & Sites emphasises a need for direct experience to be reintegrated as a critical and creative element in the design of public space. I argue that their work can be understood as a form of critical spatial practice that operates through the concept of ‘mis-guiding’ in which risk and uncertainty are key elements for those who decide to use the activities they suggest for exploring public space. Their concept of ‘mis-guiding’ takes the form of a set of activities that invite participation through making individual explorations, journeys, observations and recordings of the particularities and peculiarities of places rather than tell one where to go and what to see. In this way, I argue that their work is relevant to developing the concept of ‘behind the scenes’ in designing tours. Wrights & Sites have produced two ‘Mis-Guides,’ one that is place-specific to Exeter³⁸⁰ and another that presents a ‘set of provocations and perspectives’ that can be used anywhere.³⁸¹ Each ‘Mis-Guide’ is presented as a handbook of practical methods that can be performed in public areas of an urban environment. It could be

³⁷⁸ Etchells, T., 1998, ‘Valuable Spaces: New Performance in the 1990s’ in Childs, N. & Walwin, J., *A Split Second of Paradise*, London: Rivers Oram Press, pp. 33 and 35.

³⁷⁹ Wrights & Sites, ‘Manifesto for a New Walking Culture.’ Online. Available <http://www.mis-guide.com/ws/documents/dealing.html> (accessed August 2007).

³⁸⁰ Hodge, S., Persighetti, S., Smith, P., Turner, C., & Weaver, T., 2003, *An Exeter Mis-Guide*, Wrights & Sites.

³⁸¹ Hodge et al., 2003.

argued that the 'Mis-Guide' is the inverse of a guidebook that sets out what to see and how to see it, instead inviting one to explore and experience a site through engaging in a series of activities to gain new spatial perspectives unintended by civic authorities. Both the 'Mis-Guides' invite people to take action, and in so doing, invent their own ways of 'mis-guiding':

If you've been mis-guided enough then you'll be building up all sorts of new routes for yourself, finding your own special places and the best ways to and from them ... The great thing about mis-guiding is that you can use any skill or inclination that you have. As you go you can photograph, speak, memorise, video. Later you can make your own little records and pass them around. Catapults to send to others on their first drift ...³⁸²

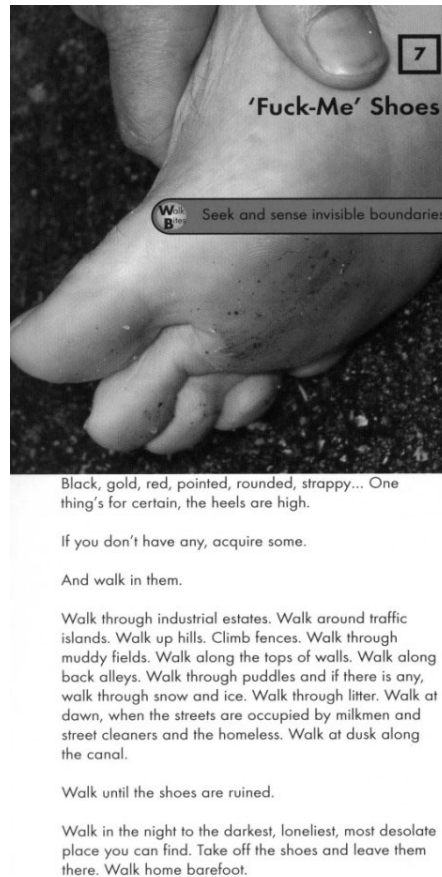


Figure 50. 'Fuck-me shoes,' taken from Hodge, S., Persighetti, S., Smith, P., Turner, C., & Weaver, T., *An Exeter Mis-Guide, Wrights & Sites*, 2003, p. 7.

³⁸² Hodge et al., *An Exeter Mis-Guide*, p. 91.

The ‘Mis-Guide’ approach is a practical one, a set of invitations that inspires an inclination to physically and emotionally experience urban environments. In this way, the approach is a resource that supports a ‘behind the scenes’ experience of the built environment by trying out new things in both repetitive routines and ‘one-off’ activities. The activity in Figure 50, for example, asks participants to wear a pair of high-heeled shoes and walk on a variety of surfaces, at different times of day, through street debris until the shoes ‘are ruined.’ They are then to feel the way home by walking barefoot. Another activity (Figure 51) asks participants to take photographs of details on their street that begin with each letter of the alphabet, starting from their own front door. It is suggested that these could later be assembled into an A-Z guidebook, adding in other material and texts.



Figure 51. ‘A-Z of your street’ taken from Hodge, S., Persighetti, S., Smith, P., Turner, C., & Weaver, T., *An Exeter Mis-Guide, Wrights & Sites*, 2003, pp. 12-13.

The first and last activities in An Exeter Mis-Guide (‘Touch Tours’ and ‘A Journey in Smells’) emphasise the authors’ focus on developing multi-sensory exploration skills that are threaded throughout the activities. This produces a ‘fieldwork toolkit’ that participants may use to record and collect ‘finds’ that may be reflected upon later.

We invite the walker to become an amateur human geographer, looking not only for official strategies and systems, but also and crucially, for the architectural everyday, the use of space by its inhabitants.³⁸³



Figure 52. 'One way' taken from Hodge, S., Persighetti, S., Smith, P., Turner, C., & Weaver, T., *An Exeter Mis-Guide, Wrights & Sites*, 2003, p. 46.

Using conventions of the guidebook in disruptive ways and encouraging participation through making individual contributions to 'mis-guiding' are approaches that have been integrated into the design and layout of both publications. 'Mis-guiding' involves participants following directions and making poetic associations between images and text. The design of the book evokes an underlying message to go and make your own collection of recordings, jottings, photographs as your own 'mis-guide.' I argue that these (re)creative activities are underpinned by an active approach to learning that can be compared with community participation methods in urban planning projects. Indeed, 'City Planner 1' and 'City Planner 2' (Figure 53) are examples of activities in the *An Exeter Mis-Guide* that directly suggest taking action in urban planning. These activities invite participants to become 'city planners,' and perform their own interpretation of this role in order to gain a more critical perspective on the kinds of decisions that are made by local authorities. Participants are encouraged to ask questions, re-design existing plans and make new plans.

³⁸³ Online. Available <http://www.mis-guide.com/ws/documents/citywalker.html> (accessed September 2007).

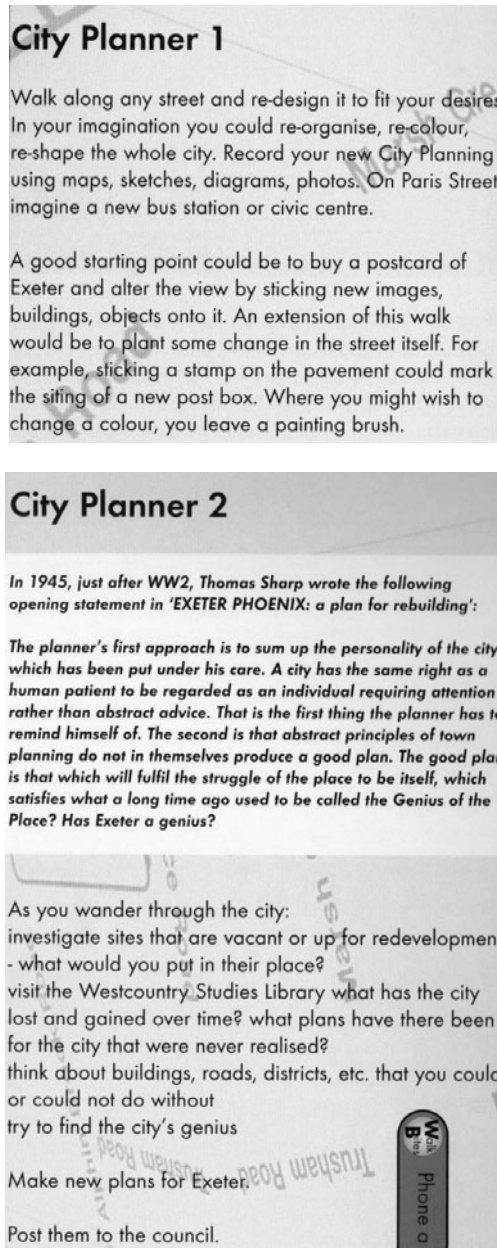


Figure 53. 'City Planner 1' and 'City Planner 2' taken from Hodge, S., Persighetti, S., Smith, P., Turner, C., & Weaver, T., *An Exeter Mis-Guide, Wrights & Sites*, 2003, pp. 82-83.

Wrights & Sites describe their practice as participatory. They argue that this approach encourages ‘new exchanges and meeting points, as well as new perspectives’³⁸⁴ and that the interaction is a two-way relationship between participants and the built environment: ‘We re-make the city by using it in new ways. In so doing, we inevitably re-make ourselves and allow the city to re-make us. It’s a mutual process.’³⁸⁵ This kind of approach facilitates a ‘behind the scenes’ experience of the built environment through a form of critical spatial practice that involves making social, spatial and temporal relations with people, buildings and objects in ways unintended by planning authorities to gain new perspectives.

The work of Wrights & Sites provides opportunities for civic engagement that highlights how the tour may have relevance for wider participation in design and planning processes in the built environment.³⁸⁶ Methods for developing this as a critical spatial practice have been explored by the ‘mis-guiding’ approach. This offers suggestions for learning about the built environment through specific kinds of ‘behind the scenes’ experiences that emphasise the autonomy of the participant in producing space. Learning through going ‘behind the scenes,’ I argue, can be described as ‘noticing’ those everyday activities that produce the built environment. This way of learning also provides opportunities to experience everyday routines and rituals in a personal way.

‘Staging authenticity’: The work of Tim Brennan

‘Staging authenticity’ has been explored through analysis of the Alcatraz audio tour in which cues were designed to support participants in ‘stumbling upon’ scenarios in ways that prompted them into recalling previous events inserted into the tour. I argued that participants were an integral element in the interpretation process. Tim Brennan’s walking ‘methodology’ provides an alternative way of investigating the role of cues in guides that may support learners in ‘stumbling upon.’ Like the walks of Cardiff and Miller, Brennan’s ‘walk/works’ or ‘manoeuvres’ work in relation to the everyday environment; what happens to be happening is an integral element of the performance.

It allows for the divergence of participant’s memory or that of the accrued experience which they automatically bring to the event structure. These walk/works are not interventions but are rather open to the intervention of

³⁸⁴ Online. Available <http://www.mis-guide.com/ws/documents/citywalker.html> (accessed September 2007).

³⁸⁵ Online. Available <http://www.mis-guide.com/ws/documents/citywalker.html> (accessed September 2007).

³⁸⁶ Although not within the remit of this book, it would be interesting to explore the history of ‘mis-guides’ in street performance art, community activist tours and tradition of ‘personal guides’ from *Coryat’s Crudities* first published in 1611 to the twentieth century *Wainwright’s Guides*.

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everyday life; a car collided with a cyclist in the course of my most recent work.³⁸⁷

Tim Brennan's *Manoeuvres* offer an opportunity to explore how the 'critical guide' engages and motivates people to participate in these walks. Here, the focus is specifically on how the guide facilitates participants to 'stumble upon' located objects and places in ways that open up possibilities for constructing new meanings. Brennan describes his 'methodology' as 'intertextual': 'Out of textual material the possibilities of a parallel intertextual work of imagination is opened to the participants.'³⁸⁸ The 'textual materials' are both the 'built environment of texts' (or 'environment as text') and the material he produces to 'guide' participants towards phenomena and information as they walk.³⁸⁹ Movement from place to place in a 'manoeuvre' involves participants reading one kind of text through the other. Brennan's concept of 'manoeuvre' can be described as a walk that is guided by a narrative that is location-specific in which there is an expectation that participants will engage in making imaginative associations between the guide and the location they are moving through. Psychotherapist Damian Brennan describes how Brennan's intertextual methodology is particularly relevant to developing our understanding of the tour as an interpretative performance:

The relation of work to site is analogous to the relation of play-text to stage; or of music-score to performance. Each performance event opens up the field of discourse(s) to an exploration of its discursive possibilities [...] The tour introduces a diversity of discursive events and productions around these bodies in their respective socio-historical contexts, opening a zone of reflexive awareness and dialogue.³⁹⁰

In the introduction to *Guidebook: Three Manoeuvres by Tim Brennan in London E1/E2* Geoff Cox describes the purpose in this set of walk/works is to 'encourage a close reading/walking of the urban-city-text, drawing upon a set of other references, disciplines and histories of social description.'³⁹¹ The three walk-works or manoeuvres, 'A Rising,' 'A Cut' and 'A Weave' are presented in the form of a small book that is designed to be used as a guide for each walk that works through the movement, location and experiences of participants. The guide for each walk is presented as a series of numbered written texts selected from a diverse range of sources – from annual reports to magazines associated with a profession to Greek literature – that develop a thread of subject matter. Each page of the guide uses the

³⁸⁷ Online. Available <http://mysite.wanadoo-members.co.uk/manoeuvre/page4.html> (accessed October 2007).

³⁸⁸ Online. Available <http://mysite.wanadoo-members.co.uk/manoeuvre/index.jhtml> (accessed October 2007).

³⁸⁹ Online. Available <http://mysite.wanadoo-members.co.uk/manoeuvre/index.jhtml> (accessed October 2007).

³⁹⁰ Brennan, D., 1990, 'Discursive/Excursive' in Brennan, T., *Guidebook: Three Manoeuvres by Tim Brennan in London E1/E2*, Camerawalks, London: Camerawork, pp. 54 and 57.

³⁹¹ Cox, G., 'Introduction' in Brennan, *Guidebook*, p. 6.

same format: a header that provides navigational information to help orientate participants geographically in the location for the walk, a semi-transparent greyscale image over which the written text is displayed, and a footnote that provides the reference for the text (Figure 54).

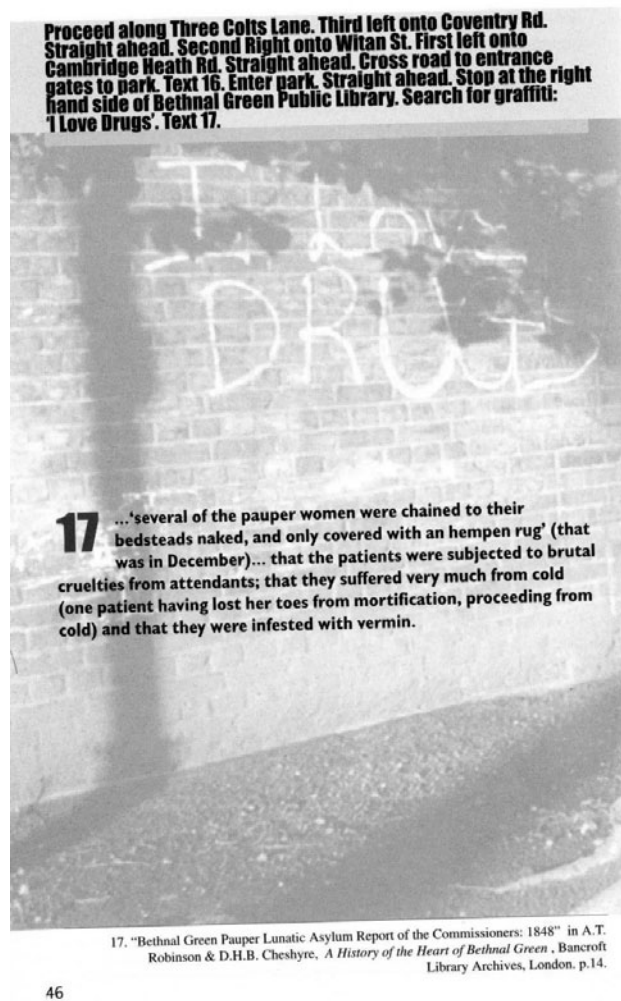


Figure 54. 'Text 17' taken from Brennan, T., *Guidebook: Three Manoeuvres* by Tim Brennan in London E1/E2, *Camerawalks*, London: Camerawork, 1990, p. 46.

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I wanted to find a way of opening the artwork up to the pitfalls and footfalls, fragments and half-glimpses which form our perception of the past and the reflection of our multiple selves. I chose to work with the form of the guided walk, primarily because it evaded the fixity of the 'site-specific,' of the object and of body-centred performance.³⁹²

Brennan's concept of body-centred performance positions the participant in the work in a way that echoes Nick Kaye's description of site-specific performance art in that it is the space between the work and site in which meanings are made. Brennan develops this notion further by suggesting that there is a pedagogic element in his work in the form and content of the guide. For Brennan, it is the experiences gained through walking that produce the site for the work – echoing the definition of site in mobile learning. Brennan develops this idea further by producing texts that are used by participants whilst on-the-move in ways that prompt them into 'stumbling upon.'

In the introduction to another of Brennan's 'guides,' *Prospectus*, art critic Andrea Phillips describes the interplay between texts that involves making a 'manoeuvre':

The book suggests a series of courses or paths we might take annotated with a series of quotes and thoughts on the historical and contemporary nature of the prospect. Here the 'work' is to walk, but to walk whilst observing (is that different from *looking?*), relating historical and contextual information to the ground beneath our feet. Like the scape, the map that Brennan provides is a certain one, chosen with a particular story in mind, but it charts a peculiar and transient space whose agent exists somewhere between mapmaker and map-follower.³⁹³

Phillips highlights a form of guidance that works through an interplay between the text provided by Brennan and the text of the environment. To move in this way, is to traverse physical space through a personal negotiation of 'discourses' that are threaded by a 'guide' who nudges his audience into making subjective and located associations. As a 'guide' Brennan communicates with the participants by directly addressing them and describes his role as one that is a combination of educator-facilitator-guide:

My role in each of these walks is one of grammarian as opposed to conventional 'guide' involving me in a process of highlighting ideologically unselfconscious phenomena and 'pointing out' bodies of pre-existing information. Out of textual material the possibilities of a parallel intertextual work of imagination is opened to the participants. These works/walks are

³⁹² Taken from Brennan's description on 'Environment as Text.' Online. Available HTTP: <http://mysite.wanadoomembers.co.uk/manoeuvre/page3.html> (accessed October 2007).

³⁹³ Brennan, T., *Prospectus: A Manoeuvre by Tim Brennan*, Mole Gap Trail, Norbury Park Art and Landscape Project, 1999, 'Introduction' by Andrea Phillips.

intellectually organic, each involving the active participation from a wide range of individuals whilst retaining a pedagogic aspect.³⁹⁴

Brennan distinguishes between his work as a ‘grammarians’ and the conventional tour-guide. Like a tour-guide he communicates subject matter for a group of mobile participants as they walk around a location and it could be argued that his selection of emotive text directly tells people how to feel. But he structures and positions these texts in such a way as to explicitly invite participants to use their own imagination in the process. Brennan’s walk/works show us how the critical guide facilitates ‘stumbling upon’ by providing fragments of selected texts together with navigational directions to support participants in orientating themselves between the text and the location.

‘Filling the gaps’: The work of PLATFORM

PLATFORM is a London-based organisation that promotes ‘creative processes of democratic engagement to advance social and ecological justice.’³⁹⁵ A part of their *Freedom in the City* project that started in 2002 is ‘Critical Walks in the City.’ PLATFORM describe how the walk is an important way of engaging others to participate in their work:

PLATFORM has long used the walk as an important form for public space work. We have explored walking as a research tool, as a ritual, as performance, as intervention, as a political tool, and as a tool for sharing insights and information. Our walks have been devised by artists, historians, community activists, psychologists, and environmentalists in collaboration, and as solo ventures.³⁹⁶

A guided walk led by Jane Trowell from PLATFORM in November 2005 followed the course of the Walbrook, an underground tributary of the Thames, through the City of London. A group of approximately ten participants met outside Moorgate Underground Station and were led by Trowell towards Finsbury Circus and on to the Bank of England and the Exchange before finishing up on the north bank of the Thames by Cannon Street Station. The course of the Walbrook is hidden underground from public view and the walk designed and guided by PLATFORM explores the connections between this concealed waterway and all aspects of the City of London above ground.

Of particular relevance to guides that ‘fill the gaps’ is the emphasis PLATFORM places on the use of juxtaposition to involve participants in making imaginative connections between selected buildings and streets of the City, the topography of the underground tributary and wider issues of global wealth and power. I argue that this method of guiding supports participants in ‘filling the gaps’

³⁹⁴ Online. Available www.walkinginplace.org/weblog/archives/000087.html (accessed October 2007).

³⁹⁵ Online. Available <http://www.platformlondon.org/> (accessed September 2008).

³⁹⁶ Online. Available <http://www.platformlondon.org/fitc.asp> (accessed September 2008).

in a constructivist framework, in which the responsibility for learning shifts from the guide to participant. PLATFORM describe the act of walking as an important element in engaging with this kind of learning in that walking involves repositioning yourself 'in the shoes of others' and in the 'picture' of the environment which enables the walker to learn through a process of 'animation and implication.'³⁹⁷ This mode of learning involves participants in witnessing, as described by Etchells at the start of this section.

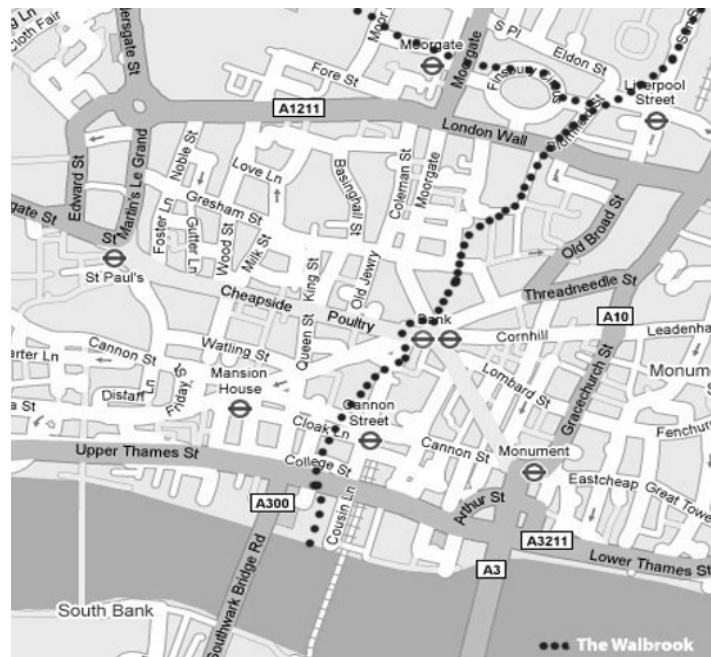


Figure 55. Map showing approximate location of the Walbrook. (Map courtesy of Google Maps.)

The map in Figure 55 shows the approximate course of the Walbrook that guided the route for the walk. Our guide explained that the walk would take about two hours to cover a distance of about two miles and would involve several pauses along the way. One of the early pauses in the walk was in front of a flight of steps leading up to the front door of a transnational oil company. Having directed our attention towards the figures representing trade with the British Empire that adorned the higher level of the building's façade, the guide read a poem that

³⁹⁷ Marriott, J. & Trowell, J. 2000, 'Words Which Can Hear,' Educating for Social and Ecological Art Practice' in Carson J., & Silver, S., *Out of the Bubble, Approaches to Contextual Practice within Fine Art Education*, London: Central St Martin's College of Art and Design, pp. 76-82.

personified the steps and she described the heavy tread of boots and shoes across the years. As she read the poem, the group stood on the steps and I felt invited not only to make connections between the words and the actual steps but to connect also with the flow of people stepping going around us and into the building. Further along the walk, heading towards the Bank of England at Mansion House, we paused again while our guide read aloud from a corporate magazine. The article focused on an oil company's green policy. The reading was followed by an invitation to listen to the perpetual noise generated by oil in the City. For me, the noise of trucks and buses seemed to be magnified as I paused to listen to the sounds of engines.



Figure 56. Bank of England, view through the roof at Tivoli Corner. Online. Available www.flickr.com/photos/11763518@N00/1107976160/ (accessed February 2009).

The next significant pause was at the Bank of England in Threadneedle Street. We stopped under the domed roof of the northwest corner of the building (Figure

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Figure) to stand in what the guide described as a 'public space.' As we looked up to the sky through the roof, we saw the array of surveillance cameras positioned on this part of the building. Someone in the group suggested that we could start performing for the cameras and started questioning what constitutes 'public' space in the City. Our guide talked about the various buildings that could be seen from this position and how they contributed to what we understand by 'exchange' and associated power relations. As we followed the Walbrook towards Cannon Street, we paused by a statue of a stock exchange worker from the 1980s. The guide introduced the statue, noting the style of the uniform, mobile phone and the date of its erection. She pointed out that these stock exchange workers were often working class and in highlighting an element of exploitation in their dispensability, she alluded to the importance of a permanent reminder of the role these people played in the economic climate of the 1980s.



Figure 57. Stock exchange worker. Online. Available www.nationalpost.com/877839.bin?size=404x272 (accessed February 2009).

A few minutes later, we paused before crossing Upper Thames Street while the guide described an event that took place here in June 1999. She retold some of her experiences of being in this location taking part in the ‘Carnival Against Capitalism’ and the work of Reclaim the Streets, a ‘participatory dis-organisation’³⁹⁸ in response to the G8 Summit that year. For me, there was juxtaposition between the descriptions of that day and the ‘here and now’ everyday workings of the street. A sense of carnival atmosphere and people actively reclaiming the streets was juxtaposed with the seemingly ordered movements of city workers and traffic on that day.



Figure 58. Images from Reclaim the Streets, June 1999. Online. Available <http://bak.spc.org/j18/site/ukimages.html> (accessed February 2009).

³⁹⁸ Online. Available <http://rts.gn.apc.org/ideas.htm> (accessed February 2009).

Continuing on the walk we passed by Cannon Street Station and then towards the Thames Path running along the north bank of the river. We stopped near the point where the Walbrook entered the Thames, our final destination. Our guide described how the tributaries had become underground culverts to control the City's sewage disposal and she directed our attention to the waste barges tied up on the embankment near Canning Town station and gave out copies of a map showing the tributaries of the Thames (Figure 59). The barges are somewhat ironically named after the tributaries of the Thames that have been blocked up as sewage outlets.

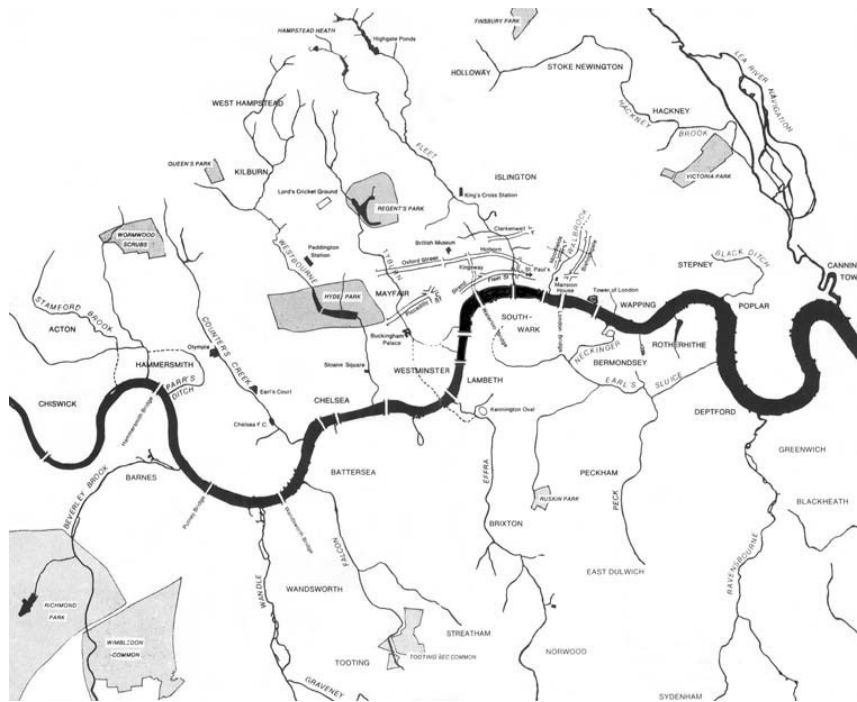


Figure 59. Map showing tributaries of the Thames. Online. Available http://strangemaps.files.wordpress.com/2008/06/lost_rivers.jpg (accessed February 2009)

The PLATFORM walk positioned participants physically and cognitively in considering tensions between global economic power structures and ‘local’ effects that supported participants in ‘filling in the gaps.’ The guide used the walk as a method to facilitate learning about history in sites visited while critically exploring contemporary issues. The method of guiding participants to make connections between global issues and the physical environment of the ‘here and now’ was important in developing my understanding about consequences of ‘closing space

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for water' and ways in which making such connections may be conceived as haptic learning in the design of tours.

Traits of the Tour

Defining the tour, tour-guide and participant produce a set of three interpretative concepts; 'behind the scenes,' 'staging authenticity' and 'filling the gaps.' These concepts were explored and developed further by analysing how conventional tours and critical tour guides make interpretations of places. Conclusions from these investigations are now presented as traits of the tour (design, technologies and learning) that can be used to guide designing tours that facilitate learning:

Design of the tour

- Tours that provide space for participants to create their own contexts for learning.
- Tours that provide access to private locations and/or spaces of their choosing.
- Tours that use sensory cues to prompt movement and action.
- Tours that create a platform for exchange and collaboration whilst on-the-move.
- Tours that provide a platform for civic commentary that enables participants to connect their observations/thoughts/ideas across a city.
- Pauses on a tour that are spaces for interaction and learning during a circuitous route of located exchanges and encounters.
- Pauses that can also be described in temporal terms as opportunities for learning through revisiting earlier issues or ideas raised by a 'pause' later on in a different place and making connections.
- Tour content that is designed to be participant-responsive and location-responsive.

Technologies of the tour

- Tours that use technologies to act as a 'viewfinder,' lens and antenna to focus on details/objects of interest.
- Tours that use technologies to 'unlock' spaces, making the invisible visible.
- Tour technologies that utilise positioning data to locate and orientate participants in relation to the live environment.
- Tour technologies that communicate and activate cues.
- Tours technologies that connect user recordings in multiple ways with other 'authorities,' sources of information and other participants on the tour.
- Tours that use technologies to glean finds and make collections.
- *Learning intentions of the tour.*
- Tours that will heighten awareness of the everyday in new and different ways.
- Tours that will make public spaces, personal.
- Tours will support participants in drawing on existing knowledge and understanding.
- Tours that will scaffold participants in making location-based enquiries.

TRAITS OF THE TOUR AND TOUR-GUIDE

- Tours that will draw on sensory interplay to make imaginative associations between sites.
- Tours that will prompt recall and juxtaposition of previous events knowledge in relation to new stories/accounts being told in location.
- Tours that will form different perspectives about a place.
- Tours that will enable participants to form and ask critical questions.
- Tours that will support participants in evolving a conceptual framework that relates to wider civic and urban issues.

PART TWO

CONCEPTUAL METHODS

CHAPTER 4

HAPTIC REFERENCING

THE TOUR

The productive concept that has informed development of haptic referencing in practice is ‘sensory interplay’ drawn from the section on Haptic Learning in Part One. In this section, analysis of the work of geographical theorist Paul Rodaway highlighted the idea that being ‘touched’ and being ‘in touch’ are inextricably connected. Movement allows us to *touch* and to *be touched* by the physical environment - the body reaching out to the environment as well as the environment coming into contact with the body, so that body and environment ‘touch and are touched.’ In this, the learner is described as an active agent in that they are able to absorb a rich supply of information from the environment through touch and are able to communicate and exchange this with others. As we move so we touch surfaces and *extend* our vision through touch. And this now needs further discussion in terms of how technologies can help us to make sense of those sensations as learners. Can learners use mobile technologies to *amplify* awareness of the built environment?

I reach my left arm up. I control the fountain. I press the button. (sound of water). Put your left leg on the metal bar at the bottom of the sign. Take a couple of steps forward and turn to your right. You will see a cash machine. Try and press the numbers on the cash machine (sound of buttons being pressed). Stop and touch the opposite bar with your left foot and see on the wall on your right a light – touch it and try and not burn your hand. Go up the stairs and jump on every step. (sound of jumping on steps). You are at the top and go towards where you can smell coffee. The smell of coffee is getting weaker. (Recorded by a 15 year old learner using a digital voice recorder)

I have also referred to the work of cultural theorist Steven Feld in developing a working description of haptic learning through his big idea is that place is made and experienced through interplay of the senses. He suggests that we need to be aware of how we are ‘culturally attuned’ into prioritising one sense over another and that it is the interplay between the sense that produces perceptual experience. So it is also important to consider how technologies may be used to ‘unclog’ our senses so that we explicitly engage them in experiencing a greater variety of environmental information. And we should also revisit the notion that buildings have ‘voices’ from the earlier section on Learning through Buildings. Placing Feld’s argument that we are ‘culturally attuned’ alongside Littlefield and Lewis’s idea that buildings have ‘voices’ creates an interesting way of approaching the design of learning activities that may be tuned into hearing such voices as well as

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the tastes, past, smells and textures of buildings. The synaesthesia of senses plays an important role in making connections between time and place.

Haptic referencing is broadly concerned with the production of non-visual cues for participants to follow and respond to in making tours of the built environment. These cues might involve participants in making connections between live textures and sounds of the location whilst simultaneously listening to recorded content on a mobile device, orientating themselves in location by listening to recorded non-visual cues (such as “standing here you can smell the coffee from the cafe”) that involve them in locating reference points to ascertain their physical position. Haptic cues may produce unexpected ways of ‘being in touch’ with a seemingly ordered environment. These cues focus on participants ‘noticing’ what may be perceived as ‘background’ or ambient sounds, smells and textures of the built environment. Specifically, haptic referencing involves making movements that prompt noticing of this sensory-rich environmental information and provides opportunities for learning through making connections between the cue and the live happenings of the ‘here and now.’ Making movements and responding to non-visual cues may be described in reciprocal terms in which participants engage in the interplay between live and recorded sounds in location evoking intangible objects or stories that may be sensed in location.

Locating and developing haptic references that invite conjecture, juxtapositioning, questioning and orientating explicitly recognises the erosion of our perceptual sphere and works to slow down this erosion by noticing through listening, smelling and touching. In this way technologies may be employed as extensions to the body that act as antennae in locating and responding to cues. The following project, *Mudlarking in Deptford*, describes how haptic cues were designed into a tour and how commonly available technology was used as ‘antenna’ to enhance the senses.

MUDLARKING IN DEPTFORD

Introduction

Mudlarking in Deptford reimagined how the traditional guided tour may be designed as participatory learning activity. The big idea launched and developed through the project was that participants in a guided tour can produce the event by ‘filling in the gaps’ rather than be recipients of a one-way information flow. The project was located in the Creekside area of Deptford in South East London, an environmentally and historically rich urban landscape. The timeframe was May to September 2005. The outcome, a prototype location sensitive and context aware tour, was stored and presented on a set of pocket computers or personal digital assistants (PDAs) that were taken out and about by pedestrians to explore the area. The guide was portable, had the capability to provide location information for the participant and give them opportunities to communicate with each other using wireless communication technology. The main intention of the tour was that it should facilitate rather than direct interaction with the built environment. There

were five nodes on the tour, sites in which activities were triggered through locative technology carried by participants. These nodes provided information, questions, stories and activities that prompted participants into drawing on sensory environmental information to make connections between the nodes as they walked around Creekside.

The concept for the project was successful in securing funding from NESTA Futurelab through submitting a proposal for their 'Call for Ideas' programme in January 2004.³⁹⁹ In May 2004, funding for the project was officially secured and a partnership set up. A key player in this partnership was digital artist Peter Rogers who managed technical development of the prototype toolkit. The Creekside Centre in Deptford provided advice, support and local knowledge as well as a 'base camp' for the project. A group of 17 young people from Sydenham School and their teachers were the 'co-designers' for the project, involved in creating content for the nodes through participating in a series of creative workshops. An 'expert' group, whose membership changed according to need, was formed to support and advise on management and evaluation of the project. I was responsible for initiating and developing the project, involving the expert group, planning and delivering the workshops, monitoring progress towards funding milestones and setting up the trials. I conducted the site visits prior to making the application for funding and then planned and delivered a series of co-designer workshops drawing on experts for the Environment Agency, Mobile Bristol and Futurelab to support the development of content for the tour and its technological infrastructure. These workshop activities defined the learning-through-touring method, haptic referencing.

Background

Working as an architectural educator on a number of design projects with secondary schools prior to *Mudlarking* I understood the importance of site visits in engaging young people in developing their awareness of the changing nature of the built environment. Actually moving through buildings and the built environment prompted questions that involved them in a creative form of citizenship, providing a real location for questioning ownership and responsibility in local and global contexts through multi-sensory explorations of the location. Making site visits to Canning Town and Deptford with architect Christophe Egret from Alsop Architects and groups of secondary school students was of particular relevance to this project. The purpose of these visits was to develop architectural proposals for brownfield sites adjacent to the Thames. These projects also cemented a desire to locate my practice in working with groups of young people to produce methods for learning-through-touring.

³⁹⁹ A short film of the project produced by Futurelab can be viewed online at archive.futurelab.org/projects/mudlarking_in_deptford (accessed April 2011).

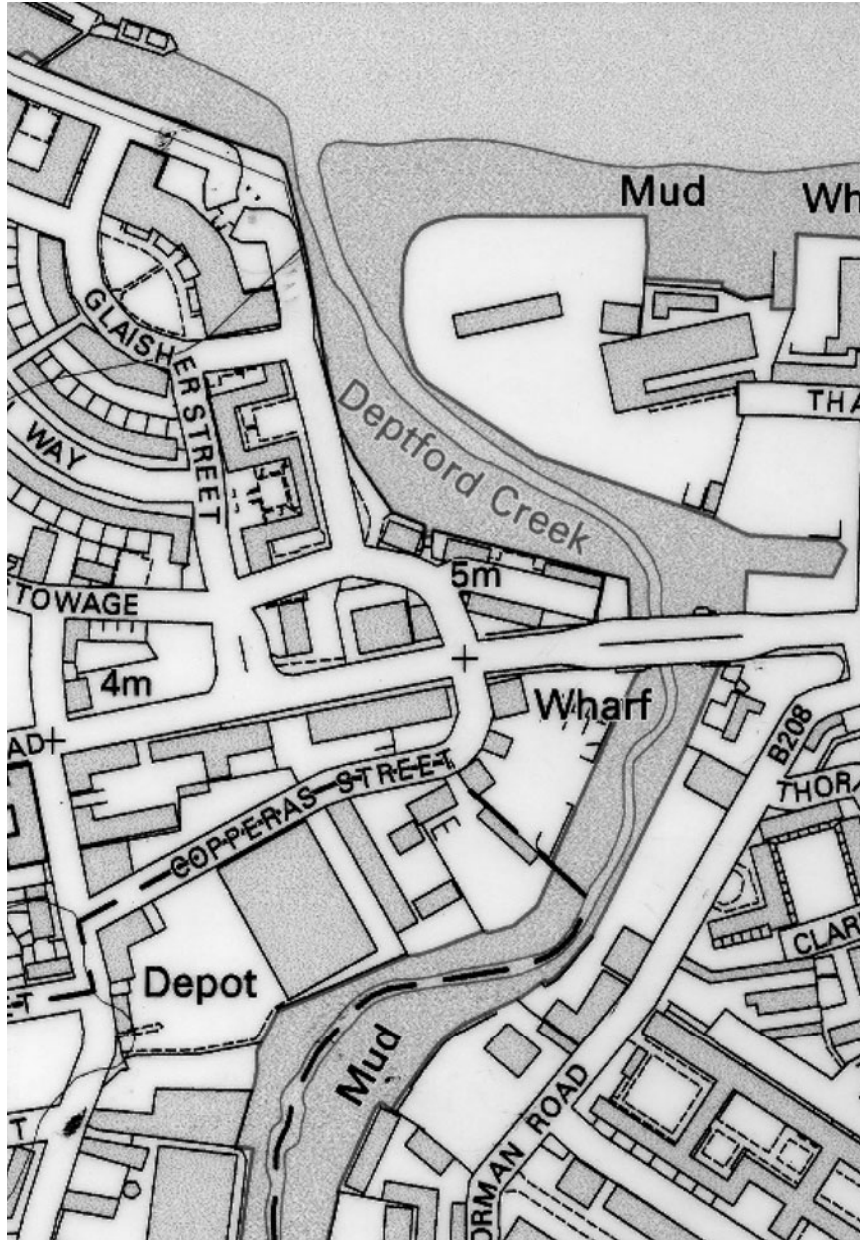


Figure 60. Section of ordnance survey landform map of Creekside, Deptford.



Figure 61. Canning Town, 2000.

The idea for a new kind of tour design and production needed to be specific to an everyday location, one that offered opportunities for exploring how the juxtaposition of found objects with the workings of a live environment could work as a process for making a tour. I was looking for a potentially ‘rich’ urban environment in South East London that was not known as a ‘visitor attraction.’ Having already located a design project in Deptford in which messages of ‘Don’t climb here!’, ‘KEEP OUT’ and ‘surveillance cameras in operation’ signposted limited access to Deptford Creek, I set myself the task of finding this natural feature at ground level. This research method took the shape of two walks: a ‘dry walk’ with a camera with the purpose of taking photographs of the Creek from public roads, pavements or footpaths and a ‘wet walk’ in the creek itself led by an expert from the Creekside Education Centre on this section of the Ravensbourne tributary of the Thames. And these walks cemented the enquiry for the project: ‘Find Deptford Creek from Dry Land.’

There were several sources of environmental information that we discovered on the dry walk – all of which could potentially be used in the production of haptic cues:

- The newly-built award winning Laban Centre located adjacent to the Creek whose entrance faces away in the opposite direction, implicitly drew attention to the building rather than its Creek-side location. Its brown roof, however, seemed to be well integrated into the natural environment as a wildlife habitat. Sounds of the cladding moving could be heard standing close by the outside of the building near the Creek side.
- Greenwich Reach, the area being redeveloped adjacent to the Thames at the mouth of the Creek, provided a prominent visual and aural location for considering the diverse range of competing issues in developing a brownfield site as part of a regeneration agenda.
- Prior’s Wharf still had a working crane to load barges with gravel and sand that traveled to and from Colchester. The barges had names such as Bert and Brenda and entered the Creek during high tide. The crane therefore operated on a tidal clock and the barges evidenced a working river observed from Creek Road bridge that was raised as the barges left the wharf. Each barge carried the

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equivalent of 15 trucks and contributed to reduction in pollution and engine noise on the roads in this area.⁴⁰⁰

- When standing on Creek Road we could feel the weight of traffic through the vibrations of the bridge.

The Creekside Education Centre organised a programme of walks in the Creek providing a direct means of access and a ‘water level’ perspective on the surrounding environment. I went on one of these led by Chris Gittner from the centre which focused on the characteristics of a tidal river, wildlife habitats, historical and industrial heritage of the Creek as well as current uses (and abuses). Again, environmental information that could be developed into haptic cues was evident:

- Handling a Chinese mitten crab, an imported species to the Thames, whilst listening to the controversial damage it was doing to ‘sought after’ riverside properties where the crabs dig holes in the embankment.
- The mud banks at lower reaches of the Creek exposed thousands of old shipbuilding nails that crunched beneath your waders.
- The shopping trolleys that have been dumped into the Creek were periodically removed and bundles of coppiced wood from local parks were used to replace the trolleys. This process provided ‘rest stops’ for travelling fish, invertebrates and other wildlife who had used the discarded trolleys as shelter in the tidal flow.
- The river walls had been repaired and replaced and now incorporated wooden fenders and ledges that housed different plants species, banks to attract kingfishers and ‘tubes’ for sand martins. The process of self-colonisation had produced walls textured with plant life.
- The main point of access from the Creekside Centre to the Creek used to be owned by Transco and houses a gas mains pipe underneath. We could smell gas when standing on the inlet. Chris Gittner reported that the streaks of oil in the mud banks adjacent to the Laban Centre had apparently inspired the colour choice for the building cladding.

Some of these observations from the wet and dry walks prompted further research into the content for haptic cues. The Environment Agency have described the Thames as a ‘super highway’ for migrations of a multitude of fish, bird and animal life, their routes coinciding at certain times of the year. Finding the Creek by developing knowledge about its habitats and inhabitants, human and natural, provided learning opportunities for understanding the significance of a tidal river and for negotiating differing perspectives on ‘making space for water,’ especially in light of climate change and rising sea levels. Flood management through giving back ‘space’ to the Thames was proposed as long term and sustainable by the Environment Agency in the Thames Estuary 2100 project in which ‘any options to provide continued flood management must also maintain and enhance a wildlife

⁴⁰⁰ Steele, J. (Ed. and Project Manager), 1999, *Deptford Creek: Surviving Regeneration*, London: Deptford Forum Publishing, p. 79.

rich and “liveable” estuary.’⁴⁰¹ Representatives from The Environment Agency were subsequently invited as ‘experts’ to one of the workshops and audio recordings of their views on the tidal creek and wildlife habitats formed part of the tour content.

Another trajectory coming out of the wet and dry walks concerned the activity of ‘mudlarking.’ Mudlarking can perhaps be best described as a recreational pastime in contemporary terms, a far cry from children earning a few coins for rubbish picking in the Thames mud banks a century ago. Now, accessing the ‘beaches’ on the South Bank and nosing for what the tide has washed up or revealed has given such ‘finds’ a particular kind of value. This can be seen in the work of Mark Dion whose *Tate Thames Dig*, an art and archaeology project, explored such issues in attaching value to found objects by sorting and classifying detritus dug from the foreshore of the Thames for presentation in a high quality glass and wood cabinet as though this were a ‘museum piece’ or cabinet of curiosities.⁴⁰² Physically digging into the Creek bed at low tide likewise revealed strata of yesterday’s junk, from shards of Roman throw-way pottery to Victorian shipbuilding nails to AOL CDs. A 1960s Coca-Cola bottle found in the Creek triggered memories of ballroom dancing classes for one local resident. ‘If you had practised your moves and performed well at the weekly class you were rewarded with a Coke ... If not, you got an ordinary bottle of pop.’⁴⁰³

This started to form ideas for a brief that was based on utilising finds from the Creek to prompt participants into noticing immediate everyday sights, smells and sounds from which they would make associations with wider issues of regeneration, natural habitats, industrial heritage and local histories. Finding objects in the Creek bed, abandoned shopping trolleys and so on, would be recontextualised as catalysts in haptic learning that have the potential to ‘reconfigure the temporality of sites, repositioning the relationship of past and present in a number of different ways.’⁴⁰⁴ Learning environments immersed in the everyday bring into proximity opportunities for situating the learner and allowing him/her to make associations in response to the location. The originality of *Mudlarking* was its use of located triggers to stimulate multi-sensory associations between objects and their position in the physical environment and to develop these fragmented responses into narrative threads as content for a tour. The project therefore opened up the potential for exploring how haptic learning may be developed by walking around a location and gathering sounds, images, text and sketches, using the pocket computer as a multi-sensory ‘notebook.’

⁴⁰¹ Rachael Hill, Senior Technical Specialist with the Environment Agency referred to environmental policy change in ‘making space for water’ rather than defending against it, in a talk on ‘The Thames Barrier and Wildlife (Floods, Fish and Fowl!)’ at the National Maritime Museum, London, February 2005.

⁴⁰² Coles, A. & Dion, M. (Eds.), 1999, *Archaeology*, London: Black Dog Publishing.

⁴⁰³ Chris Gittner quoting a local resident on the wet walk in the Creek.

⁴⁰⁴ Rendell, J., 2006, *Art and Architecture*, London: I.B. Tauris, p. 13. See Chapter 1.

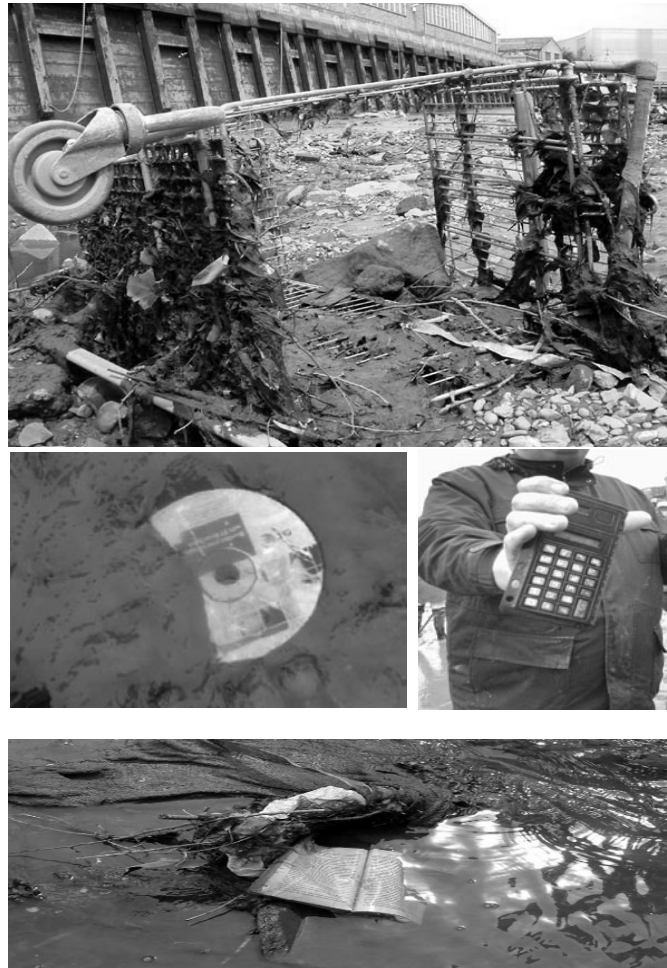


Figure 62. Deptford Creek Detritus, May 2005.

Working with mobile technologies provided opportunities to explore how data could be tagged with location, time and date information that could build an archive of media inputs from participants over time. The technologies were also developed to explore the concept of an ‘elastic environment’ introduced in Chapter 1 to provide the means for participants to engage with live inputs from others during the tour. The inputs would be activated through dialogue between participants. *Mudlarking* researched the use of pocket computers as a means to locate participants, provide node data and a space for participants to contribute their own data and to share these responses with other participants on the tour and

thereafter. It was important to consider that in using technologies as more than a delivery mechanism, by giving participants control over content and narrative, meant that the tour had to rethink itself as learning activity and not just as a digital replica of the traditional tour (as highlighted in *The Workhouse* tour in Part 1). Experimentation with referencing points (nodes) and challenging ways in which sensory information is received and acted upon was thus a key concern in the conceptual and technical development of the project.



Figure 63. Learner sketchbook, Workshop 2, *Mudlarking*, 2005.



Figure 64. PDA photographs, Workshop 3, *Mudlarking* 2005.

Brief

The project explored how the design of sets of learning activities and a prototype toolkit could enable learners to participate in the production of an ever-evolving guided tour of Creekside in Deptford. The project would do this by initiating the development of a tour template that could be used in other locations by non-specialists in multi-media to create location-sensitive learning activities ‘out of the classroom.’ To achieve this, *Mudlarking* was committed to using an iterative design process involving young learners, mobile technology experts, local residents and environmental experts.

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The project was set up to explore the following learning questions:

- How can subverting the didactic guided tour in an urban location develop creative responses to the built environment?
- How can mobile technologies enable young learners to reconceptualise an everyday urban location?
- How can sharing experiences through location-sensitive technologies create shared understanding between participants?



Figure 65. PDA photographs, Workshop 2, Mudlarking, 2005.

Process

The workshops with the co-designers were fundamental to the development of a participatory tour. The 17 young learners (aged 11-12 years) were established as a group of co-designers in the project who helped to create the seeded content for the starter nodes. The design process was constrained through the provision of spaces, topics, resources and toolkits to support the co-designer group in producing the content. The workshops were devised as a series of progressive sessions that facilitated them in creating content for the tour, content that invited other participants to make associations and evolve it in some way. This involved the young people in taking risks, being open to using and adapting different exploration methods and tools. The group was selected via a poster competition in the school and so was socially mixed and reflected a wide range of abilities. The competition was launched by the Community Science Centre at the school and was open to all Year 7 students and entrants were spread across tutor groups within that year. All students who responded were offered the opportunity to take part in the project. The teacher who organised the competition suggested a range of factors that affected the entries; an interest in environmental issues, drawing ability, friendship groups, lunch time sessions at science centre and the ‘pull factor’ of doing a project outside school were all mentioned. The workshops were planned and led by myself in collaboration with other members of the ‘expert’ team as appropriate. Futurelab employed a technology consultant, interface designer, AV recorders and an independent evaluator as well as contributing the services of their

4 November 2004

Co-designer Workshop 1:

‘Space Detectives,’ Sydenham School, Lewisham

This session introduced the project to learners through mapping their school environment. They developed ideas for touring activities by exploring different ways of capturing alternative perspectives of a well-known place. The intention of this workshop was to begin to investigate different ways of viewing familiar objects.

19 November 2004

Expert Workshop 1:

Futurelab, Bristol

This workshop discussed the ideas put forward by the young people and defined the user experience diagrams.

18 November 2004

Co-designer Workshop 2:

‘Micromapping,’ Creekside Centre, Deptford

This workshop brought the learners to Creekside for the first time. The main purpose was for them to explore an unfamiliar environment, record their first impressions of the Creek and consider how participants on a walking tour might make haptic connections.

2 December 2004

Co-designer Workshop 3:

‘Data Collection,’ Creekside Centre, Deptford

The second session based at the Creekside Centre focused on capturing the story of the tour through a wet walk in the Creek and a dry walk around Creekside. In addition, the young people produced ideas for the design of the interface for the tour.

3 December 2004

Expert Workshop 2:

Creekside Centre, Deptford

The main purpose for this session was to define the technical specification for each node.

20 and 27 January 2005

Co-designer Workshop 4:

‘Development and Editing,’ Lewisham City Learning Centre

These sessions focused on the young people making changes to their initial content, preparing it for publishing on the PDAs.

March - September 2005

Prototype Trials:

Creekside area, Deptford

The overall aim of the prototype trials was to identify early problems and further opportunities for prototype development throughout the process and to examine the extent to which participants were able to collect and access information successfully. There were several stages to the trials involving the co-designer group, an expert team, a small group of young people from Deptford Green School (local to Creekside), a launch for family and friends and lastly an event at the Creekside Centre open to the general public in September. During March and April a period of time was set aside for improving the prototype based on the findings from trials conducted thus far.

Figure 66. Overview of workshops for Mudlarking.

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own researcher, Dan Sutch. Representatives from Mobile Bristol also provided informal support on using their software application and later in the project they gave feedback on the trials along with BBC Bristol. The expert team also included Peter Rogers who managed the technological development of the prototype toolkit and Chris Gittner who provided local information, links with the Environment Agency and walks in the Creek. This team also provided feedback on each of the workshops that informed subsequent planning. After each workshop, both formal meetings and informal discussions took place to feed into the design process, drawing on the review activities with the co-designer group (Figure 67 outlines when the formal meetings conducted as expert workshops took place). At the end of the project, all of the young learners completed a questionnaire and informal discussions with the adult helpers to gain feedback on how well the project had answered the learning questions. Futurelab commissioned Ella Tallyn to produce a single observer analysis during the trial with the co-designer group.

Story	Spaces
First impressions of Sydenham School	Entrances/exits in and out of the school and pathways leading to the Science Centre entrance
How the new building fits in with the rest of the school	In and around the building, looking for evidence – up, down, around, through, over, under...
Discovering private and public spaces in this building	Any spaces inside the building that you think could be private spaces. And any spaces that you think are definitely public. And any that could be either...
Special spaces	Any spaces in the school that you think are special to you in some way (may be the first time you... Or this is where I... I think about ... here.)
An object that says something really important about the school	Anywhere on the school site! (inside or outside)

Figure 67. Space detectives activities, Mudlarking.

Co-designer Workshop 1: 'Space Detectives'

This workshop started by brainstorming guided tours. Initial responses from the young learners described tours that they had been on as visitors or on holiday. Discussion then moved on to what a tour should be like. Responses to the prompt 'a new kind of tour should ...?', included (in no particular order) that it should: include everyone, have different paths, have a pause 'button' (the facility to stop

when you like), let people walk by themselves, be nose, allow people not to come back the same way, let the user say how long the tour should be, have an 'x-marks-the-spot' where all is revealed.

These ideas started to open up the notion that a tour could operate differently from their initial expectations. To explore this further, the group were asked to be 'space detectives.' The main aim of this activity was to explore a familiar environment (their school) in new ways. They were given story topics and spaces (Figure 68) to find and capture using a toolkit that included a measuring tape, sketchbook, camera, wax crayons and a magnifying glass. (Analysis of the work of Wrights & Sites in Part 1 highlighted the creative ways in which a fieldwork toolkit can be used to capture and record finds and this was relevant in the selection of tools for this activity.) The workshop concluded with a discussion of different ways of recording cues for a story to evoke responses using all of the senses. An image of a pipe work in one of the toilet blocks in the school was used as a focus point for the discussion and shown with attached audio tracks of unfamiliar voices describing memories associated with these kinds of sanitary pipes.

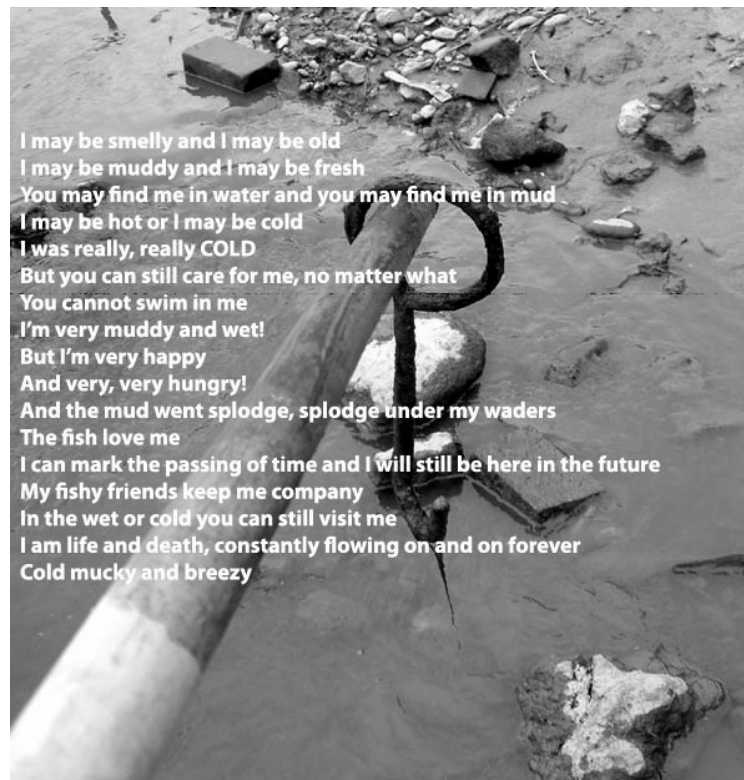


Figure 68. Creek Poem, Mudlarking.

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Co-designer Workshop 2: 'Micromapping'

This workshop introduced the co-designer group to the location for the tour, an unfamiliar environment that they would 'map' using some of the methods and tools from the first workshop. The plan was to go for two walks, a wet one and a dry one, to explore how subject matter about the Creek might be accessed by participating in a dry tour of the area. The idea of a node was introduced as a physical location that could be augmented with digital information. These nodes would produce activities that invited participants to *sense* the presence of the Creek.

During the wet walk, led by Chris Gittner from the Creekside Centre, the group used PDAs as data collection tools. They mostly used the camera function and some made audio recordings. They also used their sketchbooks to make notes and drawings. For the dry walk the young learners were split into 'node' groups, each with an adult helper. The groups were asked to go to different locations within the area and to map that space. They were provided with prompt questions and an exemplar 'answer' to support the micromapping activity. The dry walk was primarily an opportunity for groups to find their node and capture ideas for a new tour of the area. Emphasis was on stories, fragments and clues and thinking about using all the senses to engage with these.

Prompt questions to structure micromapping were:

- Where is our node?
- What kinds of things do I notice in and around my node (sights, smells, textures, sounds, tastes ...)
- What is the node-story we want to tell? Ideas ...
- How could we capture that story ...

Exemplar responses for group facilitators were as follows:

My node is:

- The Creekside Centre site (outside)

What kinds of things do I notice in and around my node (sights, smells, textures, sounds, tastes...)

- The beach – 1st in Deptford for 100 years. Gravelly footsteps, slipping mud, smell of gas.
- DLR and train lines – sounds of trains as they pass by Halfpenny Hatch and above on the DLR.
- Water gushing out to the Thames – and on to the sea.
- Plants around the pond – not planted but seeded by themselves – like the roof and the piles of concrete rubble.
- Walking over the path – it looks like something else has been used to make it – and railway sleepers/creek timbers have been used to shore up sides of banks – rough.
- Sun glistening on the water.
- Special space is by the plaster cast near the beach – objects from the Creek are preserved in this piece of artwork.

- I think nature is taking over this place – it would be good to make a film of what sound the tide makes coming in at night... Or a picture of the Creek frozen at a different time of year
- Markers that show the water levels – like a daily clock.

What's the node-story we want to tell?

- Brown is beautiful – focusing on the brown roof from different angles/views – want people to know that a brown site attracts local birds, plants etc – like a colony. Also Laban Centre has a brown roof – so link to another building.
- Beach access to the creek – this is where you can get into the creek – people might not know that there are walks in the creek. Also want to say that this is a beach – in Deptford! We can imagine the sounds associated with beaches and get some of those feelings here.
- Tide marks time – the tide marks show that the water is 4 metres above you at high tide – scary! Want people to think about nature and power – maybe link to Thames Barrier through looking at these tide marks in a different way. Maybe there are flooding stories before the barrier was built?

How could we capture that story ...

- Film the brown roof at the Creekside Centre from inside a carriage on the DLR –
- No train noise – just the sound of the Black Redstart bird singing. If possible, do the same film on 3 different days at different times. Ask users to vote on the soundtrack they liked best or add their own.
- Take a digital picture of the plaster cast on the wall and ask users to find their own special object that they would like to add. They could take a picture of it and then press a button to make it look like a cast.
- Play some sounds of a typical beach – try to get smell of sun lotion and ice cream across. As users stand on or near the beach they will make connections between holiday beaches and this one.
- Interview someone who works at the Thames Barrier about why it is there. Take some pictures from the museum to show flooded banks of the Thames. Ask users to look at the tide marks and then the pictures. If the tide marks could speak, what would they say ...? Ask them where else we find tide marks – text answers.
- Tape sound that the DLR makes from the outside (go up the road to where it is closest). As users walk on the path made up of upsidedown DLR track they listen to the sound of the DLR. They are then asked to find another object that has been reused on the tour, take a picture of it and add to collage of others.

Co-designer Workshop 3: 'Data Collection'

Following the micromapping workshop several threads of subject matter began to emerge that were connected with the location research at the beginning of the project. The expert team had met after the workshop to discuss how these might be developed to form threads of the tour. This discussion was important in establishing the idea that threads could have a dual purpose: firstly as a way of making connections between the nodes (like a theme or topic) and secondly as a

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method for other participants to evolve personal threads of enquiry. I reworked these ideas into location-based data collection activities to guide the young co-designers. The purpose of the data collection workshop was to find and record things that could be produced as seeded content for each node.

At this point, the nodes were given names according to the kinds of recordings the group had made during the micromapping workshop. These were: 'Boggy Worlds,' 'Space and Time Travel,' 'Nature Takes Over' and 'Ghosts: Past and Future.' Each node was allocated a location and the group was given the task of collecting data in that space. The adult helpers were provided with an ideas sheet for each node to be used if necessary. To emphasise the notion of threading as a participatory activity in a tour, everyone was asked to add a line to a poem about the Creek so that by the end of the day, the piece could be strung together through reading aloud. In addition there were experts at this workshop from the Environment Agency who brought along samples of fish and invertebrates that live in the Creek and were a great data collection resource.

Co-designer Workshop 4: 'Development and Editing'

These workshops took place in a specialist information technology education centre in Lewisham (a City Learning Centre). The main aim was to provide opportunities for the young co-designers to review the data collected and modify it for presentation on the PDAs. The group selected sketches and scanned them, scripted and recorded a dramatic story, worked with an IT expert to make an animation, edited photographs and audio files and recorded narration as in the following samples:

LABAN CENTRE: INTRO

Its icy fingers bite
Yet it flows like silk
It dances happily across the rocks
Yet it sings in a chorus
Of sorrow and depression
Colours are grey and murky
Like bogs of a tall and dangerous mountain
The shapes are circles, rippling and jumping
And jagged squares and triangles jut out

HA'PENNY HATCH: OPTION 1 Sediment Collage

Cold, swishy, slimy, clayey, sloppy, gloomy, dank, dark, wet, dirty, squelching, gritty, smell of gas, soggy, trickling, buzzing, rust, gloopy, noisy, melted chocolate, splashing, custard, oily, gooey, sloshing, crumbly, muck, green growth, chugging, tubes, arches, squares, brown, brown, brown ...

HA'PENNY HATCH: OPTION 2 Add Your Portrait to the Ha'pennies.

Pay a ha'penny to cross the bridge! The world's first urban railway – the London and Greenwich railway – arrived with the viaduct here in 1836. For two years the

only way passengers could board the new trains was via the wooden Ha'penny hatch toll bridge. The footbridge disappeared in 1930 and was rebuilt and opened in 2002 linking Deptford with Greenwich once again. To pay your penny, take a picture of yourself and add it to the collection. Then you can cross the bridge!

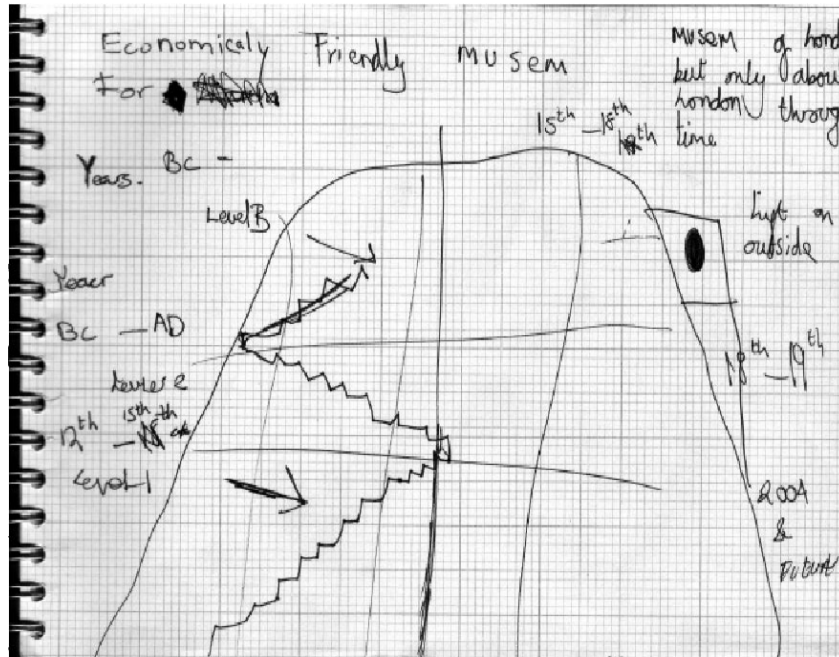


Figure 69. 'Eco-friendly Underground Museum,' learner ketchbook, Mudlarking.



Figure 70. iPAQ and bluetooth/GPS devices, Mudlarking.



Figure 71. Mudlarking homepage.

Technology

The prototype toolkit for *Mudlarking* was built using a prototype ‘location-sensitive’ application developed by *Mobile Bristol* at Hewlett Packard Laboratories (HP Labs). The *Mobile Bristol* application enabled sounds and images to be ‘attached’ to the physical environment that could be accessed through mobile technologies. *Mudlarking* contributed to the on-going development of this application that is now called *MScape*.⁴⁰⁵

Toolkit resources included:

- 10 x HP iPAQ rx3715 Mobile Media Companions (or PDAs) with integrated 1.2 megapixel camera, WiFi, Bluetooth Windows Mobile operating system
- 10 x 256mb media storage cards
- Clip-on Fortuna Bluetooth GPS devices
- *Macromedia Flash*

⁴⁰⁵ Online. Available www.hpl.hp.com/mediascapes/ (accessed April 2011).

– The *Mobile Bristol* application

The *Mudlarking* tour had five nodes created by the young co-designers. Participants followed the tour that they created by visiting the predefined physical and conceptual nodes that were constructed around the subject matter the Creek evoked. Other participants had the opportunity to input at any point in any area of the *Mudlarking* map (Figure 71). This data took the form of recorded audio, photos, drawing and text. The input created by the each participant was attached to the location in which they created it so that the next person who entered that space had the opportunity to view or listen and respond, allowing for ever-evolving content and meaning. Participants might disagree, synthesise or simply carry on where someone else had left off.



Figure 72. Record audio function, *Mudlarking*.

The ‘My Story’ section of the application allowed each participant access to their own input at any time as well as the inputs of others from previous tours. The interface for recording an audio input, for example, is shown in Figure 72. In this way they could input and access their own audio, pictures and text as they walked around and see how their own tour was progressing whilst also allowing them to add and view inputs from other participants. The technology was developed to deliver the location based content using two applications: the *Mobile Bristol* application and *Macromedia Flash*. The *Mobile Bristol* application took Global Positioning Satellite (GPS) data from a Bluetooth device attached to the participant and processed their location on to a map that had active zones drawn on to it (Figure 73).⁴⁰⁶

⁴⁰⁶ Drawing these zones is now termed making a ‘mediascape’ using the mscape application developed by Mobile Bristol and HP Labs with Futurelab. The application is free to download and an mscapers forum has been set up to share projects, resources and information. Online. Available www.mscapers.com. Accessed March 2009.



Figure 73. Active zones, Mudlarking.

When a participant walked into a zone, the *Mobile Bristol* application sent data to the homepage map created in *Macromedia Flash* and told the application where s/he was. The participant navigated around the map with the help of a location dot to point to where they were and by audio alerts as they entered or left a node. The *Flash* application could override the *Mobile Bristol* application if the GPS was not working by the participant manually clicking on the map to activate the node. The diagram in Figure 74 shows the three main elements of the system: the content server, management console and mobile toolkit. The system was designed to operate using a wireless network and required a facility for managing live content as it was added to the tour by participants. The mobile toolkit (a set of 10 PDAs each with a Bluetooth GPS unit) was designed to enable participants to both browse the initial content on the tour and to add their own by uploading their content to a management console via the content server. This process enabled a level of control over the content added by participants before it was downloaded to the live tour and on to the set of PDAs. The console also had an offline function in that it could sync with the PDAs if the wireless network was unavailable.

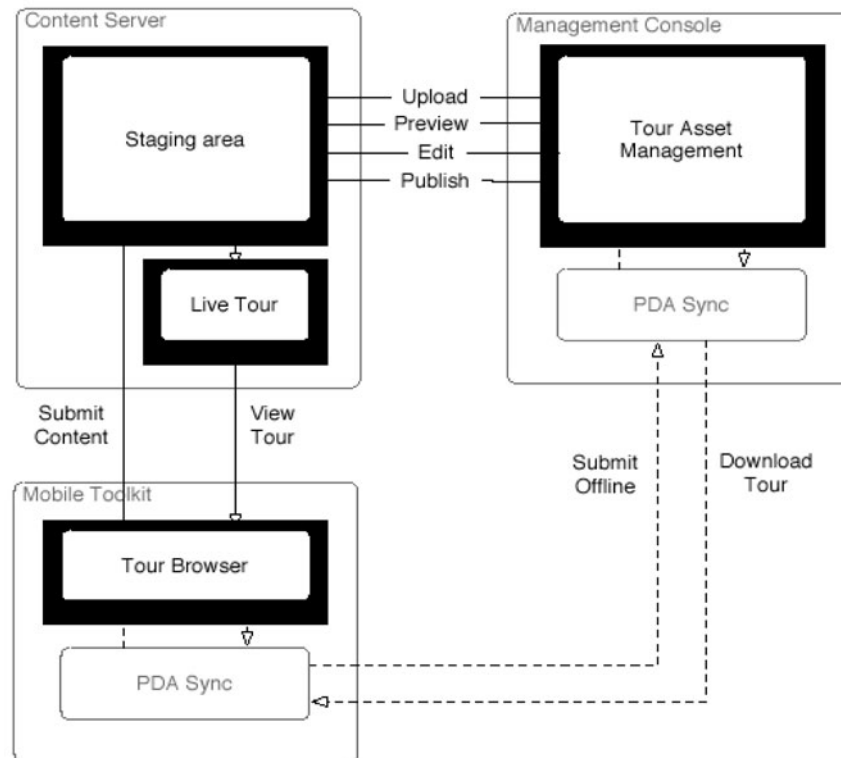


Figure 74. System diagram, Mudlarking. Peter Ferne, Futurelab.

The *Mobile Bristol* application allowed us to configure the zones in a multitude of ways. For example, it could 'memorise' the entry and return of a participant so that content delivery could be tailored to best suit their experience. The content might be different the next time a participant entered the zone or repeated to remind them they had already been there. Each node sent variables to the *Flash* application that delivered content and recorded the participant's movement in real time. This opened up possibilities for participants to receive data concerning the location and time of inputs made by others participating in the same tour in relation to their own experience. In this way the technology supported participants' spatial abilities to orientate themselves in the location using the PDA.

The prototype was developed through participant investigation and iterative design throughout the project. Peter Rogers implemented the system with informal support from Mobile Bristol representatives. The original specification was produced from discussions with the project partners at Futurelab and the seeder group determined the essential features of the Personal Digital Assistant (PDA) both as a data collection and as a communication tool. This group also produced



Figure 75. Screenshot from Mudlarking video. Online. Available <http://archive.futurelab.org.uk/projects/mudlarking-in-deptford>. Accessed April 2011.

ideas for the interface and specified what tools participants should have available to input their own stories into the tour. Expert workshops at NESTA Futurelab and the Creekside Centre then developed these ideas into a prototype specification as follows:

The toolkit should:

- Provide a range of appropriate data collection tools.
- Provide an interface that enables easy and clear data collection.
- Track user movement through nodes.
- Deliver information relevant to multiple participant locations.
- Link to a desktop system to manage uploading and create new nodes.

The desktop application should:

- Be able to collate information gathered in situ by participants on the tour.
- Provide a management system for appraising, reflecting and selecting gathered data for input to tour database.
- Act as a server to send information to mobile devices upon GPS activation.
- Enable uploading of newly connected data and act as a data management system, making new data live and controlling amount of data.

- Provide access within a reflective space to edit (including embellishing and annotating), justify and rework data for uploading.

The user walked around the area identified on the homepage map. They could walk in any direction and did not have to go to all of the nodes. The nodes were designed to be ‘threaded’ by the participant and were not sequential. When a participant entered a node content on the PDA was triggered, usually an audio file. The audio introduced them to the node supported by information on the screen. Each node had three activities, some that required passive engagement and others more active. The participant selected activities to do whilst in the node location and would then move on to another node. On leaving the node they would trigger content, again an audio file that helped to orientate them. Participants could switch to ‘manual mode’ if there were problems in receiving the GPS signal, clicking on the homepage map to access the activities at each node. The technology provided the means for participants to be guided around a site whilst enabling mobilised learner attributes of stumbling upon, noticing and connecting. The node content was designed and delivered in such a way as to engage the participant’s haptic experience of the location in the activity.

Outcome

The tour is presented here as a series of ‘pages’ for each of the nodes accompanied by a short description of the activities designed to involve participants in using haptic cues to reference their surroundings. A description of the tour being trialled with different user groups can be found in Appendix A.

H’Penny Hatch:

‘Penny Portraits’

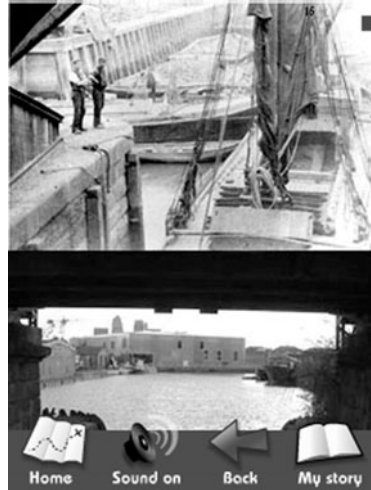
As they entered this node, participants were asked to take a photograph of themselves and add it to the face of an old penny.



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‘Time Slider’

Standing on the footbridge over the Creek at Ha’Penny Hatch, participants used their PDA to view two images and listen to an audio file. The images were of views looking upstream and downstream taken at different times. The audio was a mixture of ambient sounds of shipbuilding recordings that reflected river traffic and industries that reflected river traffic and industries from the past.



‘Sedimenting Collage’

Whilst standing on the footbridge, participants could see the detritus that had been deposited in the Creek that day and before. Depending on the tidal flow, they may have seen the mud bed below them, exposed objects diverting the water flow or floating debris. Participants were invited to take a photograph of what they saw and to add it to a bank of similar images. As the image was added to the bank it was squashed into a thin line, representing geological strata. To view this and the other strata, participants clicked on each one to enlarge it. As they clicked, a descriptive word relating to the Creek was heard.



Laban:

‘Mushrooming’

As participants approached the entrance to the Laban Centre on Creekside, they entered the node by a children’s playground on the opposite side of the road. The first page for this node asked participants to stand underneath a large mushroom shaped structure in the playground where they could record the sounds of their voices making echoes underneath. They could listen to other recordings of echoes made in the same space.



‘Tarantella’

Participants could choose to watch a short animation of young people dancing whilst a large spider crept up and over the Laban Centre to the sound of the ‘Tarantella.’ They were told that the dance was inspired by an exploration of the landscaped area in which they had found netting secured to the grassy hills, rather like a spider’s web. They were encouraged to perform their own dance in the same place.



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‘Find the Stream’

On entering the outside landscaped area of the Laban Centre, participants could see a map of the tributaries of the Thames, most of which are now underground or blocked up. They were invited to find and follow the course of a ‘hidden stream’ below their feet as they walked over the landscaped area. They plotted the course of the stream by moving over the ‘hills’ and listening for the sound of running water on the PDA. When they heard it, they had found a part of the stream. Participants could also opt to add a line or two to an evolving poem about the Creek.

Find the Stream.

15

Search around the Laban garden to see if you can locate the sound of the hidden river and follow it to the creek.



This illustration shows the hidden rivers in central London that over the years have been covered up.

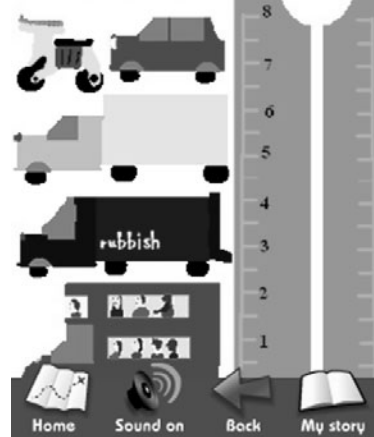


Creek Road Bridge:

‘Wobbleometer’

As participants approached the busy Creek Road from Creekside or Norman Road (depending on the route they took) they entered this noisy node. They were invited to find the ‘crack’ on the bridge where the bridge was raised for boat traffic at high tide. Standing on the crack, they were asked to feel which type of vehicle made the most vibration and to plot this on the ‘wobbleometer.’

Click on the vehicles to add their wobble value.



‘Nature Survives’

Looking down at the Creek from the bridge, participants could use a slideshow of images (photographs and sketches) to view its natural and human inhabitants. These included samples of fish and invertebrates drawn by young people, pictures of boats and riverwalls and photos of the Black Redstart, an endangered species of bird that had been seen on the Creek. Simultaneously, an audio track played the voice of an officer from the Environment Agency talking about the life cycles and natural environment of the Creek and the Thames. At times, this was difficult to hear, thus making the point that ‘nature survives’ in spite of the traffic-generated pollution and noise.



‘Floating Allotments’

Participants could view a slideshow of drawings that visualised ideas for a convoy of barges connected as floating allotments, to be towed up and down the Thames. The drawings showed the unusual ideas for these flower and vegetable plots designed by young people and participants were invited to add their own ideas, using the sketchpad tool on the PDA. Depending on the time of day, it might have been possible to see the barges from Prior’s Wharf from the bridge and other river traffic.



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Greenwich Reach:

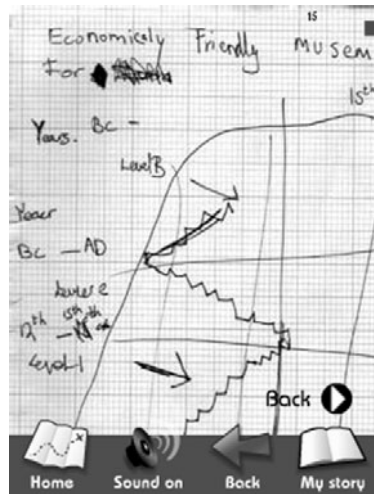
‘Deptford Souvenirs’

Positioned at Greenwich Reach, participants could read about the proposals for a cruise liner terminal. They could view drawings of suggested souvenirs that tourists might buy, inspired by detritus from the river.



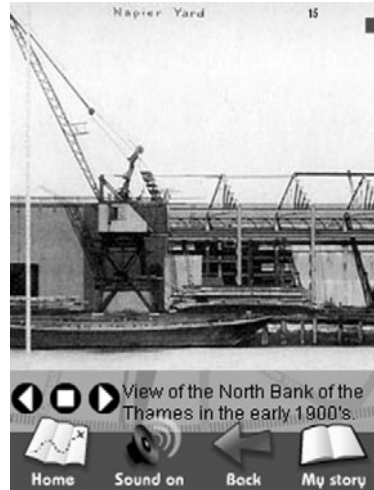
‘Designing Greenwich Reach’

In this location participants could see and hear the noisy construction work on Greenwich Reach, a brownfield site on the opposite side of the Creek. They could select and listen to a range of opinions and ideas (real and imagined) concerning the future use of that land. They could also view a sketch idea of an underground museum that aimed to preserve the brownfield habitat as a roof. Participants were encouraged to add their own thoughts and proposals for the use of the site.



‘Riverscape’

Participants entered the node through a residential area adjacent to where the Creek flows into the Thames. From here they could see the north bank and were invited to use their PDA like a viewfinder to see how the north bank may have looked when the docks were much more active. Holding the PDA in landscape position participants viewed a black and white photographic panorama of the north bank that could be scrolled from left to right and paused. Whilst viewing the panorama from the south side of the river, they listened to an audio track of a local resident who used to play as a boy in the Creek and watch the tug boats going up and down the river. They might have been able to see the mast of the Cutty Sark tea clipper in dry dock nearby.



Norman Road:

‘Muddy Murder’

Participants used this stretch of road to listen to a dramatic account of a murder case that was the first to be solved by finger print evidence in the UK. The murder took place in Deptford and participants entered the node looking at an image of the crime scene. They walked the length of Norman Road listening to the story as told by young people.



Key Findings

The idea that initiated *Mudlarking*, a participant-generated tour, was developed further through the design of haptic cues and node content that invited participants to make references with the location. Starter nodes were initiated or ‘seeded’ by the group of young co-designers who gathered and edited content that could potentially be evolved by other groups of people who participated in the tour. This process

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was termed 'seeding' and the subject matter for each node, 'seeded content.' The concept of seeding also described the potential for starter nodes to change and develop over time as others (including 'experts') added their own content. In this way, seeding was designed to support subsequent participants in posing questions, concepts, issues and imaginings that were activated by physically being in the node locations. Interaction with seeded content was supported by mobile devices that recorded, stored and presented data in location and also offered opportunities for communication between participants and the wider world. The concept of spacetime was integral to the concept of seeded content in that the actual time and space of interactions informed what the participant contributed to the evolving content stored on the mobile device.

Thematic threads were made by walking between nodes and responding to seeded content. Whereas a theme may be declared at the start of a tour or emerge through the guidance, threads in *Mudlarking* were produced through active participation in the event and were dependent on the specifics of social interaction, time and space. Threads were formed by participants making connections between the seeded content and the location as they walked from node to node. As such, new connections between the nodes initiated new threads of enquiry over time, with different participant groups and offered possibilities for making associations with issues and narratives in other locations. In this way a thread may evolve from an issue, question or response that links with others to form lines of enquiry, construct narrative or further explore an issue.

Overall, the concepts of seeding content and threading lines of enquiry supported participants in developing a heightened awareness of transition (both material change and through user creativity) in the built environment and reinforced the idea that it is they who were active in producing the tour rather than the guide. The idea of out-of-context being productive in this process (described in Chapter 2) was particularly important in developing this kind of heightened awareness, using haptic cues to facilitate 'noticing' and 'stumbling upon' what may be considered odd or strange in a seemingly ordered and planned urban built environment. The idea was that the mobile devices would support learners in being 'jolted' into making these associative connections with their location and between locations to develop another attribute of the mobilised learner – 'connecting.'

There were five starter nodes located at Ha'Penny Hatch footbridge, the entrance and landscaped area of the Laban Centre, Creek Road Bridge, Greenwich Reach adjacent to the Thames and Norman Road. These nodes were defined by shaded red areas on a map of the area. As a participant walked into or out of a node they were alerted by a narrated audio cue on the PDA. Once in a node, participants could select from three activities (except in the Norman Road node where there was one activity). Some of these asked for more active involvement than others. All of the activities were designed so that participants were encouraged to make their own connections between the nodes and between the node and the physical environment they were experiencing. Participants decided what route to take and how long they wanted to spend on the tour, using the map on the home page of the

PDA to guide them. They were also encouraged to use the 'My Story' function to make recordings on their tour.

Some of the activities initiated other kinds of physical participation, prompting different kinds of responsive movement. This was particularly noted when pairs of participants were in close physical proximity with another pair and could interact socially. The observer analysis from one of the trials highlights how the activities that instigated dynamic activity were 'Mushrooming,' the 'Tarantella' dance and the 'Wobbleometer.' These activities could also be done collaboratively in different ways. In the 'Mushrooming' activity their voices were recorded together, in the 'Tarantella' they danced around together and with other children to the Tarantella music, and in the Wobbleometer participants all lined up on the gap in the bridge to feel vibrations of the traffic and it became a group event.

The PDA as a mobile device was chosen at the time because it was compatible with the *Mobile Bristol* application. Further funding would have been required to build custom software. The PDA also offered a range of tools for recording haptic cues, a relatively large screen and supported development of a Flash interface. It was always intended, however, that a participatory tour of this nature should be available through more commonly used mobile devices such as a camera phone with inbuilt GPS. Although the choice of PDA, to a certain extent, determined how participants interacted with the device as a 'guide' the focus for the technological aspect of the project was on how participants used the functions to make haptic references. From this analysis it was clear that participants felt most comfortable in using the camera function and used the gallery area to review what they had captured.

Participants were generally excited to see their position identified on the *Mudlarking* map; 'We're moving!' 'I'm alive!' The moving dot that located the participant on the map was found to be both a freeing-up experience and one where the participant became concerned if the dot was not in the 'right place.' For the final trial the PDAs were deliberately switched from GPS to manual mode to see if adult participants 'missed the dot.' These participants controlled what information they wanted and when, using the PDA in a more conventional 'click and see' manner. This meant that they had more control over what they saw and heard on the PDA rather than the pages being triggered by a GPS signal. The GPS, however, offered an element of 'surprise.'

Both rain and bright sunshine had an adverse effect on using PDAs outdoors. The first two trials were undertaken in continuously rainy conditions and plastic map cases were provided to protect the PDAs. Participants became frustrated at not being able to see the screen through the wet case and often took them out of the cases to get a better view. However when it rained harder they put them back in to protect them and this created steam making the PDAs even more difficult to use. In bright sunshine, users had to shield the screen in order to see it even with the brightness and contrast of the screen at optimum levels.

It was noted in Ella Tallyn's single observer analysis of the co-designer group trial that the participants 'easily switched between the tour activities and playing or examining other aspects of the environment.' The analysis went on to consider

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possible reasons for this and concluded that the ‘lively and imaginative’ connections made with the physical environment were personal ‘unlike the dry, direct and sometimes rather sterile interpretations of tours designed by adults primarily for adults’⁴⁰⁷. These imaginative connections may act as effective memory cues because they were entertaining. For example, participants might remember from the Wobbleometer that the bridge is actually split into two halves and is not fixed, and therefore they may also remember that this is because it can be raised to let boats come through. Personal connections were also important for adult participants who made several references to the physical environment (past and present) in the post-tour interviews.



Figure 76. Learner sketchbook, Workshop 3, Mudlarking.

Reflections

Mudlarking was the first project that enabled the concept of woven context to be realised through a location-sensitive tour that explored the concept of haptic referencing. Context that is woven through people, space and time was set up in two ways. Firstly, through a group of young people who co-authored the initial content for the tour. This content was described as ‘seeded’ in discussions throughout the workshops to emphasise its potential for further growth and development. Secondly, participants in the tour both added to the seeded content and made their own. The public involvement of the content was not dependent on the presence of the group that had produced the initial content but on their own unique perception of the location at a different time.

The co-designer workshops were fundamental in enabling young people to make their own learning opportunities. A teacher commented that ‘this project releases learners from teachers’ interference and supports their own decision-making and allows them to be proactive. They make a decision, act, and something happens. It could be fruitful, a mistake, a disaster. So it offers teaching opportunities for developing evaluative skills as higher order thinking skills. This really helps the

⁴⁰⁷ Ella Tallyn, March 2005, ‘Mudlarking Experience Evaluation,’ p. 6.

kids to make their own learning opportunities and that, to me, is sacrosanct.⁴⁰⁸ Greater flexibility in guided tours was highlighted in the first co-designer workshop and this was an important feature in the outcome. Participants determined their own route, how long they spent in a node and when to pause to do their own thing. One participant summed this up as ‘the PDA guides you around and then there are all the activities to do.’ *Mudlarking* explored the idea described in ‘traits of the tour’ that in ‘staging authenticity’ the tour-guide provides opportunities for participants to orientate themselves in relation to the location. The activities in *Mudlarking* prompted participants to activate cues that facilitated ‘stumbling upon’ particular objects in the built environment. The concept of ‘staging authenticity’ was made productive by activating cues that prompted recall of pre-existing knowledge in relation to the tour content and experiences associated with moving from node to node.

The concept of participants ‘threading’ their way through a tour was developed through the construction of nodes that were designed to invite association with the physical environment and the PDA as a ‘notebook’ for capturing multi-sensory recordings. Threading themes, issues and questions between nodes by moving through a location started to prompt thinking about bodily movement in haptic referencing. The nodes were effective in pacing and structuring participant experience through being spaced apart and not requiring constant attention on the handheld device. Conversation and collaboration between the nodes was observed in all trials. The homepage map provided a way of visualising how the nodes worked as locations in which activities happened and also showed ‘off time’ when the device could just be used as a navigational tool and/or for recording personal data. Some of the environmental information recorded whilst participants were on-the-move between nodes can be analysed in terms of what they noticed, the live happenings of the ‘here and now.’ These references were tagged with location and time data so it was possible to identify the geographical position in which they made connections between nodes.



Figure 77. Haptic references recorded by participants.

⁴⁰⁸ Linda Viney, teacher at Sydenham School, post tour feedback, Trial 4.

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The 'My Story' function mostly evidenced use of the camera function and this prompts thinking around the idea of a multi-sensory toolkit and how to support the recording of 'finds' through methods of touring. There were issues identified concerning the quality of instructions for using the range of media functions as the audio recordings were difficult to locate and review. Better feedback on recording actions might have prompted less focus on the camera which had a review 'gallery' built in to the toolkit. It should be noted, however, that recording responses to the activities was not necessarily a motivator for interacting with them. For example, when participants grouped together to do the 'Wobbleometer,' once the activity had been introduced the PDA was largely forgotten in waiting for a truck or bus to come along and make the bridge vibrate.



Figure 78. Online. Available <http://archive.futurelab.org.uk/projects/mudlarking-in-deptford>. Accessed January 2011.

Skills in 'noticing' the built environment were evidenced through doing the tour. It was observed that when listening to information about life cycles of the Creek for example, participants were looking around them at the environment rather than at the PDA. Another activity that invited physical exertion was 'Find the Stream' and this activity also prompted participants to ask questions about the Laban Centre building. It could be argued that in asking participants to become active, they were also prompted to think about the location and make their own connections. These attributes of the mobilised learner are highlighted in conversations between the nodes:

They were continually interested in other aspects of the environment, particularly those which had some kind of personal connection for them. For

example one girl told me how the name of a street we walked by was very similar to that of her street. She was also excited to see the Canary Wharf tower and told me how she could see it from a particular window in her house. Other interesting things varied hugely, ranging from noisy and exciting things for example a speedboat rushing past on the Thames, to subtle qualities of the built environment, for example, the way a particular type of concrete seemed dry in the pouring rain.⁴⁰⁹

Overall, *Mudlarking* set out to reimagine the traditional guided tour as a participatory mobile learning activity in which the tour supports participants in making movements between the nodes to independently ‘fill the gaps’ in response to haptic cues. The project positioned the mobility of the learner and his/her sensory perception of place as a key element of learning-through-touring.

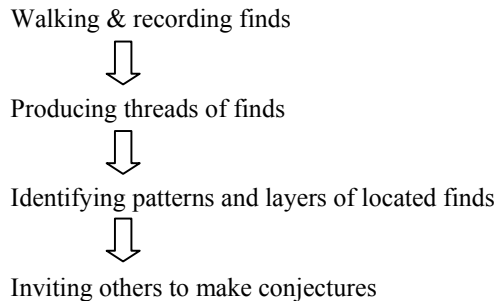
⁴⁰⁹ Ella Tallyn, March 2005, ‘Mudlarking Experience Evaluation,’ p. 6.

CHAPTER 5

MICROMAPPING

The productive concept that has informed development of micromapping in practice is ‘making the seemingly invisible, visible’ drawn from the section on Learning through Buildings in Part One. Rather than develop a tool for seeing through concrete, I wanted to develop ways of finding cracks in the concrete – or spotting anomalies that evidence change and transition in the built environment over time. Micromapping involves making detailed recordings of transition in the built environment and piecing together these fragmented finds into threads for a tour. The recordings are made using a handheld toolkit that includes both digital and non-digital tools. For example, recordings made by taking rubbings using wax crayons and paper, castings using plasticine and digital voice recorders to capture sounds. Using digital technologies to organise and share these recordings allows data to be layered and communicated in non-linear ways.

Reflecting on finds made involves participants in mapping those recordings to identify threads of enquiry into a building or area. In doing so they move through a process of enquiry, from making descriptions to making associations, that involves:



This process develops what might be meant by learning-enabled buildings; the idea that a thread may be a personal and/or public repository for personal collections that may be evolved through participants tagging finds with location and date information so that others can identify when and where the find was made. This process also enables finds to be layered over time and across locations. The following project, *Transitional Spaces at the V&A*, describes how micromapping was developed as a method with young urban archaeologists to find cracks in the concrete.

TRANSITIONAL SPACES AT THE V&A

Introduction

Museums and buildings are considered immutable by the majority of people who use them. Working in collaboration with Helen Thomas from the V&A+RIBA Architecture Partnership, digital artist Peter Rogers, teacher Jesse Riley and young learners from Pimlico School I set out to challenge this preconception. Helen Thomas had informally observed one of the trials for *Mudlarking in Deptford* and invited me to design and deliver a project at the Victoria and Albert Museum (V&A) in London that would investigate how buildings are a physical manifestation of an institute, and how their physical presence records the way the museum has to respond to outside criteria, from government funding strategies to cultural trends. The project, *Transitional Spaces at the V&A*, was built on the argument that a museum building as subject matter for a tour is a constantly changing environment, through which learners can develop their historical imagination and critical abilities.⁴¹⁰ A group of 20 young people (aged 13-14 years) from Pimlico School, a local mixed comprehensive, were asked to find and respond to evidence in the fabric of the V&A museum buildings of the substantial physical changes that it was undergoing in the summer of 2006. None of the group had been to the V&A before and the project was designed to engage them in experiencing the museum by participating in a creative design process. By choosing specific locations in the V&A building, the young people put together a series of PDA-based threads to describe and archive different narratives about the museum at the moment of their mapping. These were made for future visitors to see, hear and compare the museum environment that they are experiencing with the one that the students recorded. As such, the big idea for this project was to explore opportunities for learning by designing the tour as an interactive archive and investigating how a 'time lapse' effect may engage subsequent participants in touring 'behind the scenes' of the museum.

The main objectives of the project were firstly, to produce a programme for a museum-based workshop, with supporting training framework and equipment, based around the development of individualised interactive architecture tours. The second main objective was to contribute to research on the role of digital media in personalised learning, and to examine methods of creative researching using this media. In discussion with the RIBA+V&A Architecture Partnership we agreed that we could achieve these objectives through working towards producing the following outcomes:

- A toolkit for making interactive learning tours that investigate the museum buildings, potentially for use in workshops for school groups at the V&A.
- An interactive tour made by young people that explores the V&A buildings and their history. The tour would present a story of the buildings through key

⁴¹⁰ Elements of the project have been described in a paper written by myself and Helen Thomas in Sprake, J. & Thomas H., 'Transitional Spaces: Mapping Physical Change,' *International Journal of Art and Design Education*, 26(2), pp. 167-176.

locations, archive the changes to the V&A over time and present a ‘behind the scenes’ narrative.

I devised the project enquiry, designed and implemented the workshop activities and worked on the production of the toolkit with Peter Rogers. As in *Mudlarking* adult helpers were on hand to support the workshops as and when needed including teacher Jesse Riley, visitor volunteers at the V&A and Alan Bright who took photographs. I worked closely with Helen Thomas an architectural historian and educator who provided expertise in ‘opening doors’ and knowledge about stories associated with the V&A building and people who worked there. Helen Thomas also arranged for a building redevelopment project co-ordinator at the V&A to provide access to some of the closed-off spaces and talk to the group.

Background

To some people museums, especially Victorian institutions like the V&A seem not to have changed very much since they started. They still display old objects, in the same buildings to the same kinds of people. This project set out to challenge this preconception. The aim was to take a group of young people seemingly not very much interested in museums, and encourage them to learn from and participate in the museum as a dynamic building. We wanted these young learners from Pimlico School to experience the V&A as a space in continual transition, and not just a static container of old objects remote from their knowledge and understanding of life. We wanted them to use this learning experience to deepen their historical imaginations, and to use their curiosity to develop personal ways of engaging with the man-made physical world. The project was devised to help them to understand that the built environment that surrounds them is not always what it seems (or what they are told it is), that it changes all the time, and that there are clues everywhere to explain why and how, if you know how to look. In a sense, we wanted them to become urban archaeologists.

Helen Thomas and I were interested in the way that the V&A buildings are a bodily manifestation of the institution. We searched for a way of looking at and exploring how the physical fabric of the buildings told the story of the V&A as an institution. This was evident in the responsive relationship between the museum’s material conditions and constantly changing criteria from outside the institution: from government funding strategies that determine the audiences for whom museum’s collections are made physically and conceptually accessible, to major historical events and cultural trends that define acquisition, interpretative and other policies.⁴¹¹

It is through cartographical imaginations – investigating the spatial orderings of learning – which we begin to embrace different understandings of the

⁴¹¹ Helen Thomas contributed significantly to describing the V&A as an institutional building in the background to this project.

practices in which we are involved and the ways in which generative spaces for learning and knowledge production are actively constructed.⁴¹²

As a learning activity the guided tour could be described as the organised mobilisation of people, places and objects that provides opportunities for considering the tour as a medium for making associations, evoking stories and having ideas. The tour as a spatial, historical, temporal project of multiple identities and formations as defined in the ‘traits of the tour’ is explored in practice in this project located in an institutional museum. In particular, this project investigated how the structure and content of the tour may be designed using the method of micromapping with an emphasis on the productive nature of time-lapse to ‘fill the gaps.’

The main aim of the project was to explore the design and production of walking tours as an interdisciplinary process that both recognises and challenges its limits as self-initiated learning activity; the functional nature of tour operations and design of its content, work in relation to the dominant idea of the guided tour whilst simultaneously questioning it. In this, the tour can be a parasite on dominant, existing status quo practices (implicated in the dominant mode of production) or it can resist and transgress these practices. The project developed the notion that the dominant mode of tour production is based on a delivery model of education both in terms of content and the way it is presented. As such, the delivery-mode tour is designed to respond to a need for self-initiated learning, but its mode of production is very much based on the learner passively receiving predetermined content. Learners might be expected to document or ‘fill in the gaps’ but are not necessarily involved in processing what is ‘given.’

Many conventional guided tours operate by explaining, clearing perceived obscurity or difficulty for the visitor. As such, we might argue that singular points of view describe intention that directly relates from the designer, bypassing the sociality of the visitor group, spatiality and temporality of the building.⁴¹³ This project set out to provide opportunities for participants to find and negotiate ‘unintended’ narratives in a national museum. *Transitional Spaces* was not about trying to guess what the architect intended but focused on bringing participants into the business of making meaning through spatial and temporal contiguity. In this, the notion of time-lapse was part of a reciprocal relationship with spatial transition in which proximal associations were made by participants and their physical position in the building. *Transitional Spaces* involved a group of young learners in exploring the in-between spaces of the V&A, the aspects not formally presented to the public on an ‘official’ guided tour. Such spaces defy coding or fixed definition

⁴¹² Edwards, D. & Usher, R., 2003, ‘Putting Space Back on the Map of Learning’ in Edwards, D. & Usher, R. (Eds.), *Space, Curriculum and Learning*, Connecticut: Information Age Publishing, p. 4.

⁴¹³ This notion resonates with Roland Barthes’ argument that it is the subjectivity of the reader who controls a text’s unity as ‘someone who holds together in a single field all the traces by which the written text is constituted.’ Barthes, R., 1977, ‘The Death of the Author’ in Heath, S. (Ed. and trans.) *Image Music Text*, London: Fontana, p. 148.

if understood through the physical mobility and experiences of people moving through them.

We're lucky coming here innit? It's kind of scary as well man. At least there's light here. We can't work out what these holes are and what this metal pole does. There's a hole at the top of the ceiling and at the bottom of it there's another hole. There's lots of dents in the floor it must have been something quite heavy. Exactly where we are on top of it there are poles aren't there?⁴¹⁴

The project explored the proposition that participation in a tour of a national museum is not to do with trying to guess what the architect was trying to communicate but to bring our own selves into the business of making meaning. Looking at authorisation in the way people move around a building starts to unpick how interpretation can engage people in making associative meanings through their movements and also how the building evidences its own history. This may lead us to consider different types of response to a building – from literal to associative. So analogy and metaphor, associative connections, become part of our productive relationship with buildings and hence with our ability to create. Making meaning becomes an open process rather than an attempt at tying-down unknowable raw essentials.



Figure 79. 'Bandaged Artefacts,' V&A July 2006.

⁴¹⁴ Audio content for the 'Flooring Thread' in the *Transitional Spaces* tour.

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Excavating in the urban built environment can be described as finding ‘cracks in the concrete,’ a process that involves looking for transition and use in the built environment as a way of archiving the out-of-context over time. From a learning perspective, a notion of witnessing change or transition may involve collecting material evidence that connects with the social and spatial production of the built environment. As such, artefacts can be described as active in the way they are constantly recontextualised. Collecting and archiving evidence of ‘cracks in the concrete’ as touring activity needs to consider methods of recording and storing content that may invite participants to juxtapose knowledge about original context with the object out-of-context. Learning about the built environment may involve collecting material evidence that connects with the social and spatial production of the built environment.

Placing found objects in new contexts encourages us to make connections we would not normally make [...] Such potentiality opposes the autocratic architect’s pompous regimes of mono-functionality and also rejects the banality of highly flexible multi-purpose spaces designed for anything (but nothing) to happen in.⁴¹⁵

In the section on Mobile Learning I highlighted how situated learning takes place within an ‘authentic’ context and suggested that what determines authenticity of the context is very much open to debate. The two photographs in [Figure 80](#), for example, show the Gilbert Bayes Gallery 111 at the V&A Museum in London during and after refurbishment in 2005 and prompts questions around the nature of what makes for an authentic context, the finished article or of the work-in-progress. The location for this project was a building that I would argue overtly questions notions of what makes for an authentic learning environment by focusing on its ‘behind the scenes’ activities. The V&A Museum was understood as a location that could be actively produced through interactions between subjects and objects over time and in this the building became reinvented as a site for learning.

I’m going to take you to the staircase where our security man has seen a ghost. [...] We’re now at the grand staircase on the Henry Cole Wing which was once known as the suicide venue of London because people used to climb up to the top and throw themselves down. It used to be a public staircase but now it’s closed ...⁴¹⁶

The most obvious impact on the physical nature of the V&A at the time of the project was the large-scale and almost continuous construction work associated with the V&A’s 15-year plan for redeveloping the whole complex of museum buildings, called FuturePlan.

⁴¹⁵ Hill, J., 1998, *Occupying Architecture: Between the Architect and the User*, London/New York: Routledge, p. 245.

⁴¹⁶ ‘Untold Stories’ thread, *Transitional Spaces* guided tour.



Figure 80. Gilbert Bayes Gallery 111, V&A, 2005-06. Photograph: FuturePlan.



Figure 81. Hoarding, V&A, 2006.

FuturePlan was developed after consultation with different specialists, including Metaphor, who put together a masterplan for the V&A in 2000. Stephen

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Greenberg, creative director of Metaphor, described the task of developing a masterplan for the museum:

Creating a new masterplan for the V&A involves discovering the stories which can help visitors understand and explore the museum. In developing a new masterplan for the V&A – with a brief that it should be visitor-focused – we used the idea of the museum as a city to help visitors understand it. We neither imposed too simple a metaphor onto the museum, nor a story that would become a straitjacket. Cities are complicated and they change. Think of a large and complicated museum as a city and all kinds of things follow: cities have guidebooks; cities have quarters; cities work at a big level and then all the way down to the micro level – and we manage to get them into our heads and find our way around them.⁴¹⁷

While Metaphor was working on its masterplan, a team of curators, educators, project managers and design professionals were working to produce the British Galleries, which opened in 2001. These marked the beginning of the V&A's ambition to exhibit and, crucially, interpret its collections to a wider audience, now welcomed in the Government's free-access policy for national museums that started in the same year. Since then, many projects have been completed under the umbrella of FuturePlan, including the Silver Galleries (2002), the Main Entrance (2003), the Architecture Gallery (2004) and the Tunnel Entrance (2005). Some have failed to materialise, notably Daniel Libeskind's Spiral building for the contemporary collections, but still exist and impact upon the organic and responsive FuturePlan programme.⁴¹⁸

The V&A Garden, which forms the orienteering core of the museum, was a building site between autumn 2004 and summer 2005. Helen Thomas described the creative chaos of this impact on the project:

The sound and smell of huge trees in the chipper, the drilling of the concrete plinth that lay beneath them, the archaic conveyor belts and the mysterious hoardings that made a maze of the museum all inspired us to use this rich opportunity for seeing and understanding the museum in a different light.⁴¹⁹

The V&A is composed of a complex of buildings built and changed over the last 150 years. The buildings are always in a state of transition, responding to changing ideas about what museums are, and what role they play in society. In the summer of 2006 there was a grand project to transform the museum environment. The museum's objects and landscapes were being rediscovered in different ways as the museum found its way through a major redevelopment phase. What was the big plan? In July 2006 there was an interesting tension between how much of

⁴¹⁷ Greenberg, S., (2006) 'Stories without Words: V&A Masterplan.' Online. Available www.heritage365.com/articles/storieswithout-words-va-masterplan.asp (accessed February 2007).

⁴¹⁸ Helen Thomas provided much of the information for the description of Futureplan progress.

⁴¹⁹ Sprake, J. & Thomas, H., 2007, 'Transitional Spaces: Mapping Physical Change,' *JADE*, 26(2), p. 171.

Futureplan was formally presented to visitors and how much they saw, heard, touched and smelled of the transitions as they wandered the site. The site itself was dimensionally challenging with possibilities for exploring spaces from above and below ground level as well as through usually closed-off areas that became temporarily visible during construction and landscaping work. The everyday workings of this institution were exposed in unpredictable ways.



*Figure 82. The John Madjedski Garden during Construction, 2005-06.
Photograph: FuturePlan.*

The project aimed to give young learners opportunities to map transition in and around the V&A and make threads that would offer visitors to the museum a way of accessing these changes through space and time specific recordings, stored on a PDA (pocket computer). As such, the project was concerned with the workings 'behind the scenes' and young learners were involved in researching the stories, voices and histories associated with what they found from exploring these transitional spaces. The content was gathered through sketchbooks, digital voice recorders and cameras and then re-presented as an interactive tour on PDAs. As specific spaces were identified by the young people, they were 'tagged' as active hotspots on a tour. This part of the process involved 'seeding' in which researching became interactive as young learners were involved in creating content collectively that invited further incubation, cutting or development. Seeding initiated multiple

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kinds of growth opportunities and different ways of creatively researching the seeming permanence of bricks and concrete. As an interactive tour that visitors could use, the hotspots provide opportunities to listen, see, touch and explore the space in which they find themselves, at that time, on that day; actually in location rather than at a distance. The content on the PDA was presented in such a way as to invite participants to make associative connections with the spaces; rather than being given a descriptive account of changes concerning the building, visitors could form their own story from the fragments presented by the seeder group.

Both the content and way it was presented asked visitors to make their own connections through walking the site. For example, a hotspot may just be a sound recording of hollow, tapping footsteps whilst the participant is standing on a false floor. Why is the floor false? What's underneath? The questions framed offered lots of opportunities for developing the tour as a research tool, with links to recordings of experts working at the V&A.

This thread [Untold Stories] takes you into spooky stories. Imagine the museum at night when no-one is about. Can you feel the ghosts ...? Why is the 14th floor tile in the British Galleries loose? A suicide staircase and doggy graves show we're closer to the ghosts than you think ... We can also show you the everyday side of the V&A where the public can't go. Get lost with us around the backspaces of the museum ...⁴²⁰



Figure 83. Workshop 2, Transitional Spaces.

⁴²⁰ 'Untold Stories' thread, *Transitional Spaces* guided tour.

Brief

From the project background, three main ideas emerged to be explored through this project. Firstly, the project worked towards developing a digital template that would enable learners and/or teachers to seed content for an interactive tour that does not require programming or high level multi-media skills. In effect, the template was a mechanism for users to ‘drop’ different kinds of media file into a readymade framework that allowed others to record responses to this content.

Secondly, the project aimed to develop the concept of seeding initiated in *Mudlarking in Deptford*. Seeding as a research process was supported through whole group discussion sessions that enabled transfer of ideas between a range of experts and a critical reflective space for content development. Future participants on the tour would respond to the seeded content by making comparative associations with the building as they found it.

Thirdly, the idea of developing micromapping as a method that brought the concept of the urban archaeologist to tour design through an integrated series of learning activities:

- Prospecting the site – looking for evidence of change (macro scale)
- Micromapping – a method for noticing and recording details of transition (micro scale)
- Defining tour threads as emerging collections of finds
- Naming and locating spots for visitor interaction

From these ideas the following brief was devised for the group of young learners involved in the project and was presented in the first workshop:

At the moment there is a grand project to transform the museum environment. This project is called FuturePlan. You will be involved in creating an interactive trail around the V&A that tells visitors about these changes in new and different ways. You will need to find out what changes have been, and are, going on ‘behind the scenes’ at the V&A and record your findings for display on a pocket computer.

You will use micromapping techniques to explore and make your own recordings to produce image, text and audio files that make ‘spots’ on the trail. These spots invite visitors to stop, look and listen at specific locations as they make their way round the V&A ... Discovering stories that help them to explore the more hidden workings of the museum.

Process

The project was realised through a series of developmental workshops, with the outcomes from one being fed into another. In this way, learners determined both the scope and direction of each workshop through their interpretation of the learner brief. Each workshop lasted between 90 and 120 minutes.

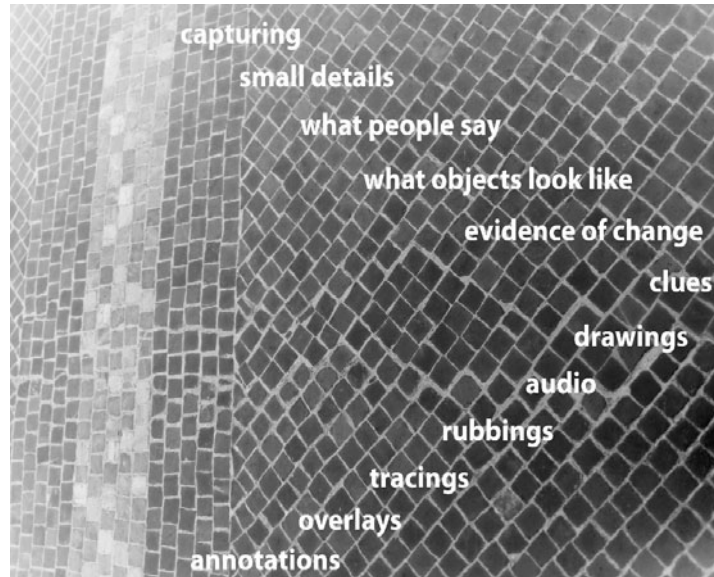


Figure 84. Learner sketchbook inserts, *Transitional Spaces*.

Workshop 1 at Pimlico School

Similarly to *Mudlarking*, the first workshop was situated in a location the learners knew well – their own school. I introduced the project brief and the method of using micromapping techniques to find evidence of change. The concept of transitional spaces was introduced through an analogy with the kind of pocket puzzle that requires the player to move squares in a frame to make a picture; one square is missing to enable the movement. The spaces at the V&A were in a state of transition, similar to the workings of this kind of puzzle – spaces constantly being shifted to make way for another development, but the final vision of the masterplan as a whole was somewhat elusive. It would only become fully apparent when realised.

With this in mind, small groups were first given the task of mapping change in the inside concourse area of Pimlico School using the micromapping method. The concourse was a huge, multi-level space at the heart of the school, which at every break-time became a seething mass of complex and ephemeral social interaction. Each group was given a micromapping toolkit that included a digital voice recorder, digital camera, drawing/casting materials, wax crayons and tracing paper, a magnifying glass and a measuring tape and was allocated an area of the concourse to map. They mapped evidence of the concourse as a transitional space – looking for different kinds of evidence that suggested kinds and scales of change, from the bell that rung at the end of session, to the peeled off layers of paint that evoked the purple concourse of the 1970s.

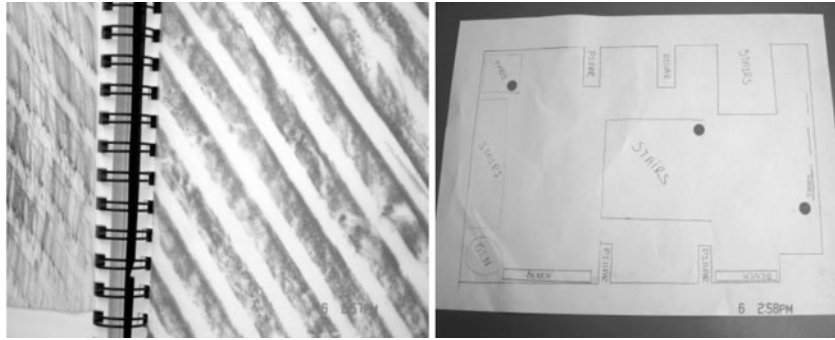


Figure 85. Workshop 1, Transitional Spaces. Photographs: Alan Bright.



Figure 86. Workshop 2, Transitional Spaces. Photograph: Alan Bright.

Workshop 2 at the V&A

The focus for this workshop was threefold:

- To find and record evidence that Futureplan was happening
- To have access to an expert's account of Futureplan
- To micromap 'behind the hoardings' of the New Medieval and Renaissance Galleries.

The workshop started with a visual presentation by the Senior Project Co-ordinator at the V&A, who gave us an overall view of FuturePlan, and then moved out into the building to explore behind the scenes. It was important that the seeder group had access to experts to ask questions but also to cut through the inevitable red tape

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of going into spaces that are not open to the public. At this stage in the process, the young co-designers of the tour were developing their micromapping skills by noticing and recording small details that evidenced spatial-material change as well as gaining a perspective on the scale of both FuturePlan and the physical location of the museum. Although the group was not split into smaller groups, they did this anyway – breaking away to record and map as they found something. Following the initial presentation researching became very mobile and led by them.

The workshop concluded with a reflection session in the learning base that had been allocated to the group for the project. Feedback on the kind of content gathered from micromapping developed into discussion on possible key themes that might structure the tour design. Following the session, photos, drawings and audio recordings were selected by Pete Rogers and me that reflected these themes. We then organised these into a short presentation to kick-off the next workshop and produced a concept for the tour design that turned the themes into threads.

Workshops 3 and 4 at the V&A

The aim of these workshops was to focus the co-designers on integrating their finds into some kind of walking tour. The threads represent a way of organising finds that can be mapped through making a series of hotspots. Small groups chose a thread to work on and were given data sheets to help them record the description and location of each hotspot. Each group marked their hotspots on a map of the V&A using colour-coded stickers and then transferred these to a project master map. The master map forms the basis for the interactive digital map when reproduced for the PDA.

Each group collected data that contributed to telling a story of their thread. An integral element in moving towards the tour design was to consider how visitors would locate and position themselves once in a hotspot area. For example, if a visitor sees hotspots in the John Madjedski garden, how do they position themselves in a large area once there? This is where they used triangulation to narrate a standpoint for the visitor and saved these on the digital voice recorders.

Technology

To build on the toolkit developed for *Mudlarking* that would be appropriate for use inside and outdoors another way of making PDAs location-sensitive needed to be developed. An option was to position sensors around the building so that content could be ‘attached’ to the fabric of the building and accessed through mobile devices. This idea was rejected as firstly the sensors would have to be placed on walls around the building and this required permission from authorities that went beyond the remit and timescale of the project. Secondly, as the redevelopment work continued so the sensors would have to be repositioned and maintained. We therefore decided that the user would activate the content by manually clicking on a ‘hotspot’ as they walked around the site. To assist participants in locating the content, the co-designers provided audio information to guide them to specific positions within a gallery or outside.

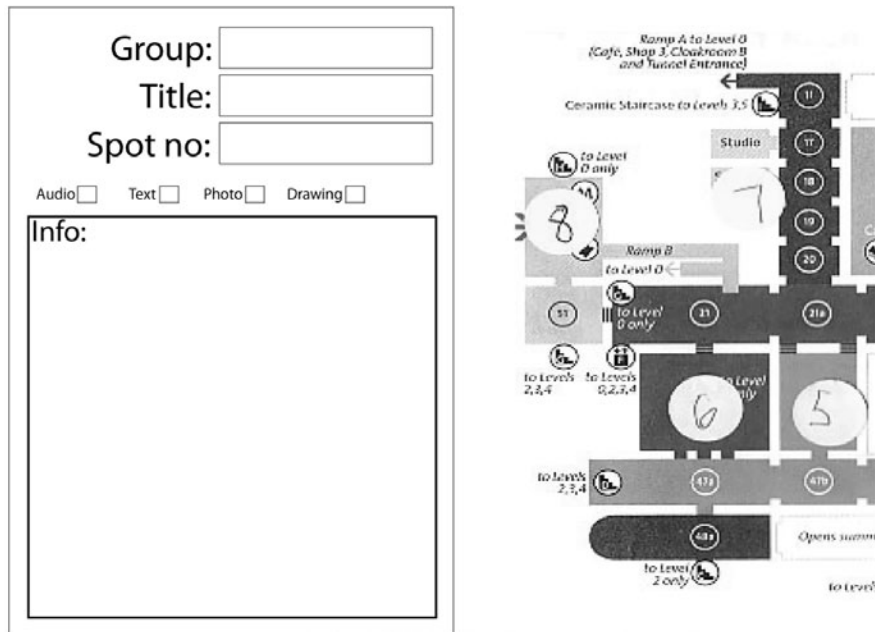


Figure 87. Workshop 3, Transitional Spaces, making hotspots.

Toolkit resources included:

- 10 x HP iPAQ rx3715 Mobile Media Companions (or PDAs) with integrated 1.2 megapixel camera, Windows Mobile operating system
- 10 x 256mb media storage cards
- *Macromedia Flash*

The *Transitional Spaces* tour had five threads created by the initial co-designer group. Subsequent participants could follow the threads that they created. The learning opportunity afforded by the technology was the ability to be in any location in and around the building and access the archive of images, audio and text content. Like *Mudlarking*, participants created their own inputs and added them to the tour, this time making connections between the 'then and now' to record what they were experiencing in that same location. In this way, the touring technology was developed to support participants in contributing to an audio-visual archive of change over time so that the notion of time-lapse became an active element in the production process. This is different from a conventional multi-

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media tour in that the threads can be added to and evolved by future participants. The narrative of the threads changes as others input their responses to what they see, hear, feel and smell around the building. This means that control over content is both dependent on participants' input and also on the transitional nature of the building itself. In this way, the tour threads are a structure for classifying and archiving change in mobile learning activities.

transitional spaces: trail design






5 THREADS	THREAD FOCUS	POSSIBLE IDEAS...
 <p>1. Posh charity shop</p>	<p>object transportation, protection 'pricelessness' unpackaged gallery</p>	<p>tags</p>
 <p>2. Flooring: true or false?</p>	<p>original floors new floors levels between floors</p>	<p>footsteps</p>
 <p>3. Sky lighting</p>	<p>gloom natural light conservation (anti-fading)</p>	<p>curators</p>
 <p>4. Untold Stories</p>	<p>oral history word of mouth annotations</p>	<p>stories</p>
 <p>5. Peeling collage</p>	<p>small details different materials peel back the layers</p>	<p>clues</p>

Figure 88. Workshop 3, Transitional Spaces, ideas for threads.

The focus for this project was also to develop a template that others (non-experts in programming) could use to make touring threads of this kind in indoor spaces that did not require the use of specialist sensors. The concept design for the template (Figure 90) works by users clicking on a hotspot to find out what options for data input are available to them and then clicking on the appropriate option (Figure 91). The template was designed for creating tours on mobile devices using a Mobile Windows operating system. As the hotspots are user-activated the template can be used to design tours both indoors and outdoors.

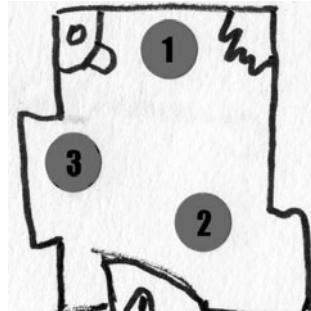


Figure 89. Hotspot concept. Drawing, *Transitional Spaces*: Peter Rogers, June 2006.



Figure 90. User input options, *Transitional Spaces*. Peter Rogers, June 2006.



Figure 91. Text option, *Transitional Spaces*. Peter Rogers, June 2006.

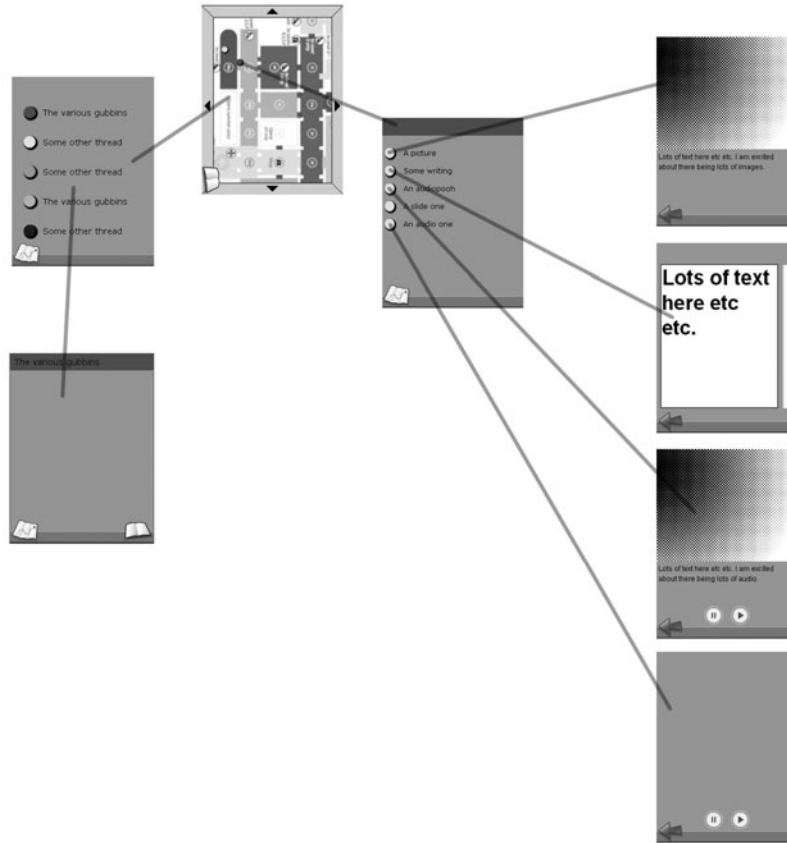


Figure 92. Overview of template for designing a PDA-based tour, Transitional Spaces.

The template was created using Flash Macromedia software for Windows Mobile operating system on a PDA and was developed throughout this project. Users are provided with a series of pages that support them in producing content for threads on a tour of a location in which the content is accessed via positioned hotspots. Each thread is described on a colour-coded ‘intro page.’ Users can combine text with audio or images as well as creating pages that are audio or image only. The concept works in practice by participants in the tour clicking on any hotspot on the homepage to open up the thread options. The map can be scrolled in four directions to cover different levels of the building. A single click on a hotspot opens up the data available for that hotspot (from a combination of picture, text and audio). Participants return to the homepage map by clicking on the open book symbol.

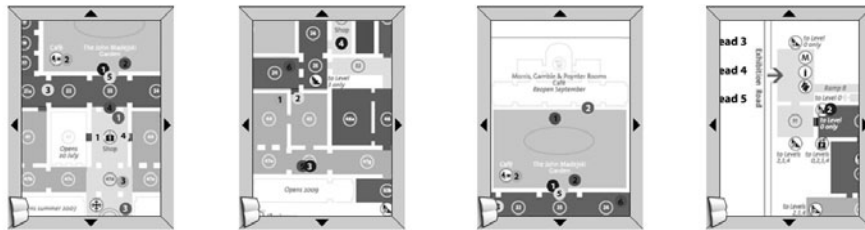


Figure 93. Screen grabs showing the scrolled homepage, *Transitional Spaces*.

Outcome

The *Transitional Spaces* guided tour pages were produced for five threads: ‘Material Collage,’ ‘Flooring,’ ‘Lighting,’ ‘Posh Charity Shop’ and ‘Untold Stories.’ The data collected was presented as pages on a set of PDAs.

Key Findings

There were a few things that we found out during the course of the project that can be drawn together to define general guidelines for preparing young learners to actively explore a museum.⁴²¹ Holding the first session at their school was effective. Using a known environment as a starting-point enabled them to grasp the fundamental aim of the project, which was to learn to look at their physical environment and understand it as a dynamic situation that they are part of, rather than a pre-established immutable reality. This pre-visit workshop also meant that the group arrived at the museum with a set of expectations; they already knew what they were looking for, and had some idea of how they were going to ‘find the cracks’ by micromapping. This also gave them a sense of ownership of their experience of the museum from the very beginning.

The special way that the young people engaged with the museum as a place was enhanced by their multiple visits. The confidence that they developed about being in the museum environment meant that their work could be developmental. Each small group had chosen a perspective on the main idea, a thread, for their work at the museum in response to the micromapping activities. The accumulation of visits gave them an opportunity to respond to and reflect upon what they found at the museum within the parameters of their thread on their own terms. As they developed their work over the three visits by responding to what they had already found, they were able to lead their own learning.

⁴²¹ Findings concerning young people visiting the museum are attributed to Helen Thomas.

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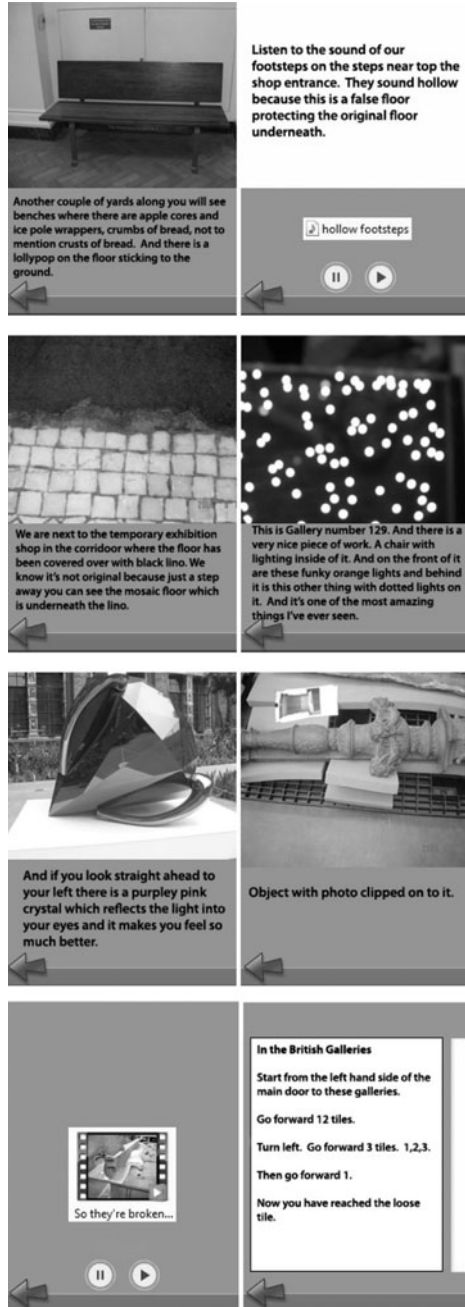


Figure 94. Sample of pages from the Transitional Spaces tour.

As a starting-point, the young people were provided with a visual and factual framework of knowledge about the museum, specifically the history of the buildings and the ambitions of FuturePlan. The parameters of their work in relation to this knowledge were defined by the brief for the process of gathering evidence of the museum in transition, for their own PDA-based tour. We were asking them to take on board the vast and potentially overwhelming total museum environment; these clearly defined parameters enabled the young people to do that in a focused way. Our aim was to provide a situation where each young person, in negotiation with their group, could be led by their curiosity to make their own route through the project and, literally, the museum.

The project explored how the kinds of tools used to find, record, store and display evidence of change may affect what is collected and how it is interpreted by others. The co-designers were given a toolkit for capturing transition that included both non-digital and digital tools and understood how the PDA could be used by others to present their data in specific locations after a lapse in time. Micromapping was developed as a research method that could be applied to exploring the transitional nature of an institutional building through the use of the toolkit. The young learners used crayon rubbings and plasticine castings as well as voice recorders and cameras to capture evidence of transition, both material and change through use. Understanding how mobile devices may support participants on a tour in accessing and producing content both inside and outside a building was very much influenced by the portable and personal nature of mobile devices; the content is mobile and can be added to by the user in a building in which people movement and behaviour is authoritatively managed.

This project investigated how threading may be used to structure bodily movement on a tour. In this project the co-designer group made threads and then developed content for hotspots. That differed from *Mudlarking* where threads were produced by future participants. In this way, *Transitional Spaces* explored how threads could be signposted by hotspots and in following these future participants could evolve the content for the threads by adding their own hotspots in making new trails. The concept of signposting evidence of transition in and around an institutional building can be applied to other kinds of environment that present a challenge in this way. Opportunities for future participants to make connections between similar objects located in different threads was explored through the project; an image of floor tiles together with audio describing the women prisoners who made the floor in one thread may be connected with counting floor tiles in relation to a ghost story in another thread depending on the choices and movements made by the participant.

A somewhat unexpected finding was the young learners' response to the need for low level illumination in certain galleries at the V&A. The thread on lighting in particular indicates that they 'noticed' objects because of the 'gloom' rather than in spite of it. Understanding the necessity for specialised lighting for protection of textiles, for example, prompted some of the young people to notice everyday light sources in other spaces.

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The initial data for the tour was recorded and collected using a variety of digital and non-digital tools. When producing the material for uploading to a PDA-based tour, the co-designers made decisions on what would be selected according to the options available on the template and this created an editing process for their work. The group also agreed to attach only one data file to a hotspot as they thought that this would encourage future participants to walk between different positions in a relatively small area in the museum rather than stand still and access all of the content related to that location in one go.

Reflections

The productive concept that has informed development of micromapping in practice is ‘making the seemingly invisible, visible’ drawn from the section on Learning through Buildings in Part One. Micromapping involves making detailed recordings of transition in the built environment and piecing together these fragmented finds into threads for a tour. The recordings are made using a handheld toolkit that includes both digital and non-digital tools. For example, recordings made by taking rubbings using wax crayons and paper, castings using plasticine and digital voice recorders to capture sounds. Using digital technologies to organise and share these recordings allows data to be layered and communicated in non-linear ways.

Reflecting on finds made involves participants in mapping those recordings to identify threads of enquiry into a building or area by moving through a process of enquiry, from making literal descriptions to making imaginative associations. This process develops what might be meant by learning-enabled buildings; the idea that a thread may be a personal and/or public repository for personal collections that may be evolved through participants tagging finds with location and date information so that others can identify when and where the find was made. This process also enables finds to be layered over time and across locations.

Providing opportunities for these young learners to identify relations between the space they were experiencing by producing content for a tour that works on a notion of ‘out of context’ involved them in questioning what makes an ‘authentic’ context. Noticing difference or ‘out of context’ may thus engage deeper thinking if connections with ‘original’ context are made and applied to understanding the transitional nature of buildings. When activated, hotspots provide a method for sensing anomalies ‘below the surface.’ The given ‘surface’ may be populated by hotspots that when activated using a mobile device whilst in a specific location can provide opportunities for finding anomalies against the expected given. Making connections between the current location and these anomalies provides opportunities for learning about the transitional nature of the built environment. The concept of ‘accelerated archaeology’ described in Learning through Buildings suggests that buildings exposed in unusual ways could be argued to ‘speed up’ processes of decay. In this project, fragmentary finds were recorded and stored as threads that evidenced transitional elements of an institutional national museum. The extent of material exposure of the building can be linked to the kinds of

movement made by the co-designers around the building. Having been given a brief, 'Find FuturePlan' they were able to make connections between the notion of a strategic masterplan and small scale, detailed observations.

Detecting anomalies as a practical method for participants to find and record transition is centred on participants learning through understanding how out-of-context is related to knowledge about original context and that these are subjectively determined constructs. Plotting anomalies on a map provided opportunities for reflecting on clusters and densities of finds, distances between finds and proximities of threads to make interesting and important combinations of fragments. Learning-enabled buildings may thus be described in the ways in which they provide opportunities for learning about transition in which the seemingly invisible is made visible. Another dimension to this concept is other participants who follow the tour at later dates can use the tour-guide as a tool for making connections between original context and out of context to understand the continual nature of flux and change of a building.

CHAPTER 6

GROUND UNTRUTHING

The productive concept that has principally informed development of ground untruthing in practice is the critical tour guide drawn from the section on Traits of the Tour and Tour-Guide. In this section, the critical guiding practices of Wrights & Sites, Tim Brennan and PLATFORM provided rich material for exploring how new kinds of participation in tours might involve people in witnessing or feeling ‘the weight of things and one’s own place in them.’⁴²² In contemporary tours we might describe witnessing ‘with your own eyes’ as a form of topographical surveying that involves moving between small, detailed finds and larger-scale overviews of a place. Mobility enables shifts in perspective and opportunities for making new meanings in a ‘ground level’ approach to learning. How can participants be active in changing specific spaces by performing as critical tour-guides who disrupt the perceived order of things?

Ground untruthing started as an antidote to GPS imaging linked with the term ‘ground truthing.’⁴²³ ‘Ground truthing’ describes a method for calibrating surface data collection (such as materials, human activity, environment samples) with satellite images of the area being studied. The ‘distance between’ the satellite image and ground level data is used as a space to calibrate both sets of data in order to make the analysis as ‘truthful’ or accurate as possible. The resulting images can be colour enhanced to show different levels or regions of activity and elevation images can also be drawn using radar sensing technology. In 2004, the following news report indicated the then potential for ‘ground truthing’:

The U.S. Army is creating a simulated, virtual Earth with the help of gaming company There, which is currently working on a virtual world for gamers. The Army’s virtual planet will be drawn to scale from a real-world terrain database. Senior VP Robert Gehorsam says the military model will offer a “massively multi-user persistent environment” that will mimic real world physics as closely as possible [...] Future plans call for mapping out the entire planet in realistic detail, but currently the only area modelled in any detail is part of Kuwait City.⁴²⁴

This interpretation of ground level ‘truth’ is based on determining a picture of ground level activity at a particular time and set of geographic co-ordinates using calibration with pixels captured using the same co-ordinates on the satellite image. Margins for error such as atmospheric interference are built into the system to

⁴²² Etchells, T., 1998, ‘Valuable Spaces: New performance in the 1990s’ in Childs, N. & Walwin, J., *A Split Second of Paradise*, London: Rivers Oram Press, pp. 33 and 35.

⁴²³ A more detailed explanation of the contexts in which ground truth is used can be found online at http://en.wikipedia.org/wiki/Ground_truth (accessed on July 2007).

⁴²⁴ Online. Available <http://news.bbc.co.uk/1/hi/technology/3507531.stm> (accessed February 2004).

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maintain a high level of accuracy. Thus, a commander in Baghdad planning a convoy to Fallujah can learn in near-real-time of any recent insurgent activity along his/her planned route, without waiting for an intelligence officer to produce a report days later based on what would be stale information at that time.⁴²⁵

The method I developed is based on the principle that ‘ground truth’ is always open to subjective interpretation and contestation depending on the author and the frame through which the analysis has been set and who conducted it. Ground *untruthing* develops skills of critical enquiry through negotiating and debating perceived ‘truths’ about a place. Surveying an area of land to make it visible and intelligible through a process of rationalisation could be argued to be a never-ending task as the real world is in a state of constant flux and change. The idea of learning about a place by surveying it as a critical enquiry or ground untruthing informs the construction of topographical representations of urban landscapes. The following project, *Cracking Maps at the British Library*, develops ground untruthing as a method in practice.

CRACKING MAPS AT THE BRITISH LIBRARY

Introduction

This project focused on the design of mobile learning activities that explored relations between the critical tour-guide and haptic learning. *Cracking Maps at the British Library* was conceived and delivered by myself working in a partnership with Peter Rogers and artist educator Lottie Child to explore how the body can be active in mapping and critiquing the built environment. The project proposed a range of guides that developed skills in using the body to orientate by questioning two-dimensional map data and developing surveying methods based on ‘staging authenticity’ in the British Library building and environs. The project also explored how basic audio technology may be utilised as a disruptive tool.

Following a presentation of *Mudlarking* at the Handheld Learning conference⁴²⁶ in November 2005, Rebecca Sinker invited me to work with Lottie Child at the British Library to develop a project with a group of 14-15 year old young people studying Geography at South Camden Community School. With the Learning Department, we agreed several objectives that would guide development of the project over a four month period from October 2006 to January 2007, culminating in a sound and image exhibit at *London: A Life in Maps*. Our main objectives were to:

- Make risk an integral element of physical exploration of the building to connect personal and public spaces
- Use experts and resources at the British Library to create content for a sound and image portal at the exhibition

⁴²⁵ ‘Distributing “Ground Truth” Throughout the Battlespace.’ Online. Available www.progress.com/realtime (accessed June 2007).

⁴²⁶ Handheld Learning Conference, Goldsmiths, University of London, November 2005.

- Deconstruct and reproduce maps by engaging participants in physical activities and audio mapping
- Develop new approaches to guiding by blending elements of innovative practice from psychogeography, participatory learning, locative technologies and mobile new media

Together, we identified opportunities for learning that would enhance what it meant to be a ‘young explorer’ working on this project. These included specific practical skills as well as developing personal learning and thinking skills (Table).

Table 1. Summary of learning opportunities in cracking maps.

Practical	<p>Navigation and orientation skills – through exploring the local environment</p> <p>Creative skills – developing ideas, concepts, stories, site-specific and interactive sound works</p> <p>Technical skills – in the use of GPS units, digital camera and sound recording equipment</p> <p>Research skills – using the British Library, local resources and the Internet</p> <p>Physical movements - through the built environment that shuffle pre-existing hierarchies in order for participants to connect in a variety of ways, challenging the usual power dynamics between adults and young people, teachers and learners, producers and consumers</p>
Personal learning	<p>Making cross-curricular links – involving geography, art, history, citizenship and other subjects</p> <p>Widening horizons – through working with artists, researchers, the British Library and cutting-edge technology</p> <p>Building confidence and self-esteem – by working collaboratively and individually, valuing young peoples’ own ideas and supporting their creative practice, in a public space</p> <p>Kinaesthetic and spatial ways of knowing – through turning graphic maps into multidimensional sound narratives</p> <p>Experiential modes of engagement – developing confidence to crack codes of interpretation through social exchange</p>
Thinking	<p>Problem solving, devising clues and instructions, exploring new avenues for autonomous enquiry and investigation</p>

Background

Topographical data may be defined as spatial information that has geographic coordinates to describe ground elevations with respect to a datum (for example, mean sea level). Topographical data usually refers to information about the surface of the earth (for example, contours) and features on it such as infrastructure and drainage. Topographic surveying is done in a variety of ways from traditional theodolite methods to current methods of differential GPS, laser-ranging and LiDAR (Light Detection and Ranging).⁴²⁷ Focus on visualisation means that non-physical features such as noise, smells, pollution or radioactive waves are not selected for representation on topographic survey sheets and information about how or why features are selected are not presented on the sheet. Geographer Denis Wood uses the phrase ‘it depends on your point of listening’ to suggest that the ‘comprehensive’ or taken-for-granted features of a topographical survey sheet are open to discourse both in what is selected and in what is left out of the map.⁴²⁸



Figure 95. Detail of London Bridge taken from Hollar's *Long View*. Online. Available www.museumoflondon.org.uk/learning/features_facts/world_city_3.html (accessed August 2008).

I had the opportunity to examine Wenceslaus Hollar's *Long View of London from Bankside, 1647*, an etching that was being prepared for exhibition at the British Library. The detail of the panorama or 'prospect' drawn from the steeple of

⁴²⁷ Liu, J.G. & Mason, P.J., 2009, *Essential Image Processing and GIS for Remote Sensing*, London: Wiley & Sons.

⁴²⁸ Wood, D., 1992, *The Power of Maps*, New York: The Guilford Press, p. 87.

St Mary's Church in Bermondsey prompted me to think about how we view the city from near and far, and how we constantly shift between these perspectives.

It may have been that Hollar's sight differed so much in his two eyes that he did not have binocular vision, and effectively used only one eye or the other at any given moment. What is self-evident is that, by one shift or another, he did achieve amazing clarity both for distant scenes and for minute things close at hand ...⁴²⁹

Film theorist Giuliana Bruno alludes to a 'unifying and totalising concept' of such representations that are 'produced by a distant eye.'

All too often, mapping tends to be dismissed as a commanding, hegemonic instrument. Yet to persist in this position is to risk producing a notion of mapping that is restricted, placed wholly in the service of domination. What remains obscured are the nuanced representational edges of cartography, the diversity of cartographic practices, and the varied potentials of different mapping processes, including such tactics as transformative "partial" mappings, which resist a univocal and totalizing vision.⁴³⁰

In her introduction to an exploration of cartography Bruno suggests that motion or movement disrupts a notion of maps as static, singular viewpoints instead opening up thinking about ways in which to experience urban topography that are affected by 'motion of emotion.' In this the term 'affect' can be taken to mean 'touch,' to be affected is to be touched, and movement is characterised by haptic engagement. Bruno thus explores '*emotional*' mapping in relation to developing a notion of film as a 'modern cartography' in which motion transforms 'site-seeing pictures' into 'a geography of lived, and living space.'⁴³¹ Using bodily movement to make 'partial mappings' of the British Library building would involve learning alternative ways of 'being in touch' with its spaces.

The location of this project, the main building of the British Library on Euston Road, London, is a national institution that provides access to '14 million books, 920,000 journal and newspaper titles, 58 million patents, 3 million sound recordings, and so much more.'⁴³² Visitors are provided with a leaflet guide to the British Library that indicates the facilities and reading rooms available for the public to use on each level of the building. There are several storeys below ground level that house a major part of the British Library collection that are not open to the public. Working with a group of young learners meant that we did not have general access to the reading rooms but were provided with a room designated for 'learning' and were given special permission to visit one of the text restoration rooms normally closed to the public.

⁴²⁹ Tindall, G., 2003, *The Man Who Drew London*, London: Pimlico, p. 93.

⁴³⁰ Bruno, G., 2002, *Atlas of Emotion*, London/New York: Verso, p. 207.

⁴³¹ Bruno, *Atlas of Emotion*, pp. 8-9.

⁴³² Online. Available <http://www.bl.uk> (accessed October 2008).



Figure 96. Exterior and interior of the British Library. Photographs: BL Press Office.

Two concepts emerged through partnership discussions and a walk around the British Library. The first of these was linking the notion of a guide to a building with ‘urban street training.’⁴³³ This concept involved using awareness of personal physical movement to create different kinds of spaces in the building. As we walked around the building and piazza ‘urban street training,’ a method for teaching and practising creative movement through the built environment (for example jumping on bollards and swinging on railings), was demonstrated to explore notions of risk in urban guiding practices that connect personal and public spaces and to develop the concept of an unofficial tour guide.

Street Training is... Being aware of the effects our thoughts and behaviour have on our surroundings and making use of this knowledge. It’s all and any of the joyful, funny, poetic, challenging things people do as we move through the streets. Everyone does something over and above just walking down the street with their walking-down-the street face on, going shopping and going to work. These things slip through the cracks in most big cities but the personal playful, joyful, subversive things we do make a difference to us, to other people and to places.⁴³⁴

The second key idea focused on ‘triangulation.’ Being able to locate yourself through triangulation is a process that works on the inverse of global positioning satellite technology in that it is the self who locates three reference points in order to locate a position, looking outwards. Objects are therefore subjectively chosen

⁴³³ Lottie Child has developed the concept of urban street training in several projects and events. Online. Available <http://malinky.org/wikka.php?wakka=HomePage> (accessed October 2008).

⁴³⁴ Online. Available <http://www.streettraining.org> (accessed January 2011).

and referenced using local knowledge. This project experimented with triangulation as a method for locating one's self in the urban built environment and developing this into a set of simple instructions for wider use.

Brief

This project is underpinned by the notion that urban space is in perpetual transformation through personal experience of it and through it. The map is therefore always open to interpretation, contestation and is not an infallible construct. This project aims to develop multi-sensory mapping processes through building a critical and creative research methodology that opens up opportunities for learning by producing content for a sound and image portal at the *London in Maps* exhibition at the British Library. A series of intensive workshops involving a group of young learners from South Camden Community School and artist/architecture educators will facilitate production of content for the sound and image portal by exploring the British Library building and environs in new, different and 'unofficial' ways. Outcomes from these workshops will feed into activities for a *Cracking Maps* manual that provides information on using these methods for public participation and also into the Learning programme of workshops and events at the British Library.

Learning opportunities were built into the mapping processes and content production for an alternative guide to the British Library. This project focused on learning through making subjective interpretations of a building and its environs, specifically using and developing the method of 'ground untruthing.'

Process

All of the workshops were located at the British Library and took place between 4.30pm and 6.00pm. A group of 17 young learners from South Camden Community School and their Geography teacher took part in the workshops which were designed to both produce content for the sound and image portal at the exhibition and also to test out activities and methods that contributed to the *Cracking Maps* manual and future British Library Learning workshops and events.

Workshop 1: 'The Unofficial Guide'

The main aim of this workshop was to introduce the group to the different ways in which the British Library building may be perceived, both psychologically and through physical movement and how this may contribute to the ways in which a building is presented in a guide for visitors. The group was welcomed to the learning room by artist Lottie Child who was positioned under a table. She asked them to join her whilst she explained that they would be going for a walk around the building. The group was then asked to follow her out of the room and they moved around the Library. Group members were invited to introduce themselves within a space of their choice. For example, one member of the group made his introduction from one of the computer pods on the first floor and another made her

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introduction from the cafe counter. The group thus introduced themselves in relation to specific spaces. Having done this, they listened to an audio recording of a person who works at the Library describing two routes she takes to her office from the front door; one was a usual route and the other an occasional route.

Lottie: I'm standing next to the front entrance with Ria and she is going to describe her usual route. The route that she takes most often from the front entrance of the British Library down to her office. Over to you Ria.

Ria: Normally as soon as I walk in the front entrance I immediately look to my right and look to see the staff on the information desk and look to see if there is anyone that I know and say 'hi' to. But if not then I walk left and I always walk through the exhibitions. Partly because I think it's a nicer route because you get to see the exhibition and see who's in there and also because I think it's quicker even though most people disagree with me and I have raced people on occasions and have found my route is quicker. I am just walking through the exhibition now. The exhibition gallery at the moment is dark. There is nothing in there but I always have a look in anyway. It's a changing space especially when an exhibition's just finished and one is about to start. I then walk down the stairs into the lower ground floor part of the exhibition and have a look who is around. I'm quite moody. Then I turn left past the toilets which are just outside the entrance to my office and then I always look right which is where our storage trolleys are. If we have any learning groups they use the trolleys to put their things away. I just think of it as my little space because I am often there with groups and stuff and that's where our resources are. I have a quick look there to see if anyone's there and when you get to the entrance to our office there are two sets of double doors. Again most people use the left doors but I use the right hand doors. Hear the beep. That's my path. I often call this the asylum route because all the walls are quite white and it's quite clinical and it's quite a contrast to being outside. I always walk through this way which I think is more of a direct route whereas the doors that other people in my office take is more of a windy (as in twisty) route but this feels that once I have turned the corner I am on that path and almost at my office which is always a joy and then just turning at the end of the corridor and turn right and again use my pass to get through the double doors and I'm almost here.

Lottie: I'm standing next to Ria at the front entrance and we are going to do Ria's second route – that's a completely different way of going – and I'll pass over to her.

Ria: I suppose that I normally do this second route if I come in first thing in the morning. I normally come in through the staff entrance but if I, for whatever reason, come in this way I always go this route. So again starting from the main entrance I walk through but this time I actually walk past the information desk and again I always look across to see if any of my friends are on the desk. If they are I'll wave. Then I walk past the fountain which is

quite a nice thing to see and walk down a longish kind of corridor. Then I walk down the steps and as soon as I'm down here I'm on the lower ground floor which is the floor that my office is on and I walk to the Education Room. One thing I always, always do when I walk past the Education Room is to, even from afar, you can see if it is properly locked or not so I always double check that it is locked because ever since we had our data projector stolen I'm always super cautious. I'm always more aware that since we had our projector stolen and they showed us the CCTV footage I'm always more aware that when I'm there I'm being watched which I was never aware of before. Then I take the door just to the left of the Education Room which is a little bit of a rabbit warren of a route. I normally go this way because first thing in the morning I need to sign out a key from the key room. That's why I go this kind of windy route. It's not the nicest route because again it's all very clinical and white and it's got that horrible strip lighting and that's just a bit quicker route and if you are in a rush you are less likely to bump into people so it will stop you getting distracted. Well it will stop me getting distracted because I like to chat to people. Then you go past the Bookshop, past their storage cupboard, and again we are back where we were on the previous route where we turn left down a really long corridor at the end of which leads to my office. So it's just straight down. There's nothing really to distract you so it's quite boring just white walls and grey floors. Now we are at the double doors again and we're back to my office.

The group discussed the different perceptions of the building raised by the recordings also focusing on how each of them visualised the spaces she was describing differently. They then listened to another audio recording, this time of Lottie describing her movements around the building using 'urban street training.'

Lottie: Walk out of the Education Room and notice the bricks that are separate and different to the marble on the floor, walk towards the lift, press the button to call the lift and while you are waiting try and balance on the line of metal that is inlaid in front of the lifts. When the lift doors open go into the first one that opens and jump into it. Once you are inside have a look at the buttons. There are some buttons on the left and the right. Don't press any just stand in the lift and put your left leg onto the leather handrail. Obviously if there is someone else in the lift you might not be able to do this. Try and touch your toes. Then put your other foot on the bar with the leather and try and touch your toes as well. Wait for the doors to open. If they don't, just press the 'door open' button. Walk out of the lift. When you walk out of the lift you will see a set of stairs to your right. Head towards those stairs. They have got railings on both sides. Again see if you can get your leg onto one of the railings. Maybe you can reach both railings and see if they will take your weight and try and jump off the ground. Carry on up the stairs, two at a time, until you get to the 'Phil' sign. You walk past the Business and IP Centre on the first floor. Here you will see the place where lots of people stand, sit, or work on their laptops. Walk past all the people with their laptops. They will

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be on the right hand side until you get to the escalator. Go down the escalator. While you are going down the escalator grip onto the handrails with both hands and see if you can take your whole weight on your arms and swing your legs. Be very careful because it could mean that you hurt yourself so do it very slowly and very gently. At the end of the escalator hold onto both sides and jump off. Then you can go back up the escalator again and try it on the up escalator. Holding onto both handrails simultaneously and lifting up your legs and swinging them. Careful when you do this. At the top of the escalator turn left and you will find a table with some strange design chairs. They are kind of leaning pods that someone might be leaning. Have a try stand on them and lean against them and see if that's a comfortable way to hang out. When you have finished doing that, turn around and go up the stairs behind you which leads up to Manuscripts. Again take the stairs two at a time or three or four depending on how long your legs are. When you get to the top of the stairs you will see on your right hand side there is a brass handrail and a little marble area so you need to try and see if you can get onto that area somehow and just sit there for a minute and maybe try and strike a pose like the kind of statue that might be usually displayed in an area like this. In fact if you look over to your right you will see an oil painting of a man who you might like to emulate or further down in the corridor there is a marble bust of a man who also looks like the kind of person you might want to do. Perhaps strike a pose like that person.

The group were then given digital voice recorders and were asked to make an alternative guide to 'finding your way around the British Library' that focused on their own perceptions of spaces they selected and described in the building. The group made an unofficial guide to 'finding your way around the British Library' and the group discussion following this activity produced a set of guidelines for making your own 'unofficial' audio guide. The following transcription is one group's audio content for their unofficial guide made by recording their ideas using a digital voice recorder as they moved around the building:

[Recording of lift announcement] Floor 3. Maps, Asian and African Studies.

After Asian and African Studies we go straight out of the lift on the left and left again. Just above the doorway it reads 'Asian and African Studies.' Push the door. We need a pass. There is a sign out there which says you need a pass. We walk out of the room as we don't have a pass. Let me give you a tip for next time – don't storm into any rooms.

I reach my left arm up. I control the fountain. I press the button. (sound of water). Put your left leg on the metal bar at the bottom of the sign. Take a couple of steps forward and turn to your right. You will see a cash machine. Try and press the numbers on the cash machine (sound of buttons being pressed). Stop and touch the opposite bar with your left foot and see on the wall on your right a light – touch it and try and not burn your hand. Go up the stairs and jump on every step. (sound of jumping on steps). You are at the top

and go towards where you can smell coffee. The smell of coffee is getting weaker.

We are outside the Asian and African Studies on floor three. We are going to walk down the stairs to the second floor. We are going to make our way to the Business and IP Centre on the second floor. We are going to enter the room. We do not have a pass. Then we turn right out after attempting to get into the Business and IP Centre on floor two. We walk to the right and straight ahead touching the shiny gold railings. Then we will carry on straight until we see a tall looking... And... We turn left into the gold toilets which we enter. We watch the shiny reflective mirrors which we don't like looking back at us. The lights are turned off so we run out. On the second floor past another drinking fountain. You want another drink? It is nice and cold and tastes good. Why are there cones? Because they are paper and cheap.

Now up the shiny gold stairs. The light things on the side makes you feel like an actress going up onto the stage. Towards the common room. Are we allowed to go in there? We'll walk straight into the maps room. Ask if we're allowed in. You need a pass to go in there. Usually there is a man praying on the floor. It's not a great feeling when you don't have a pass. We've been kicked out again so we are going back down the stairs. Turn and look at the pictures which amazingly remind us of Roshan.

There are many places in the British Library where we are not allowed to enter because we need passes and we are not seventeen unfortunately but I am the closest to being seventeen. I like talking a lot. Let's go towards the escalators which are straight ahead. Now we are going down the escalators, not elevator, which are really slim by the way – not good for fat people, no offence, and go and see the water fountain, not the one you drink from. Turn left in front of the water fountain which is a round flat disk with water coming out on top of it. The water is really warm but me and Lisa can't reach because our arms are too short.

Figure 97 visualises some of the ways in which the group translated their ideas into instructions for an alternative guide accompanied an audio recording:

You can use your voice and bodies to produce a different kind of map. In this activity we are roving the British Library and recording what we notice to create this new guide to the building. Our guide shows that everyone has a different perspective, voices have a personality and everyone takes different journeys. We negotiated the 'don't go' and the 'shush-ness' as we discovered and tested the boundaries.

Finding your way might include:

Running up the down escalator

Trying to get into the reading rooms without a pass (not a good feeling!)

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Turning the lights off in the toilets (just to see...)

Noticing the pictures on the wall (there are pictures of Asian people!)

Trying the locks on no-go areas

Stumbling upon people praying in the corners of the building



Figure 97. Finding your way around the British Library, Cracking Maps.

An audio narration recording was then made to guide the activity:

Finding Your Way Around the British Library helps to develop awareness of how we move through the built environment and invites you to have fun highlighting the very constrained behavior we consider to be normal in public places by gently pushing its boundaries. As we move through a location we have an impact on it, this activity records those movements. Listen to the first sound file. This is a subjective audio map made by a person who works inside the public space of the British Library describing a familiar route. She knows the place really well and so this is an account of what she does every day. Making the recording, however, meant that she noticed it in a new way. The second sound file is an audio guide for visitors to the British Library asking them to actively engage with the people and the infrastructure in a different way from the usual map. These young people provide instructions for exploring space by occupying it actively in different ways.

Begin this activity by asking a group to meet you in an unusual space in your building for making an introduction – it could be under a table, it could be by the dustbins outside or it could be outside the manager’s office. This is an exercise in exploring and occupying space, an opportunity to see how different spaces feel and what it feels like to go there, take up space and occupy it for no other reason than being there.

Make a voice recording of a familiar route, describing the things you notice as you walk to your destination. Then make another recording as you engage more directly with the site investigating its particular characteristics, exploring things that you have never taken the time to explore and intervening with the dynamics, people and or objects that you notice. You could be responding to an event you have witnessed there, a change in its workings, a concern or curiosity about some aspect of the location. This recording could be made in the form of a set of instructions in order to lead another person into deeper engagement with this place.

Note that in highly authorised spaces such as an art gallery, shopping centre, library or school, actively engaged behaviour may bring to your attention controls and constraints that were previously invisible.

Workshop 2: ‘Keying into King’s Cross’

The main aim of this workshop was to interrogate Charles Booth’s ‘poverty map’ and apply issues raised through this to a contemporary mapping of the King’s Cross area (the local environs of the British Library building on St Pancras Road).

The first activity involved small groups being given digital cameras and going out and about into the environs of the British Library building to take photographs. They were given the task of taking two photographs that showed positive things about the area and two photographs that reflected negative aspects. On return, these photographs were collated and shared to find out what group members perceived to

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be positive and negative. Sound bites from the discussion were superimposed on to the images to create a collection of ‘postcards’ that reflected perceptions of the area at that time (Figure 98).



Figure 98. Examples of ‘postcards,’ *Cracking Maps*.

An audio recording was made to accompany this ‘photo survey’ for the portal at the exhibition:

Form a group and nominate one person as the mapmaker. The mapmaker arranges a blog or a web space for the group survey. It is important that there is an online space for the group to share views and opinions. Agree the boundaries of the area you want to survey. Go out and take FOUR photos using your mobile phone or digital camera – two positive and two negative. Try to use all of your senses in choosing what you record. Tag each photo saying what you chose and why. Upload your photos to the blog/web space – and start your discussion with the rest of the group. These photos will reflect personal views about the *quality* of a location. This is a good way to initiate heated debate about what matters to different people.

The second activity in workshop 2 involved the group in discussing the map key used by Charles Booth to colour code economic values to areas of London in 1888-

89. The following transcription of the discussion highlights the issues concerning assigning values to a place raised by the group:

Juliet: What has this map maker used to code the map? Someone over here said colour, that he's used colour to code the map, to categorise them. Good. What kind of colours has he used?

Learner 1: Gold is rich.

Juliet: And what might be at the other end of the scale?

All: Black.

Juliet: Perhaps this signifies that black is poor and gold is very rich. What can you say about the colours in between?

Learner 2: They are more light colours. They are not as bold as blue like upper class.

Juliet: Someone said something about class here. What does he call it? Lowest class, vicious, semi-criminal.

Learner 3: Their life was the life of savages and their only luxury is drink.

Juliet: What about earnings exceed thirty shillings per week in this class? They are usually paid for responsibility and are men of good character and much intelligence.

Learner 3: Middle class and comfortable and those who have inherited money.

Lottie: What are your reactions to this?

Learner 4: It's all about the working class.

Juliet: Is it a positive or negative map?

Learner 5: It might be used to show where there are problems.

Learner 6: No-one says it anymore. Don't go here or don't go there.

Learner 7: Don't go to Hackney it might be dangerous. They don't actually live there but hear about someone being killed. Some people from outside of Camden think it's a really dangerous area but when you live here you have a different view of it.

Juliet: It's a good point to know how to behave, which streets to walk down and which not to walk down. That's a skill you can draw on when you go out into the streets and start colour coding things with your own views.

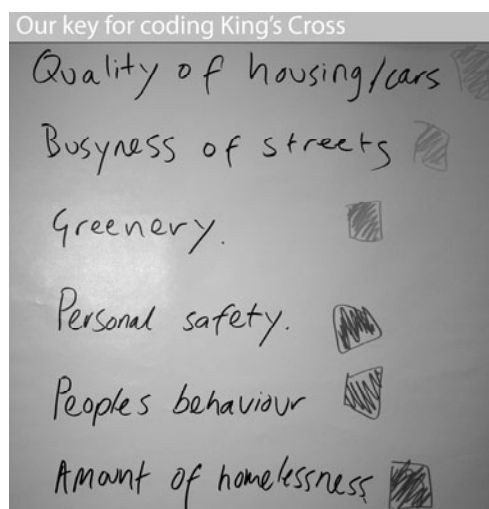


Figure 99. Coding King's Cross, *Cracking Maps*.

The groups then went out into the local area with a section of an A-Z map and were asked to colour it in according to the code they had agreed to conclude the discussion (Figure 99) and to record their decisions during the activity using a digital voice recorder.

Group 1 Audio recording:

The green part represents the vegetation in Euston Square. We've also coloured it red as well because that stands for intimidation as there is a lack of lighting within Euston Square and we thought people would be intimidated to walk through there.

We are going back to the British Library. We have the flats which are very cramped. Opposite you will find they are more spaced out. Looks very rich. They have balconies and it gives a feeling of poshness. Just a few people hanging around.

We are standing on Bidborough Street. This is the first street that we come to and we coloured it in purple because of behaviour. Just people walking back from work we felt quite safe because there was no threatening behaviour. Next we went to Hastings which is parallel and we coloured it three different colours because it had a mixed variety of things. We coloured it red because of personal safety and we felt safe and we coloured it green because of trees and stuff which is quite unusual in that area and we coloured it yellow because we saw lots of residential housing. After that we went to Judd Street and we coloured that blue and red. We coloured it blue because it was quite busy and it seemed like a main street and we think that in the daytime it

would have got even more busy and we coloured it red because we also felt safe there because there were lots of people around and we didn't think anything would happen and it was a very open space so people could see us and there were CCTV cameras that could help protect us.

We are here at Kings Cross Station. We have coloured the station red and purple. Red representing peoples' safety and purple representing transport. Now we move on to York Way. We have coloured this area purple because it also represents a lot of transport. We are now in Balfry Street. This is very quiet and represents houses. We are now on Caledonian Road and we have coloured this area light blue because it represents business and we have also coloured this area purple because it has a lot of transport.

That's our school. No-one here.

This place is one hundred per cent safe. Where are we now? This is the end of Ossisman Street. Chamberlain House ain't here. What's this bit 'ere? This is the sun roofs so we have to go up there. So it's up there innit. It's got greenery.

We are walking towards the pub. It's name is Cock Tavern.

Group 2 Audio Recording:

The station we coloured in purple and red because purple means transport and red means personal safety because there are lots of police and community working there. We done the same with the transport loop and Birkenhead Street. We done blue and yellow because blue means like business and hotels and yellow means peoples' houses.

Audio recording to accompany the images of the colour-coded map sections for the exhibition portal:

All maps are open to interpretation – even the London A-Z! Many people use this map to find their way around London and, interestingly, a lot of people also use the tube map to do the same thing. These kinds of map lack personal knowledge about an area and only show you a representation of how to get around in London. You can put this theory to the test by conducting a survey of your local area that reflects your personal knowledge. Here's how to do it...

Click on the audio file button and listen to a discussion with young people from South Camden Community School on Charles Booth's poverty map focusing on the King's Cross area. Discussion on the key that Booth used (e.g. black areas = vicious class) revealed the mapmaker's value judgments and makes us think about how we might code this area today. Creating a key for a place you know well is a good way to initiate heated debate about what matters to different people.

completed fieldwork to the mapmaker who will ‘stitch’ together the different colour-coded squares to create a completed map of the whole area. Download/print a different section of the map, go out and test the key. Do you agree with the colours used? Would you code it differently? Does the time of day/month/year make a difference? How much does the surveyor’s personal knowledge come into the process? Contribute your thoughts and ideas to a discussion forum based on the stitched map.

Workshop 3: ‘Meet the Experts’

The group were given a talk by Peter Barber, Curator of Maps at the British Library who described some of the content for the forthcoming exhibition and why particular maps had been selected. The group were also given an opportunity to visit the map restoration team working on exhibition material and ask questions about their work.

Workshops 4 and 5: ‘Walk with Me’

These workshops experimented with making contemporary audio narratives that could be tagged to historical maps. The main aim of this workshop was to explore the potential for creating audio files recorded in location and plotting these on to a digital map. The group were introduced to this activity by listening to a sample of audio files that were based on a specific location (Figure 101). Small groups then planned and recorded audio narratives using digital voice recorders. Two groups, for example, located their narratives at St Pancras Station and recorded everyday sounds of the station such as the bleeping of the ticket barriers and loudspeaker announcements whilst another group located their narrative in the nearby Somers’ Town housing estate and recorded contributions from local residents.

Whitechapel

The narrator weaves a fictional detective story (an east end crime thriller) into her own real-time thriller as she walks the area
The fictional story is recorded like an audio book and parts are inserted into her own recording

Wapping

A character narrates in role (an older person who has seen many changes in the area) important memories located in the area

Alcatraz

Real people narrate important memories - a collection of sound recordings matched to spaces in the prison

Leytonstone

A local issue (the M11 link road) is presented through different local voices being recorded and plotted on to a map of the area

Peckham

A poem read aloud with sound effects. The poem evokes the spaces of Peckham Library through background sounds and voices from others using the library that are sliced in with the poem reading

Queens Square

Characters play parts in a play - an audio performed script

Figure 101. Samples of audio walks, Workshop 4, Activity 1, Cracking Maps.

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walk with me...

you are going to produce an audio walk for the *opening scene* of your story - the listener will be able to piece together the facts and clues that you drop along the way

take a map - work out roughly where your story might happen

work out HOW you will tell your opening to the story:

- * what facts need to be in it
- * how you will describe the spaces you are in
- * who will play what parts
- * who will narrate

go outside - scene one/take one!

HALF TIME come back and play back inside to Lottie, Pete or Juliet discuss what you still need to do

go outside - scene one/take two!
finish recording

fill in the numbers of the audio files in the frame boxes
mark the four locations on the map

at the end...
you will have up to 4 audio frames that can be plotted on to a map of the area

when the user clicks on your frame, they can hear your audio they imagine themselves in your time, space and story and can add their own audio as the next frame in the story

Scene One: storyboard

audio frame 1
location:

audio frame 2
location:

audio frame 3
location:

audio frame 4
location:

Figure 102. Supporting resource, Workshop 3, Activity 2, Cracking Maps.

Technology

The main digital technological development in this project was on the prototype audio mapping website initiated in workshops 4 and 5. To enable users to input geolocated positional data we utilised the Google Maps application programming interface (API) with customised tile maps. With this tool it is possible to both view and author a map; users can upload data to the map and playback existing data created by others. The user navigates and then clicks on a location on the map - the point at which they want to upload their data. The data is uploaded to a web server through client side javascripts and server side PHP scripts and the resulting metadata stored in a MySQL open source relational database. We also used a customised FlashPlayer to playback audio saved by users at different positions on the map.

Outcome

The guide was produced as a manual of ideas for physically exploring the British Library building and its environs in alternative ways. The material was exhibited at *London: A Life in Maps* and some of the workshop outcomes were developed into the prototype audio mapping website. The exhibition material was displayed on an audio-visual portal that allowed audio, text and images (stills only) to be played one after another or at the same time. The user could operate buttons at the bottom of the screen to move forwards or backwards and adjust the volume. There was one

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set of headphones provided for a single user and the portal was located in the 'contemporary maps' section of the exhibition.

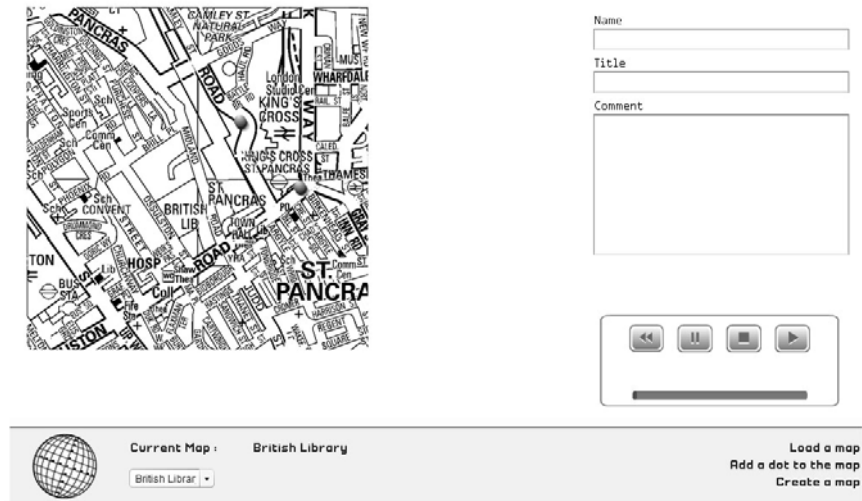


Fig A.

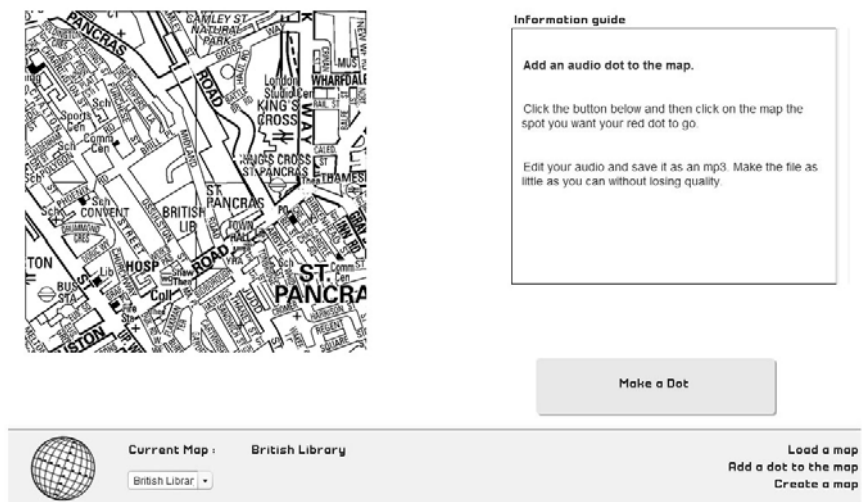
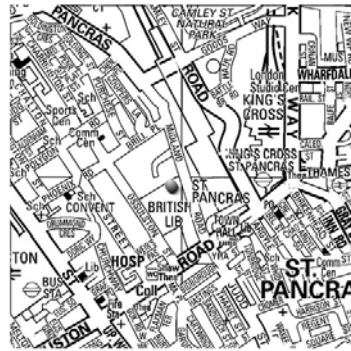


Fig B.

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y pos: 260
x pos: 445

Information guide

Confirm your dot position.

Click on the map with the special cursor where you want the dot to appear.

If you put it in the wrong place, click again on the map in the right place and the dot will be repositioned.

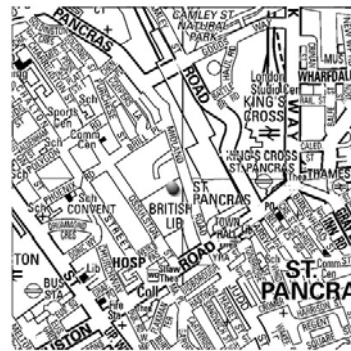
When you are happy press the 'confirm' button below.

Confirm dot position

Current Map : British Library
British Library

Load a map
Add a dot to the map
Create a map

Fig C.



Information guide

Upload your audio file.

Pressing the button below will open a navigator for you to locate your file.

Find your file and then press 'send'.

If your file is large it may take some time, please be patient.

Upload your Audio file

Current Map : British Library
British Library

Load a map
Add a dot to the map
Create a map

Fig D.

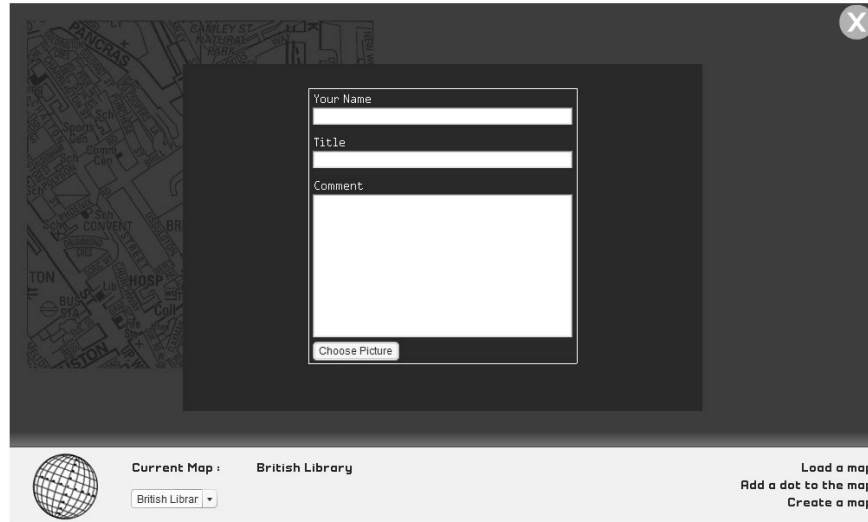


Fig E.

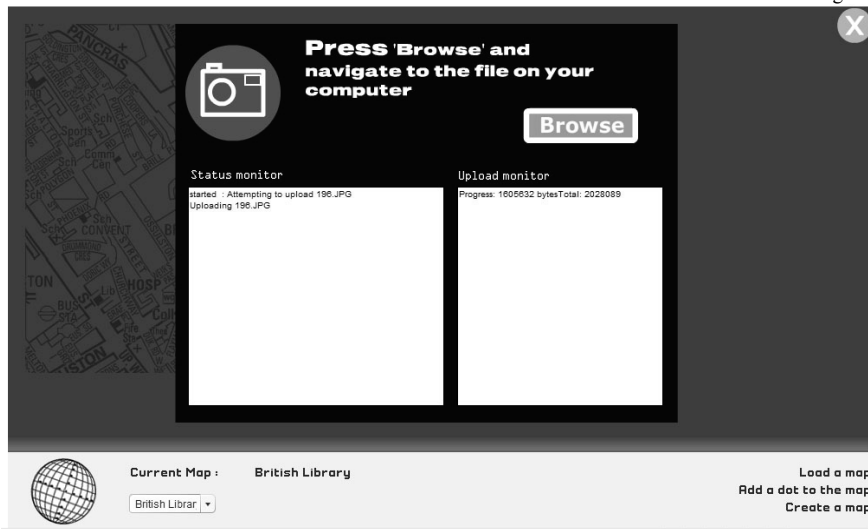


Fig F.

Figure 103 (Figs A-F): Screenshot from the website showing the process for making an audio map. Online. Available www.pete-rogers.co.uk (accessed April 2007).

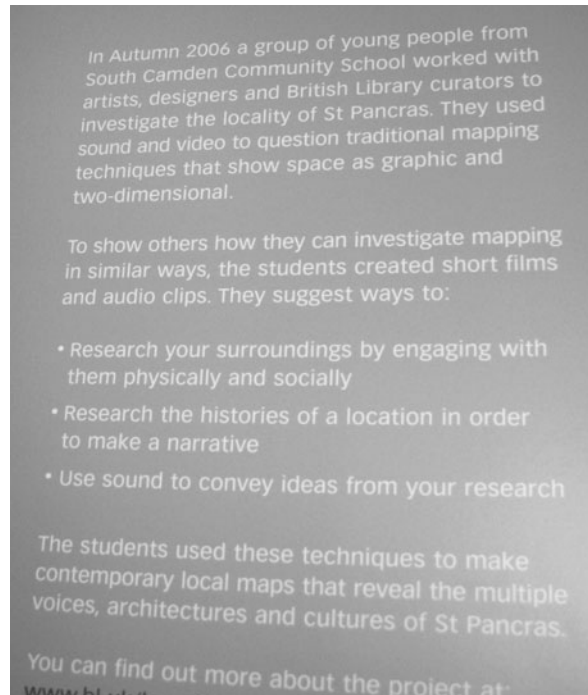


Figure 104. Display board, *London: A life in maps* exhibition at the British Library, January 2007.

Findings

The two key ideas that the partnership devised for this project involved developing activities that worked on the interplay between the relative values of city streets and buildings and the perpetual transformation of urban space through personal experience of it and through it. The exhibition, *London: A Life in Maps*, was the catalyst for the project in that we produced content for a sound and image portal to explore these ideas.

Principally the project explored ground untruthing as a conceptual method for performing the role of the critical tour-guide in practice. Jonathan Hill's argument that the 'illegal architect' is a necessary intrusion into the architectural profession if architecture is to be more about 'subject-object' relations rather than 'just a building'⁴³⁵ can be applied to that of the professional role of the tour-guide in which the 'illegal tour-guide' becomes a vehicle for providing a means for

⁴³⁵ Hill, J., 1998, *Occupying Architecture*, London and New York: Routledge, p. 147.



Figure 105. Sample of Portal Pages, *London a Life in Maps*, January 2007.

accessing the ‘other’ spaces of a building or location. ‘Illegal’ suggests that this is illicit activity or unacceptable by prevailing standards and is intended to be used as a term that encourages risk-taking in learning. The ‘behind the scenes’ trait of the tour is particularly explored in the ways in which the young people were involved in making public spaces private or personal and in doing so, engaged in using ‘noticing’ skills such as glimpsing, peeking and peering. The concept of the ‘illegal tour guide’ was also important in giving the young people involved in the project a way of coming to terms with how the building was authoritatively organised managed: ‘We kept being kicked out of certain areas because we didn’t have a pass – we were too young. We related this experience to life.’⁴³⁶

In this project, an audio recording of a person who worked at the British Library describing her journeys through the building provided a resource for other participants to make an unofficial audio guide to an authoritatively managed building. In this, listening to and making an audio recording in order to make personal connections with public spaces in the building was integral to the activity. One learner described this as using ‘sound and description to help visitors visualise our journey.’⁴³⁷ The performance qualities involved in moving around the building and making an audio recording of an ‘unofficial guide’ was clear in the way the participants described aspects of different spaces, narrated directions and orientation information, and also how they easily ‘went into character’ in particular spaces. For example, the ramp down to the basement became a ‘catwalk’ for

⁴³⁶ Learner Sketchbook, Workshop 1.

⁴³⁷ Learner Sketchbook, Workshop 1.

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‘movie stars’ and visitors were invited to behave as such whilst walking down the brightly lit ramp. The production and use of audio cues prompted unexpected movements and ways of describing spaces.

The fieldwork activities around King’s Cross developed how critical spatial practice may be integrated into opportunities for learning about the built environment. Understanding that codes open up dialogue for maps to have conversations with each other was explored through making comparisons between historical and contemporary street maps of the area. Importantly, the point of discussion around this involved participants in a practical activity of making and using their own code to make judgments about the location.

One of the aims of this project was to produce a blueprint for an online resource for people to produce and populate their own audio maps using our manual ideas. In this way the ‘community map’ template was produced to act as both a repository for data and also as a toolkit for making tours to download on to mobile devices. This provided a forum for exchange and opportunities for seeding and content by populating a map with tagged data. This blueprint could be developed further in practice to see if participants could thread the seeded content to make tours – either online or in location.

Reflections

Reflecting on this project has enabled thinking about the ways in which locations are represented topographically and how tours may provide opportunities for developing skills and confidence in self-orientation, combining topographical data with local knowledge to describe the urban landscape. In particular, the project addressed ways in which the tour-guide might be argued to ‘stage authenticity’ by involving participants in making critical interpretations about a location by being and/or making a guide in which being able to self-orientate invited thinking about alternative ways in which movements might be made in a seemingly authoritatively controlled environment. This draws on the analysis of Tim Brennan’s ‘Manoeuvres’ by exploring how a location can be ‘read’ through different kinds of text that work between the participant and their position in location and also on the concept that buildings are a kind of ‘extreme’ object in perception theory described in Haptic Learning. The project explored the concept of ‘intertextuality’ by layering historical maps over contemporary maps of the location and using this process to devise new ways of using contestable map codes to describe a place.

The use of audio recordings to prompt movement around an authoritatively controlled building reflects elements of PLATFORM’s ‘critical walks in the city’ also described in Chapter 3. The PLATFORM walk included readings that invited participants to make connections between the ground they were standing on and the subject matter of the walk. Audio recordings of Ria describing her daily journey into the British Library, Lottie’s ‘urban street training’ approach to finding your way around the building and the samples of artist’s work in the activity ‘walk with me’ all invited participants in the project to make tactile connections with their surroundings. As such, this creative and engaging method for developing the

mobilised learner attribute of ‘making connections’ in tours in which bodily movement, prompted by audio cues, can activate changes in perception and understanding of buildings and the built environment. In this way, the trait of the tour concerned with ‘filling the gaps’ was explored as a productive conceptual idea in practice.

From this project I went on to explore new ideas about ways of visualising urban topographies based on using data such as sensor readings, altitude readings and spatial co-ordinates and activating these through personal, physical movements; creating learning opportunities that focus on the personal activation and interrogation of given topographical information. Seeding content on tours can be described in terms of sensory recording and plotting personal content using grid references, contour lines and sensor data to make interactive waymarks that involve participants in re-orientating themselves. Or ground untruthing. These positioned waymarks can be coded and interrogated by others. Plotting physical movement between waymarks enables threads of enquiry to be produced. For example, using height of the buildings and altitude data to make waymarks also brings participants into negotiating access to a ‘skyscape,’ climbing upwards to record position and make recordings and brings about a shift in having perspectives of the city.

Lastly, in sketching out ideas for the manual I became increasingly aware that such a ‘manual’ can be both a reflective document that extracts and describe methods used in the workshops and also as a communicative one that can be used by another group of people to modify and adapt for different purposes.

CONCEPTUAL METHODS: CONCLUSION

Situated learning activities designed through a series of learning-through-touring projects have developed a set of three conceptual methods for learning-through-touring. These methods intentionally prompt new kinds of practice in participant-constructed tours and guides in which the tour effectively becomes an outcome of a collectively-produced, critical-spatial learning activity. Such activity may be described as ‘disruptive’ if learners are actively pursuing alternative or seemingly conflicting histories of a place, unfixing organised notions of heritage, urban planning or authoritative maps that appear to take little account of what people bring to that site.⁴³⁸ Noticing and recording anomalies against a given, for example, provides learners with opportunities to become critical-creative researchers, using the form of the guided tour as a platform for inviting others to participate and do the same.

The methods, ‘haptic referencing’ ‘micromapping’ and ‘ground untruthing,’ are contingent on what propels participants to move around a building and the built environment. Those conditions that motivate participants to make the next move are explored through methods that set up particular kinds of learning activity

⁴³⁸ For example, masterplans are posted for ‘public consultation’ but are often opaque in both communicating to and consulting with local people.

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developed as forms of critical spatial practice. The tour as a form of critical spatial practice aims to transform the given, opening up opportunities for asking questions and making new connections between objects, people and places. In considering pedagogies concerned with space, bodies and movement the projects have developed new ways of involving participants in producing particular networks of association that emerge from movement around a location and/or between locations in the built environment. Active participation in mobilised learning is characterised by contingency, momentum and proximity that welcomes the ‘death’ of the authoritarian guide.

These touring methods are not presented as another set of conventions for designing and producing tours but as methods for designing learning activities that focus on social-spatial-temporal relations in learning about the built environment. The methods provide opportunities for participants to learn on site by using these touring methods to focus, or even justify, their movement from here to there. Particular kinds of buildings and places may provoke selection and use of different kinds of methods. For example, ‘haptic referencing’ focuses on developing personal antennae that sense sounds, smells and textures of the built environment that might otherwise go ‘unnoticed.’ ‘Micromapping’ asks a participant to explore a place through making connections between small scale details or ‘finds’ and wider social, material or environmental issues using recording devices and methods that can open up creative interpretation. ‘Ground untruthing’ is a method of guiding that undermines the authority of use. This method thrives on buildings and environs that evidence control in the way people are expected to move around them and provides ways for making alternative movements. There are several activities from the projects that have contributed towards the development of these new learning-through-touring methods and so although each is individually distinctive, they can be applied holistically.

The figure and voice of the guide – their personality, interests and knowledge presented through a live experience or recorded in different media – is an important feature in establishing a complicit relationship with participants in sharing the peculiarities and particularities of a place. In this, the guide is not replaced by the participant but is positioned alongside to support participants in making autonomous and personal connections – and in this way can be described in terms of influencing their experience of the tour. Likewise, participant experience may be described in terms of how they are guided towards making connections between objects, people and places. The figure or voice of the guide is also important in providing orientation information and navigational direction. Whether presented as straightforward description of what is where or with an intention to confuse and disorientate, it is important that the participant trusts the guide. There is an implicit contract between guide and participant that is based on the guide earning that trust by providing engaging and trustworthy guidance. This may sometimes be described in terms of authenticity – a guide may be described as authentic if they explicitly acknowledge the real-time actions of participants and everyday happenings of the location. In this way, the relationship between guide and participant has relevance for understanding that between teacher and learner.

The notion of the tour as an ‘elastic environment’ in which there are opportunities for expression and exchange has been brought to the notion of learning-enabled buildings. Buildings are conceived as having ‘voices’ that may be heard and used creatively by the mobilised learner. A particular type of awareness associated with moving through and around buildings (large scale objects that cannot be viewed in their entirety from a single point of view) means that cues can be produced and ‘seeded’ to provide content that is received and processed whilst in location. The spatial, temporal and social specificity of participants comes into play in the design of such cues if the reciprocal nature of the relationship between participant and location is taken into consideration. One affects the other in haptic learning. Seeded cues also provide a method for designing content for tours that can be differentiated from that of the prescriptive itinerary or script.

Buildings and their environs are described as curiosities in these projects and, in ways similar to recreational excursions of the early nineteenth century. In contemporary tours we might describe this as a form of topographical surveying that involves moving between small, detailed finds and larger-scale overviews of a place. Mobility enables shifts in perspective opportunities for making new meanings in a ‘ground level’ approach to learning. A ground level approach takes for granted that it is the mobility of participants that produces the tour. To support the idea of a ‘ground level’ approach to learning, technologies in these projects were utilised as a toolkit to support finding, recording and making collections of finds with a focus on developing multi-sensory antennae skills. This is a different way of describing technologies as an interpretation tool as the emphasis is on how to use them to make ‘excavations’ rather than to present a formal interpretation of a building.

CHAPTER 7

A METHODOLOGY FOR LEARNING-THROUGH-TOURING

At the start of this book I suggested that an implication of exploring a shift in subjectivity from guide to participant is that a new methodology for learning-through-touring would be developed to generate new pedagogy for situated learning and to contribute to knowledge about the built environment. There are two parts to this methodology:

- Generic concepts for designing and participating in tours (seeding and threading).
- Features of mobilised learning in tours (noticing, stumbling upon, connecting).

GENERIC CONCEPTS FOR DESIGNING AND PARTICIPATING IN TOURS

Designing tours by **SEEDING** content into nodes that support participants in making **THREADS** of enquiry

Learning through researching, producing and locating content into nodes for tours that can be evolved and shared by others

Participating in tours by **THREADING** connections between nodes and **SEEDING** new content

Learning by experiencing making connections between nodes and producing recordings that are transmitted to others

Figure 106. Seeding and Threading summarised.

Seeding

Seeding has been a way of describing how subject matter or content may be reconceived as located fragments in tours in ways that operate differently from a prescribed itinerary or script. In tours, the path taken may be conceived of as an active space for making ‘on the spot’ finds. These finds involve interaction with past accounts, stories and issues with what is seen, heard or felt by being in that location. The concept that content that can be ‘grown’ or evolved by others has been developed further through considering the tour as an ‘elastic environment’, one that is ‘charged with social and spatial interactions’. This notion expands the concept of seeding to focus on the importance of the ‘here and now’ in making exchanges in which the environment of the tour may be stretched depending on the kinds of social interaction that take place. The capacity for the duration of a tour to offer multiple spatial perspectives and social interactions on a single journey means that seeded content may be spatially, temporally and/or socially defined. It is important to note that this may lead to the formation of special interest content or focus on a specific issue that concerns a more dominant member of the group and that ‘evolving’ content needs to be managed and maintained. This was a limitation identified in *Mudlarking* and *Transitional Spaces* as there was insufficient infrastructure to continue managing the tours after the project finished.

Seeded content may be designed as interactive cues, cues that can be picked up upon and followed, prompting participants to pause, find an object, peer through something, isolate a sound from background noise or change direction. In this way, cues support participants in making interpretations through the performance of the tour. Interplay between actual sights, smells, textures and sounds of the urban environment and auditory and visual cues produced by the guide has provided opportunities for slowing down the erosion of our perceptual sphere by participants making connections between different kinds of haptic cues – described in practice as haptic referencing. Touring technologies can be understood in their capacity to store and communicate cues that prompt connections between subject matter and the physical environment and in their capacity to share these with other people across space and over time. In this, technologies act as antennae, extensions to the body to enhance sensing through movement, to ‘feel’ or ‘sense’ transition in the built environment and also to store and share different kinds of media (for example sound, image or text) in different locations and over time. The emphasis on participants making media that stimulates haptic learning draws on the creative medium of the artist’s walk in which meaning is produced through juxtaposition between physical environment and audio content. Analysis of walks by Tim Brennan, Janet Cardiff and Graeme Miller has contributed significantly to my understanding of the creative ways in which audio content can be used to stimulate sensory interplay between participants and the physical environment. Further analysis of contemporary art practice in relation to embodied learning and new technologies that intensify awareness of sensory interplay – ‘the smell of an

architectural plan, the sound of a given temperature⁴³⁹ – would develop ideas gained from these artists' walks much further in practice.

The tour as a method for gleaning 'finds' across spaces and times and detecting anomalies against a perceived order of things contributes to the concept of seeding. Fragmentary finds that evidence transition inscribed into the fabric of the built environment and narratives of use may be recorded and presented as seeded content in tours; fragments of subject matter are pieced together by the participant. The tour-guide can operate as a go-between in providing messages, signs and interpretations that participants may use to 'hear' fragmented 'voices' of a building or location as they move through its spaces. In this way seeded content exposes the transitional nature of the built environment. Knowing that the built environment is in constant transition has implications for designing content for a tour. If subject matter is understood as complete in a specified curriculum or programme for a tour, the continually changing nature of the built environment and how this is subjectively conceived could be argued to be irrelevant. Seeded content can alternatively be conceived as continually evolving through time, space and people involvement.

This has several implications for architectural design concerning user creativity. A co-design process was established throughout the projects and to some extent this engaged young people in participatory design practice. They recorded seeded content that could be threaded by other participants (although the editing was largely done by others) and produced the guiding material as appropriate for each project. Where the co-design process worked well, the learners infiltrated spaces and developed a sense of ownership about the building and location as well as the project. They were able to engage other users and experts in research for the project, creatively sharing knowledge about the built environment. For example, working with the Environment Agency in *Mudlarking* developed knowledge and understanding about the natural habitats of Deptford Creek and its relation to the surrounding built environment – the significance of brown roofs, the Creek as a transport route and the impact of wider development of the City's sewage system.

Understanding the capacity of learning-enabled buildings to make the seemingly invisible, visible also contributes to the development of new cartographical and walking practices concerned with making alternative explorations of urban environments. Guides that operate through making sensory associations can use the tour as a way of stage crafting movements that maximise connections between memory and place and as a way of making collections of found objects. In the projects this was limited to daytime activities that were largely conducted with groups of young people. It would be interesting to see how the methodology might operate in nocturnal and/or seasonal touring activities. The projects were concerned with sensory amplification and it would be useful to apply this aptitude in more 'extreme' contexts. The analytical investigation into archaeology could be better explored in this way, using a wider range of mobile devices that can mediate,

⁴³⁹ Jones, C.A., 2006, 'Synaesthesia' in Jones, C.A. (Ed), *Sensorium*, Massachusetts: MIT, p. 218.

orchestrate and guide action in detecting and recording transition as well as digging into the ways in which smells stimulate memories associated with buildings.

Seeding is both a research and design process in learning-through-touring. Naming participants as ‘seeders’ establishes the kind of content generated through the process, content that can be evolved by others. As such, seeding is fuelled by forums and spaces for exchange, discussion and reflection that provide opportunities for developing content. Defining seeding as a key concept in the design of tours also influences choices in the kind of toolkit used to help find, collect and create the content. Seeding prompts questions around what kind of content can be sown where and for how long so that participants’ personal data can be recorded and plotted to be interrogated by others. In my practice, an initial seeder group finds and creates the content for nodes or hotspots on a tour and locates this for others through recording or attaching navigational information that enables the node or hotspot to grow in multiple directions. Future participants in the tour interact with the seeded content by making comparative associations and connections between the content and the site as they find it. The node operates as a located area on a map that can be accessed by walking into that area or manually clicking on its visual marker. In *Mudlarking* nodes were represented as areas of street shaded in red and in *Transitional Spaces* they were marked as coloured spots on a floor plan. In both of these projects the threads that connected the nodes were also colour-coded using a bar at the top of each page on the tour. This reinforced the idea that the content seeded at each node was threaded by the participant moving between the nodes and selecting content that related to a particular thread. It is important to note that the nodes offered participants choice but they often selected all of the content rather than from one particular thread. Threads were recorded and transmitted in two ways. In *Mudlarking* participants made recordings using the camera, voice recorder, text and drawing functions and these were stored in the ‘my story’ page of the tour. With access to a wireless network or using a mobile phone these recordings are then uploaded to create new nodes on the tour. These nodes were called ‘journey nodes’ in *Mudlarking* but were not realised in practice due to the unreliability of the wireless network at the time. In *Transitional Spaces* the threads were interrogated by participants in similar ways to a conventional multimedia tour. The difference was in using timelapse and physical positioning of the participant as active elements in evolving the threads in the mind of the learner. In this project, threads were transmitted through application of knowledge in other sites.

Threading

Learning through making new lines of enquiry from a series of interactions with objects, people and places thus describes the process of ‘threading’ in touring. Threading involves making connections between small scale movements and larger scale overviews using guides and touring technologies to facilitate creative involvement of those connections. Threading also provides a structure for locating seeded content on a tour. Threading can thus be used by an initial seeder group

who make threads by connecting located seeded content and also by future participants to evolve particular issues, stories or themes of the threads.

Making new lines of enquiry involves participants in using 'out of context' and juxtaposition to make associations between fragmentary finds in generating new contexts that develop knowledge and understanding. The notion of distance travelled, physically and cognitively, between making such associations can be explored in developing how 'context' and 'out of context' may be reconfigured as dynamic in learning through being mobile. Consideration of proximities and distances between people, objects and locations are integrated into designing opportunities for learning about the built environment in which position of participants may be stage-crafted to maximise opportunities for making meaning through association between a story and the streets or buildings they are walking through. Threading involves participants interacting with past accounts, stories and issues to 'weave' contexts that make new connections with what they notice and stumble upon. In the projects, it became increasingly clear that conversations about the site built up a web of shared understanding amongst the co-design group to the extent that the site became 'theirs' for the duration of the project. They described parts of a building and the location of objects as tangible references in making connections between its spaces. It is important to recognise that movements through buildings and the built environment are subject to constraint and therefore, so is the process of threading. There are two warning issues to raise here: firstly that threading needs to be recognised as a process that could be used to set and keep track of a route and secondly, that the process can be used to manage top-down seeding of content. In *Transitional Spaces*, for example, the threads for the tour were drawn together by me and Peter Rogers reviewing the content gathered from the micromapping session at the V&A and sorting this into five areas for further enquiry. These were then colour-coded and developed by the co-designers who produced a descriptive introduction to the thread and content that explored the topic in greater detail using the conceptual methods. These threads were recorded in the form of photos and audio and transmitted to other participants via PDAs. Rather than present this as a limitation, it is important to recognise that the ways in which threads are transmitted are open to critique in the same way as a teacher produces resources to scaffold learning.

Threading is a process unique to the tour in that touring involves making a circuitous journey from site to site, as a one-off event or as a series of events. The structure of the tour, as a series of connected 'pauses' made in location offers opportunities for learning through threading seeded content; pauses can be described in temporal terms as opportunities for learning through revisiting earlier issues or ideas raised by a 'pause' later on in a different place and by making connections. The idea that physically exploring a site is mobile activity that provides opportunities for gaining and sharing new perspectives of the built environment through moving between located 'pauses' is one that is generated by a sense of curiosity and perhaps best embodies what it means to be a mobilised learner in tours; participation in a one-off activity or through a succession of visits to sites develops lasting investment in learning about the built environment.



Figure 107. 'Seeding and Threading', drawing by Harriet McDougall, 2011.

Addendum: Localisation

Stewart Brand's argument that 'buildings learn' presented 'steps toward an adaptive architecture' that focused on the changing nature of buildings and user production of space. He argued that for this to happen in reality, 'tuition fees' need to be paid for buildings to learn with more of the architect's budget spent on the structure to make it adaptive and less on the finishing.⁴⁴⁰ The projects explored ways in which buildings learn by looking for evidence of material change and also how memories and stories are an integral element of that transitive process and this has relevance for the design of learning-enabled buildings. Not only in the redesign of historic buildings for informal education but also in using touring methods to involve users in the early stages of architectural design processes to develop public ownership of a project. In this way, the learning-through-touring methodology can be used in urban planning and regeneration projects to facilitate user participation and also generate a sense of understanding about the changing nature of buildings and our capacity to respond to this. For example, organisations such as the Architecture Foundation who are involved in cultivating exchange between architecture and planning professionals and the general public have set up events

⁴⁴⁰ Brand, S., 1994, *How Buildings Learn*, London: Viking, p. 190.

and workshops in which to ‘shape the quality of the built environment.’⁴⁴¹ The methodology offers a way of thinking about reconfiguring site visits in architecture design in which local people are involved in contributing how they feel about a place by seeding and threading content that architects and planners can participate in and respond to. The use of technologies that enable sharing of content and ways of communicating information whilst in location offers opportunities for more flexible engagement between local authorities and young people to support participation in the built environment.

FEATURES OF MOBILISED LEARNING IN TOURS

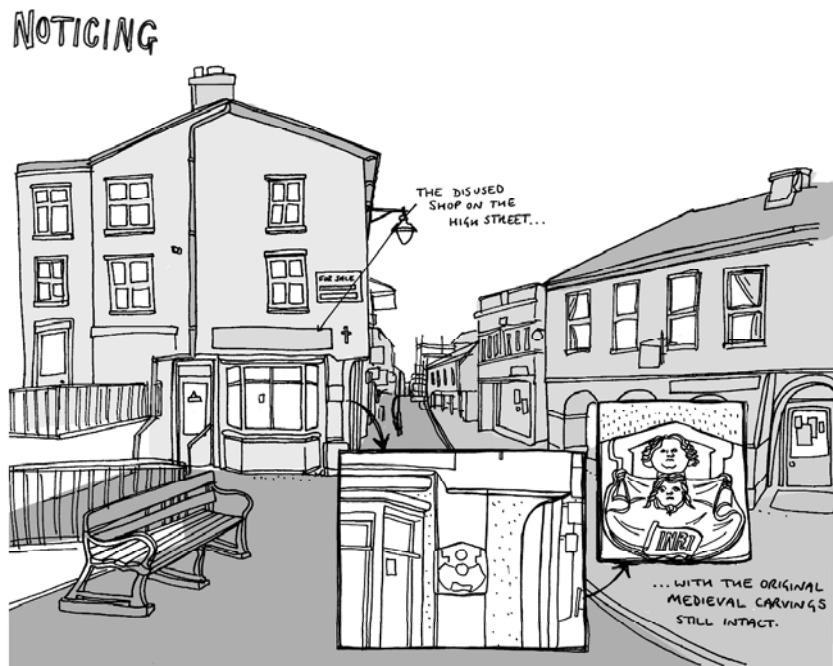


Figure 108. 'Noticing', drawing by Harriet McDougall, 2011.

Noticing

In learning to notice, participants are learning through experience; they are developing the skill of noticing and being able to apply this to what has gone

⁴⁴¹ This reference to 'quality' is taken from the mission statement for the Architecture Foundation. Online. Available <http://www.architecturefoundation.org.uk/>. Accessed August 2009. The Architecture Centre Network also refers to improving 'public engagement' with architecture. Online. Available <http://www.architecturecentre.net>. Accessed August 2009.

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before and discovering new things whilst touring. They experience a heightened sense of awareness in ‘turning a corner’ and finding something of interest that necessarily involves sensory interplay with the ‘here and now’ of the physical environment. Learners will draw on this sensory interplay to make imaginative associations between sites to make public spaces, personal. Tour-guides that facilitate noticing enable participants to explore ‘behind the scenes’ of what is usually expected and/or presented for public view. Tours use sensory cues to prompt movement and action. These cues are designed to allow participants to differentiate between ambient sounds, smells and textures of the built environment – ‘environmental information.’ Noticing is supported by technologies that compensate for ‘deficiencies of the eye’ to engage other senses in finding objects. Technologies are designed as tools that act as viewfinders, lenses or antennae to spot finds and glean information from them.

Stumbling Upon

In learning to stumble upon, participants develop confidence in ‘following their nose’ in moving from one place to another. They engage with location-based enquiries that involve them in asking questions, conjecturing and juxtapositioning to learn about the transitional nature of buildings and their environs. In stumbling upon, learners develop skills in making the invisible, visible by making detailed recordings of transition and piecing these together to make new threads of enquiry. The tour-guide’s capacity for facilitating stumbling upon can be explored through the way they stage authenticity, providing a narrative that supports participants in re-imagining that location and listening to the multiple ‘voices’ of the building. Participants will be able to recall previous events, experiences and knowledge in relation to the new stories/accounts being told in location. Technologies are used to make recordings of anomalies that evidence user and material transition and to organise, layer and share these recordings in non-linear ways both retrospectively and whilst on-the-move.

Connecting

In learning to connect, participants shift between personal finds and wider civic and urban issues of a place. As they tour, participants dynamically form a series of ‘views’ or perspectives that critique given authoritative information (such as a plan, map or seemingly factual visitor guide). The tour-guide facilitates connecting by using pauses later on in a tour to revisit content from earlier to build an overview of a place through moving from one location to another. A tour that ‘fills the gaps’ is designed to draw on what participants bring to the event rather than what they take out and develops skills in negotiating and debating perceived ‘truths’ about a place. Technologies are employed to connect participant views in multiple ways with authorities, sources of information and other participants on the tour, providing a platform for exchange and collaboration.

STUMBLING UPON

THE OLD TOWN HALL: USED FOR BOOT SALES
AND COFFEE MORNINGS...



.... PREVIOUSLY THE FARMER'S CORN EXCHANGE AND CENTRE OF
LOCAL ECONOMY / WHERE EIREEN JONES FIRST MET HER
HUSBAND / USED AS A BOMB SHELTER DURING THE WAR /
WHERE INTERNATIONAL BAND GOT THEIR FIRST GIG...

Figure 109. 'Stumbling Upon', drawing by Harriet McDougall, 2011.

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Overall, the methodology has been used, and continues to be used, to develop new ways for learners to shape the built environment by building on previous knowledge and experiences through making tours. The ways in which people describe, annotate and move through buildings impacts on architectural design and in this they are active participants in the production of new spatial conditions.

APPENDIX A

MUDLARKING TRIALS

4 March 2005 at Creekside

Trial 1 with expert team (Representatives from Futurelab, Mobile Bristol and BBC Bristol) aimed to use expert trial and feedback in the final stages of prototype development.

Main findings:

'Experts' in the field of mobile technologies and learning were happy to let PDAs guide them around the area. They responded positively to activities in each node and commented on the high quality of content. There was no wireless network available and it was decided that the tour should operate independently of this. This meant that live uploading of captured data whilst out on the tour would not be possible and this would need to be done manually back at the project base as participants returned their PDAs.

There were difficulties in using the PDA in wet weather conditions and it was suggested that map cases be used to protect the devices and enable the screens to be wiped clear. It was also suggested that participants should have instructions about what to do if the PDA was to crash.

10 March 2005 at Creekside

Trial 2 with co-designers and an independent evaluator (also in attendance were observers from Futurelab and the V&A Museum, London). The aim of this trial was to observe (and record) tour experience in light of research questions and to gain co-designer feedback and evaluation of the tour. An independent evaluator, Ella Tallyn, observed one of the groups doing the tour and another group was filmed and analysed by a representative from Futurelab. The findings from this trial were based on these observer analysis reports. The co-designers also completed questionnaires to gain feedback on the main research questions of the project that had been negotiated with Futurelab. The main findings from Tallyn's report and the questionnaires have been summarised under each learning question:

Q.1 How does subverting the didactic guided tour of urban sites impact on developing creative responses to the built environment?

The groups enjoyed both activities – those they had designed themselves and the activities of others. Particularly successful activities initiated some physical activities, and in some cases collaborative play. These activities were clearly engaging for participants, and could act as effective memory aids. Their responses

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to the physical environment seemed particularly creative and thoughtful, possibly because of the creativity of the tour activities they were experiencing, or because of their involvement in the design of the tour. Despite some technical difficulties the young people did not give up on the tour at any point.

Tallyn's observations suggest that spontaneous movement and play in response to the activities indicated that the participants enjoyed being creative. Quotes from participants recorded whilst doing the tour include: 'It's sort of an adventure – like running around and finding stuff' and 'we need to go back. That's it go on! Now what do I do?' The importance of autonomous movement on the tour was also reflected in the short video about the project produced by Futurelab using recordings from this trial.

Q.2 How do mobile technologies enable young learners to reconceptualise an everyday urban site?

The independent evaluation noted that participants were able to move easily between the tour activities and discussion of other aspects of the environment to reconceptualise an urban site. This question was also explored through the questionnaire in which participants were asked to suggest locations in which a tour of this kind could be used. Some of the more inventive responses concerning other locations for this kind of tour reflect a real engagement with the creative potential of this kind of participatory tour:

'A tour of a chocolate factory'

'Of space from earth!'

'Mountainous regions'

Other responses ranged from famous buildings to outdoor sites to personal spaces. One response in particular focused on the learning potential rather than a specific place: 'A museum or classroom so that you wouldn't have to listen to a teacher or tour guide.'

Participants used the toolkit to capture and record their own stories using a variety of methods and sharing these finds with others enabled them to collaborate between the nodes and make references to personal experiences evoked by the site. In this way, the toolkit provided a means for participants to reconceptualise the site.

Q.3 How can sharing experiences through location sensitive technologies can create shared understanding between users?

The flexibility of the tour was successful; young people were able to take things at their own pace. The use of nodes as a focus for a set of activities varied the overall pace of the experience, which allowed 'free time' to walk and talk, and then a more focused effort on the PDA at the nodes. Participants were frustrated by technical difficulties, and more feedback on the causes of problems may have helped them to

recover more quickly. The young people shared the technology fairly easily, although there were some difficulties in sharing as a pair. There was a significant amount of cross group activity and this may have been instigated by participants' awareness of each others involvement in creating the activities through hearing the audio from other PDAs.

May 2005 at Creekside

Trial 3 with other young people from a secondary school in the locality aimed to gain feedback from other young people not involved in the project so far.

Main findings:

A small group of young people aged between 12 and 13 years did the tour for approximately an hour. They completed questionnaires and offered informal feedback. Overall, although they went to school near to the tour location they commented on how they had found out new things about the area. One participant was particularly engaged in sketching a new vision for Creek Road whilst in that node. The group was confident in using the PDA as a navigation tool to the extent that 'following the dot' meant that they often focused on the screen to check where they were. The group used the audio, photo and drawing functions of the toolkit to add content to 'My Story' and showed each other what they had done without prompting. Due to the small size of this group, they had one PDA per person, and it was interesting to note that earphones were passed from one to another in order to share the content they found interesting. This happened during 'mushrooming' and 'wobbleometer' in particular.

July 2005 at Creekside

Trial 4 with co-designers, friends and family aimed to gain informal feedback on the tour design and user input (in preparation for 'going public').

Main findings:

Friends and family of the co-designer group were enthusiastic to try out the tour and spent approximately three hours doing a wet walk in the Creek and the 'dry' walking tour. This had the advantage of gaining feedback from participants who had opportunities to 'find the Creek' through both kinds of tour activity. To a certain extent the co-designers acted like extra guides at first, showing their friends and family what they had produced and how to use the PDA. In this way, the trial did not provide any additional feedback on navigation issues. It was interesting to note how control of the device could shift as it was literally passed around and how sharing between the adults and children created a dynamic when a person wanted to show a feature to another interested person. The adults used the camera function almost entirely to record 'My Story' and further analysis of the inputs showed that the younger people also predominantly used this function in this trial.

APPENDIX A

September 2005 at Creekside

Trial 5 with members of the public at the London Open House (LOH) event and another independent evaluator from Futurelab gained feedback on the tour design and user input through semi-structured interviews.

Main findings:

Seven individuals participated in the tour and of these there were two pairs. Most of the participants said that they would normally take up the offer of a guided tour if they were visiting a building on the LOH event depending on time, size of the group and the kind of hand held information provided. Two of the seven individuals were not local to the area and expected to find out more about the buildings in this area by participating in LOH. They wanted to use the *Mudlarking* tour as a means of locating buildings open for the event. The other participants all lived in the area and one had a particular interest in the Creekside Centre. She specifically expected to learn about 'a bit of history and wildlife'. Another participant was a storyteller and was coincidentally involved in making 'story walks' that combined story-telling, oral history and digital art. He expected that the tour would be 'very high tech' compared with his project and was interested in finding out how the toolkit worked.

Experience in using PDAs was varied and generally low, and none had used them to capture data or as a navigational tool. One participant had chosen to walk down Norman Road at the start and consequently listened to the 'Muddy Murder' story first. For her, this was the most memorable part of the tour (she did not know the Deptford connection with conviction by fingerprint saying 'I didn't expect this'). Interestingly another participant who did not visit this node started recalling stories of the South East London 'Krays' before setting off on the tour, recounting memories of what it was like to live in the area. Two participants commented on the wildlife as special and memorable, selecting the drawings of crab and fish specimens and interviews with the Environment Agency as particularly interesting. Three participants used the PDA to capture things they found interesting and add these to 'My Story' and one of these was an input for a journey node. All three used the photo function.

All participants guessed that children had created the content and all said that this had not made them feel the content was any less important. Comments such as 'the ideas were fresh' were equated with 'young' and several participants said that the content was of a 'high quality'. Two participants commented on the narration, saying that it was engaging to be guided by children who were interested in the local area. The use of hand-held technology with 'low' experienced participants produced some positive feedback. 'I could decide what to do at three nodes and add my own photos' commented one participant who also went on to describe the potential he thought this kind of project could have for the tourist industry. Another participant who had expressed concerns about her ability to use the toolkit afterwards said that it was 'easy to use, accessible and had a good interface'.

Several expressed difficulties in seeing the screen in the sunlight. The participant interested in making walking trails wanted to try out this kind of toolkit with a primary school. Other responses focused on the 'unusual' use of the PDAs in taking them outside and using them to take pictures.

PARTICIPANT INPUTS FROM ALL TRIALS

The 'My Story' function of the prototype toolkit enabled participants to input data using a range of media and those inputs were logged and analysed to find out how this function had been used. The camera function was the most used function on the tour with all participants. Of the photos taken on the tour approximately 70% were taken in response to an activity (eg ha'penny portraits). The remainder could be described as 'journey' content as these were taken both at the nodes and en route and included photos of the Creek from different viewpoints, others doing activities (eg on the wobbly bridge and outside the Laban) and objects floating in the Creek. It should also be noted that taking photographs is quite a 'usual way' for visitors to capture content on a tour.

The audio function was well-used on the mushroom echo activity especially when participants were in small groups. The recording function has a more complicated interface than the photo and this had to be explained separately. This may have contributed to why it was used less for journey node inputs. Generally these were incoherent, as if participants were trying out to see if it worked but not having anything to specifically record. Two participants recorded comments about the tour. On the 'designing Greenwich Reach' activity, all those who responded preferred the drawing option to audio even though most of the seeded content for this activity was in audio format.

The drawing function was used by approximately 40% of users in the four trials. Of these, most were in response to the 'no trees on Creek Road' activity where users drew on top of a photo image of the road. It could be surmised that users were less inclined to 'draw from scratch' on the 'design Greenwich Reach' activity. The video function was not available due to insufficient memory but the recorded animation of a dance outside the Laban Centre did prompt some participants (including adults) into dancing. And no users inputted text.

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