

# **Digitally Performing Wester Hailes: A Framework for Creative Placemaking**

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## Author's declaration

This thesis has not been submitted for any other degree or professional qualification.

This thesis is the result of the student's own independent work. The contribution of this thesis and publications informed by this thesis are outlined in section 1.3 The contributions of this thesis.

SIGNED:



DATE: 12/03/2022

## Abstract

This PhD investigates how creative placemaking can be facilitated by digital media tools. Since its establishment as a discipline in 2010, there is a need for new practical methods and frameworks to ensure the success of creative placemaking in practice (Courage & McKeown, 2019). To date, there has been limited research on the use of digital media tools in creative placemaking practice.

This thesis asks:

- How can digital media tools facilitate creative placemaking?
- In what ways can digital media tools support community agency in the representation of place?
- What conceptual framework will support creative placemaking with digital media tools?

Drawing on critical heritage, digital storytelling and place theory, this thesis demonstrates the affordances of these practices as a means of sharing individual and collective constructs of knowledge about a community's local area.

This research undertook a participatory approach through the design of a 'Digi-Mapping' workshop with 101 local primary school children in Wester Hailes, Edinburgh. Over the course of six two-hour sessions, participants created an interactive talking map of meaningful places in their local area. Methods of psychogeography and map-making were employed in the sessions. Data was gathered through video observation, participant-

created artefacts, and summative evaluation. Thematic analysis was used to identify themes of how participants engaged with the digital media tools.

The main findings from the data reveal that digital media tools facilitate creative placemaking by affording participants a new way of appropriating their own cultural knowledge and performing meaning of their local area. These types of expressions also create a rich polyvocality when unpacking discourse around meaningful places. The contribution of this research is a guiding framework based around '4Ps': Participatory, Polyvocal, Performative and Playful.

The '4Ps' framework provides creative placemaking practitioners who are non-experts in digital media tools a means for ensuring the tools used align with the goals of creative placemaking.

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## 1. Chapter One: Introduction

This thesis explores the effective use of digital media tools within creative placemaking practice. The research took a constructionist approach and developed a Digi-Mapping project with 101 primary school children across each of the primary schools in Wester Hailes, Edinburgh, U.K. The project was a co-produced partnership with the newly appointed creative placemaker at local arts organisation WHALE Arts.

Creative placemaking was established as a concept in 2010, with the introduction of the National Endowment for the Arts white paper on creative placemaking (Markusen and Gadwa, 2010). Since then creative placemaking practices have evolved but are still ill-defined (Courage, 2021). Courage and McKeown (2019) argue that to ensure the continued success of creative placemaking, new methods and frameworks are needed.

As a concept, creative placemaking is still not well defined. It began as a strategic federal activity (McKeown, 2016) and has since included more focus on arts practices (Courage 2017). However, creative placemaking according to Wyckoff (2014) is ambiguous in its definition but it broadly sits within two categories: Projects and Activities. Courage (2021) argues that what is missing from the work of creative placemaking is the ephemeral participant experience. Further to Courage's argument, Zitcer (2020) states that if creative placemaking is going to succeed, it "*needs to be institutionalized, and a field of practice needs to be built*" (p.286).

This thesis offers a timely response to the gap identified by Courage (2021) and Zitcer (2020) and developed a Digi-Mapping workshop informed by critical heritage and place theory and practice. The methodological approach to the Digi-Mapping workshops placed

focus on ephemeral experience of participants within creative placemaking, further contributing to the field of practice.

Firstly, it argues that it provides a much-needed conspectus of relevant literature and highlights how critical heritage can be drawn on to inform creative placemaking through areas such as communities of practice, memory, identity and the social actioning of heritage. The literature also draws on Resnick's 4Ps – Projects, Passion, Peers and Play – for creativity as a process to construct and share meaning in creative placemaking. The chapter highlights that again communities of practice are created, that plurality of meanings are created, and that play can be an important tool to construct, perform and share knowledge.

Secondly, it argues through empirical studies that the affordance of digital media tools and digital storytelling offer creative placemaking participatory approaches to community engagement. Thirdly, the thesis argues that a 4Ps Framework for creative placemaking is beneficial for practitioners who are keen to use digital media tools as part of their process. The 4Ps Framework advances a collaborative and accessible approach designed to capture community voices: Participatory, Polyvocal, Performative and Playful. The framework contributes towards the field of practice highlighted by Zitcer's (2020) and Courage's (2021) argument for exploring the ephemeral experience creating participant agency. The framework aligns with the goals of creative placemaking while supporting those who are unfamiliar with specific affordances of digital tools.

This thesis develops the application of Resnick's 4Ps – Projects, Passion, Peers and Play – for digital creativity and their suitability for creative placemaking. While this thesis documents empirical research with children, the application of the 4Ps Framework is not restricted to child specific approaches to creative placemaking. The participants are one

group that make up part of a community. The next section presents the questions proposed by this thesis and how they will be investigated.

## 1.1 The Questions Proposed by this Thesis

### 1.1.1 How can digital media tools facilitate creative placemaking?

This thesis aims to explore how digital media tools can be used to unpack, process, and share meanings associated with place. By combining digital media with site-specific methods, the research seeks to understand the ways that participants creatively interrogate and perform meanings about place. This thesis will initially present a theoretical examination of the connections between digital media and critical heritage to understand how meaning can be constructed and shared within a community. Subsequently this thesis will discuss how using digital media tools with community-based participants can support understanding of how meaning is unpacked, processed, and shared amongst Peers. From this theoretical examination this thesis then presents an empirical study engaging in creative placemaking using digital media tools.

### 1.1.2 In what ways can digital media tools support community agency in the representation of place?

This thesis will critically examine literature on the affordances of critical heritage to counter narratives about place. It will also explore ways of giving agency to non-experts to tell their stories about place. This thesis will conduct a site-specific empirical study in Wester Hailes, Edinburgh U.K. A specific site was chosen to demonstrate these counter narratives within an area that has a negative reputation.

### 1.1.3 What conceptual framework will support creative placemaking with digital media tools?

This thesis will draw on and critically examine Resnick's 4Ps for digital creativity. This framework places emphasis on the individual and collaborative processes of digital creativity. Resnick's framework informed the methods employed in the study and tested the use of digital media tools with place. From analysing the findings, the research will propose a new framework specifically for creative placemaking with digital media tools. The framework is designed to support creative placemaking practitioners' understanding of how digital media tools are used to aid in the unpacking and construction of place-based meanings.

### 1.2 Background: Case Study Wester Hailes

Digi-Mapping Wester Hailes was a participatory design project with local school children in Wester Hailes, Edinburgh. The project design was a co-created partnership with the creative placemaker at WHALE Arts. This newly appointed creative placemaker contacted the university for help in developing a project with school children about their local area. The creative placemaker wanted technology to play a role in the project. The project was designed by the researcher. The creative placemaker had the conditions that each session should not be longer than two hours and that there should be no more than six sessions a project.

The aims of the Digi-Mapping workshops were as follows:

- To use digital media tools and psychogeography to elicit stories from participants about their local area.

- To use the process of map-making to create an interactive talking map of meaningful places in the local area using Bare Conductive TouchBoards.
- To understand how the process of building the Digi-Map can act as a catalyst to unpack meaningful geographies with school children.

A total of 101 participants (4 school classes) took part in the research aged between 8 and 11 (P.5- P.7). A Digi-Mapping project consisted of six two-hour sessions. During the project participants undertook both individual and group work. All groups were determined by the teacher as they had better knowledge of how pupils worked within the class.

The creative placemaker was responsible for recruiting school classes between Primary 5 and 7. The researcher took the lead in delivering the Digi-Mapping workshops in the classroom, the creative placemaker provided additional support.

While the research was conducted in an area of multiple deprivation, it is not the aim of this thesis to focus on the socioeconomic theories and realities that constitute the site as a deprived area.

Built in the 1960s, Wester Hailes is a post war brutalist housing scheme built approximately 5.5 miles west of Edinburgh City Centre. Post-war, Edinburgh witnessed a rising demand for housing. The design of Wester Hailes sought to offer residents of the poor inner-city areas like the Royal Mile opportunities to move to the outskirts of the city. When the estate was built, it consisted of a number of social housing high rise flats that

were poorly constructed. This contributed to making the area an undesirable place to live (Gilloran, 1983).

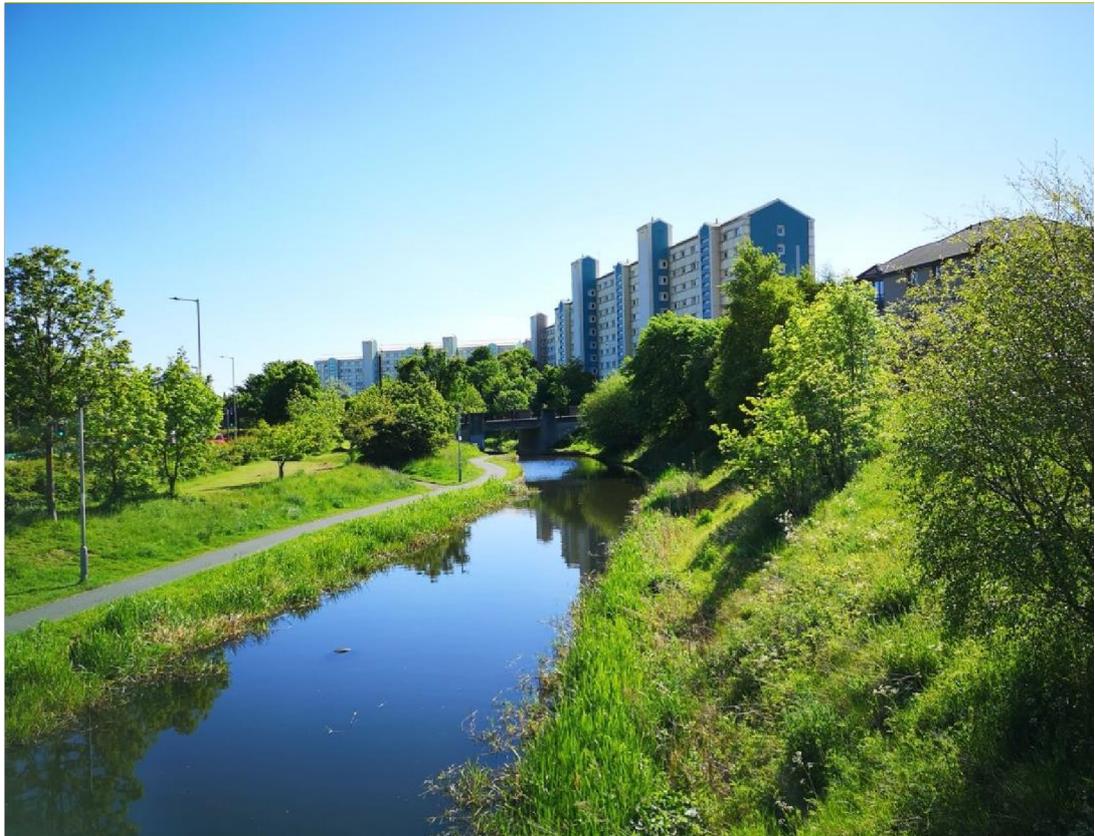


Figure 1-1 Wester Hailes

Further, when the area was built it was given very little in the way of amenities. The local community built a series of ‘Huts’ that served as community centres around the local area (Bradly, 1985, Channel 4). The documentary ‘The Huts’ highlighted the struggle of those living in Wester Hailes and the community activism and spirit that is still there today.

Wester Hailes has consistently suffered from high unemployment, drug, alcohol abuse and crime (LUDA, 2005). In the 1980s and 1990s, Wester Hailes (and Edinburgh) became the HIV/AIDS capital of Europe (McLean, 2019). Wester Hailes became stigmatised with a negative reputation of the place, becoming known as “*Waster’s Hell*” (Matthews, 2014).

The reputation of Wester Hailes was further aggregated and associated with films such

as ‘Trainspotting’ and ‘Restless Natives’. Although many of the old high rise flats have gone, a large amount of the housing in Wester Hailes is still social housing. To this day Wester Hailes still features in the top 10% of areas with multiple deprivation in Scotland (SIMD, 2020).

This means the area of Wester Hailes has a particularly strong history of community activism (Matthews, 2014). WHALE Arts was built on the site of one of the old community huts that stood in Westburn Grove. WHALE Arts has been in the local community for the last 25 years. The work undertaken by WHALE Arts ranges from after school clubs to community garden projects and education and support programmes. At the time of commencing the PhD, WHALE Arts had appointed a new role of creative placemaker funded by the Big Lottery Fund ‘Creative, Connected Community’ for a period of three years. Part of the creativePlacemakers role was to “*directly deliver a programme of creative placemaking activities in Wester Hailes – including regular creative sessions, one-off events and public artworks.*” (WHALE Arts, 2017).



*Figure 1-2 Wester Hailes from The Digital Sentinel (Date Unknown)*

### 1.3 The Contributions of This Thesis

This thesis contributes to new knowledge in the field of creative placemaking in five interrelated ways:

- It adds to the limited literature on approaches and frameworks for creative placemaking.
- This thesis argues that critical heritage is a valuable area in which to inform and develop creative placemaking practice.
- This thesis demonstrates how digital media tools play an important role within creative placemaking practice.
- This thesis makes a further contribution to knowledge in relation to methodology, namely it argues that site-specific, playful methods

with technology can support a community-based reflective process in unpacking place-based meanings.

- Based on the theoretical underpinning and the empirical study, this thesis contributes a 4Ps Framework – Participatory, Polyvocal, Performative, Playful – for engaging in creative placemaking practice using digital media tools.

These five interrelated contributions to knowledge demonstrate that digital media can be a powerful tool in constructing and sharing meaning, as well as creating communities of practice with shared understanding. Digital media tools also afford the ability to create blended spaces wherein unlimited digital layers of meaning can be added onto or complement physical space. This thesis demonstrates that site-specific interactions with place using digital media tools can support triggering memory, hearing contested narratives at surrounding sites, and co-constructing and performing meaning while phenomenologically experiencing a site. It is the aim that this thesis's contribution will help to support creative placemaking practitioners who are not experts in digital media tools. Using the 4Ps Framework can aid in the process of creative placemaking activities to unpack and understanding how community members feel about where they live.

While this thesis is interested specifically in the sub-discipline of creative placemaking, it contributes to the establish area of critical heritage. This thesis contributes to this area by presenting a framework focusing on the ephemeral process of using digital media that contests agency, criticality, social action, and inclusion of community voices to understand place. Moreover, as digital media tools become increasingly affordable and popular within practice, the framework can support practitioners with ensuring tools used are relevant and that they support criticality and agency.

This research situates itself within critical heritage, but it is also interested in the new 4Ps Framework's potential within authorised heritage discourse. While institutions do public engagement work with communities and engage in counter narratives, most is still through the prism of authorised heritage discourse. This framework can contribute to support institutions by creating a more critical process that creates inclusion and agency with communities.

This research is also interested in future explorations using the 4Ps Framework within critical heritage for future making and capacity building using digital media tools.

#### *1.3.1 Publications informed by this thesis.*

Grandison, T., Flint, T., & Jamieson, K., (2021), Digi-Mapping: Unpacking meaning of place through Creative Technology. Cultural Heritage and Social Impact: Digital Technologies for Social Inclusion and Participation.

Grandison, T., Flint, T., Jamieson, K., & Muir, L. (2020), Digi-Mapping: Unpacking meaning of place through Creative Technology, ACHS 2020 FUTURES – Association of Critical Heritage Studies 5th Biennial Conference, University College London, UK

Grandison, T., Flint, T., & Jamieson, K., (2020), Digi-Mapping Wester Hailes. Let's

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#### 1.4 Structure of this thesis

To examine the affordances of digital media tools as a medium for undertaking creative placemaking this thesis firstly presents a review of literature in chapters Two and Three. Chapter Two: Connecting Creative Placemaking and Critical Heritage, defines creative placemaking and its collaborative approach to understand ‘places-in-the making’. The chapter argues that critical heritage studies provide useful conceptual distinctions and ground-up approaches that are apt to support and advance collaborative creative placemaking approaches. With these connections to critical heritage studies, the chapter presents an argument as to why critical heritage is a useful backdrop to community place-based identity, highlighting individual and collective agency and empowerment.

Building on these arguments and concepts established in Chapter two, Chapter Three: Imparting Meaning through Digital Media demonstrates the affordances of digital media tools as a way of sharing and contesting community heritage that contribute to creative placemaking. The chapter critically examines the appropriateness of Resnick’s

4Ps in relation to collaboration and creativity with digital media. Chapter two argues that Resnick's framework is a helpful lens through which to examine the process of digital media creation. The chapter argues that digital layers can be added to physical spaces creating 'blended space' where different types of meaning can be added.

A summary of chapters two and three synthesizes the key arguments and conceptualisations from the literature review. In particular, the summary highlights the value of Resnick's 4Ps to this thesis and the study of creative placemaking. The summary situates the thesis in relation to the prevailing gaps in knowledge and relates the proposed research questions to those relevant disciplinary and professional contexts that would most benefit from the thesis's findings. The summary of the literature review concludes by suggesting that while Resnick's framework is a useful starting point it needs to be refined to encapsulate the ethos and processes of creative placemaking practice, and to situate digital media tools at the core of collaborative and creative methods.

Chapter Four: A Participatory Approach to Wester Hailes presents the empirical research of this thesis. The chapter begins with a discussion of the research approach and the theoretical principles that have influenced the research design and methods. It introduces the argument for a Participatory Action Research approach (PAR) and explains how PAR provides a research framework within which collaborative activities and community engagement projects can be understood. Next, it distinguishes between the forms of collaboration that took place during the empirical research. The chapter moves on to discuss the methods used in the empirical study. In so doing, it presents a Digi-Mapping workshop specifically designed for the investigation as method and considers how participatory workshops with children can be understood methodologically.

Chapter Five: Design of a Digi-Mapping Workshop presents the research design and contextualises the research site for the case study. The chapter then presents the research design which took the form of a series of Digi-Mapping workshops that ran over six two-hour sessions in schools in Wester Hailes. Finally, the chapter presents a thematic analysis approach to understand the processes and meanings that have been shared during the workshop.

Chapter Six: Rediscovering Wester Hailes presents findings from the Digi-Mapping workshops employing thematic analysis to video data and artefacts created by participants. The chapter is broken down by week with a recap of aims from the session. Participants were asked to engage in different tasks each week. Evidence of findings are demonstrated under their assigned codes for that week.

Chapter Seven: A New 4Ps Framework discusses the findings in relation to the literature and to Resnick's framework. The chapter is split into four sections: Participatory, Polyvocal, Performative and Playful. These are the four top level themes from the findings that are the bases for the proposed 4Ps Framework. The chapter develops an argument as to why the 4Ps Framework is advantageous for engaging in creative placemaking using digital media tools. Digital media tools create a digitally blended space to which participants can assign personal meaning.

Chapter Eight: Conclusion details the original contribution of this thesis. Three main contributions are highlighted. These are:

- This thesis has brought together the areas of critical heritage and digital media which were limited in creative placemaking theory and presented how these areas can support creative placemaking practice.
- This thesis has addressed the calls for more focus on the ephemeral experience of creative placemaking.

The biggest contribution of this thesis is a new 4Ps Framework for engaging in creative placemaking using digital media tools.

## 2. Chapter Two: Connecting Creative Placemaking and Critical Heritage

This is the first of two chapters that provide a critical review of literature. This chapter begins by first defining creative placemaking, its current struggles and highlighting the need for new processes that foreground affect and connections to place using arts practices. The section also addresses the importance of participant agency in creative placemaking, which it aligns with communities of practice within the community heritage paradigm. Drawing much-needed connections with critical heritage studies, the chapter presents an argument as to why critical heritage is a useful backdrop to community place-based identity. This chapter then reflects upon a wider investigation of the meaning of place and links this to shared meanings and nostalgia.

### 2.1 Defining Creative Placemaking

‘Creative placemaking’ was first defined by Markusen and Gadwa (2010) in the National Endowment for the Arts White paper, which highlighted what creative placemaking is and how federal investment could help revitalise communities by making community members an equal part of the process in revitalisation. Initially, creative placemaking was part of what McKeown (2016) describes as a strategic federal activity. Markusen and Gadwa (2010) define creative placemaking as

*“In creative placemaking, partners from public, private, non-profit, and community sectors strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired” (p.3).*

Creative placemaking puts focus on participatory process and the use of creative arts practice to create change in an urban area. It also involves some level of curation in the way knowledge is shared – a way of keeping track. This curation is more focused on the relationship between people, places, ideas and objects. The curation is a co-produced effort between the different actors involved (Courage and McKeown, 2019). Courage (2017) argues that creative placemaking utilises creative practices within placemaking. Doing this affords exploration of how individuals express their identity and their connection to place. This is done through personal, collective, material, social and psychological processes.

Since its definition in 2010, creative placemaking projects have taken a multitude of forms, due in part to its loose definition (discussed further at the end of this section). Wyckoff (2014) states that it generally sits within two areas: Projects and Activities. Projects refers to building development such as museums and live-work spaces for the creative industries. Activities, on the other hand, refer to more arts-based activities such as art projects, outdoor concerts and cinemas; things he describes add to “quality places”. Wyckoff (2014) highlights the ambiguity of creative placemaking within placemaking. His paper proposes four potential areas: placemaking, strategic placemaking, creative placemaking and tactical placemaking. As can be seen from Figure 2-1, these areas still overlap and can create ambiguity.

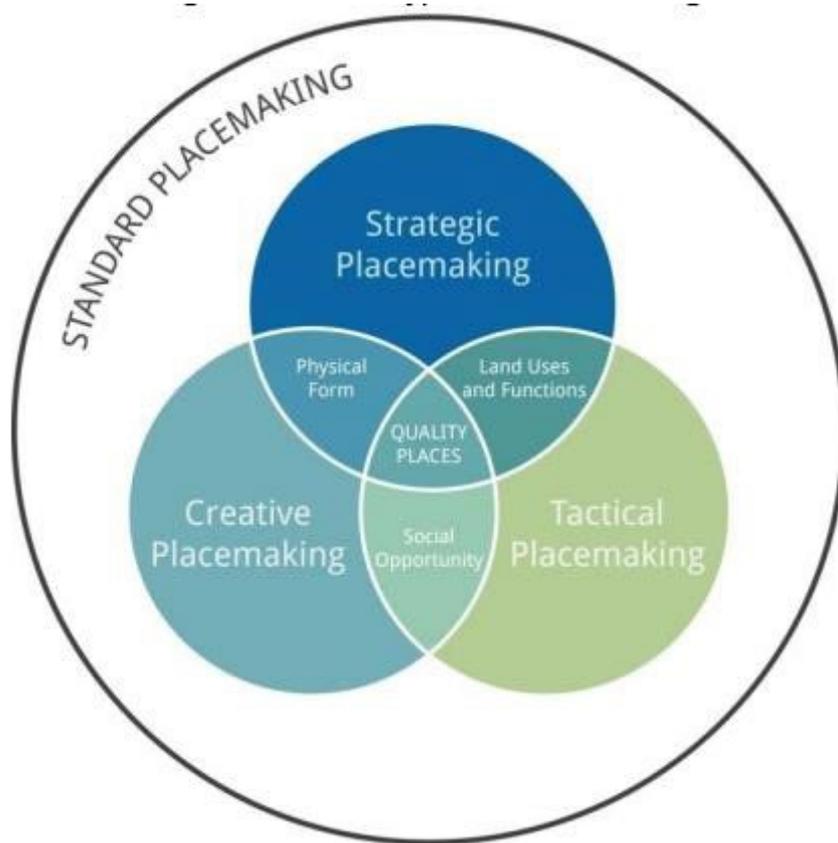


Figure 2-1 Wyckoff (2014) Placemaking Model

Zitcer (2020) analyses the contestation of the term creative placemaking through a case study in Philadelphia. The author argues it is still unclear what exactly creative placemaking is, and what it is meant to do. According to Zitcer (2020), if creative placemaking is going to succeed in public funding, it *“needs to be institutionalized, and a field of practice needs to be built”* (p.286). Emphasising the ambiguity of the term, the author argues that it is hard to measure outcomes when creative placemaking is publicly funded. This, he suggests, is partly due to the areas of two branches of economic development and social arts or, as Wyckoff (2014) termed them, ‘Projects’ and ‘Activities’.

Courage and McKeown's (2019) book *Creative Placemaking Research Theory and Practice* starts to demonstrate this field of practice. The authors argue that creative placemaking needs to move beyond the urban development and economic end products that have dominated creative placemaking practice. They argue instead that there is a need to incorporate deeper aspects of arts and citizen engagement and the "ephemeral practices of creative placemaking" (p.201).

Courage (2021) argues that the role of creative placemakers is not to empower others; those participants have power. Instead, it is a creative placemaker's role to create a platform to empower communities with a sense of agency. This argument supports that of van Heeswijk (2012), who states, "The community is the expert in being the community". Similarly, Courage (2017) argues that when creative placemaking is done properly it creates an 'agency of relative expertism'. Although Courage (2021) gives much of their attention to the ill-defined nature of creative placemaking, the author nevertheless considers it an approach that uses certain tools to support the placement of the community at its centre. As such, the authors consider creative placemaking a 'community of practice'.

Courage (2021) draws upon Wenger's (2006) principles of a community of practice. At its core Wenger (2006) defines a community of practices as a group who "share a concern or passion for something they do and learn how to do it as they interact regularly" (p.1). According to Handley et al. (2006), communities of practice are vital to creative placemaking wherein through participation, identities evolve through a process of action and connection (p.634). Wilding (2011) provides a useful synthesis of Wenger's work around communities of practice and demonstrates from Wenger's work that the purpose of communities of practice is to "create, expand and exchange knowledge and to develop

individual capabilities”. Moreover, Wilding mirrors the arguments of Handley et al. (2006) and states that what keeps a community of practice together is how participants identify with the group and how their expertise and identity is formed through passion and/or shared expertise (Wilding, 2011; Open University, 2010).

When examining communities of practice in relation to creative placemaking and critical heritage, Fusté-Forné & Nguyen (2018) provide a useful link between communities of Practice (CoP) and Intangible Cultural Heritage (ICH). They argue that:

*“CoP brings together concepts of history, identity, values, practice, and community. Intangible cultural heritage (ICH) communities are networks of people whose sense of identity and interconnectedness emerge from a shared historical and geographical relationship” (p.1).*

They also argue that communities of practice enhance place attachment through these ICH practices. Interestingly, Courage and McKeown (2019) have argued that if creative placemaking is going to continue to be a successful discipline then new frameworks and methods are required to explore and understand ‘places-in-the-making’ and community voices. These community voices, the authors argue, can support and ‘encourage citizen-led agency’ (p.1). It could be argued that creative placemaking creates an ecology of community voices wherein space is given to collaboration and co-construction of place-based knowledge.

This thesis both reflects upon and contributes to the development of creative placemaking and provides a route to a much-needed focus on deeper aspects of identity and connections to place. Such a necessary emphasis upon identity and place is provided by critical heritage, explored in section 2.2 ‘Critical Heritage’, which as this thesis argues,

offers a useful emphasis upon the generative capacity of participatory practice to represent the plurality of identity, and to support communities' self-representation.

## 2.2 Critical Heritage

The previous section explored the conflicting definitions and approaches of creative placemaking and argued that it is best understood as a community of practice. The section then contextualised communities of practice and demonstrated the impact they have on communities in sharing knowledge, expertise and developing identities. This next section on critical heritage will firstly address the opposing structures of authorised heritage discourse and critical heritage, highlighting the role of the community as expert. The argument that unfolds is that parallels can be drawn between creative placemaking critical and community heritage through their processes of creating communities of practice, citizen empowerment, agency and the ability to engage in contested heritage and perform meaning. The decision to focus on critical heritage has been made given the site of the empirical research is one of a negative reputation. Critical heritage seeks to engage in counter narratives with communities. Further, as Winter (2013) argues critical heritage should engage in critical issues facing communities. These critical issues tie very closely with aims and of creative placemaking practices as outlined in section 2.1 Defining Creative Placemaking. The aim is to present how meanings of place are constructed, and importantly to consider how individual and collective knowledge and memory contribute to the meaning of place. In the paragraphs that follow, these processes of meaning making are linked to phenomenological experience of place, described in relation to psychogeography. Section 2.3.3 argues that psychogeography plays a vital role in aiding memory and experience of place.

### 2.2.1 Top-Down V Bottom-Up Heritage

Critical heritage can often incorporate many of the aspects that are closely aligned with creative placemaking. These similarities will be critically examined in section 2.2.3 Bottom-Up Heritage and will argue that it is useful to turn to critical heritage and community heritage to inform creative placemaking. By critically comparing two distinct approaches to heritage, namely top-down authorised heritage discourse and bottom-up critical heritage, the aim is to understand their effects and affordances, and importantly in the context of this PhD, how their application supports creative placemaking.

In order to further develop the necessary understanding of how heritage is generated and shared the chapter then seeks to identify the expressive processes of heritage, specifically those categorised as Intangible Cultural Heritage (ICH). By understanding the intangible properties of expressing and performing cultures the chapter then addresses how some heritage is created and mediated through memory and storytelling (which is further discussed in section 3.2 Digital Media and Bottom-Up Heritage).

As described by the Faro Convention, cultural heritage is defined as

*“a group of resources inherited from the past which people identify, as independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.” (Faro Convention, 2005)*

It can be argued that the Faro Convention’s definition supports the view that a shared cultural heritage is part of what makes a community and its shared sense of identity. Sections 2.2.3 Bottom-Up Heritage, 2.3 Construction of Place and 3.2 Digital Media and

Bottom-Up Heritage will further explore the ways in which place-based identities are constructed.

### 2.2.2 Top-Down Heritage

While this thesis does not specifically engage in authorised heritage discourse, it is necessary to address distinctions between top-down and bottom-up approaches to heritage. For instance, museums often described their work in relation to civic engagement, which is facilitated by Community Engagement Officers. However, the work they do is often defined and executed in a top-down manner through the prism of authorised heritage discourse. This means that museums can struggle to create social inclusion and successfully represent marginalised perspectives (specifically from communities that heritage affects but does not include). It is also necessary to note the work institutions are doing that are engaging in more critical practices using technology. By understanding the differences in approaches to the two types of heritage, this thesis presents why bottom-up approaches providing community as expert can create more democratic engagement with heritage that creates social inclusion. This focus may be of interest to heritage institutions wishing to develop their own approaches to civic engagement with heritage.

Top-down heritage, or as Smith (2006, p.29) describes it ‘authorised heritage discourse’, is heritage that is driven by a western hegemonic discourse of elitism. Practices involved in this form of heritage are the cherry picking of ideas aligning with the notions of romantic nationalism and the asserting of a believed national identity. However, this type of heritage discourse means that it can disregard alternative positions that do not align with these values. Anderson (2016, p.178) argues that historically, heritage practices within museums were used partly as political statements to reinforce national identity and

to further political agendas. Many early museums in the U.K. display artefacts brought back from the Empire partly for people to see (predominately the middle and upper classes) but more as a statement of British Power in the world (Jones, 2014; Livingstone, 2018).

Hobsbawm and Ranger (1983) tell us that much of the tradition within cultures and practices is in fact not authentic at all in many cases. That although we think something is historical, in fact this is inaccurate and has been invented to further push the idea of identity through practices that are not traditional. Tradition in some ways is invented to give the illusion of history and lineage (ibid). Heritage practices began to shift after the 1990s as outlined by Harrison (2013); Smith (2006); Winter (2013). Waterton and Watson (2015) state that there is still much to be done in representing counter narratives and engaging with communities and publics in the interpretation and construction of museum exhibits.

While heritage sites offer online access to collections, if individuals wish to tangibly experience a museum or heritage site, they must go to them; they are destination places. While objects are brought into these spaces for authentic retelling, as Clifford (2004, p.20) points out this kind of authenticity in such places is really “authentically remade”. This does not mean it adheres to Hobsbawm and Ranger’s (1983) theory of invented traditions but it does highlight that the removal of objects from context and of site specificity can potentially affect our engagement and experience of objects and narratives. Heritage spaces are carefully curated to align with an accessible narrative that a broad spectrum of individuals can easily engage with. These heritage narratives are constructed by professionals who are at a distance from what they are curating. Curators in most cases do not come from or are not part of the community being exhibited; there is a social,

cultural and economic disconnect. Jones (2017) states that part of the difficulty of the heritage industry is how heritage professionals value and assess significance. Interestingly, Jones argues that these types of expert assessments of significance lack the embodied social value of heritage.

Jones's (2017) research investigated heritage management and its social value. The author demonstrates the struggles that the heritage industry still faces. Firstly, the author argues that public participation is still marginal within many areas, and it remains the case that experts determine social value. Secondly, Jones (2017) argues that these types of heritage need to move beyond the idea of 'fixed' and 'the past'. The best way to achieve this, she argues, is to engage in public participation, particularly with the aim of working with communities to co-create a "fluid process of valuing the historic environment" (p.33). One example where heritage experts still determine the social value of heritage has been addressed by Adie (2017). The author discusses the heritage industry in relation to UNESCO and World Heritage status. She argues that World Heritage status has become a franchised brand with regulation contracts and fees to pay to the brand if sites are monetised. If World Heritage deem that sites are not at a satisfactory level, then their World Heritage status can be removed.

In critical opposition to the heritage industry is critical heritage, which as its prefix suggests counters the hegemonic and elite processes of an industry approach to community, culture and identity. Key contributors to the development of critical heritage, Harrison (2013) and Smith (2006), have argued for the revised social potential of heritage and a more social and collaborative role for heritage practitioners, which will be further examined in section 2.2.3 Bottom-Up Heritage. Critical heritage stands in opposition to many aspects of authorised heritage discourse and the heritage industry. Winter (2013)

states that while critical heritage can critically engage with professional practice and organisations, it also should address social issues that go beyond heritage.

As Aidie (2017) argues it is most often experts that determine heritage values. In contrast in critical heritage, community members are considered experts of their own culture and as such their knowledge is understood as both authoritative and authentic (this is further discussed in section 2.2.3). Smith (2006) and Walsh (1992) both argue that this type of heritage raises questions about who owns the heritage, who owns the stories, and the objects that are presented as cultural artefacts to be visually consumed by visitors. Building upon this further Harris (2013) and Fyfe and Ross (1995) raise another equally interesting point regarding the consumers of heritage. These authors argue that museums are spaces that attract only some of the population. Attention to the social demographics of heritage sites and museums reveals a distinct socioeconomic consumer. Gradén and O'Dell (2020) discuss this problem with heritage institutions using a case study in Sweden. They claim that it is a difficult balancing act between bringing in money and attracting more diverse populations into the museum. They argue that diversity is not as high a priority as bringing in money. They state what is more important is the *“relationship these institutions have with their stakeholders, a relationship in which money talks and management works incessantly to create revenue and institutional sustainability”* (p.342). Gradén and O'Dell (2020) further state that museums' primary relationship and audience is still the middle classes, and that keeping this focus means they will struggle to successfully engage other diversities.

Referring back to Jones (2017) argument that public participation is needed to create a *“fluid process of valuing the historic environment”* (p.33), it is important to acknowledge

the work that institutions who are trying to create more participation and criticality in their spaces.

Within museum spaces, Arrigoni and Galani (2019) claim that by employing more practice-based approaches that utilise technology; they can engage in more polyvocal narratives and create more authentic representations. They argue however that while this is engaging it still creates a power dynamic between presentation and consumer. However, these immersive experiences can support polyvocal practices within museum spaces (p.55). Tsenova et al. (2020) argue that large heritage institutions could leverage their volunteers much more in the heritage making process. They argue that their expertise of their own knowledge combined with their skills in storytelling and the use of technology can help to foster counter interpretations. This helps to create long term engagement. This can be seen in the work of Claisse et al. (2020). Their work brings together digital media and museum volunteers within a house museum setting. They used the volunteer expertise to undertake a critical interpretation of the museum to create an interactive exhibition. They argue the value of polyvocal narrative within the heritage processes allows space and objects to be reimagined. Their work brought together volunteers which is a community of practice to imagine a new interpretation for the house museum. As stated, while not the scope of this thesis, it is important to address the critical heritage work currently happening within museums spaces. With these developments, this research may be of value to institutions when design critical engagement.

Three important points can be summarised from the above literature with regard to top-down heritage:

1. Museums and heritage sites are destination locations often removed from the context of their origins and communities. In turn, this may mean that formal heritage sites do not represent the local community accurately, which may lead to a sense of dissonance, wherein the community being exhibited does not come as a visitor to the site and reflect on the experience.
2. Authorised heritage is often selected, curated and mediated by professionals, not the community itself, whose expertise in the area is often missed. This means that although a history may be represented, place-based views and local relations and complexities believed to be important by the community are not represented.
3. Top-down heritage has an authorised narrative devised with the aim of attracting consumers and encouraging footfall. This can be observed from the arguments that primary consumers of museums and heritage sites are the middle classes. As these make up a large portion of consumers, they are then the targets when it comes to income generation for museums.

Each of the above three points reveal how local voices, values and relationships are often denied representation by the professionalised processes of the heritage industry. The following section gives a more detailed account of critical heritage and its relation to communities and issues of power.

### 2.2.3 Bottom-Up Heritage

This section discusses bottom-up approaches to heritage. It makes reference to critical and community heritage. While their aims are not necessarily the same; both areas engage in bottom-up approaches to heritage, create communities of practice and privilege community as expert which is relevant to creative placemaking. The differences are that critical heritage engages in counter narratives around dominant ones e.g. social justice and power. Community heritage can engage in these topics however more emphasis cultural rights, it ensures the community is part of the process sharing their knowledge, stories and interpretation. Links between critical and community heritage with digital media are made in section 3.2 Digital Media and Bottom-Up Heritage. The justification for a critical heritage focus is made through its ability to look at societal and global issues which directly connect to the goals of creative placemaking

Bottom-up heritage or critical heritage as described by Harrison (2013) and Baron (2016) centres on those who critically analyse and interrogate heritage practices. Harrison (2013) claims the discursive turn in heritage rose in the mid 1980s (p.98) (for a comprehensive review of this literature see Harrison, 2013) and this began to shift heritage towards a more democratic process away from the established elite practices of securing the future of assemblages of power such as The British Empire and institutions.

Through a critical heritage approach, communities are encouraged to take ownership of their heritage and share their meanings and interpretations (Waterton & Smith, 2009). According to Silverman (2014), critical heritage approaches focus on heritage as *process* and *performance* while standing at a multitude of intersections to interrogate areas such as knowledge, power and discourse (p.3332). Baird (2010) complements Silverman's definition but goes further to argue the intersections of critical heritage areas are then

examined through interpretation practice and management of heritage. In opposition to authorised heritage discourse, Silverman (2014) states that:

*“CHS is sensitive to those who typically receive inadequate attention from the wielders of power. CHS recognizes the different and often contradictory understandings of the nature, ownership, value, meaning, and significance of heritage that are held by official interlocutors and unofficial sectors of the population”* (ibid.).

In order to approach critical heritage with communities Flinn and Sexton (2013) argue that participatory approaches are needed that empower both individuals and communities over their own histories. By using such approaches that recognise community knowledge that is socially constructed it becomes, as they state: *“a valuable process and resource which aims to transform not only the lives and understanding of those who engage in the process but also may contribute to the transformation of the political, social, economic and cultural realities in which they find themselves”* ( p.3).

One example of engaging communities with critical heritage is the work of Terracciano (2020). They used ground-up participatory approaches to elicit meaning of place with a focus on the experience of migrants. The research sought to bring different migrant journey narratives together to create a connection between other migrants with a large interactive art installation. The aim of Terracciano’s (2020) research was to challenge cultural stereotypes and geopolitics. Alternatively, Manuel et. al (2017) used digital media and storytelling within communities to widen participation in neighbourhood planning processes. The workshops engaged in elements of critical heritage such as imagining a new future for showcasing the history of the town. Maneul et al.’s (2017) work links closely with an area that is often investigated in creative placemaking, particularly tourism and urban planning.

Further discussed in section 3.2 ‘Digital media and bottom-up heritage’, digital media has opened up the participatory nature of heritage. Liu (2010) argues that social media has dramatically changed with way people share, engage and contest heritage in digital spaces. Galani, Mason and Arrigoni (2019) explored how museum and bottom-up heritage can actually converge through digitally mediated dialogues. They argue that different types of dialogue can take place using digital media:

- It can happen between institutions and people.
- It can create unofficial narratives which means that they can be more diverse.
- These dialogues can attract new audiences.
- Dialogues do not have to happen at physical sites.

The Council of Europe’s (2005) ‘*Faro Convention on the Value of Cultural Heritage for Society*’ came away with three core ideas around the concept of cultural heritage practices which were that heritage is for everyone, heritage is everywhere, and everyone is a heritage expert. This again shows parallels with creative placemaking. At its core creative placemaking accepts that the community are experts about where they live. That is why they are equal partners for investigating and understanding place and the changes the community wish to see. This shift in approach to heritage practices, in contrast to practices of AHD, affords individuals the opportunity to take ownership and be the experts of the heritage they wish to share. By approaching heritage from this perspective, it becomes oriented to issues of community and engagement, and is developed through practices that facilitate the sharing of heritage meanings, and work towards a more pluralised interpretation of heritage.

Harrison (2013) posits that critical heritage, its use and practice are vital in understanding contemporary society and meaning making. Further to heritage becoming more of a democratic process, Samuel (1994) suggests social uses of heritage should be considered in relation to how it could be used as a force of change (p.160). Winter (2013, p.533) argues that the critical element should go further still, and that critical heritage could be used to address social-political issues as well as environmentalism and climate change.

What Winter (2013) has proposed here ties closely the some of the aims of heritage futures. Green (2012) argues that thinking with history can support us thinking about the future. This can be done by using history to create scenarios that are then critically engaged with, disrupted and transformed into new realities.

Sandford (2019) argues that there are two types of future narratives in heritage.

- Using ideas of the future to better understand the present day. They can be removed from social context
- Lived Futures: This is a group of people or place and imagining the affect and relationships between community or places within wider society.

The second of Sandford's (2019) definitions further supports the arguments of how critical heritage can support creative placemaking. It is these types of critical engagements within communities and their relationships that are core elements of creative placemaking practice.

To understand the process of bottom-up heritage, Harrison (2013) proposes a critical heritage framework. His framework is intended to serve as a useful tool when defining what a critical heritage approach involves. Harrison's approach is based on a grounded material semiotic approach consisting of three areas:

1. Actor Network Theory; people or object that affect heritage
2. Assemblage Theory; how groups come together to discuss heritage
3. Heritage as apparatus; how heritage can be used as a tool

Harrison's framework closely aligns with the principles of creative placemaking as demonstrated below.

**Actor Network Theory:** How place and community affect how people feel about where they live.

**Assemblage Theory:** How creative projects bring members of the community together to discuss, design and develop change they want to see in their community.

**Heritage as apparatus:** The types of creative placemaking projects that are created and tested as to how they may affect places and create dialogue about future places.

Considering Harrison (2013) framework, Sterling (2019) argues that there are four types of critical heritage

1. The narratives of marginalised communities to create more inclusive heritage
2. The critique of institutions and how heritage operates
3. Critical products such as artefacts and exhibitions
4. How critical heritage can be used to interrogate societal and global issues

The fourth of these is of particular interest to creative placemaking and links with heritage futures. Many of the goals set out in creative placemaking aim to interrogate feelings, attitudes and changes people wish to see in their local area.

A bottom-up approach is driven by multiple community experts and is designed to give space to underrepresented and marginalised voices. Such a bottom-up approach celebrates diversity and the reflective inclusion of community members whose lived experience can contribute to contested narratives and polyvocality (Farman, 2018). It can be argued that a shared cultural heritage is part of what makes a community and its shared sense of identity.

As argued above, critical heritage complements creative placemaking; they share a commitment to putting the community at the centre and recognising their expertise. Both critical heritage and creative placemaking are apt to explore complex intersections of knowledge, power and social justice and these meanings can be pluralised and contested through the performance and revision of heritage meanings.

While it could be argued that critical heritage focuses more on the history of a community or place, creative placemaking needs to be sensitive to both historical and contemporary aspects in order to gain a more holistic understanding of the complex relationships people have with places. Critical heritage also focuses on the different perspectives and narratives that contribute to the complex structures of place just like in creative placemaking. Both critical heritage and creative placemaking focus on the use of participatory processes to uncover meaning. One example of this can be seen in a programme by Historic Environment Scotland's 'Scotland's Urban Past', which ran a project called Past Forward in 2019. The aim of the project was to bring communities

together from across Scotland to share their stories about their local areas. The project developed community skills using different approaches such as film making and photography as a medium to “tell their story, in their way” (p.3). One approach was to use community mapping as this can elicit both tangible elements such as physical sites and intangible aspects such as tradition and storytelling which they argue create a commonality around place (p.14). Moreover, they argue that it was both valuable and creative in democratising heritage to underrepresented groups; in one case an LGBT+ community map of Edinburgh. By using this critical heritage approach, they found in their reflections on the project that letting the community take the lead in sharing and performing meaning created empowerment of community members which spurred on their vested interest in the project leading to its success.

#### 2.2.4 Bottom-Up Heritage – A Summary

In comparison to authorised heritage discourse, as argued by Harrison, 2013; Waterton & Smith, 2009; Baron, 2016; Baird, 2010 and Silverman, 2014, critical heritage practices afford communities the opportunity to come together to share personal narratives and perform meanings about heritage.

A community’s creation of their own heritage does not require permission or approval from authoritative institutions; this means views expressed through tangible and intangible cultural heritage can stand in opposition, creating what Liu, Dupre and Jin (2021) describe as contested heritage. The authors conducted a systemic review of literature around the term and found a lack of agreement, especially as contested heritage is frequently a broad term used across specialisms. The authors argue however, that what contributes to contested heritage is urbanisation and tourism, which often packages the past, leading to contestation from communities.

Critical heritage exists outside the formal processes of recognition and sanctioning of value; no approval is needed except from those sharing their own heritage. This can contribute to the creation of what Jocson (2015) describes as distributed expertise. Jocson's research on distributed expertise focuses on new media literacies that create social action and cultural knowledge production. This will be further examined in section 3.2 Digital Media and Bottom-Up Heritage. Distributed expertise contributes to the co-production of heritage narratives where connections can be made and remade around experiences, meanings and memories in community settings.

Interestingly, this type of community expertise is one of the core components of creative placemaking. Using critical heritage approaches offers a useful way for creative placemaking to meaningfully incorporate individuals' feelings and place-based identities as a community of practice.

### 2.3 Construction of Place

This section examines how meaningful places are constructed both individually and collectively. It does this by drawing on place theory and moving on to examine how shared knowledge and collective memory contribute to meaning. Lastly, the section moves on to demonstrate that psychogeographical experiences of places can be an important trigger for memory and meaning making.

There are competing approaches when it comes to defining the construction of place. For example, Agnew & Duncan (1989, p.2) propose that place as a concept can be broadly split into three sections: sense of place, locations and locale. Lefebvre (1991) on the other

hand, defines space as also being made up of three sections: social practice, representations of spaces and representational spaces (p.38-39). Taking a rather different approach, Milligan (1998) argues that meaning in the construction of places comes from two closely linked concepts of “(1) interactional past, or the memories of interactions associated with a site, and (2) interactional potential, or the future experiences perceived as likely or possible to occur in a site.”

An important aspect to consider with space or place according to Anderson (2009) is that anyone who uses them can edit and re-edit such places. This is done by adding an individual's own cultural beliefs and actions to a place. In doing so, these leaves 'traces'. It can be argued that this is similar to both creative placemaking and critical heritage. Both areas place focus on community members being expert about their local area. This affords individuals and collectives the ability to constructed and perform meaning which may evolve when contested narratives are engaged with. This is a particularly useful term and is further discussed by Ingold (2007) who argues that all places have 'traces' and as humans we 'follow traces' in different forms of paths. These traces can also take on another meaning, which can be an entanglement of material (e.g. building, signs) and non-material (ritual, memory and sensory), which can constantly change and contribute to an evolved meaning of place.

Both Relph (1976) and Tuan (1977) argue places exist within space but both phenomena are required to understand their interconnectedness and mutual affect. Seamon and Sowers (2008) argue that these differentiations help to understand spatial context overall. According to Anderson (2009) while these theoretical approaches anatomise place, they nevertheless allow for a comprehension of space that captures it as a meeting point between a culture and its context. This allows for adequate room to investigate meaning

and experience of place with regards to critical heritage. When discussing place and particularly sense of place, Rodaway (1994) investigates how sensory experiences affect our experiences of geographic locations. He suggests that these are hidden geographies driven by sensory experiences.

### 2.3.1 Shared Knowledge

As already discussed in section 2.1 Defining Creative Placemaking, Courage (2021) highlighted that central to creative placemaking's success are communities of practice. Wenger-Trayner (2015) defines a community of practice as “groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly” (p.1). What specifically makes communities of practice different to communities is:

1. There needs to be shared interest of some sort,
2. Engagement with each other
3. They practice by sharing knowledge (p.2).

Communities of practice do not necessarily need to be bound to a specific physical space, they can come together over digitally mediated networks. In turn, the practices all contribute to an evolving narrative around a topic and create what Combes (2013) describes as “collective emotion” as the group is invested (p.51). Examples of shared knowledge can be seen in the previous section when investigating critical heritage approaches and how connections are made through a shared knowledge. Shared knowledge and communities of practice also play a key role in the sections 2.3.2 Collective Memory, 3.2.2 Digital Folklore and 3.4 Remediation in which shared knowledge shapes and evolves narratives and their associated meanings.

### 2.3.2 Collective Memory and Nostalgia

Collective memory was coined as a concept by Halbwachs in 1925 and more notably in 1950 (Coser, 1992). Halbwachs claims that collective memory is socially constructed, it is individuals who remember and come together collectively (p.22). de Saint-Laurent (2018) suggests that collective memory affords the study and dissemination of different discourses of the past and the methods by which they are created. Sontag (2003, p.85) mirrors Halbwach's arguments and asserts that memory is individual, and that exact memory cannot be reproduced. Sontag goes further to argue that collective memory does not aim to remember but stipulates. This is achieved by the way memory is shared. Individuals select what is important to share, what the story is, how it occurred and any props that are used such as pictures to help others imagine the story. Sontag argues that when these are used by AHD institutions they are in the form of archives, representations of memory. Often what happens is that these representations are used to create a commonality of significance and used to trigger desired or predictable feelings, attitudes and thoughts.

Brockmeier (2002) argues that the act of passing on memory through the passage of time, remembering and forgetting can evolve and change meaning.

In AHD, Smith (2014) argues that collective memory is curated by experts and does not bring in individuals or non-experts into memory narratives with heritage spaces (p.134). However, Nora (1989) argues that memories themselves are not 'things' embedded on object, stating "history is perpetually suspicious of memory, and its true mission is to destroy it" (p.9). Waterton and Watson (2015) further clarify this point by stating that Nora's argument is that memory knowledge is a selective social process and not always grounded in objective fact which is of the interest to those in institutions (p.219). This is

important to note as memory can form part of our construction of self and social identity and as Shoham (2011) notes, memory narratives in museums are limited.

When observing the work of AHD on a local level within communities Farman (2018) argues that authorities stipulate what heritage is deemed worthy of remembering. Collective memory narratives can take the form of objects such as memorials, statues and blue plaques of notable people. While some in the community may have memories associated with object, there is no room to add their meaning to the approved object (ibid). This raises questions of what communities deem worthy of remembering through multiple narratives and meanings associated with place. The case study – Edward Colston – in section 2.3.2.1 demonstrates the friction between AHD and community and collective remembering.

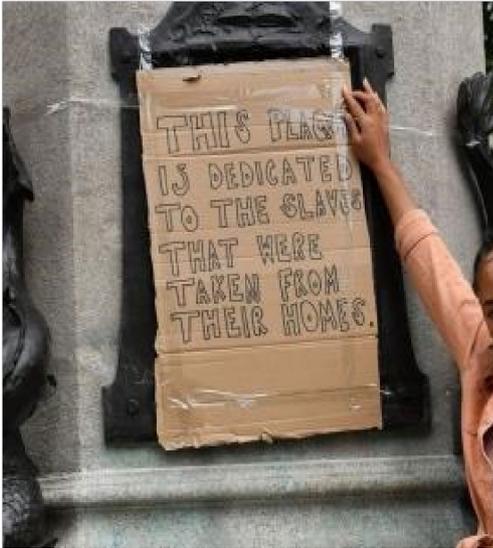
Both Apaydin (2020) and Sather-Wagstaff (2015) acknowledge that memory is hard to define and that we tend to create social and symbolic boundaries around memory. Apaydin (2020) argues that collective memory is constituted through shared values and embodied through heritage and material culture (p.16). Sather-Wagstaff (2015) states that this embodiment can be symbolised in monuments, ruins or buildings. (p.195). Denson (2017) argues that when objects such as monuments are erected this establishes those places with an authority to tell stories. In this way, monuments become enmeshed in a landscape of memory and material culture. Denson states “When we create a place through public history, we frequently take it as our own, identifying its past as the cultural patrimony of our specific community or population” (p.12).

As the paragraphs above argue, memory can be used as a political act closely aligned with commemoration. The use of such practices further propagates the national identity. The

acts of commemoration are often used in the context of a traditional practice or a “national” memory. One such example of acts of commemoration is war memorials. With memorialising war, objects also become associated with them as objects and symbols showing collective remembering, such as a poppy. These object and memorial practices become statements by alerting others that they are part of a community that remembers. These objects and practices become part of a collective identity but driven from an AHD approach to the act of remembering (Nora and Kritzman,1996).

#### *2.3.2.1 Case Study – Edward Colston*

An example that demonstrates the connectedness of the social practices of memory, critical heritage and creative placemaking and the tensions between community and authority of memorialisation can be seen in the Black Lives Matter protests of 2020 in the U.K. In Bristol a statue of Edward Colston (who contributed large amounts of money to the urban development of Bristol) was attacked and finally thrown into the river. Over the years there have been numerous requests by the public for the Colston statue to be removed. Colston had strong links with the slave trade, and his memorialised identity was, in the context of the protestor’s calls for equality, recognised as morally unacceptable. A new temporary plaque was created highlighted Colston’s role in slavery (Russell, 2020; Sandhu, 2020; Ravenscroft, 2020) (Figures 2-2, 2-3 and 2-4).



*Figure 2-2 Left Colston Plaque (Sandhu, 2020)*



*Figure 2-3 Right -Colston in the River (Russell, 2020)*



Figure 2-4 Images of Colston Protest (Ravenscroft, 2020)

What is interesting about this particular example is that this is also a type of creative placemaking, albeit a more overtly tactical placemaking. The temporary space created by the protestors emanates from a community feeling or attitude of how and what gives the distinct community value in their local area and how they want it to change and evolve. Instead of being facilitated and working with local authorities, the community took it upon themselves to demonstrate the change they wished to see in their local area. Since this event, the statue has been removed and replaced with a statue of Black Lives Matter protestor Jen Reid. Reid was part of the group that removed the Colston statue. This statue was also removed and stored with the original statue which creates an authorised heritage

discourse of the process. These types of heritage interventions have increasingly become an important aspect of protest space.



*Figure 2-5 Black Lives Matter Protestor (Bland, 2020)*

These acts of revision can also be found in children's learning, engagement and construction of identity with their local area. For instance, Grimshaw and Mates (2020) conducted research in a deprived primary school in post-industrial North East England around the topic of local coal mining history. The authors found that the children's new knowledge could help them better understand their local area, community and potential their own family history with their local area. Learning around these topics can also enhance connections with people in the wider community. One way this was done was by inviting local experts to come into schools and share their knowledge with younger generations.

Assmann (2008) suggests that embodiment is required for experiential memories and because of this they therefore cannot be transferred to other people. The author states that often what is not addressed in approaches to eliciting stories is interaction with other people and objects, symbols and signs associated with memory. An individual memory cannot be implanted in another individual, but the memory can be shared through other means such as verbal narratives or visually. Memory becomes understandable through a process of *“encoding them in the common medium of language, they can be exchanged, shared, corroborated, confirmed, corrected, disputed, and even appropriated”* (p.50).

Aptekar’s (2017) work on collective memory and gentrification argues that contested collective imagining helps to create a textured depth to neighbourhoods (p.118). She warns however that collective memory can often create a dominant narrative and exclude others. Her work is framed using the lens of the gentrification process of neighbourhoods, which, when being marketed for a certain audience, will naturally let some narratives dominate for appeal. However, in critical heritage storytelling practices, these could potentially give voice to other narratives around places. This is further explored in section 3.2.1 Digital Storytelling.

Within collective memory, Assmann (2008) argues there can be more than one type of memory. Semantic memory is closely linked with learning and retention of knowledge of the world. Episodic memory, on the other hand, is more personal experiences. While these can be shared they cannot be directly transferred to another individual. There will always be a change in the quality of experience had by the other through representation of memory.

When considering collective memory of place Kearns et al. (2015) argue that both familiar and unfamiliar places can create imagination impulses of place. They argue that this creates a plurality of seeing and can be an interesting way to see and construct knowledge and their processes. This can be done as either an individual or collective activity. A number of arts practice examples are used to show how culture such as songs, poetry and films can influence our imagining of places we regularly visit and those we have never been to.

When examining memory from a critical heritage perspective, collective memory and nostalgia supports the creation of connection with place. Given the ways that collective memory is shared we can observe the need for critical engagement with memory and diversity in voices with different memory perspectives. When connecting memory with place, we can see that collective memory can be used to support the collective identity with place and a sense of belonging. This then can contribute to shared critical heritage through collective memories and nostalgia within a community. One way that these memories can be shared is through digital media particularly digital storytelling which is outlined in sections 3.2 - 3.3

### 2.3.3 Psychogeography

Sensory experiences with place can further enhance and trigger individual and collective memory contributing to a shared critical heritage in communities. This can be exemplified by the work of Low (2017). Their work argues that the sensory experiences of the everyday can help to create to a heritage of Singapore. These sensory experiences can contribute to heritage networks of meaning through tangible and intangible

encounters with the city. Further the sensory experience can trigger a collective sense of nostalgia within communities meaning that heritage is relational.

Psychogeography was coined by Debord (1955). Psychogeography can be broadly defined as “the study of the precise laws and specific effects of the geographical environment, consciously organised or not, on the emotions and behaviour of individuals”. While the term psychogeography is used to express feeling and emotion of place, it will not be the same experience for everyone. Psychogeography places focus on the sensory experience of place and is closely aligned with phenomenology (Merleau-Ponty 1962; Mundle, Husserl and Churchill, 1966; Heidegger 1978). Phenomenology deals with the essence of experience, it interrogates emotional states not just through description such as happy or excited, but the physical sensations felt in the body at the time of an experience. It can be argued that these are an essential part of what goes into feeling an emotion or having a sensory experience of the world around us. Psychogeography is therefore driven by the desire to explore and experience place not just through the physical spaces, but in different states, such as emotional, sensory and storytelling. Psychogeography will be presented as a method in more detail in section 4.7.

#### 2.3.4 Mythogeography

Unlike psychogeography, which focuses on the affective states that places have on the individual, mythogeography interrogates the ways in which multiple meanings have been given to places and focuses on the multiple nature of places. Mythogeography is still grounded in psychogeography however “*occulted and anomalous narratives are among those available to mythogeography, not as ends in themselves, but as means and metaphors to explain, engage and disrupt*” (Smith, 2010). Although not a great deal of work has been published in this area, its concept began in performing arts from the artist

research collective Wrights & Sights formed in 2007. While psychogeography is vital to understanding physical experience of places, mythogeography affords a method of exploring meaning of place through its folklore, alternative meanings and creative storytelling narratives. Furthermore, mythogeography also provides a platform for extending the values of stories in the creative interpretations of place, revealing their potential to hold just as much value as fact and historical accuracy in understanding the meaning of place to individuals (Overall, 2017). Leach (1984) argues that stories do not remind us of places, but that place exists because of the stories, and this gives the landscape more power of “telling the story” (p.358).

It should be noted that mythogeography is not a singular approach; instead, Smith (2010, p.110) describes it as a series of approaches, using an overall grounded approach in site specificity, *“a combination of the experienced and the imagined and affords the practice the honesty to say that no one really knows what is going to happen”* (Smith, 2010, p.110). Methods such as this do not restrict the way individuals wish to express their meaning making of spaces; like ethnographic practice, they observe and interrogate the process in which individual narratives are arrived at contributing to their interpretation of space.

#### 2.3.5 Palimpsest

These stories and affective experiences with place can therefore contribute to layers of meanings of place. Coined by the geographer Meining (1979) a palimpsest views place as a make-up of layers with emphasis on visions, meanings and cultures have on a landscape (Mitin, 2010). According to Mitin (2017) the term originated from medieval times where manuscripts were written over with new text, with the old text only having traces visible. According to Mitin (2017) modern cultural and human geography emphasises the differences in the meaning of a place as it is “‘interpreted’ by social

groups and individuals, differentiated by identity, occupation, lifestyles, experience, imaginative power, and emotional factors” (p.2). These narratives consist of fragments which can conflict with one another. What Mitin is describing is how different folk groups are contributing to a landscape. This is closely aligned with Farman’s (2018) approach of polyvocality of landscapes and how individuals’ meaning making of such places can lead to what he describes as “contested landscapes” which are especially noticeable in heritage practice.

#### 2.3.6 Relationships to place – A Summary

In summary, there are different elements that come together in the theoretical construction of place however at its core, place is a meeting point between culture and context. Sensory experience plays an important role in the aid of memory acts and to help in understanding attitudes towards places. Individuals may have memories, but those exact memories cannot be transferred from mind to mind. Instead, they are told and interpreted through mediums such as oral, written, verbal or visual methods and individuals can imagine, believe or contest memories shared. Collective memory can bring different memories together in the construction of place, each memory adding its own unit of knowledge creating a complex set of narratives around a specific place. These memories are then shared and ‘projected’ upon landscapes to create meaning.

These different definitions of space and place are important components to understand how individuals and collectives create and share meanings with sites. Understanding these definitions helps to unpack how space and place are edited and re-edited through their interconnectedness of geography, culture and history. Interrogations of space and place afford individuals and collectives the ability to constructed and perform meaning which may evolve when contested narratives are engaged with. If critical heritage and

creative placemaking are going to interrogate space and place, understanding both parts are important, e.g., the artefact and where it sits. Sensory connections in space and place further contribute to a critical heritage of meaning that privileges the community as expert. These concepts of place and space feed into other topics such as folklore, memory, and polyvocality of place. This thesis takes the position that in relation to this research, it aligns Anderson's (2009) definition of space and place being the meeting point between culture and context. This was exemplified in the community activity around the Edward Colston statue. If research is going to further explore digital media and creative placemaking; understanding the contributing factors to culture and context and where digital media sits upon these landscapes is necessary.

#### 2.4 Chapter Two Summary

This chapter has presented arguments as to how critical heritage can support creative placemaking particularly through ground-up approaches that support collaborative processes. It began by defining creative placemaking and highlighted that at its core, it is a community of practice that recognises the community as expert. The chapter then presented the distinctions between authorised heritage discourse and critical heritage. It drew parallels with critical heritage and creative placemaking in that these are also communities of practice. It also presented arguments as to how communities can engage with meanings associated with place through areas such as shared knowledge, collective memory and contested heritage. Lastly, the chapter highlighted that these meanings can be considered as layers of meanings onto physical spaces. Overall, the chapter has highlighted how critical heritage is a useful backdrop to community place-based identity highlighting individual and collective agency and empowerment.

### 3. Chapter Three: Imparting Meaning through Digital Media

In order to present the prevailing context of creative placemaking and this thesis's arguments for a closer association with critical heritage, the previous chapter introduced the concept of creative placemaking and argued that at its core, it describes a community of practice. Reflecting upon the difference between authorised heritage discourse and critical heritage approaches, the previous chapter made useful links between creative placemaking and critical heritage; specifically, though communities of practice that privilege the community as heritage expert. Chapter two also discussed the different ways in which place-based knowledge, experience and memory might be shared through polyvocal methods that sustain practices that contest authorised heritage.

Chapter three aims to highlight the links between the playful and performative processes of using digital media to create and share meaning through a community-based paradigm that blends critical heritage and creative placemaking. The chapter draws a link between digital media and critical heritage by examining how digital media can be a tool to construct and share meaning. The chapter begins by drawing on Resnick's 4Ps for creativity with digital media, arguing that this sustains a participative framework for using digital media tools within heritage research particularly with the use of storytelling. The chapter moves on to discuss how digital media can be used to construct digital layers of place and argues that this contributes to a blended spaces approach whereby new meanings can be continually added to physical spaces. The chapter then provides a synthesis of the two chapters by teasing out a critical examination of Resnick's 4Ps in relation to creative placemaking.

The chapter that follows argues that when used, elements of Resnick's 4Ps approach and digital media can create a plurality of meaning and contest spaces to sustain critical heritage and creative placemaking. Finally, the chapter addresses how this literature review supports answering the research questions set out by this thesis and its influence on the empirical study.

### 3.1 Introducing Resnick's 4Ps as a Participative Framework

Before presenting the work of Resnick, it is necessary to highlight why his 4P's framework was chosen over others approaches. Other frameworks that were considered included the work of Malpas (2008) who discusses the relationship between new media, place and heritage. However, his approach focuses more on what and how new media add to existing places. His approach does not focus so much on the individual and collective processes of actually creating a digital artefact. Rahaman (2018) presents a conceptual framework for digital heritage interpretation. They argue that digital interpretation is a process rather than a tool and developed a 15 point conceptual model. While elements of the framework are relevant to creative placemaking such as participation, discourse and communities, it is limited in scope in terms of the process of creation and sharing by participants. Rather, it focuses on the technical abilities of a digital platform that the participants could interact with e.g. profile pages, Q & A and commenting.

Adabala et al. (2010) propose an interactive multimedia framework for digital heritage narratives, however this is for experiencing digital heritage rather than participant creation. Mason and Vavoula's (2021) framework proposes a design as social practice approach to visitor experiences in museums. While this framework is interesting as it

does emphasise process, the framework is for institutional and organisational approaches to heritage narratives. Communities may be consulted but they are not the focus and this stands in opposition to creative placemaking approaches. Namono (2018) presents an interesting framework that is community centred and utilises technology to collect and document oral heritage narratives. They also place emphasis on the community structure to support sustainability in South Africa. While this framework could be considered in this research its aim is heritage management and tourism in a local community. While this framework does explore creation, it focused on oral narratives and does not give much room to creativity with technology.

Resnick's framework was initially chosen as it focuses on the *process* of creativity with digital media tools. This process of creativity can be important when participants experiment and test the way meanings are shared digitally. Resnick's framework also places more emphasis on digital media as a tool and a process rather than focus on end artefacts created. This emphasis upon process is particularly important as outlined in the previous chapter, there have been calls within creative placemaking that more emphasis is needed around the ephemeral practices (Courage, 2021) that create communities of practice. Again, the creation of communities is central to Resnick's framework which is helpful to creative placemaking practice. There are elements of this framework that mirror the ethos of folklore in the way that artefacts are created, shared among a community then passed on and altered by others, previously referred to as flow. The process again touches on aspects of remediation which is further explored in section 3.4. While not the focus of this thesis, one aspect that can be investigated further in the framework is partnering creative placemaking with ways of engaging computer education.

Professor Mitchel Resnick is the head of The Lifelong Kindergarten research group at MIT. His interest is in digital creativity with a specific focus on children. In his time at MIT Resnick and his team developed the ‘Scratch’ programming language and online platform that is popular across the world with over 67 million users as of February 2021. Resnick and his team created the Computer Clubhouse with over 100 houses in 20 countries supporting 20,000 young people a year (Randles, 2018), collaborated with LEGO to create the LEGO Mindstorms series, and he was LEGO Papert Professor of Learning Research. Resnick’s work, according to Google Scholar, has been cited over 30,000 times.

From his research with the programming language Scratch, Resnick developed a 4Ps Framework for learning digital creativity. These are Projects, Passion, Peers and Play. Resnick employs a constructionist approach which is closely aligned with constructivism, based on the work of Seymour Papert. The principles of constructionism are further explored in Chapter Four: A Participatory Approach to Wester Hailes.

In its essence, constructionism puts more focus on the act of making and the production of expressive artefacts. A number of articles that have employed Resnick’s 4Ps have focused on children’s education, particularly class-based learning. Such works include McKenney and Reeves (2019) on conducting educational design research and Saracho (2021) on integrated play-based curriculum for young children.

The research this thesis describes asks if the 4Ps can be employed in combination with digital media tools as part of a process within creative placemaking practice. At the initial stages of the research Resnick’s framework was chosen because its core values – namely

participation, the creation of community, shared interest and a medium for expression – closely aligned with the processes and goals of creative placemaking.

As Courage (2021) argued previously, it is the placemaker’s role to create platforms that empower and give agency to communities. Courage further argued that there needs to be more focus on the ephemeral aspects of creative placemaking. Therefore, the value of Resnick’s framework to place-based community engagement is understanding the process of creation and the effect this has on individuals expressing meaning. The following section will introduce each of Resnick’s 4Ps for creativity. Each P will be explored to understand the process of how it manifests in the framework and the impact that it has on participants.

### 3.1.1 Projects

The first of Resnick’s Ps is Projects. This is defined as:

*“People learn best when they are actively working on meaningful projects – generating new ideas, designing prototypes, refining iteratively” (Resnick, 2014).*

These projects engage in what he calls the creative learning spiral which is shown in Figure 3-1.



Figure 3-1 Resnick (2007) Creative Learning Spiral

Central to Resnick’s argument is that engaging in this process allows participants to imagine new projects and to keep creating based on what they have previously done using a reflective process through sharing their work. Resnick closely links this concept with that of the maker movement which includes the use of design thinking and reflective practices. The maker movement according to Resnick is not just about technology, but an approach to creative learning; to create is what creativity is (2017, p.33). In an interview in 2016 Resnick was critical of the maker movement and the emphasis on end artefact. He argued that the maker movement should be about creating things that individuals care about which facilitate creative learning experiences. He argued that giving children step-by step instructions on how to build something is not the spirit of the movement (Madda, 2016). Resnick argues that this is why he developed Scratch from a project perspective of learning rather than learning to code through step-by-step instruction on the language (2017, p.33).

### 3.1.2 Passion

The second of Resnick's 4Ps is Passion. Resnick argues that in a similar way to Papert, he believes in the concept of 'hard fun'. This is achieved in the process of producing projects when participants are immersed. Children will work hard if it is something they are interested in (2017, p.70). Resnick states: *"When people work on projects they care about, they work longer and harder, persist in the face of challenges, and learn more in the process"* (2014). This is why in Scratch, to achieve a vision, a novice using Scratch will learn hard things e.g. variables and speed functions in order to make their creation (Resnick, 2017, p.70).

### 3.1.3 Peers

The third P in Resnick's framework is Peers. Resnick defines Peers as:

*"Learning flourishes as a social activity, with people sharing ideas, collaborating on projects, and building on one another's work."* (2014)

When interacting with Scratch Resnick said he wanted the online community to serve as both an audience, a mechanism for feedback and as a source of inspiration (ibid.). Resnick (2016, p.91) argues that using peers can be a tool, a way for others to come together to understand specific things and work collectively to solve problems. Resnick argues that much of our thinking is integrated with doing as we often think in context, such as interacting or playing with things.

The importance of Peers within Resnick's framework is also one that is vital to both creative placemaking and critical heritage practices. What joins these areas together is

supporting and building on each other's work and creating a community of practice that has a shared interest. This is the kind of collaborative approach that sustains communities of practice through collaborative forms of communication and mutual learning described here as 'meaningful engagement' (O'Reilly-de Brún et al. 2017). Peers can connect creative placemaking and critical heritage as a means of unpacking and understanding the process of social action, collective memory and polyvocality around places to create meaningful engagement. O'Reilly-de Brún et al. (2017) define meaningful engagement as "Meaningful engagement reduces asymmetries of power, encourages participants' ownership of the project and enables participants' authentic perspectives to emerge clearly in research outcomes" (p.157).

#### 3.1.4 Play

The last of Resnick's 4Ps is Play. Resnick defines play as: "Learning involves playful experimentation – trying new things, tinkering with materials, testing boundaries, taking risks, iterating again and again" (2014). Resnick argues that within the context of his work and specifically his 4Ps Framework that play should be understood as an *attitude* and a way of interrogating the world around us (ibid). Play from this perspective is a form of learning; what he terms tinkering, which combines play and making. Resnick argues that tinkering is a bottom-up approach which starts with something small, then through play and experimentation, grows into something bigger adjusting what the goal is along the way (Resnick, 2017, p.136).

Pat Kane (2006) argues that when we think of play, we think of something for children, however it is much more than this. Play is, as Kane states: "a way of framing what counts as true in our material and social world. And beyond that, our meanings become even cosmic or spiritual" (p.46). Kane goes on to further state that play is not leisure, it is vital

to our development and the way we adapt using experiments and imagination. Kane outlines the value of Sutton-Smith (1997) and the seven major ‘rhetorics of play’ that has been valued in culture, listed below.

### **“Modern Play**

*Modern Play as progress* – we adapt and develop through play

*Play as selfhood* – play as an expression of voluntary freedom

*Play as imaginary* – play as symbolic transformation, mental energy

### **Ancient Play**

*Ancient Play as power* – we contest and compete with others – in sports and games, in theatres of power

*Play as identity* – the play-forms we use to confirm membership in a community –

carnival, ritual, festival

*Play as fate and chaos* – the sense that we are played by forces greater than ourselves, not accessible to reason

*Play as frivolity* – play as laughter, subversion, tomfoolery” (p 50-51)

From these play rhetorics, parallels can begin to be drawn between play, creative placemaking and critical heritage. Critical heritage and creative placemaking creates social actioning by participants through play. This can support new knowledge creation, sharing and contestation of knowledge, and the formation of individual and collective identities.

### 3.2 Digital Media and Bottom-Up Heritage

Hornecker and Ciolfi (2019) examine the role of Human-Computer Interaction (HCI) within museum spaces. The focus of their book is around visitor interaction with HCI. One advantage of museums over community heritage when it comes to digital tools is, they argue, that museums may have more money and can innovate and experiment with new and emerging digital technologies to present exhibits for visitor use. However, the downfall of this is twofold; firstly, new technology can be expensive, and secondly its goal is to attract and maintain visitor engagement and the technology may become obsolete quickly (p.13). In line with these debates, Hornecker and Ciolfi (2019) argue that museums are changing in the way that they engage with publics. They state that they are becoming places that create community engagement and engage in issues facing society. However, they go on to state: *“the risk is that a rhetoric of social action or community empowerment is used by museums without truly being embedded in their missions and ways of working”* (p.123).

Han et al. (2014) claim that there is little research investigating how people interact, understand and experience site-specific community-generated content when building community heritage. The authors’ research consisted of co-creating an app with the local community. They found that participants used social elements as a method of learning and sharing their local history and used this to reflect upon their own lives, stories and experiences. Interestingly, this resulted in the creation of layers of individual histories of the local area driven from individual perspectives. These layers of individual histories can also be understood as a type of plural heritage.

Building on Han et al.'s (2014) argument, Schofield et al. (2019) discuss the use of digital media within the design of plural heritage. The authors claim there are three key areas to contemporary heritage research. These are “Critical Heritage, Plural Heritages and Future Heritage” (p.1). They conducted research through a ‘research through design’ approach. The authors found that using co-design and participatory methods facilitated more sensory and creative reflections on the past. Schofield et al. (2019) argue that these types of approaches engaged the community in a more holistic reflective experience. This is because through the process of creation and reflection participants become curator and subject of the exhibition (e.g. the community being represented). In engaging in this process participants can be part of the creation and development of new types of interactive technology when engaging in critical heritage.

Zavala et al. (2017) examined the role of community archives in challenge traditional practices that reflect community value and agency. Their research included different types of digital archives and found that enabling the community to self-regulate the materials meant that the archive can better reflect community values, needs and empowers the community. Using these approaches can enhance trust when collaborating with larger organisations such as public libraries. Looking at the use of digital storytelling in archives, Nisi and Cesario (2021) investigated how digital storytelling can support community interpretations of (ICH) by migrant communities. They then examined the process to create a digital storytelling platform for interacting with oral histories. They found that it is of the utmost importance that approaches must be developed with the community and anything developed is within their context of practice to ensure the safeguarding of stories shared.

While not in the scope of this thesis it is useful to consider the ways museums are engaging in bottom-up practices using digital media. One project that sits between AHD and critical practice is the work of Poole (2018). His work brings together place with digital media and engagements with critical heritage. In a collaborative project with a museum, he created a locative and GPS RFID experience using game mechanics to trigger narratives of past visitors in a locative immersive experience called Ghosts in the Garden. The aim was to create a richer experience that challenged the use of audio guides within the heritage industry.

As previously discussed, Galani, Mason and Arrigoni (2019) argue that digitally mediated dialogues can support community and critical heritage. Building on this argument Russo et al, (2010) claim that social media can help to create a participatory heritage. They claim that by giving people the ability to be creative and share in social media setting can support the exploring of identity and create cultural participation, meaning it previously limited collections are now part of a participatory heritage (p27).

This participatory heritage as Liew, Goulding and Nichol (2020) argue is moving towards a “post-custodial, participatory paradigm” (p.1). This is important as digital media is allowing hidden and counter narratives to be seen and engaged with creating a much more participatory cultural heritage in both top-down and bottom-up practices. If we consider these elements and where they overlap in relation to creative placemaking we can see common themes emerging that can be seen in the Figure 3-2.

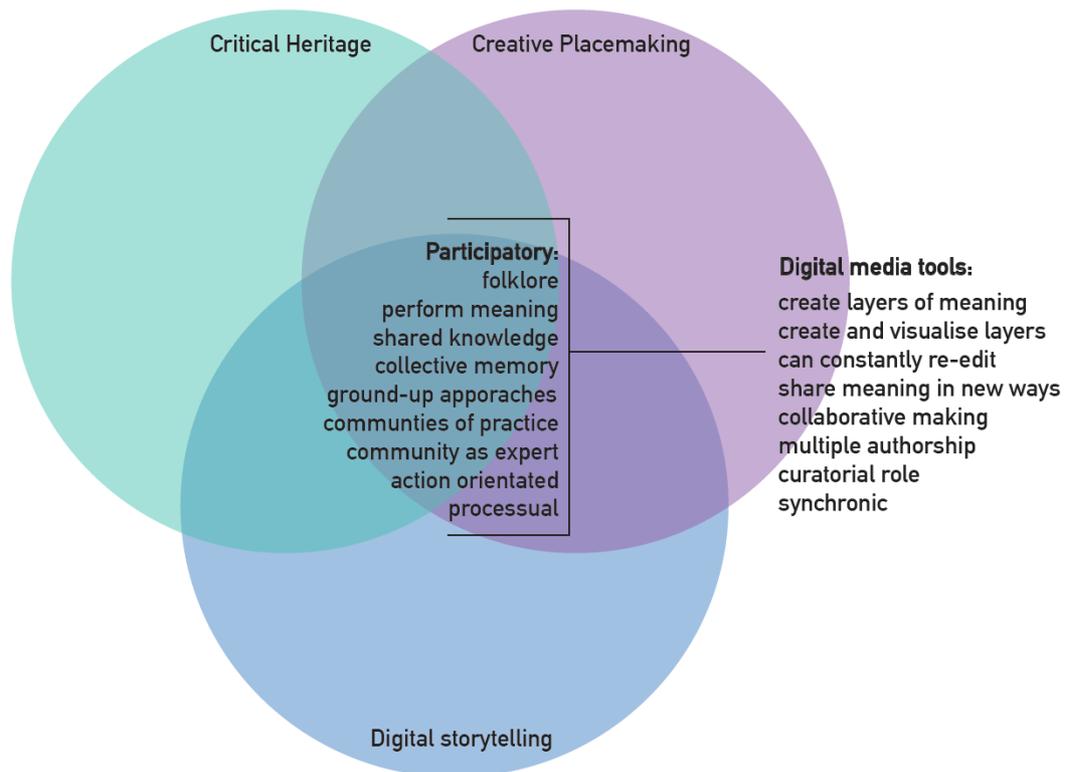


Figure 3-2 Connections between digital media, storytelling and critical heritage

### 3.2.1 Digital Storytelling

As mentioned in 3.2 digital media and bottom-up heritage, and referred to in 2.2.3 Bottom-Up Heritage, digital storytelling can be a powerful medium for the expression and sharing of knowledge and create counter narratives within critical and community heritage practices. According to Lambert (2013, p.14) storytelling can serve multiple functions: a means of understanding our connection to an ever-changing world, as a way of learning through memory, a form of reflection, a way of eliciting social action and lastly a process in understanding ourselves and our identity. Storytelling as units of knowledge and retelling stories are ways of retaining knowledge and connecting to memory. In more traditional culture these took the form of folklore such as myths and legends (further discussed in 3.2.2). Stone in Lambert (2013, p.17) argues that

mainstream culture has affected our ability to understand how storytelling affects everyday lived experience and our process of meaning making and sharing.

Farman (2018) believes that the way in which stories are communicated in spaces is done through a range of different media such as, graffiti, signage, plaques and statues creating a “media ecology of storytelling” forming what he describes as “contested landscapes” (p.189). Another form of this kind of storytelling is what McCullough (2008) calls “urban markup,” using alternative storytelling to speak to current existing narratives. Lambert (2013, p.13) questions how the story process can contribute to a personal mythology. He argues that stories from and about his father shape and re-map his meaning of relationships and when storytellers tell their stories, it helps reshape and enhance their sense of self. The story becomes a marker at that point of self. It also develops a relationship with the storyteller through a commonality in the story such as a feeling or experience. This creates a “co-constructed nature of meaning” (p.14) between storyteller and listener.

“Digital Storytelling” as a concept evolved in the late 1990s by Dana Atchley, Joe Lambert and Nina Mullen (1994). Their aim was to create an exportable workshop to afford individuals the ability to use digital media to create stories (Lambert, 2009). Importantly to the aims and context of this PhD, digital storytelling can be understood as a mechanism to “amplify the ordinary voice” (Burgess 2006, p.207). It is through this capacity to amplify previously marginalised voices that digital storytelling can contribute to the building and connecting of communities through a shared sense of history (Conrad, 2013).

Lambert (2013, p.15) argues that when using storytelling practices in community work, stories are more successful within an environment that is thought of as 'safe'. Lambert states that one way safety is created is through the group and that everyone is in it together, sharing and listening to each other (p.77). For the facilitator, it is treating everyone with dignity and equality (p.118). The stories that are shared can be very private almost like a personal diary, a term that he describes as "private media", where storytelling can purely form as a method of processing feeling and emotion (p.15). While Lambert's emphasis on trust is important, he does not elaborate on the work that goes into gaining trust to elicit such stories in the first place. This will be further discussed in section 5.4. As Schofield (2014) notes, storytelling is a vital element in the creation of memory. These memories are what create heritage and how we naturally attach this to create meaningful places. Even the consumption of storytelling can be an act of storytelling. In Figure 3-3 below, defined are types of digital storytelling consumption (Lambert, 2013):

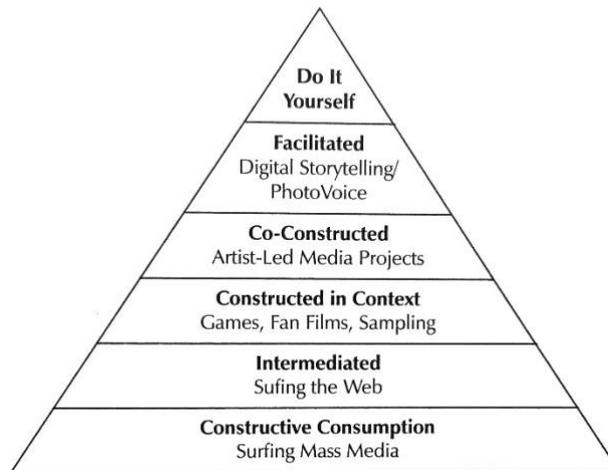


Figure 3-3 Lambert (2013, p.39) Types of Storytelling

Lambert (2013, p.38) discussing the work of the Centre for Digital Storytelling at UC Berkeley (henceforth referred to as CDS) defines a taxonomy of digital storytelling in three themes: the collaborative approach between facilitators and storytellers, the literary voice of the storyteller and their developing style, and lastly, the form of the story.

### 3.2.2 Digital Folklore

When considering storytelling within bottom-up heritage, folklore can be ICH passed on through a community. It could be argued that folklore is also related to placemaking in the storytelling of what communities think of places e.g., monsters at specific sites. Linking back with previous discussion on heritage and social media; digital media is allowing folklore to take on digital forms and be shared across networks widening participation to engage in bottom-up narratives.

Coined in the 19th century by W.J. Thom, folklore was a new word to replace the term “popular antiquities” which meant intellectual and traditional remains of current peasant culture (Brunvand, 1968, p.2). Folklore can currently be situated as a culture hidden below the façade of formal culture (Long, 2015, p.10; Dorson, 1968) and allows us to

explore the taboo (Dundes, 1965) through permitting cultural affordances of performance. Folklore scholarship as a discipline of academic study was solidified through the work of Alan Dundes in the 1960s (Bronner, 2007). Folklore's wider importance and relevance to culture was recognised as previously mentioned in two UNESCO reports in 1989 and 2003.

Some study of folklore examines historic and more perceived stereotypes of what folklore is such as fairy tales, art and music. However, folklorists also focus on modern culture and work closely with other areas such as public history, ethnography, anthropology. Many folklore and life researchers situate themselves and their work within the areas of cultural conservation and cultural sustainability (American Folklore Society, 2015). A 2014 survey by the American Folklore Society (AFS) in 'Folklore Advocacy Toolkit' found that key issues folklorists wish to address were:

- Making their expertise as "cultural documentarians, presenters and conservationists" more visible to the public and academics.
- Demonstrating the value of communities and traditional culture.
- Within social policy and culture, better integrating folk arts, folk culture and artists.

According to AFS (2015) one challenge facing public folklore practice is the clash with heritage institutions and authorised heritage discourse. This is due to folklore research predominately taking a grounded theory approach which stands in opposition to Smith's (2006) proposed authorised heritage discourse. Folklore consists of two components. Firstly, the folk, which can comprise of two people or more who share some kind of commonality (McNeill, 2013). Secondly, lore can be broken down into four broad

categories: Things we say, Things we do, Things we make and Things we believe (McNeill, 2013). Further to this, folklore must also be 'traditional'. In the study of folklore this only means that the lore needs to be passed on in some way (either over minutes or generations) (McNeil, 2013). This means folklore can be described as a "living category" (Krawczyk – Wasilewska, 2017, p.29). Its lived-ness is shown by the modifications and its repetitions among a folk group. Alternatively, folklore, its modifications and repetitions can be thought of as a *flow*, which can be traced through a defined folk group.

### 3.2.3 Digitally mediated memory

When considering the ability of social media to create dialogues and share meanings, we also need to consider what artefacts are created to be shared and create interaction around. Digital media can serve as a useful tool to trigger remembering important life events such as birthdays. Attachment to objects that trigger memory can create a sense of ensoulment (Bleviss and Stolterman, 2007). One example is the use of photography as a form of mementos. Mols et al. (2014) conducted a cultural probe study around the ways that everyday mundane life is remembered using digital photography to understand what people found valuable. They found that a lot of participants' memories are actually mundane experiences whose structures dictate the rhythms and repetitions of everyday life. Repetitions such as birthdays, the author argue, can then serve as a tool for comparison between events. The authors found that it is still unknown at exactly what point a memory becomes valuable to an individual however the process of reflection seems to be a key component. When events are compared the importance is constructed based on what the individual feels are important aspects of that memory, which is done through reflection. Dix (2018) undertook a thousand-mile walk round the periphery of

Wales. During his time, he took 19,000 photographs, blogged extensively about his experience and had a fellow researcher analyse his blog for themes. Although the walk was conducted alone and he hardly met anyone, social interaction was a major theme that emerged from the blog. This was in the form of both physical and digitally mediated interaction. Until the moment of reflection, the memory of the experience was being alone. It was not until reflections happened that connections were made that created significance; what Dix (2018) referred to as ‘onion layers of experience’. An example of these layers and memory can be seen in Figure 3-4.

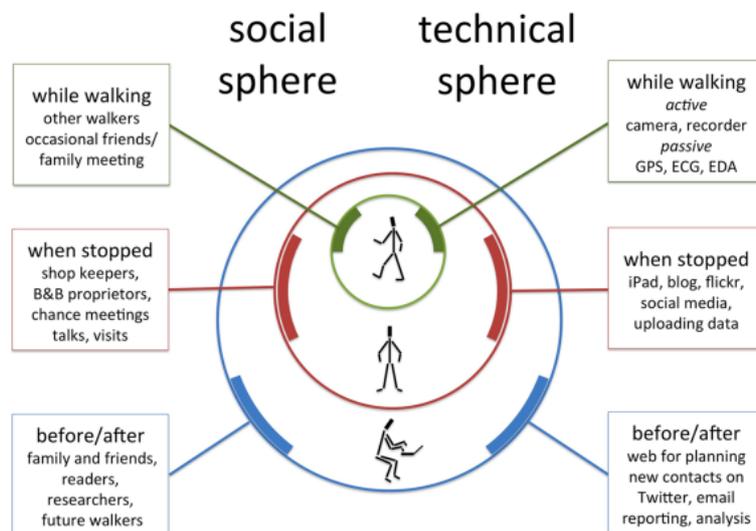


Figure 3-4 Dix (2018) Onion Layers

### 3.3 Digital Layers of Place

This section will critically examine the affordances of digital media. It will discuss ways which digital media supports engagement with place and how meanings are constructed in layers similar to the entwined areas previously discussed in this chapter. This section begins with an introduction to digital media and how it is constructed in a palimpsest type

structure. These digital media layers can be observed as a flow and can be traced through trajectories of narratives. Next, a framework will be presented showing the layers of meaningful experience when interacting with digital media tools. Next this section will show how digital media can be a tool for the mediation of memory. From here, the concept of blended space (Benyon, 2014) will show how physical layers and digital layers come together to create a blended experience. Lastly, this section will critically examine remediation and how when digital media is remediated this creates layers of meaning and a community of practice. The practice of remediation is illustrated using a case study of the Web-based folk horror story, Slenderman.

### 3.3.1 Digital Media

McLuhan (1964) positions media as translators or ‘spelling out’ of forms of knowing (p.64). It can be argued that new forms of technology and software are constantly evolving therefore new methods of ‘spelling out’ knowledge, feeling and emotion are also constantly evolving using digital media tools. To understand how digital media is constructed in layers, it is useful to turn to Manovich’s (2001) five key principles that define new media, specifically in this case digital media which is the perspective of this thesis. These five key concepts are as follows:

1. “Numerical representation – that regardless of the type of media (photos, video, text) it breaks down into binary code constructed of ones and zeros.
2. Modularity – that objects can be combined and modified to create new media (e.g. text, pixel and code).

3. Automation – there can be pre-existing functions such as templates or predefined functions (e.g. a filter).
4. Variability – a new media object is not something fixed once and for all, but something that can exist in different, potentially infinite versions
5. Transcoding – Manovich argues this is one of the most significant shifts in New Media: that the cultural level and computer level result in a blend of human and computing culture where new media is used to representing meanings” (Manovich, 2001, p.36).

Kress (2003) argues that digital media present new ways of engaging in communication from technological, social and cognitive influences. Manovich’s key principles are important to this as they demonstrate how storytelling and meaning are created digitally. Moreover, they emphasise how storytelling is then distributed and engaged with by individuals and communities. This approach allows researchers to observe and understand how meaning is expressed and how meanings flow. McLuhan (1964, p.13) states that digital media, it can be argued, creates opportunities to form new experiences and explore relationships between ourselves, to the world, our identities and communities. Manovich (2001, p.14) builds on this by arguing that digital media can simultaneously exist in many copies and different states of the same work by multiple individuals, helping to trace how meanings evolve. We can see how digital media can serve as a tool for the creation and flow of folklore within community groups. A case study in Section 3.4.1 Slenderman demonstrates the convergence of digital media, community and folklore in practice.

Another way the flow of meaning can be understood in digital media practice is through a framework proposed by Benford & Giannachi (2011) of trajectories. Trajectories, unlike a route, afford opportunities to explore emerging and embedded narratives. So, while not just a way of representing a route, a trajectory lets individuals explore ways of experiencing in digitally mediated spaces (Benford & Giannachi, 2011, p.15) and gives space to interrogate how meaning and creative placemaking may move going forward. In their discussion of Ingold's proposed 'traces', Benford & Giannachi (2011, p.21) assert that we walk paths that are laid out by previous generations and ancestors. The authors argue that one of the ways in which we learn is through mapping as a method to understand the future by knowing what has been previously mapped. Digitally augmented spaces can help create *significance*. Farman (2018) states that

*“the content of these histories is not simply textual or photographic; instead, a vital element of these histories is the place itself. Standing at the site has significance and offers information that cannot be conveyed by other means”*  
(p.195).

What is being discussed here is that digital media site-specific storytelling offers audiences a chance to empathically engage with the space that they are discovering. This allows them to draw on other phenomenological senses beyond that of the screen such as smell, ambient sounds, temperature and the gut feelings of an environment. More than this, site-specific digital storytelling can go further and highlight connections that are meaningful between mobile devices and places rather than the screen as the site of content and engagement (Farman, p.198).

Framed from a perspective of technology's role of engaging in meaningful experiences of place, Lentini and Decortis (2010) identify five key concepts in order for this to happen. These concepts can arguably be applied to the digital storytelling process.

They are:

1. Geometrical and geographical experience
2. Sensorial Experience
3. Cultural Evidence
4. Personal Experience
5. Relational Experience

What is interesting about their framework is that it brings together meaning, heritage, community, sense, and experience, which as this literature review argues allows meaning to be constructed in layers. It also demonstrates the entwined aspects of these areas as a way of understanding the layers that go into meaning making around place. It highlights how digital media can be used as a tool in the process of interrogating meaning of such places.

Garau and Ilardi (2014) suggest that one of the ways museums can move away from their traditional associations is by using digital technologies such as smart phones. However, this work is framed from the point of cultural tourism to further enhance AHD sites and has the agenda of monetising heritage and tourism that is curated and designed by experts. Another emerging area in common museum practice is the use of augmented reality. This is being used in two ways, engaging with artefacts and creating locative based mobile applications for tourism, predominately walking tours (Bekele et al., 2018; Malpas, 2008) However, even if these are created for tourism purposes the site and storytelling play a

crucial role in the experience of cultural heritage. (Muniz, Woodside, & Sood, 2015; Megehee & Woodside, 2010).

In contrast, the evolving use of digital media within critical heritage affords numerous opportunities for exploring narratives, spaces and identity. This can include methods such as collaborative activities, modes of engagement, how we identify with spaces and how spaces can contribute to cultures of place (Malpas, 2008, p.207). These developments with digital media can present new methods of understanding and communicating spaces that convey meaning. Malpas (2008) argues that these meanings of heritage are not hidden, they are presented as a matrix of meaning and significance by participants within communities.

One method for affording this practice is examining the opportunities of mobile phones and how mobile media allows individuals to engage with contested landscapes within bottom-up heritage practices (Farman, 2018). Utilising digital technology when interacting with place means that the digital content itself becomes a type of archive and record. So even if over time, spaces change, and specific objects come and go, the layers of digital content can show what the meanings were of that space at the time and presents a chance for individuals to reflect on those meanings and how they may be relevant to the altered space. We saw this in section 3.2 Digital Media and Bottom-Up Heritage. Specifically, Han et al. (2014) found that using digital media and smart phones to generate community heritage meant it gave the community a chance to interact and reflect with content using digital photos and comments as well as sharing their digital traces.

### 3.3.2 Blended Space

The affordances of digital media discussed by Manovich (2001), McLuhan (1964), Benford and Giannachi (2011) and Farman (2018) emphasise the ways in which bottom-up approaches to meaning in communities can be shared and contested. These digital media layers create what Benyon (2014) defines as ‘blended space’. This is space that is purposefully integrated between digital and physical spaces. He argues that blends are a result of connecting two sets of concepts together. Figure 3-5 below shows an example of the concept bringing together Physical Space and Digital Space to create a Blended space.

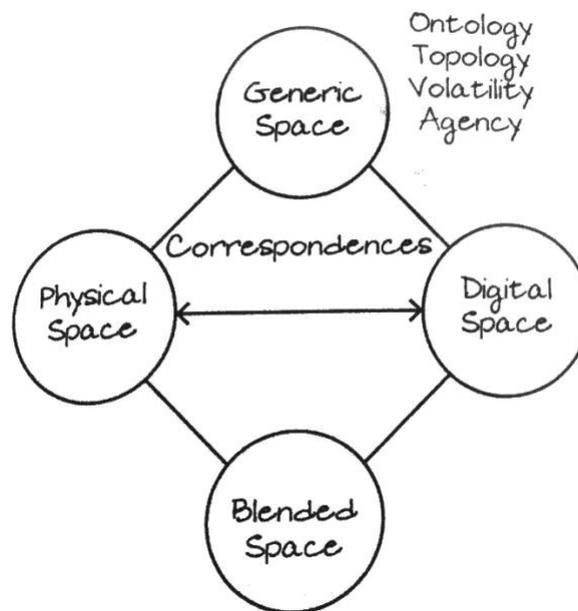


Figure 3-5 Benyon (2014) Blended Experience Framework

O’Keefe and Benyon (2015) state that there can be different types of blended experiences such as digitally augmented meeting rooms and site-specific digital augmentation which also considers movements through a space. They propose that to investigate blended spaces, requires understanding four key constructions: ontology, topology, agency and volatility. The authors show that blended space can be used in heritage storytelling with children. Their example, while not a fully critical heritage approach, showed that children

can engage in cooperative learning and enhance social skills. While Benyon defines blended space, which deals with any kind of digitally augmented space, de Souza e Silva (2006) coined the term 'hybrid space' which is described, particularly over mobile devices, as the correspondence that takes place between data and physical space (p.190).

From these terms, it can be argued that the layers of entanglement between physical and digital space can help build richer narratives and meaning making. By using storytelling, digital media and site-specific encounters can help push the boundaries of narratives, create a wider understanding with spaces and change the way in which spaces can be understood (Farman, 2018). More than this, according to Raley (2009) digital media or 'tactical media' can be practices which subvert or counter dominant narratives using digital media through "micropolitics of disruption, intervention and education" (p.1). Blended spaces can become a tool in which to challenge narratives and meanings of spaces. Thinking about how space is constructed employing digital media, Harrison and Dourish (1996) argue that it can be hard to differentiate between place and space in Human-Computer Interaction. They state that "*A place is generally a space with something added—social meaning, convention, cultural understandings about role, function and nature and so on. The sense of place transforms the space.*" (Harrison & Dourish, 1996, p.69).

Interestingly, Sanaeipoor and Emami (2020) explore how augmented reality can be used to install public art installations. They employed placemaking approaches. They argue that AR (digital media) can be a useful tool in participatory process. The use of technology can create a site of new interaction and civic participation. Augmented reality can create new types of civic participation. However, they did not create anything with the community. A series of case studies was presented around existing art projects by

artists. This means that a consumptive experience was examined. This still leaves more that can be explored around the process of placemaking using digital media tools.

### 3.3.3 Psychogeography

With reference back to Psychogeography, this contributive relation to place is echoed by Mitin (2017) who suggests that when thinking about place, it is useful to think in terms of ‘projections’ upon a landscape. This is a particularly applicable term from a digital media perspective and from a blended theory (Benyon, 2014) perspective. The idea of projections presents opportunities to use digital media to ‘project’ forms of meaning onto landscapes, be that in physical projection or in more subtle forms such as digitally mediated interactions.

Digital media, particularly AR gaming and blended experiences of places, are changing the way we interact with and view places. Places are no longer contained by a physical attachment, instead they are caught up in digital ecosystems where their meanings are digitally enhanced and expert knowledge of their meanings and experiences is dispersed.

Moreover, *digital mediation of place* has itself become a form of place-based interaction; an example of this is the game Pokemon Go. A bus stop is no longer just a bus stop, it is also a battle ground for the game. The site becomes a destination, not because someone wants to get a bus but because they want to battle Pokemon. While AR gaming experiences such as Pokemon Go could potentially be used as a tool to critically understand and engage with how people interact with urban environments, Davies and Innocent (2017) argue that this has not yet happened as the majority of the interaction is still screen based. They argue that with the rise in popularity, these games created massive opportunities for pervasive games to draw upon other aspects of the urban environment

e.g. history as a way of constructing interaction that goes beyond the screen and GPS points of interest. Building on this point, the way we navigate space is changing due to app data monitoring such as Strava. Someone may change a route they take because they want to go up a higher hill or go a longer path to reach a ‘health stat’ such as number of steps, distance or calories burned.

In 2020, during the U.K. Covid-19 lockdown, the Natural History Museum in London launched a charity fundraising competition with the social media hashtag #racefornature (NHM,2020). The aim was for people to go out for a walk or run in their local area but to try and draw their best animal on their fitness tracking app. They were then instructed to post this online with the hashtag. An example of entries on Instagram can be seen in Figure 3-6.

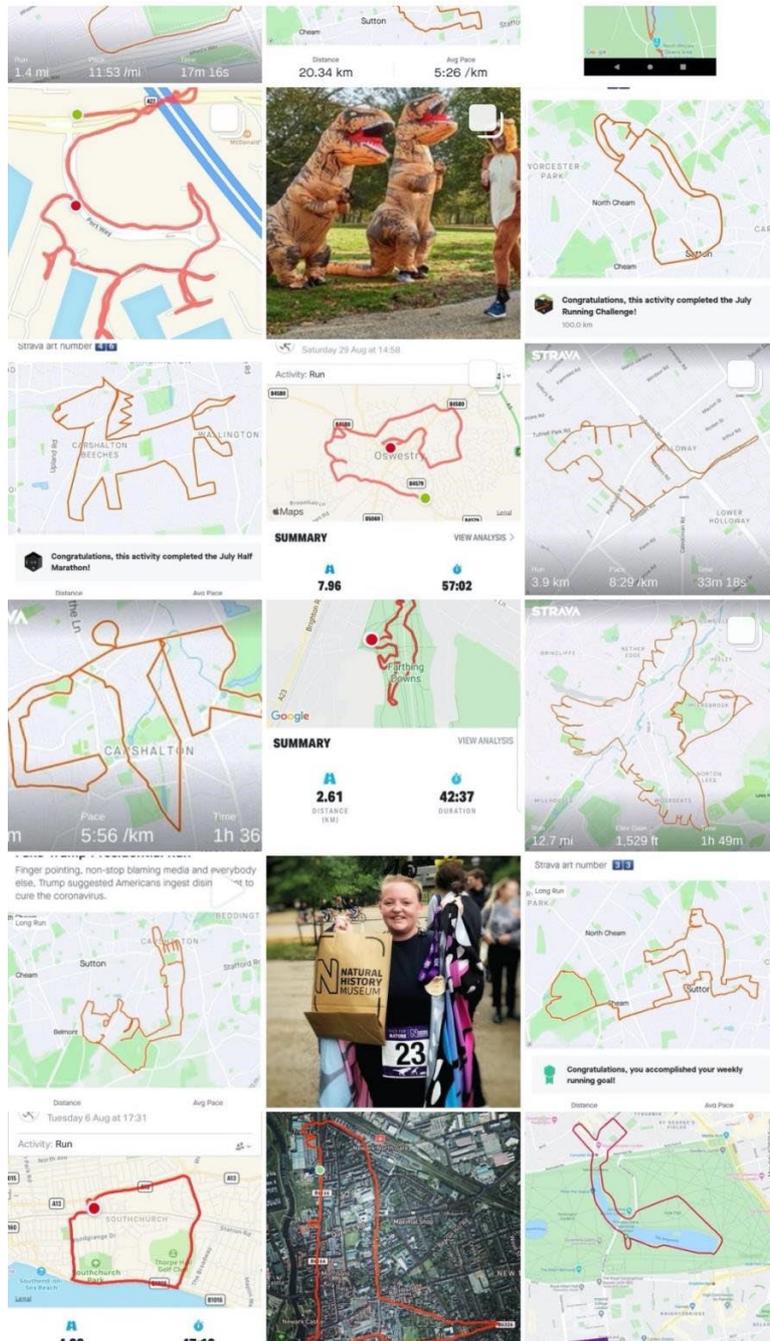


Figure 3-6 Grandison Instagram Feed Jan 21

While fun and rewarding – these types of activities do appear to get people out and walking and exploring areas – the focus is on drawing the ‘animal’. Their interaction with place like Davies and Innocent (2017) suggests is mostly through a screen.

Giglietto et al. (2019) investigated how digital technology could potentially support communities of exclusion through cultural heritage activities. From their interviews they found that the chosen technology has to have a community-oriented foundation rather than functionality. They also found that the technology should create safety and accessibility and, importantly, should focus on community contributions. They also maintain that *“Ideally, how technologically-mediated activities occur should, therefore, be negotiated with community members so as to be mindful of their culture, skills, and interests”* (p.9).

The authors’ findings touch upon aspects first presented in this literature review. It can be suggested that digital storytelling can create safe spaces for mutual sharing and this is key to the potentiality of critical heritage and its capacity to address issues around social justice. However as outlined by Resnick with the concept of hard fun, participants need to be willing to learn something hard (that they do not already know) if they are to become meaningfully engaged in learning.

From what has been discussed in this section, we can see how Resnick’s 4Ps, particularly Peers, Passion and Play, can support blended experiences and psychogeography. The process of collaborative and creative learning highlights that digital media is a tool and that it is constructed through Manovich’s (2001) five principles. What both Resnick (2016) and McLuhan (1964) have argued is that that digital media can support ‘spelling out’ knowledge and can support in the construction of identity. These outcomes from the use of digital media, it can be argued, can support creative placemaking in a community of practice that places focus on citizen-led expertise. Digital media can support constructing meaning for both individuals and collectives.

### 3.4 Remediation

Adding to the idea of blended spaces and trajectories, Bolter and Grusin (1999) discuss the concept of remediation. Bolter (2016) defines this as “a historical process through which newer media forms interact with earlier ones” (p.1). Their concept of remediation is heavily influenced by the work of McLuhan and McLuhan (1988). According to Bolter and Grusin (1999) remediation creates new mediated spaces e.g. a film adaptation of a novel (Bolter, 2016). This then creates affordances for new methods of expression using digital media methods based on the five principles of new media as previously outlined by Manovich (2001). Bolter and Grusin (1999) posit that remediation can fall broadly into two categories:

1. Respectful remediation: this is done from the position of respecting the original mediation and further serves to enhance the original mediation.
2. Radical and Revolutionary Remediation: this remediation takes more of a critical approach to the media. Part of the aim of this kind of media is to improve upon media and is predominately performed by digital artists (Tringham, Ashley and Mills, 2007).

Examples of remediation can easily be found on social media platforms, using video production and the use of GIFs, also image remediation and meme culture creating spreadable media, which is exemplified by the case study below. What is important about this kind of creating and sharing is that it facilitates collaborative filtering, curating and co-production of media (Papacharissi, 2015, p.34).

Hoskins (2009) highlights the link between media remediation and collective memory, in what he describes as ecologies of media/memory defined as the ‘mediatization of memory’. Remediation of memory however relies on a collective memory approach. This mediatization of memory further becomes the basis for social groups and collective identities (p.278). Building on this, Vivienne and Burgess (2013) argue that when using personal images in digital storytelling, even the processes of editing, selecting and sharing are mediated due to their identity within social networks. When these objects are remediated, they then change our relationships with the objects and the narrative around it changes too. This echoes Assmann’s (2008) assertion that as memory cannot be transferred, props can instead be used in the storytelling process. Memory can, the author argues, be closely aligned with imagination.

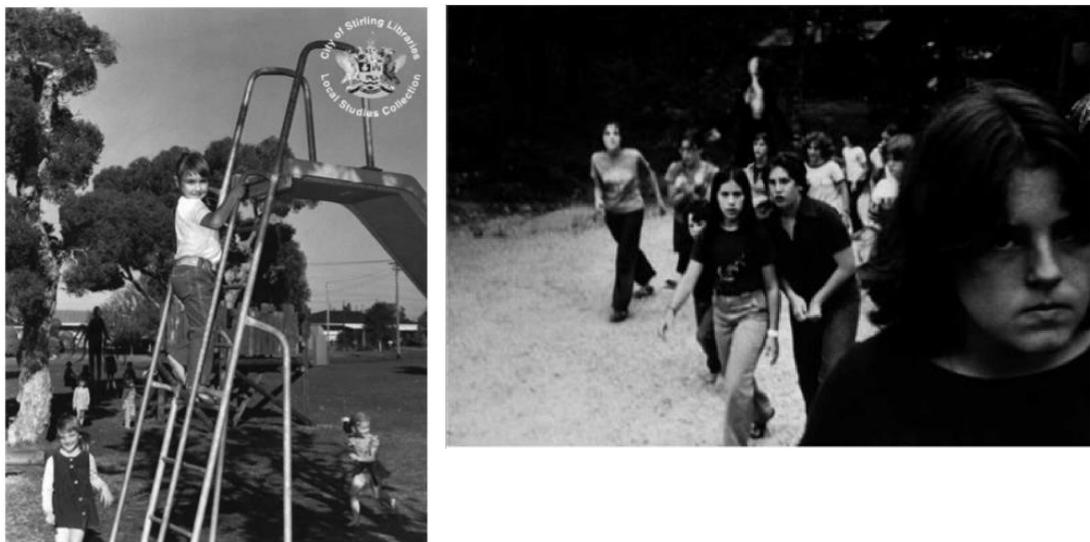
Walton (1990) argues that imagining can happen without props and that they can be purely mental images (p.13). If this is the case then what we see being remediated may only be a small fraction of the individual’s overall experience of imagining. The user has selected and curated certain aspects to present to an audience, but this was not the whole experience of those memories in the imagination process.

#### 3.4.1 Case Study – Slenderman

This case study of Slenderman highlights the ways in which Resnick’s 4Ps (Project, Peers, Passion and Play) combine with the themes revealed throughout chapter two to sustain an approach to creative place. Firstly, it is important to begin by emphasising that Slenderman transcends boundaries of digital and physical spaces. This is achieved by mining the affordances of digital media and applying them to digital storytelling through a collective community of practice (Chess and Newsom, 2015, p.9). Digital platforms and

the ability to share and remediate allows for consideration of Slenderman storytelling as both a form of digital folklore and critical heritage.

Slenderman began life in 2009 on the forum ‘Something Awful’ in a thread that challenged its participants to create paranormal images using Photoshop. When one user (Victor Surge) posted two photos of a faceless Slenderman (Figure 3-7) who is supposed to stalk children, this began a viral obsession with a Slenderman (Chess, 2015).



*Figure 3-7 Victor Surge's first representations of Slender Man. (Chess 2012)*

Slenderman can be described as a tall white faceless figure wearing a black suit. His arms (some accounts depicting more than two) can extend and shorten depending on the situation. He is believed to kill children or take them away and will indiscriminately kill anyone who gets in his way. His most familiar haunt is woodland but he can often be seen in cities. Whenever ‘photographed’ he is lurking in the background only visible in the corners.

There are now countless remediations and interpretations of Slenderman in the form of images, video, memes and GIFs. The YouTube channel Marble Hornets creates and shares videos of sightings of Slenderman (Dewy, 2016). As of April 2021, the channel has 565 thousand subscribers. Slenderman has also made appearances in gaming culture, two examples being Minecraft (Peck, 2017) and Fortnite (Mustard Plays, 2020). Slenderman also features numerous times in the Scratch online community (Scratch, 2014). The huge archive of Slenderman media has led some to believe that Slenderman is a real entity. In 2017 the HBO documentary ‘Beware the Slenderman’ (Brodsky, 2016) follows the case of two 12-year-old girls who attempted to murder their friend to try and please Slenderman so that they could join him. These girls imagined Slenderman living in a real physical place which they could visit and live. The HBO documentary also draws on the similarities between the story of Slenderman and the folk tale ‘The Pied Piper of Hamelin’. The cumulation of this viral Internet folklore meant that from two images created in 2009, the story of Slenderman was picked up by Hollywood and turned into the 2018 horror film ‘Slenderman’ (White, 2018).

### 3.5 Digital Media Layers – A Summary

This literature has argued that digital media layers are a vital component to the process of constructing narratives and meaning around place. The process of creating with digital media offer important tools capable of responding and representing layers of meanings and attitudes about and in a local area. Moreover, used in conjunction with Resnick’s 4Ps, digital media offers ways in which researchers might offer a contributive relation to sustaining communities of practice within creative placemaking projects.

This chapter has argued for the importance of digital layers, which allow communities to digitally add, edit and re-mix meanings of place and space around them. Approaching creative placemaking in this way creates the possibility for a plurality of meanings rather than one normative and authorised meaning. This chapter has argued for the importance of digital layers, which allow communities to digitally add, edit and re-mix meanings of place and space around them. The use of digital media layers can perform three functions. Firstly, digital layers can produce blended experiences of spaces. Secondly, when a community comes together, they can add countless digital layers to places and show a vast complex series of meaningful narratives. Thirdly, what this allows communities and practitioners to do is show the flow of meaning through narratives as they evolve and change.

### 3.6 Literature Synthesis

This section will firstly provide a synthesis of the two literature review chapters. It summarises the connections that have been made above between creative placemaking, critical heritage and digital media practices highlighting the process and influences of their creation. Secondly, the section reflects upon Resnick's 4Ps for creativity and their suitability within creative placemaking. It argues that while parts of Resnick's framework are useful, for creative placemaking practice an amended 4Ps Framework is needed. Thirdly, the chapter will discuss what has been learned from the literature review in relation to the research questions proposed by this thesis.

### 3.6.1 Connecting Creative Placemaking, Critical Heritage and Digital Media

The recurrent theme of process and change runs through the literature review, weaving through discussions around creative placemaking and critical heritage. Throughout the two chapters, meaning of places, memory, nostalgia and practices are argued to be constantly evolving. As argued throughout the literature review, using critical heritage approaches presents a way to explore and understand the process of how meaning is constructed and shared within communities.

Bringing together critical heritage practices with digital media tools has the potential to democratise, empower and give agency to communities to re-edit the places around them and co-construct new meanings and interpretations of knowledge, memory and practice. This means that community heritage practice continually evolves and does not become a static relic of a past time. Importantly, in the context of this research is that critical heritage approaches allow for plural narratives to emerge and give space to a polyvocality that can critically engage with contested narratives (Kearns et al., 2015; Farman, 2018).

As the literature review has argued, digital media tools present ways of creatively engaging with critical and community heritage as well as ways of expressing personal geographies of meaning. These meanings can be mediated through digital storytelling and folklore, wherein shared memories, nostalgia and sensory feelings and attitudes towards places can be worked through in a democratised and distributed field of expertise (Jocson, 2015).

Like critical heritage, trajectories form a recurring theme throughout the literature review. Trajectories can be a way of engaging with emerging narrative and understanding the

flow of meaning as it evolves (Benford and Giannachi, 2011). These trajectories can be different citizen perspectives about place and can include displays of showing meaning making from memory and nostalgia. The trajectories that take place in a community are important to understand as they show how meanings are formed, expressed and give spaces to ways of being present. These meanings can then be re-edited and imagined in a future context. It could be argued that trajectories are a type of digital layer. This layer lets us examine flows of meaning, seeing how meanings change and evolve over time.

Time, in some ways similar to trajectories, is not a singular linear 'thing'. For individuals the concept of time is made up of memory in points of time that are comparative and reflective practices. This memory is interrogated through heritage and creative placemaking, which encompasses storytelling and the passing on, interpreting and appropriating of memory. This time is constructed through multiple understandings, such as feeling, memory, nostalgia, storytelling and experiences.

Secondly, the literature review found that one way that we personally examine time is comparing it to similar events at another point in time e.g. a birthday to compare its personal significance (Mols et al., 2014). All these together create a personal heritage or geography. Bringing multiple individual heritages and geographies together enables us to examine the connections within meaning making, shared knowledge and understanding of meaning and how these collective meanings shape our relationship to places.

While it could be argued that a critical heritage approach may produce more entangled and messier narratives in creative placemaking, it produces a truer picture of community feelings. Truer in the sense that the community have deemed feelings and attitudes that are important to share adhering to the idea of community as expert (van Heeswijk, 2012;

Courage 2017; Harrison, 2013, Smith, 2006). It is therefore important to approach creative placemaking with an understanding of the complexity and an understanding that layers play a vital role in the unpacking process to identify themes and meanings that are both individually and collectively produced. To understand community heritage and digital media it is necessary to understand the complex and interlinked layers that contribute to meaningful places. This thesis draws on Resnick's 4Ps and a critical heritage approach to support new ways of thinking about creative placemaking.

The above literature review draws upon interdisciplinary understandings of place, to argue that place is not a straightforward concept. Instead, it is complex and entwined with memory, shared knowledge and community. The review also argued that digital media can serve as a medium to present and critically engage with these interrelated aspects of place. Digital media, it is argued, can inform, engage, contest and create community in its production and audience engagement. This outlines a contributive relation to community heritage which supports the aim of the PhD to develop ways in which digital media tools can be used in the process of creative placemaking practice.

### 3.6.2 Examining Resnick's 4Ps

This section will examine Resnick's 4Ps in relation to the literature topics addressed. It argues that elements of Resnick's framework can be used within creative placemaking, however, in order for it to be successful in creative placemaking practice, an amended 4Ps Framework is required.

This identified gap is important because as stated by Courage (2021) less attention needs to be paid to the end products of creative placemaking. Instead, the deeper aspects of the relationships between the arts and individual meanings focusing on the "ephemeral"

experiences as they participate in the process of creative placemaking. This gap, as this research addresses, is not so much about the process of the design of creative placemaking, but the individual and collective processes that happen during a session or workshop; what can be understood from those moments of how participants construct and share meaning which contributes a creative placemaking project.

### *3.6.2.1 Projects*

Resnick states that the projects have to be something that participants generate from their own interest. Doing this means that it is something they wish to pursue and learn technically to accomplish their goal (passion). In contrast, projects within creative placemaking are often designed by the creative placemaker to interrogate something specific and then to use creative methods as a tool. As highlighted in section 2.1 Defining Creative Placemaking there can also be tension between funders and required specific outcomes which do not always grant participants full freedom.

Therefore, Resnick's argument of letting participants choose what they are interested in only goes so far in this case. However, as demonstrated, digital media creation within a 'brief' means a project can still be designed but within this; allowing participants to interrogate that project in ways interesting to them. This is something to explore further.

Work with critical heritage, and place, highlights that something else can be a catalyst that scaffolds learning a piece of technology. Merely being in a community of practice can help people to learn from each other and unpack new knowledge. This can be technical knowledge with digital tools and about a local area and the people who live there. As McLuhan (1964) states, media is a form of 'spelling out' forms of knowledge.

If creative placemaking defines a project, e.g. issues around sustainability in a local area, then the participants are not picking projects that are necessarily in their interest. However, as we have seen from remediation and collective remembering and shared knowledge, what could be potentially done is to give space to the participants within the project to construct and test and share their responses in creative ways. What the learning spiral in Resnick's framework shows is that this iterative process of creating sharing and reflection is a type of performativity.



*Figure 3-8 Resnick (2016) Creative Learning Spiral*

As Papacharissi (2015) said, we create identities and share in digital spaces in certain ways, a type of meaningful curation including a performance of work for an imagined other in the community.

### 3.6.2.2 *Passion*

Resnick argues that connected to projects is passion; that when people work on something that interests them, they are more inclined to work harder to understand the technical aspects. However, again as creative placemaking is project driven, what creative placemaking could do is take the essence of this passion and while undertaking projects set by creative placemakers, participants can find their own means of expression that is of interest to them using digital media. They can then reflect on the process and iterate if necessary.

The passion in this case could be participants drawing on their own identity and relationship with place and using digital media tools, a way for them to share their meaning through types of media such as digital storytelling and remediation. Passion can be individuals trying to work things out but when a group is interested in the same thing this refers back to what Combes (2013, p.51) describes as “collective emotion”.

### 3.6.3.3 *Peers*

According to Resnick, peers refers to social activity in creative learning. This closely aligns with creative placemaking in that it is participatory. It also aligns with critical heritage and Farman’s (2018) notion of polyvocality. Again, all areas discuss the idea of community of practice. While Resnick talks of peers as a mode of support in the creation of digital media artefacts, what is more relevant to the study of creative placemaking is that although people *learn together*, different products are created. What is created are contested narratives around an idea and different types of knowledge being shared. The sharing of ideas is a type of performance for an imagined other to see. Learning together is an important aspect of creative placemaking projects and their methodology.

As de Saint-Laurent (2018) suggests, collective memory affords the study and dissemination of different discourses of the past and the methods by which they are created. Assmann (2008, p.50) suggests one reason for this is that embodiment is required for experiential memory and because of this it therefore cannot be transferred to other people. These memories are shared through objects, symbols and signs or in the case of this thesis, digital media. These contested narratives and the affordances of digital media and blended spaces allow these meanings to be layered onto physical space.

#### *3.6.3.4 Play*

While Resnick discusses play as knowledge or serious play, the gap here is how play can be a medium for the expression of shared knowledge and understanding particularly around place. Resnick (2016) highlights the difference between types of play: open play affords participants to experiment and explore creatively, compared to more closed play with specific instructions, e.g. gamified, goal learning. Kane (2006) also argued that play can be a serious learning activity that can support the creation of new knowledge and support imagination.

In his own work, Resnick focuses on creativity in digital media, specifically Scratch and LEGO Mindstorms. What has been highlighted throughout this literature review is the role of blended experience of digital media to create new layers of content that can be added onto physical spaces. Content that can be shaped to the physical site. Blended experience involves many of the processes that are connected to Resnick's, however it is the effect of and connection to place that is not extensively discussed. Elements of Resnick's framework could work for this process but still need to consider effect of the connection to place and creative placemaking process.

While many elements of Resnick's framework could work in creative placemaking practice, his work is focused on creativity. What is missing from this framework is the 'layers' that are produced when using digital media tools – both knowledge and artefact. One such recurring layer is storytelling. We can see that storytelling plays a fundamental role in all aspects in the construction of personal geographies, such as the construction of place from how individuals edit and re-edit places. Folklore and storytelling play a crucial role in engaging historically with memory and meaning making, carrying forward practices, relationships and feelings of nostalgia associated with specific places. Storytelling and folklore also play an important role in shared knowledge and contribute to a community of practice within places. We can also begin to see how storytelling can be used in conjunction with digital media tools as a means of expressing feeling and attitudes towards place.

### 3.7 Addressing the Gaps in Research

This section will describe the gaps in research in relation to the questions proposed by this thesis. By addressing the gaps in this manner, it will support this thesis in approaching the empirical research described in Chapter Four: A Participatory Approach to Wester Hailes and Chapter Five: Design of a Digi-Mapping Workshop.

#### 3.7.1 How can digital media tools facilitate creative placemaking?

Courage et al. (2021) argue that more needs to be done to examine the ephemeral experience when engaging in place. The literature review highlights that it is not the tools themselves or the end artefact that are the most important aspect; instead it is the generative process of meaningfully engaging with communities that privilege community

expertise. Critical heritage approaches demonstrate the complexity of collective meanings and the importance of collectively unpacking and re-constructing meaning of place. The literature has also demonstrated that digital media tools can be an effective tool of citizen agency to express meanings and creates communities of practice.

3.7.2 In what ways can digital media tools support community agency in the representation of place?

An important finding in the literature is that digital media tools can create communities of practice through playful encounters. Although Resnick argues that play needs to be understood as knowledge or serious play there is a gap in understanding how play can be developed as a medium for the expression of shared knowledge and understanding particularly around place.

As Resnick (2016) previously highlighted open play approaches mean that participants can creatively experiment and explore within learning. Learning together using playful approaches can create agency and with digital media. Participants can edit and remediate knowledge to construct meanings around place. Digital media, critical heritage and creative placemaking all employ bottom-up approaches to interrogating place.

3.7.3 What conceptual framework will support creative placemaking with digital media tools?

If creative placemaking is to become a medium for community empowerment and citizen agency, the literature reviewed suggests that a participatory approach needs to incorporate playful encounters. The argument here is that physical interactions with sites of meaning using digital media tools can help to facilitate phenomenological experiences of place and aid in memory and attitudes towards place. These playful and site-specific methods can

facilitate plural meanings and create contestation of meaning held for participants about their local area. As addressed in this literature Resnick's 4Ps Framework is useful to turn to however an evolution of this is required to be more suitable to creative placemaking practice.

Resnick's framework was chosen for this thesis as it focuses on the *process* of creativity with digital media tools. As Courage (2021) stated creative placemaking needs to place more emphasis on the ephemeral processes. There are a number of elements within this framework that are particularly useful and link with creative placemaking practice. The process of creativity it could be argued creates authentic participation particularly through storytelling. The framework embraces reflective practices which is a fundamental aspect of bottom-up approaches investigating meanings, memory and identity with place. Resnick places importance on the use of 'Peers' within the framework. Of interest to this thesis is how this process sits within communities, again linking to a community of practice which is fundamental to creative placemaking. Resnick's framework allows people who are non-experts to be part of a community of making which mirrors the approaches of critical heritage and community heritage. Lastly, it embraces the ethos of remediation. This can be thought of as flow creating sharing and feedback when building on the work of others. This is similar to the flow of folklore among a group. Resnick's framework can be a way for people to digitally engage with counter narratives, future making, community making, and this could lead to creating social inclusion through play.

#### 4. Chapter Four: A Participatory Approach to Wester Hailes

At the end of the previous chapter, the gaps in research were highlighted and the discussion explained how the arguments presented in the literature review will inform the empirical research that this chapter and chapter five will present. The previous chapter argued that more was needed to be done to examine the process of meaning and the ephemeral experience of participants. One way that this can be examined is using digital media tools that afford citizen agency and a means of expressing meaning. Digital media can also create a community of practice that allows for playful encounters to occur through creative placemaking process. The approach to the empirical research needs to be bottom-up and allow participants to collaboratively learn. Secondly, it needs to employ a method that creates physical interaction with sites of meaning. These phenomenological encounters can aid memory and attitudes towards place.

The aim of this chapter is to critically examine the collaborative approach to the empirical research conducted in Wester Hailes. This chapter is organised into five sections that describe methods used and approach taken. It begins by addressing the collaborative approach with WHALE Arts and the relevance of Resnick's 4Ps to the research as well as the research reflection on the process. Next a discussion of the research approach and the theoretical principles that have influenced the research design and methods used; this chapter moves on to introduce the reasons for a Participatory Action Research approach (PAR) and explains how PAR provides a research framework within which collaborative activities and community engagement projects can be understood. This chapter continues by distinguishing between the forms of collaboration that took place during the empirical research. The differences between co-production, co-creation and co-design are explored in relation to the PAR approach. This chapter then introduces the workshop as method

and considers how participatory workshops with children can be understood methodologically. Mapping as methodological tool is explored within the PAR framework and the argument is made that it is uniquely suitable to developing interdisciplinary conversations between placemaking, place theory and critical heritage, all of which informed the literature review. Collaborative mapping is discussed in relation to community placemaking, critical heritage and place theory before turning to the particular emphasis upon psychogeography to support a playful approach using map-making with school children. Finally, the chapter examines the use of feedback gathering with participants to elicit responses around how participants felt being part of the empirical research.

#### 4.1 Collaboration with WHALE Arts

Before outlining the specific approach and methods of this PhD it is important to refer to the original context of the research, because of the collaborative ethos it initiated. In the beginning, the research project was co-created with a Creative Placemaker at WHALE Arts in Wester Hailes. A more detailed account contextualising Wester Hailes was presented in section 1.2 Background: Case Study Wester Hailes. It was the Creative Placemaker who asked Edinburgh Napier University for support to develop and deliver a series of community engagement projects with school children in the area and for technology to play a part in these projects. From the outset, the plan of inquiry for this research (further outlined in Chapter Five: Design of a Digi-Mapping Workshop) was done jointly with WHALE Arts and the workshops that this thesis describes were delivered in partnership with them. This section addresses the collaboration with WHALE Arts, the value of Resnick's 4Ps in the approach to the design of the workshops and researcher reflection on working with WHALE Arts

Working in a co-design partnership with the creative placemaker at WHALE Arts meant a useful set of constraints were provided which the study was designed around. It was the creative placemaker that saw a need for a place focused project with children using technology. They approached the university asking for support to develop and deliver the project. The creative placemaker stated that the project needed to run with children in schools. They also did not want the sessions to be longer than two hours and for the project to run longer than six weeks. The researcher came up with the theme of exploring place through the use of psychogeography and technology with end result being a collaborative map of Wester Hailes. As the creative placemaker had more experience with children, their advice was sought to determine what specific elements were achievable within the session and if they were happy with the project aims. It was the creative placemaker who made contact and arranged for the project to take place in schools. The project was jointly delivered in schools by both the researcher and creative placemaker. In the pilot study the creative placemaker took the lead in the sessions. The second time the researcher took the lead with the support of the creative placemaker. Between the third and fourth sessions, the creative placemaker left their role and two part-time creative placemakers were appointed. The third and fourth times the creative placemaker attended weeks two and six and supported building the final map. It was the researcher who took the lead delivering these sessions.

When reflecting on the collaborative process with WHALE it was important to remember that although I was delivering the project as a researcher at a university, I could also be seen as a representative of WHALE. This is because they helped established the connection with the participants. The schools trusted me because WHALE has made the introduction, in essence vouching for my credibility. I also delivered the workshops with someone who worked at WHALE. It was also important that this was a project that was

requested by the community and what was created aligned with what WHALE wanted. I did not go into the community and suggest this was something that they needed to do. It was important to privilege their expertise.

Resnick's framework had numerous influences on the approach to the empirical research. The first being the core idea of focusing on process rather than the end product. The workshops were design to examine the ways in which participants shared meaning about place. This is why the method of map-making was employed. The design also gave space to encourage playful practices. As highlighted by Resnick this is important in constructing knowledge. This was particularly focused on by using the method of psychogeography. Participants could record content in any way they wished. It also supports storytelling which within Resnick's framework creates genuine participation. By hosting the empirical research in schools and having the participants work in groups meant that a community of practice could be created within the sessions. It also enabled for participants to support and give feedback to each other. This was previously highlighted as being a crucial aspect when developing bottom- up approaches

As demonstrated in the literature review, Resnick's framework can also support in the process of future making and capacity building, particularly if countering the stigma of Wester Hailes and empowering children by ensure what they have to say about where they live is important. The process of using the tools and working collaboratively can give participants who are not digital experts a chance to learn new tools in a supportive setting. It also gives them a chance to be perform and express meaning in new ways using the technology.

## 4.2 Research Approach

This section outlines the arguments for a constructionist research philosophy and an inductive reasoning approach used in the empirical research. It explains why a participatory action research approach was applied, why specific co terms were used and considers participatory action research with children.

## 4.3 Research Philosophy

Section 3.6 Literature Synthesis demonstrated the important affordances of digital media tools as a way to construct, make sense of and share knowledge, particularly the importance of process rather than the finished product in which meanings are shared. This research situates itself within a constructionist research philosophy. Coined by Papert (1980) constructionism places greater emphasis on making and expressive artefacts. Papert was also interested in how technology can play a role in this process.

Although similar to constructivism, Papert states the difference as:

*“Constructionism—the N word as opposed to the V word—shares constructivism’s view of learning as “building knowledge structures” through progressive internalization of actions... It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it’s a sand castle on the beach or a theory of the universe” (Harel and Papert, 1991, p.1).*

According to Ackermann (2001) the use of digital media tools can help individuals form and transform knowledge and understanding. The artefact becomes a tool in the process of creating knowledge.

Part of the constructionist philosophy is closely aligned with interpretivism. Interpretivism aligns to the theory that reality does not have a single universal truth and that this affects how people see, engage and interpret the world (Rubin & Rubin, 2011). The goal of interpretivist research is to document participants' views and life experiences. These plural lived experiences of reality according to interpretivism are created through areas including language, constructions of sociality, shared meanings and tools (Myers, 2008). The literature review that preceded this chapter argues that these areas are important to place, placemaking and critical heritage.

As this research is concerned with creative placemaking the literature has drawn on and aligns to theoretical frameworks of placemaking, place theory and critical heritage, these frameworks argue that meaning is plural and polyvocality is required in the representation and experience of a democratic relationship to one's environment. In this way, theories of placemaking, place theory and critical heritage support research into "*contending and overlapping versions of reality; many truths possible*" (Rubin & Rubin, 2011, p.22).

The use of interpretivism often employs qualitative methods and inductive processes to identify patterns and themes (Creswell, 2014). Qualitative methods rather than quantitative methods offer the opportunity to explore richer meanings with participants (Crotty, 1998). This research seeks to explore bottom-up rather than top-down representations and narratives surrounding place. These narratives are understood broadly and that they are embedded within natural storytelling. The sharing and meaning of such stories are vital to understanding meaningful places with participants.

#### 4.3.1 Inductive Reasoning

Interpretivism predominately uses an inductive reasoning approach as it affords more flexibility when carrying out the empirical research than deductive reasoning, which begins with a hypothesis and requires more controlled measures (Lewis-Beck, 2004). This research aimed to carry out a number of workshops at different locations within the area of Wester Hailes. Based on the findings from this study it then proposes a framework informed from the data collected. While abductive reasoning can also be used in this study, it places more emphasis on the cause and effect whereas induction seeks to determine general rules based on a study (O'Reilley, 2012). This research uses an inductive reasoning approach as it seeks to propose a general framework or 'rules' for creative placemaking practice using digital media tools.

#### 4.4 Why A Participatory Action Research Approach

Participatory Action Research (PAR) aims to work with participants to uncover their understanding of the world, and experiences. Emphasis of PAR is on "*its enquiry from a view of the world as composed of 'relationships'*" (Reason & Bradbury, 2008).

*"A second important starting point is the lived experience of people, and the idea that through the actual experience of something we may 'intuitively apprehend its essence; we feel, enjoy, and understand it as reality...' (FalsBorda and Rahman, p.4). Thus in PAR the knowledge and experience of people -- often oppressed groups -- is directly honoured and valued." (Reason, 1994, p.12)*

PAR has two goals; firstly, to create knowledge and action with participant. The second is to empower those constructing this knowledge by enabling them to "see through" the dominant uses of knowledge that only benefit that part of what is considered "the

establishment” (ibid). Freire argues that this creates a “*process of selfawareness through collective self-inquiry and reflection*” (in Reason, 1994, p.12).

In essence PAR is a methodology that places emphasis on how participants see and understand the world and that participants are part of the data gathering. PAR can use both qualitative and quantitative methods. Often methods of presenting findings are through the use of descriptive case studies. However, a possible disadvantage of PAR findings presentation is that, for the reader, there may be a lack of detail for them to fully understand what was done in the research (Reason, 1994). This has been considered when writing sections 4.5 Methods of Data Collection, chapter five and a detailed overview of the process of analysis taken in section 5.6 Methods of Data Analysis.

A PAR approach was considered appropriate for this research study as the researcher and the creative placemaker at WHALE were part of the process of development and delivery in schools. Organisations such as WHALE Arts consistently engage in projects empowering and giving voice to those in their community. These Digi-Mapping projects were also reported on in the creative placemaker’s end of year reports to the Big Lottery Fund due to the role being funded by them (see Appendix 6). They discussed participating in the project and strengthening their connection to schools, place and local children.

According to Fischer (2000) in PAR the role of the research shifts from outsider coming in to elicit knowledge from the community to a facilitator of methods to enable knowledge and co-production. This is closely linked to the principles of creative placemaking and ethos of Resnick’s 4Ps. The Digi-Mapping project was requested by the Creative Place at WHALE so the research is therefore structured within WHALE’s identified need in the community. The research provided tools and methods to support critical engagements

with place alongside the creative placemaker to children in schools. Using PAR with the creative placemaker can support a non-professional in the use digital media to better understand critical heritage making using technology and methods of psychogeography and map-making to engage communities with place. The research takes place in a structured learning environment, a school and the focus of participation is from children in this space. This was also an opportunity for teachers to be part of the process within the classroom. While not in the scope of this research, these PAR processes are likely to feed into other parts of classroom learning.

Kunt (2020) argues that arts-based methods are well suited for use within in PAR for communities to explore cultural heritage. They argue that PAR is a useful approach as it puts dialogue and participation at the centre creating alternative modes of knowledge production. They argue that PAR combined with art-based tools “provided rich content to discuss many layers of the relations to the place” (p.93). They go on to argue that PAR approaches can support bottom-up approaches by democratising knowledge and interpretation in communities creating inclusion and empowerment.

O’Neil (2018) used a PAR approach with arts practices to understand the experience of migrant mothers within the asylum system. O’Neil undertook walking as method and argues that such methods can support creating inclusion within PAR. Walking can also help create citizen agency and empowerment resulting in a social imaginary.

Grandi (2021) used theatre as method within a PAR approach arguing that the combination can support co-constructing new knowledge and creates a community of practice. Arts practices can support certain groups (in their case girls) to feel safer when critically engaging topics and this can elicit deeper understanding with participants.

These highlighted uses of PAR with arts methods and tools all connect with the core aspects of both critical heritage and creative placemaking practices. PAR within the context of this research empowers the community and WHALE in their ability to engage and share counter narratives about their local area.

While PAR is the approach in this research, it does utilise creative participatory methods and tools. It also makes a case for why participatory design is also useful for approaching this research. While Research Through Design could be another approach to this research, PAR does not always require design solutions like RTD. Using PAR helps to triangulate the methods and tools used with the community so that they be collaborative and support co-constructing knowledge while also creating inclusion and empowerment.

While this research employs a participatory action research approach to the research, it considers some of the approaches of participatory design that sit within a PAR approach. When engaging in participatory design approaches Schepers, Dreessen and Zaman (2018) present how fun can be an important outcome from the process of participatory design. They claim that fun with child participants can be an important process when overcoming challenges, working with others, self-esteem, and experimenting. Schepers, Dreessen and Zaman (2018) provide a review of literature with regards to fun as an outcome of participatory design with children. They demonstrate how fun can manifest in different ways as part of the process (p.397). They state that fun can arise from problem solving, fun can be observed from how active or passive participants are in tasks and lastly fun is demonstrated by social interaction with others during activities. This mirrors the position of Resnick and Papert that if children are interested in a project then they can enjoy what

is called hard fun as they are invested. It could be argued that play and fun are types of social resources that are the process of social actioning heritage.

Sanders, Brandt and Binder (2010) argue that participatory design tools and techniques are best when they are used in a combination of three: making, telling and enacting (p.307). Each of these activities helps inform and support the other. Bratteteig et al. (2013) argue that participatory design method is more of a methodology or meta-methodology. Its take different areas and brings them together into a piece of participatory design. They make use of (Anderson et al. 1990) approach that good participatory design should contain the following elements.

- Application area
- Guidelines
- Perspective
- Tools Techniques
- Principles for organisation (p.118)

Halskove and Hansen (2015) reviewed ten years of published research on participatory design particularly within HCI Research at the Participatory Design Conference. From their research they found three broad definitions of design: “(1) implicit, (2) users’ point of view, and (3) mutual learning” (p.86). They argue while many state they are using participatory design, it is often ill-defined within the scope of the research and instead broad PD theory is cited. They argue that for participatory design to be successful it requires the use of at least two of the five fundamentals (Figure 4-1).

While this research is not explicitly participatory design, it is informed by three of the fundamentals - people, methods and context – to unpack meaningful places that fit within PAR. Product was not used as there is not a designed alternative to improved quality of life at the end of the research. Politics was not used as PAR is participatory and the participants already have a say in the types of content they will create. Creative placemaking as highlighted in chapter two does always have some level of curation and the end maps were put together by the research (discussed further in Chapter Five).

**Fundamental aspects of participatory design.**

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<b>Politics</b>	People who are affected by a decision should have an opportunity to influence it
<b>People</b>	People play critical roles in design by being experts in their own lives
<b>Context</b>	The use situation is the fundamental starting point for the design process
<b>Methods</b>	Methods are means for users to gain influence in design processes
<b>Product</b>	The goal of participation is to design alternatives, improving quality of life

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*Figure 4-1 Halskov & Hansen (2015) Fundamentals of Participatory Design*

*4.4.1 Co-production v co-creation v co-design*

The terms participatory, co-production, co-creation and co-design are often used interchangeably within research without specifically defining what a researcher means by the term. This problem is mirrored by Williams et al. (2020) in discussing the use and definition of the term co-production by Oliver et al. (2019). Although this is framed from co-production in healthcare, Williams raises a valid argument about the interchangeable use of terms. Oliver et al. (2019) define co-production as “the joint working of people who are not in the same organisation to produce goods or services”. As Williams et al.

(2020) states this definition is too vague especially when considering what constitutes a good or service. Williams et al. go on to discuss that Oliver et al.'s (2019) definition is a reflection of a phenomenon called 'cobiquity' that is often the interchangeable terms by researcher, policy and funders. They state that it: "*disregards significant differences between collaborative traditions, such as who is involved, how they are involved, the experiences people bring, and to what extent such processes address*" (p.2).

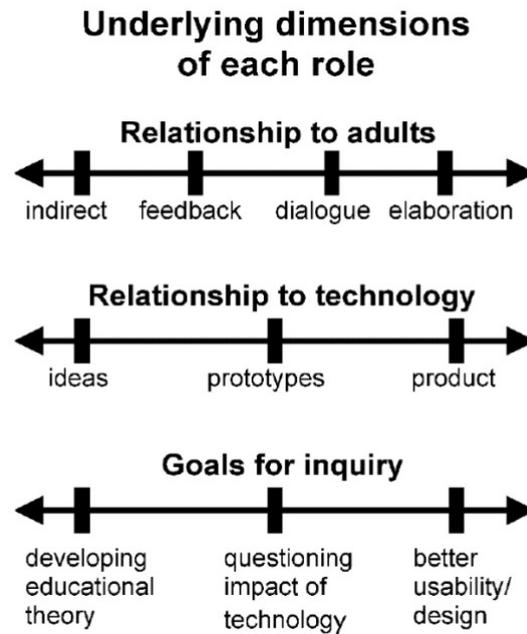
While there are possibly many co- terms to describe use of participatory approaches, co-design, co-production and co-creation, according to McDougall (2012), they are essentially different phases of a creation process. "*Co-design is an attempt to define a problem and then define a solution; co-production is the attempt to implement the proposed solution; co-creation is the process by which people do both*" (ibid). McDougall argues that co-design is the plan phase for creation and needs to involve more than one person. Co-production is the process phase of making based on the plan and again involves more than one person. Co-creation is when both co-design and co-production are undertaken by more than one person. Therefore, it can be argued that co-design, co-production and co-creation are stages of participatory research within a participatory action research approach.

#### *4.4.2 Participatory Design with Children*

Participatory design with children can either use child specific methods or methods adapted for use with children (Groundwater-Smith, Dockett and Bottrell, 2014). One area that has to be considered is that the methods used need to be adapted to build rapport and trust with the participant. Using different methods helps participants to share and communicate knowledge in different ways (ibid). Clark (2011) further debates whether

child specific methods are necessary in participatory design research and instead of explicitly implementing child centred approaches, to extend these methods and incorporate other methods to create participant centred approaches. This research is focused on approaches to creative placemaking with digital media tools. Children are the research participants for the empirical research. While this research accepts consideration for working with children in a participatory setting, it does not position the overall research from the perspective of children. The methods employed in the research are not child specific. This research adapts methods for use with children. This thesis aligns to the argument that given children's competence, non-child specific methods can be used as long as they are adapted and considered for the audience that are engaging with them (Christensen and James, 2008).

Druin (2002) discusses the role that children take on when involved in the participatory design of technology. Her framework for engaging in participatory design with children defines four roles: user, tester, informant and design partner. Druin demonstrates the underlying dimensions of these roles with relationship to the researcher and the design process.



*Figure 4-2 Druin (2002) Role Framework*

Barendregt et al. (2016) propose an extension to this framework, creating a Role Definition Matrix to clarify exactly what children are doing during a participatory design project. They do this by splitting the roles into areas: phase of design; requirements, design, evaluation and activities in relation to the designer; indirect, feedback, dialogue and elaboration. This allows children to take on multiple roles within Druin’s framework. While Druin’s framework and Barendregt’s are useful, they do not account for the entwinement of roles during a creative process. This matrix is more closely aligned to a UX project flow rather than focus on the process of creativity. This is why, as highlighted in the previous chapter, the research is more interested in Resnick’s 4Ps – Projects, Passion, Peers and Play – as the same designed outcomes can happen but instead focusing on the process of creativity without emphasis on the end artefact.

## 4.5 Methods of Data Collection

This section outlines the tools and techniques used in the empirical research. It presents their affordances and why they are a suitable approach for the study. This research employs a qualitative method approach, deploying different tools as a means of eliciting different types of meaningful data. These tools have been considered for the participants within the overall design of the Digi-Mapping workshops (section 5.4). It does this by designing weekly activities using a scaffolding approach that aligns with constructionism, specifically Vygotsky and the theory of the Zone of Proximal Development (Lloyd and Fernyhough 1991). Participants will build knowledge over the sessions but still examine the creative process with technology. Doing this the children understand how all of the components come together to build an interactive Digi-Map. These tools have also been considered within the scope of what constitutes good participatory design approaches (section 4.4.2).

### 4.5.1 Workshops

Ørngreen and Levinsen (2017) argue that workshops provide an environment where a group of people can come together, they create a community and in the process of being in a workshop can foster collaboration, undertake problem solving and gain new knowledge around specific issues and subjects. Building on this, Markussen and Knutz (2017) state that “playful participation may lead to the redistribution of social relations, roles of identity, control, power, and so on, deserves careful attention” (p.3).

Ahmed and Asraf (2018) claim that workshops can be a rich data gathering tool and argue that the use of workshops can help to foster trust with participants. This is done through the facilitators’ enthusiasm and recognising and valuing participant’s contributions. This

leads to participants sharing “rich information” (ibid). Bernard (2006) adds to this by stating that this leads to facilitators becoming part of that community through mutual sharing and building rapport.

Both Ørngreenand Levinsen (2017) and Ahmed and Asraf (2018) describe workshops as meeting spaces. They are places for participants with shared interests who, through their collaborative experiences, can share rich information. It can be argued that workshops create communities of practice, which foster polyvocality and distributed expertise. These are vital aspects of unpacking meaning that have been explored within the literature review. The following sections will outline the methods used within a workshop setting. The next chapter will outline the specific design of the Digi-Mapping workshops.

#### 4.5.2 Video Observation - Ethnography

Ethnography is the study of a group of people to investigate their behaviours and for the researcher to identify patterns (Wolcott, 2008a). While conducting ethnography the researcher takes the position of emic (an insider) and during analysis an etic position to interpret findings (Creswell, 2013, p.92).

Ethnography can be used to immerse researchers within an area to understand how individuals behave, interact, use spaces, their relationships with others and what they value as important in communities. Bryman (2016, p.440) suggests that one way ethnography can be documented is using video and audio recording, instead of writing field notes. The use of video can provide rich visual and audio data while also building rapport and trust within the community being researched (Bryman, 2016, p.440). This research does not aim to conduct an in-depth ethnography using field notes. It will be

used in conjunction with recording equipment. Field notes will record things of interest in the workshops that can support the analysis of the video data.

Video ethnography is a more appropriate method than field notes as it can help to capture data that may be missed when facilitating the workshops. According to Knoblauch & Schnettler (2012) video ethnography can allow a researcher to gain emic knowledge but it also supports in analysis when understanding and interpreting those actions.

From the pilot study at Clovenstone Primary School, it was highlighted that the way children share knowledge with each other was missed. The pilot study also revealed that children like to move around the classroom and see what their friends are doing. Using a combination of video and audio recording meant that children's movements and conversations with the wider class could be observed and analysed. As this research employs an interpretivist approach and looks for themes or codes of meaning, video ethnography further affords the researcher to enhance or to correct understanding from memory. Knoblauch and Schnettler's (2012) research found that this is invaluable especially when researchers analyse the data gathered. Passos et al. (2012) provide a comparative table between Action Research and Ethnography.

**Table 1. Ethnography vs. Action Research**

	<b>ETHNOGRAPHY</b>	<b>ACTION RESEARCH</b>
Goal	Go Native In-Depth Understanding of Culture Generate Rich and Detailed Social Account	Process Improving Knowledge Advancing Problem-Solving
Focus	Culture and Values	Process and Practices
Main Technique	Participant Observation	No specific technique
Fieldwork	Holistic Comparative Contextual	Essentially Collaborative Reflexive Problem-Solving Driven
Final Product	In-Depth Description of Group's Life	Improved practice New knowledge

*Figure 4-3 Passos et al. (2012) Ethnography vs Action Research*

However, in this research a PAR approach is used to design and deliver a participatory workshop that can be argued is a method of both eliciting and creating knowledge with participants. A video ethnographic tool is used only to document how the Digi-Mapping process supports answering the research questions.

#### 4.5.3 Map-Making v Mapping

The use of mapping methods within participatory design situates itself within the areas of geography and cartography. Mapping can act as “Both symbols and instruments of power” (Poole, 1995, p.1) and maps can create “complex geographies of perception” (della Dora, 2009, p.348). The final artefact created in this research is a map – a representational symbol of the local area – and the children have taken ownership of its creation. However, while for WHALE Arts the goal is the creation of a meaningful map and for children to use digital media tools, this research is more interested in how digital media tools can facilitate creative placemaking and the process of using such tools to elicit meaning. More important to the research is how the process of making the map using these tools elicits knowledge from the participants. Therefore, this research takes the position that map-making is a better term rather than mapping.

Cochrane, Corbett and Keller (2014) define this difference as:

*“Map-making’, as opposed to ‘mapping’, is more inclusive of the process and emphasizes the importance of the process of mapping rather than the outcome of mapping.” (p.8).*

Map-making fits within a constructionist and specifically PAR approach as it can act as a tool for communities to present and challenge ideas, interpret knowledge and can be empowering for those who make them (Cochrane, Corbett and Keller, 2014, p.2).

Corbett (2009) proposed that participatory mapping can fit under six broad themes.

- (1) to articulate and communicate spatial knowledge to outsiders,
- (2) to record and archive local knowledge,
- (3) for land-use planning and resource management,
- (4) to advocate for change,
- (5) to increase capacity within communities
- (6) to address resource-related conflict (Corbett 2009).

Corbett (2009) defines a set of criteria for what constitutes a community map.

What defines a process of participatory mapping is the process by which it is produced.

- They are around a common goal with an open inclusive approach including the community.
- The more members of a community participate the more beneficial the outcome as it reflects a collective experience.
- It represents the community and shows information that is relevant and important to the community.

When discussing mapping, particularly cultural mapping, Gibson (2010) observes that very rarely does this activity produce actual maps; rather, mapping is discussed as a way of cataloguing and results are often presented as diagrams or tables. When examining the kinds of data presented in maps, emotion can be a way for research to understand the relationships individuals and communities have with place (Caquard & Griffin 2018, p.4).

One example of emotional mapping is Christian Nold's Bio-mapping project (2007), which sought to understand the sensory feelings during the process of mapping – in this case bio data such as heart rate when in certain places. Nold's project sought to understand the physical responses by participants when in certain areas. This was complemented with interviewing participants to understand the physical responses at certain sites. As discussed in chapter three, Lammes (2015) argues that the use of digital mapping in digital media has evolved our sense of place into new meanings and a desire to understand where individuals locate themselves and their identities by using story type structures of where they are.

Map-making has become a valuable and interactive tool to uncover local knowledge and using map-based methods creates discussion and a visual output and “*can lead to community members becoming active place-makers*” (Corbett, 2009). Map-making is often used with other methods e.g. interviewing. As touched on in chapter two, map-making was used by Scotland's Urban Past to create an LGBT+ map of Edinburgh. Other methods included workshops and storytelling as well as map-making. Beyond that specific project, 60 projects were run between 2014 and 2019 employing a number of methods in projects e.g. photography and film, interviews and surveys to obtain a rich perspective and ways of sharing meaning and heritage of Scotland by communities.

Harriet Hawkins (2015) has discussed geography’s recent (re)turn using more creative approaches. She argued that geographic approaches can incorporate “visual art, image making, creative writing, performance techniques – both as the means through which research can proceed and by which it can be communicated and presented” (p.248).

Emmel (2008) places emphasis on the fact that maps produced need to be tangible because they act as both record of interaction but also a tool for future reflection and expansion. Groundwater-Smith, Dockett and Bottrell (2014) highlight the opportunities and challenges of the process (Figure 4-2) when undertaking map-making workshops with children (p.16).

<i>Potential opportunities</i>	<i>Potential challenges</i>
<ul style="list-style-type: none"> <li>• Participants have direct involvement in the construction of artefacts and associated meanings</li> <li>• Involves sensory as well as verbal modes of interaction</li> <li>• Can document emotional, as well as physical, associations</li> </ul>	<ul style="list-style-type: none"> <li>• Can be a lengthy process</li> <li>• Focus can be on the artefact, rather than on the meanings and interpretations of the map makers</li> <li>• Requires access to a range of resources and equipment</li> <li>• Some maps can have implications for surveillance of children and young people</li> </ul>

*Figure 4-4 Groundwater-Smith, Dockett and Bottrell (2014) Mapping Methods with Children*

These challenges were taken into consideration in the Plan of Inquiry in chapter five.

#### 4.5.4 Psychogeography

Coined by Debord (1955), psychogeography can be broadly defined as “the study of the precise laws and specific effects of the geographical environment, consciously organised or not, on the emotions and behaviour of individuals”. Often, methods of interrogating psychogeography are in the form of a *dérive*, “a technique of rapid passage through varied ambiances” (Debord 1955). While the term psychogeography is used to express feeling

and emotion of place, it will not be the same experience for everyone. Richardson (2015) argues that instead of using the term 'psychogeography' the term 'psychogeographies' would be better suited due to the fact the influences of each individual or group will be different from another.

The inclusion of the sensory experiences in psychogeography closely aligns with phenomenology (Merleau-Ponty 1962; Mudle, Husserl & Churchill 1966; Heidegger 1978). Phenomenology deals with the essence of experience; it interrogates emotional states not just through description such as happy or excited, but the physical sensations felt in the body at the time of an experience. It can be argued that these are an essential part of what goes into feeling an emotion or having a sensory experience of the world around us. Psychogeography is therefore driven by the desire to explore and experience place not just through the physical spaces, but in different states, such as emotional, sensory and storytelling.

Oppezzo and Schwartz's 2014 study on walking outside found that it helped creativity and the flow of ideas. Walking also had a creativity residue after the walking had finished. Therefore, walking is an important part of the methods as it helps creativity, the flow of ideas and connections to place not thought about in a room. Biesta and Cowell (2012) argue that using psychogeography as method afforded complex narratives, opposing narratives, and gave an opportunity to members of the community to engage with these opposing narratives and tests complexity in civic engagement with place. This fits with the PAR approach and the highlighted need for polyvocality in creative placemaking.

Biesta and Cowell (2012) demonstrate that the use of psychogeographic mapping with communities can be a useful tool to understand the complexity of civic engagement. It

can show multiple narratives, perspectives and histories and as a method is sensitive to these areas. Psychogeography can also form part of a community sharing knowledge and learning from each other.

Anderson and Jones (2009) argue that place makes a difference to the methods with young people. This can be demonstrated in the way participants talk and act in spaces.

From their research they found that

*“this method meant not only could the ordinary aspects of young people’s geographies be accessed, but also languages that recalled more detailed emotional and embodied experiences. These insights could not only be crossreferenced with earlier employed methods, but could also be supplemented with the more ethnographic first-hand experience of the researcher, which together facilitated the creation of a ‘language of lived experience’.”*

According to Mitin (2017) modern cultural and human geography emphasise the differences in the meaning of a place as it is interpreted by different social groups (p.2), and these narratives consist of fragments which can conflict with one another. Psychogeography can be used as a tool to unpack these conflicting narratives. As discussed in Chapter Two Assmann (2008, p.50) argues that embodiment is required for experiential memory and because of this it therefore cannot be transferred to other people. She states that often what is not addressed in memory work is interaction with other people and the objects, symbols and signs associated with memory. An individual memory cannot be implanted in another individual, but the memory can be shared through other means such as verbally, narratively or visually. That through the act of doing, this memory becomes understandable through a process of “*encoding*

*them in the common medium of language, they can be exchanged, shared, corroborated, confirmed, corrected, disputed, and even appropriated.”* (Assmann, 2008, p.50). This act of doing is as previously discussed in chapter two and is the social actioning of heritage and placemaking, placing the community as expert and creating a polyvocal heritage. Psychogeography can serve as a useful tool to aid experiential memory.

Psychogeography as a method has a multitude of benefits when unpacking meaningful geographies with participants. One of the key components of psychogeography is that it affords participants the ability to engage, challenge and interpret place that is meaningful to them. Henshaw (2015) proposes a structure of how to conduct a psychogeography walk as a method demonstrated in Figure 4-5.

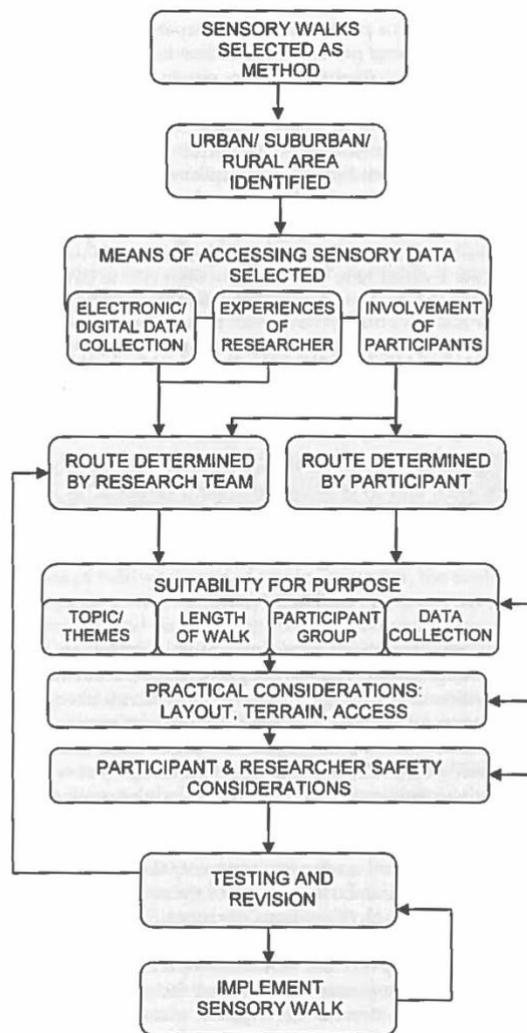


Figure 4-5 Henshaw 2015 p.204, Model of Site-related Decision Making in Sensory Walks

For this research Figure 4-6 shows how Henshaw’s model has been used to design the psychogeography walk in the Digi-Mapping project.

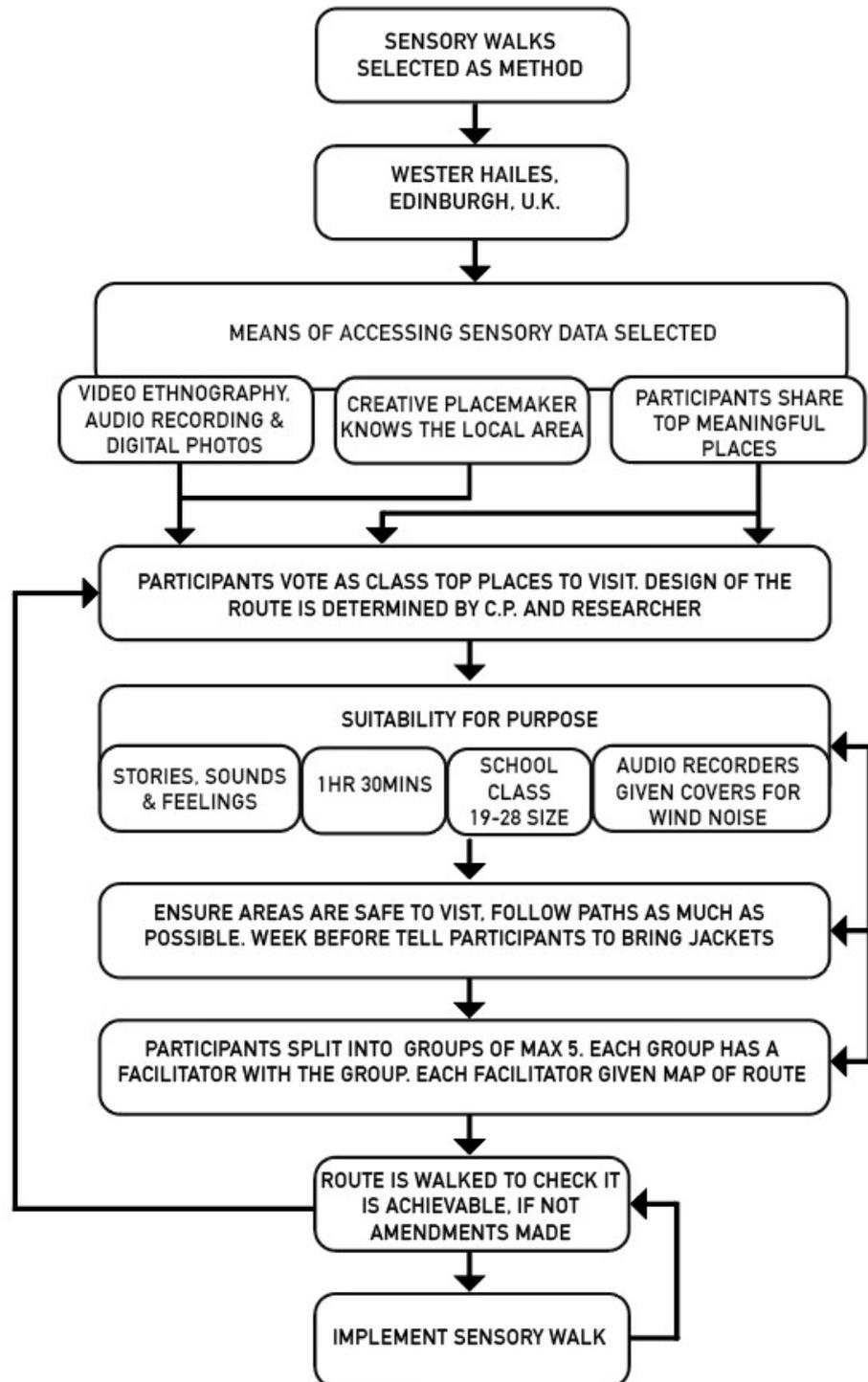


Figure 4-6 Psychogeography Walk Design

Elwood and Martin (2000) argue that when data is collected for maps this can create a power dynamic between researchers and participants. If research is to be successful,

experiential walks should include researchers and participants walking neighbourhoods together to understand context and allow participants to assume the role of expert to highlight what is meaningful in their local area (Garcia et al., 2012). These walks can be used to understand not just knowledge but also feeling and relationship with places and other community members (Carpiano, 2009).

#### 4.5.5 Feedback Gathering

While questionnaires can be a useful method to elicit feedback from participants, Hall, Hume and Tazzyman's (2016) research on the use on smiley face Likert scales with children argue that children can be biased when completing surveys; that children may provide answers that adults want to hear. This is reflected on in Chapter Six: Rediscovering Wester Hailes.

The feedback was designed with Bell's (2007) key points for designing questionnaires with children. These are participants from the age of seven can use them, the language needs to be simple and not be too mentally taxing. Importantly, they state that it

*“is also important to remember that children (as adults) are subject to the influences of context and setting, and may edit their answers in an attempt to please, impress or acquiesce” (p.468).*

The feedback gathering of the Digi-Mapping was designed to gain understand participants' feelings, experiences and thoughts about the project. The design (found in Appendix 5) was based on Youth Scotland Cashback Evaluation Toolkit (n.d., p.18) and was created by a member of the university that had extensive previous knowledge of

evaluation approaches with children. The evaluation had also been tested in previous research by that member of staff.

Asking the participants for feedback on the workshops sought to understand two main areas. It aimed to understand if the design of the Digi-Mapping workshops were appropriate and engaging for the participants – what aspects did they enjoy, how did the process make them feel? And what did they enjoy about the process? This is why the participants were asked how they felt about the Digi-Mapping workshops. This connects back to the gap around more research needed investigating the ephemeral aspects of creative placemaking (Courage, 2020). It also sought to understand if the workshop design elicited aspects connected to the broader goals creative placemaking. Specifically, if it facilitated citizen empowerment, inclusion and privileged community as expert. Therefore, while feedback is being sought, the design of the form is more closely aligned to evaluation. The evaluation being, how has creative placemaking manifested from the position of the participants.

## 5. Chapter Five: Design of a Digi-Mapping Workshop

As highlighted in the previous chapter, the research project was a co-created partnership with the creative placemaker at WHALE Arts in Wester Hailes. It was the creative placemaker who approached Edinburgh Napier University to develop and deliver a number of community engagement projects with school children in the local area. The creative placemaker also wanted technology to be a part of the project. The design of the Digi-Mapping project reflects this request. The previous chapter argued for a participatory action research approach as a framework to understand collaborative activities. The chapter then presented arguments for the methods of data collection consisting of workshops, map-making, psychogeography, video observation and evaluation.

This chapter presents the design of the Digi-Mapping workshops for the empirical research consisting of six sections. Firstly, the chapter contextualises the site of this research – Wester Hailes. Secondly, the chapter then discusses the recruitment of participants and ethical considerations of working with a vulnerable group. Thirdly, considerations are made around the struggle to build trust with participants, especially those in deprived communities. This section also considers the value of children's research contributions and makes the argument that the research does not distinguish between fact and fiction. Fourthly, the chapter presents the design of the Digi-Mapping workshop by week and reflects on a pilot study at Clovenstone that contributed to the design. Fifthly, limitations of the research are considered, particularly that the research takes place in a structured learning environment. Finally, the chapter presents the approach to the analysis of data gathered in the workshops. It argues for an applied

thematic approach. It also presents the need for using different tools of eliciting findings due to the different tasks defined each week and additional artefacts created by participants.

Based on the work of Iivari and Kinnula (2016) around genuine participation, it was agreed with the creative placemaker that the project should be done in primary schools with participants being children between ages 8-11 (Primary 5-7). As the creative placemaker was embedded within the community, they wanted to enhance their partnership with local schools. Therefore, the creative placemaker contacted schools and teachers to determine what schools would like to and could accommodate the Digi-Mapping project within their curriculum. It was the desire of the research that the Digi-Mapping project should run in each of the schools in the local area (Wester Hailes). There are three primary schools in the local area. The Digi-Mapping project was run at Clovenstone Primary School with P.5/6, Sighthill Primary School P.7 and Canal View Primary School P.5. Canal View Primary is a large school with two classes of each year group. It was agreed that it would be unfair to run the project with one class and not the other. The Digi-Mapping project ran with each of the classes with a total of four Digi-Maps being created over the course of the whole research. A total of 101 participants took part in the Digi-Mapping project between 2018 and 2019.

### 5.1 Ethical Research

As this research involved working with children, the first step was to gain a PVG (Protecting Vulnerable Groups or police background check) before undertaking any activities with children. Before the Digi-Mapping project commenced in a school, teachers were sent consent forms for parents/guardians to sign before the beginning of

the project. The researcher arranged times that parents could come to the school to ask any questions they had about the document. This is important as given the site of the research – one of multiple deprivation – some parents/ guardians may not have high levels of literacy, even if the document is written as simply as possible (see a copy in Appendix 2). On the first day of the project participants were told what the project involved, what kind of data we would be gathering and what we would do with it. Participants were then asked to sign an assent form (a copy can be found in Appendix 3). It was stressed to participants that they could choose to participate in the activity without having data recorded.

All data gathered in the participatory workshops was stored on encrypted hard drives at the university. This is so data is not lost and does not breach data protection rules. When presenting data in the findings, all names are anonymised and participants' faces are obscured so they cannot be identified.

## 5.2 Building Trust and Positionality of the Researcher in Communities

Le Dantec and Fox (2015) assess how individuals, particularly those from academic institutions, gain access and build rapport with communities, especially when stereotypes of such institutions may cause friction with accepting strangers into community groups. From their work they argue that participatory research with communities will depend on the rapport that is built with the community. It will influence what they decide to share and how they interact with researchers. The position of the researcher needs to be considered as part of the research process, as too often they are painted out of the data gathering without reflecting on their impact of how the data was gathered. Researchers need to embrace the messiness of research practices and embrace multiple research

methods to elicit different forms of knowledge production from communities which can then be brought together. To gain trust, however, researchers must participate in a process of what Harper (2000) describes as 'initiation rituals'. When trust is created with a researcher, the mess as described from le Dantec and Fox (2015) means that when conducting 'in the wild research', researchers construct not one site but many sites which are built on what is selected, their connections and the boundaries of a research context. Digital storytelling can be used as a method within social research (Gubrium, 2009). However, when practitioners engage in the use of digital storytelling in workshops, they face several challenges. One of the primary challenges that Gubrium (2009) asserts is the issue of building rapport and trust with participants in these workshops. When this can be achieved it presents digital storytelling as a method, the opportunity to be reflective, create meaning making and can be a form of empowerment (p.487). The use of visual elements can act as a trigger for conversation and memory and helps to mesh a story together.

When undertaking a participatory research approach, it is important to understand the position of the researcher. Sultana (2007, p.380) reminds us that the position of a researcher is one of power. This position can impact the relationship between researchers and participants and therefore affect the production of knowledge, and this can impact the research process and the results gathered. De Saint-Laurent's (2018) reflections on approaches researching collective memory in everyday life argue that the type of method used will dramatically change the way the past is performed. In open interviews, individuals may personalise their answers as they build a rapport with the researcher. de Saint-Laurent argues that the effect of that method has on collective memory data has been largely ignored (p.159). She moves on to argue that the positionality of the researcher is also vitally important in the data analysis and gathering. Further, awareness

of body language is important when listening to others telling a story. Body language can reflect the believability of a storyteller's accounts and therefore shift how someone tells a story based on the listener reaction (ibid). It is therefore important to reflect on how collective memory is shared and the different identities participating. In attempts to break down these potential barriers, open conversations and body language play an important role in building rapport and trust with the participants.

The relationship with WHALE Arts was vital to gain access to and elicit trust in the community of Wester Hailes. In the 2016 and 2020 surveys, Wester Hailes was considered one of the most deprived areas of Scotland (SIMD, 2020). Often organisations, particularly universities, use these areas to show public engagement and impact. This can lead to communities feeling used and they may become wary of the true intentions of the work they do (McGarvey, 2018). The work carried out can sometimes end up damaging communities that have built grassroots organisations, then a university will come in and change the structures and process. When funding or the project ends, the university leaves and they no longer provide support for the project which can then cause the organisation they have built to collapse. It is of the utmost importance that this research works with a local organisation as it forms part of what they have identified as a need within the community.

While this research has goals of its own, it is still responsive and sensitive to the wider community. Having the Creative Placemaker as part of the process develops trust with both WHALE and the wider community. The Creative Placemaker can also use what has been done in this project within other work undertaken in the community. Findings can be shared with WHALE to inform their own practice, impact and methods of working

with the community themselves without the university creating a vacuum of knowledge and practice.

### 5.3 Valuing Children's Research Contributions

Leading on from section 5.2 and considering the researcher being in a position of power, it is important to consider how children's research contributions shape the data that has been gathered. As previously stated, children will sometimes say things to please others, particularly adults. This then can raise the issue of the validity of children's research contributions. This thesis takes the position that all of children's research contributions are valid regardless of truth. Von Benzon (2015) found in their field research that reality and fantasy in children's contributions were common. Fiction may be a medium in which children make sense of memory and present knowledge. She goes on to argue that fictional contribution can support conveying value through illustrations of places and this can include beliefs and fear about places in their local area.

Regardless as to whether a contribution from a participant is true or false, that in itself says something. It could be a way of children creating belonging, building trust with the researcher (ibid). Secondly, it could be a way of performing meaning with their peers to create a sense of belonging. This research aligns itself with von Benzon's positions and determines that all research contributions are valid and therefore this research does not attempt to determine between fact and fiction.

### 5.4 Digi-Mapping Wester Hailes

As highlighted in section 1.2 Background: Case Study Wester Hailes, Digi-Mapping was a participatory design project with local school children in Wester Hailes, Edinburgh. The

project design was a co-created partnership with the creative placemaker at WHALE Arts. The overall aim of the Digi-Mapping workshops was to use digital media tools and psychogeography to elicit stories from participants about their local area.

A total of 101 participants (4 school classes) took part in the research aged between 811 (P.5- P.7). A Digi-Mapping project consists of six two-hour sessions. During the project participants undertook both individual and group work. All groups were determined by the teacher as they had a better knowledge of how pupils worked within the class.

The design of the research made use of creative methods, which were positioned within the theoretical structure of participatory action research which aims to understand shared meanings, attitudes and experiences which are then analysed and interpreted (Veale, 2005, p.12). Veale states that the use of such methods is best suited to large groups that share a commonality. In the case of this project, the group is a class of children that all live in the same area; the success of the methods is reliant on the participants' engagement with the process which is why a participatory approach is useful as the children take ownership of the knowledge produced for the maps.

This research uses different methods in participatory workshops with the aim of creating an interactive map. The format of the following sub-sections presents the Digi-Mapping workshops by week and the reasoning for the format. There was a total of three facilitators for the project: the researcher, the creative placemaker and a research assistant from Edinburgh Napier University. Three facilitators were required to ensure that the participants were fully supported in each session.

Netta Iivari & Marianne Kinnula (2016) present the characteristics of what counts as genuine participatory projects with children (Fig 5-2). Their paper found that one of the

best places to conduct effective participatory design was in school classrooms, particularly as participatory workshops often compliment the goals of teachers and the curriculum with classrooms. This directly influenced the decision to hold the participatory workshops for the Digi-Mapping project in schools with teachers being engaged with the project.

<p><b>Conditions of Convergence</b></p> <p>Whenever possible, the project builds on existing community organizations and structures that support children’s participation. As much as possible, project activities make children’s participation appear to be a natural part of the setting. The project is based on children’s own issues and interests.</p>
<p><b>Conditions of Entry</b></p> <p>Participants are fairly selected. Children and their families give informed consent. Children can freely choose to participate or decline. The project is accessible in scheduling and location.</p>
<p><b>Conditions of Social Support</b></p> <p>Children are respected as human beings with essential worth and dignity. There is mutual respect among participants. Children support and encourage each other.</p>
<p><b>Conditions for Competence</b></p> <p>Children have real responsibility and influence. Children understand and have a part in defining the goals of the activity. Children play a role in decision-making and accomplishing goals, with access to the information they need to make informed decisions. Children are helped to construct and express their views. There is a fair sharing of opportunities to contribute and be heard. The project creates occasions for the graduated development of competence. The project sets up processes to support children’s engagement in issues they initiate themselves. The project results in tangible outcomes.</p>
<p><b>Conditions for Reflection</b></p> <p>There is transparency at all stages of decision-making. Children understand the reasons for outcomes. There are opportunities for critical reflection. There are opportunities for evaluation at both group and individual levels. Participants deliberately negotiate differences in power.</p>

Figure 5-1 Iivari & Kinnula 2016 ; Effective Children’s Participation.

Mirroring this approach of genuine participation with children, below is the plan of how this inquiry addresses these areas.

### **Conditions of Convergence**

- Project is built on WHALE's organisation structure of PD approaches
- Children know WHALE and they are part of the delivery
- The project focuses on their own local area and what they like about it

### **Conditions of Entry**

- All participants are selected in a class (even if they do not consent to filming, they can still take part)
- Consent and assent forms sought
- Project takes place during school hours in class

### **Conditions of Social Support**

- They are co-researchers with us (the researcher and creative placemaker)
- They work in groups
- All children treated fairly

### **Conditions of Competence**

- They are the data collectors
- Make objectives and tasks clear
- They decide what places are meaningful and where to record on the walk, choosing sounds for the map
- Democratic process of choosing and working with technology
- They tell us what is important about where they live

- The creation of an interactive talking map

### **Conditions of Reflection**

- Project is designed with Creative Placemaker at WHALE
- They are told what they are making and why
- They are asked to complete an evaluation
- Dynamic between researcher and participant is considered

#### 5.4.1 Pilot Study Clovenstone Primary School

The first Digi-Mapping project was with Clovenstone Primary School and served as a pilot study for this research. In this study, researcher field notes were used. After the study had ended this approach was deemed as unsuitable going forward. The format and schedule of the weeks ensured that the participants were able to build a Digi-Map. This same format was employed going forward. The only change to the project was that in week two when participants were stuck, they did not record any sounds. A dice game was developed so that if participants were struggling, they could refer to the dice game to give them prompts. This is discussed in section 5.4.3.

Going forward, all the schools were filmed, and video observation was employed combined with researcher field notes to capture important information during the session. This video observation helped to provide context around participant actions during the project. There were between five and six groups in a class. Six cameras were used with one focused on each group. At the same time, each desk had an audio recorder to capture what the children were saying to each other and how they were sharing knowledge. From the pilot studies it was also found that children liked to move around the classroom and see what their friends were doing. Using a combination of video and audio recording

meant the children's movements and conversations with the wider class could be tracked and the interactions between members of a group sharing information.

#### 5.4.2 Week One

Week One began with introducing the facilitators, an introduction to what the Digi-Mapping project was and then participants were asked to sign an assent form. Consent forms were also collected that were sent from the teacher to parents before the project began. Next, an 'ice breaker' was performed to get to know the participants. The whole class formed a circle and a large dice was used with questions. Participants rolled the dice, said their name and their answer to a question corresponding to the number they had rolled e.g no. 1 was 'What's your favourite colour?' The facilitators then tried to remember everyone's name in the circle.

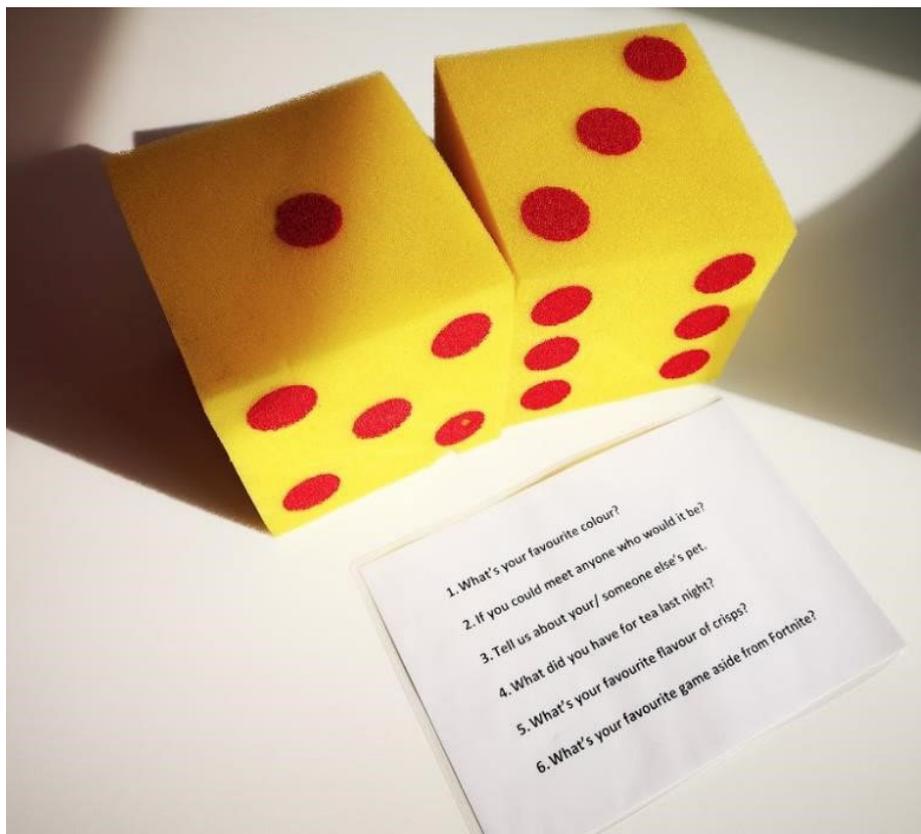


Figure 5-2 Dice Prompts

Participants were then given a short presentation that detailed the project and what to expect over the coming weeks. Emphasis was placed on them being the researchers. They were the experts about where they lived, and we needed their help to become researchers to help us collect stories and help us make a map. Next, a conversation was started to get participants to think about places and where they said they were from e.g. Calder, Wester Hailes, Edinburgh, Scotland, U.K. and when talking to different people we changed where we said where we were from and our 'local' identity.

Participants were then introduced to the term psychogeography and they collectively figured out what it meant by breaking it down into 'psycho' and 'geography'. A short psychogeography of the classroom experiment was conducted with the class to get them to consider spaces that are public and private and where boundaries are in the classroom. These areas included where the reading corner was, when do you get to use it? And how does it make you feel? Another prominent area was the teacher's desk. The aim was to demonstrate where the boundary was when participants were too close to the desk. They were asked to shout when the facilitator got to the point where they should not cross.

After this experiment the class were split into groups and were given a large sheet of paper and pens. They were asked to draw their school in the middle of the page. Working together they were to draw their walk to school, drawing things around them, their route and anything of interest. They were encouraged to work as a group to make sure everyone's house was where it should be in relation to the map. Finally, the group were asked to list their top five places in their local area.

The facilitator used the classroom board to collate all of the group's top five places and creates a tally. This would inform where the participants would go on the psychogeography walk in Week Two.

#### 5.4.3 Week Two

In the time between week one and week two the researcher and Creative Placemaker worked together to design a route around the local area for the psychogeography walk. The design needed to consider the time constraints of the session but also account for the top meaningful places identified by participants in week one. The researcher also needed to work with the school to ensure there were enough facilitators to take a class of children outside away from school. One adult was assigned per group. The walk facilitators consisted of the researcher, research assistant, Creative Placemaker, teacher, class assistant and, if required, registered parent school helpers.

This week the participants went on a psychogeography walk around the places they told us were meaningful the previous week. Each group was given a zoom audio recorder and a tablet. They were encouraged to work as a group to record stories, memories and sounds around the local area. They were also asked to take photos of the places visited using the tablet. In case the participants struggled to come up with stories they were provided with the large dice used in the icebreaking session and a set of six questions:

1. Record a sound, tell us what it is
2. Share a story about this place
3. Share a feeling
4. A story someone has told you
5. What do you smell?
6. What do you see?



*Figure 5-3 Dice Prompts Week Two*

Participants were given a demonstration of how to use the equipment and instructed to work as a team where everyone got a turn using the technology. The groups were determined by the teacher. The teacher knew the pupils better and who was able to work together in a group. The facilitators were given GoPros mounted on monopods to film the groups on their walk to provide contextual video observation. The groups were encouraged to move around the area independently from the rest of the class. The participants led where to go within the rough route of the walk. This was to ensure no participants or groups got lost and that they could complete the route within the timeframe. The session ended back at the school.

#### 5.4.4 Week Three

In the week before the session, the researcher rapidly sorted through the hundreds of recordings generated in the Week Two to find a selection of approximately 40 sounds

that were then edited and accessed via a simple local access website loaded onto laptops (figure 5-4).

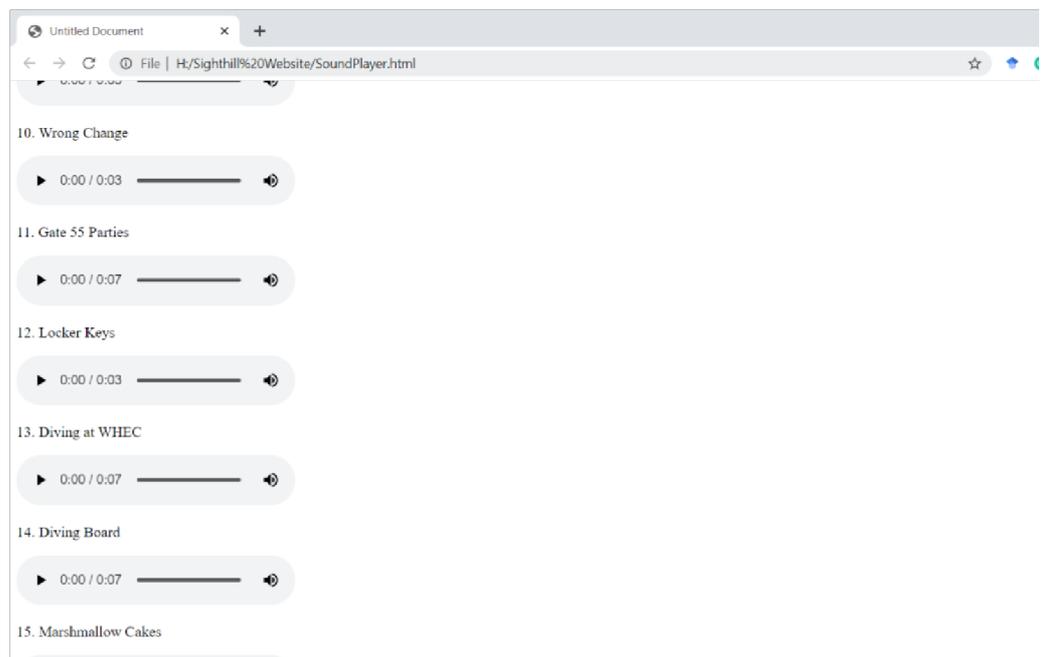


Figure 5-4 Example of the audio website

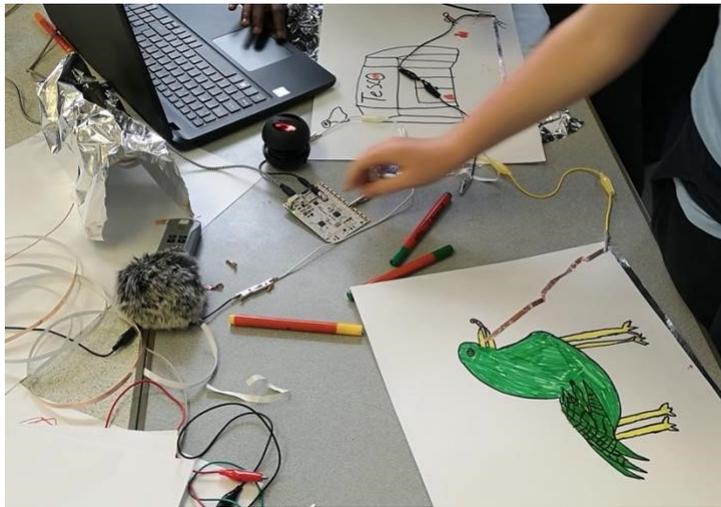
These recordings were not the final sounds for the map but a selection of their generated content for the task of using the Bare Conductive TouchBoards. Having content that the participants generated makes the participants more invested in the tasks. This was the hardest week as there was a lot of instruction so keeping the pupils' attention was vital.

In this session the participants were introduced to Bare Conductive TouchBoards. This is a microcontroller board with capacitive touch sensors with desired information loaded from a micro SD card (Fig 5-6). The controllers were coded via the laptop and had the ability to attach leads, sensors and speakers. While other technology such as MicroBit and Arduino were considered, Bare Conductive TouchBoards were chosen for this research for the following reasons:

- They are relatively cheap, costing £55
- They are created with an audio focus – but are capable of other functions
- They do not require learning a programming language to start using them which is ideal for workshops with time limits.

The session began with a demonstration of how the Bare Conductive TouchBoards work and how a circuit is created. This was done by involving the participants in the demonstration, getting them to create long strings of connectors to see if a circuit can stretch across the classroom, connect to the door and turn it into a button to trigger a sound when touched.

The participants in groups were handed a laptop, Bare Conductive TouchBoard, mouse, speaker, SD card adaptor, crocodile clips, pen, paper, conductive copper tape and tin foil. Participants were tasked with listening to the sounds on the HTML page, downloading a sound and loading it onto the SD card. They were then tasked to make a drawing and using the materials provided, create a circuit that connected their drawing to the TouchBoard so when the drawing was pressed it played their chosen sound (Figure 5-5). The aim of this session was to get the participants to understand and practise how to create an interactive drawing in preparation for week five. Week five was when they chose the final sounds and made interactive drawings for the map. It also gave the participants time to play and experiment with the TouchBoards.



*Figure 5-5 Conductive Picture*

#### 5.4.5 Week Four

Prior to this session approximately 30 drawings were selected and printed from the tablet images taken by participants in Week Two.

In this session the participants were given a sheet of A3 paper and folded it to create four squares. Each participant was handed a printed image from week two to draw. They were only allowed to draw in black and white. When this was completed, they were given one minute to swap their image with someone else in the class and the task was repeated until all the drawings were complete. After all the drawings were done, the participants could spend the remaining time colouring in their drawings. The drawing was done in this order to ensure there were enough drawings completed, as participants can spend a long amount of time on one drawing and not completing the whole task.

The reason that the drawing was done this week and not before the introduction to the TouchBoards is that two weeks were required thoroughly listen to all the recordings, edit them and decide on the final selection that could be used for the map (approx. 40 sounds).

#### 5.4.6 Week Five

Before this session, the final sounds chosen by the researcher were loaded on the local laptop HTML page. The sounds were chosen based on identification of the sound, interest and clarity. The selection also aimed to avoid choosing too many sounds from one individual. All of the participant drawings were scanned and around 20 were selected for the final map. Drawings were chosen based on what they were of, clarity and use of colour. The researcher then created a large-scale illustration of the local area the size of 2 x A0 paper to be professionally printed on 5mm board to make the final map between Weeks Five and Six.

This week participants were split into groups and each group given between three and four drawings from week four. The task for this week was to pick a sound from the website for the drawing. They were then asked to use the same process from week three to make the drawing interactive. If two groups chose the same sound, they were asked to work between the two groups to see if one could choose a different sound for their image. These sounds and drawings would be used for the final map.

#### 5.4.7 Week Six

Before this session the researcher built the final Digi-map using the participants' drawings and their chosen sounds. The Bare Conductive TouchBoards and wires were attached to the illustrated map. The drawings were placed and made conductive using tin foil and copper tape underneath the drawing. The foil under the drawing was then connected to the wire that was soldered to the Bare Conductive TouchBoards and all components attached together. Building the final map was a process that took longer than the allotted times of the workshops. The process involved the use of equipment such as Stanley knives

and soldering irons. It was not appropriate to use the equipment with the participants. The researcher curated the build the of the final map to ensure durability so it could be displayed at various events.

This was the final week of the Digi-Mapping project, when the participants had the opportunity to see and interact with the finished map. The participants were also asked to individually complete a feedback form of the project. Finally, the participants were also given the opportunity as a class to ask us any questions. These could be about the project, computing, give feedback or about the work that is carried out in the university.

#### 5.5 Limitations of the Research

The format of the workshops can be reproduced, exactly how it unfolds may not. There has to be a flexibility with approaching this type of research. The exact same process could not happen again in this research. While the research demonstrates a replication with different schools it could not be the exact format e.g. time of day, school events, music lessons and absent children, as well as the number of pupils in the class to form groups.

This research took place within a structured learning environment. It was known that there would be participants each week and they consistently knew what was happening, so they understood the overall Digi-Mapping project. It is unclear if this research would work in a general participant recruitment setting or after school club as you could not ensure consistency of the participants who would come each week.

The effect place has on methods approach is often overlooked (Anderson & Jones, 2009, p.292). This research took place in a structured learning environment – schools, during the class day. This therefore can create some bias towards the students being alert and engaged as this is normal expected behaviour for that point in the day. Also, as discussed in section 4.5.4 Psychogeography, pre-determining the route will also impact what stories are gathered by the participants.

While the participatory project took place within a classroom, it could not be guaranteed that all of the children would participate in all aspects of the session. This could be due to sickness; in one case the teacher forgot that some of the children had a 45min music lesson in the booked time of the sessions; or the children needed to see other teachers within the school.

## 5.6 Methods of Data Analysis

This section will discuss the approach to the data analysis. It highlights the use of an applied thematic approach. It will then discuss what data was chosen to be analysed and why. Finally, the section will discuss the appropriate tools to carry out the applied thematic analysis to different weeks of the Digi-Mapping project and the inductive approach.

### 5.6.1 Approaches to Thematic Analysis

The data analysis takes a constructionist interpretivist approach, which starts with the data and seeks for codes and themes to emerge during analysis. Lazar, Feng and Hochheiser (2017) states to undertake this approach is to begin with things that are of interest until codes and models emerge.

This research goes further and uses an applied thematic analysis to the data as outlined by Guest, MacQueen and Namey (2012). This approach uses the same approach as thematic, as it searches for codes and themes within the data; however, it affords the researcher the ability to use different tools or methods to extract data of interest and form codes. Within the Digi-Mapping project, drawing, audio recording and film were used. Secondly, there were different tasks for each week meaning the same codes may not apply from one week to the next. This requires a multi-modal approach to the thematic analysis which is discussed in section 5.7 Analysing the Data. A flexible applied thematic approach was deemed more suitable to the data analysis than discourse, narrative or semiotic analysis given the different types of data being generated. This research takes the position that if different tools or methods are required to unpack and elicit knowledge from participants then it is logical that the same should apply to the data analysis.

The analysis employs similar techniques to those used in ethnographic analysis as video ethnography has been employed in the study. In ethnographic analysis (Wolcott, 1990 in Creswell) the research needs to present the setting and events. This will be done using layering or the onion method to video analysis (Kristensen, 2018). The method places emphasis on an embodied perspective to video analysis consisting of four areas: *“Foregrounding bodies, considering talk in combination with body, including the environment, and depth and adjustment through participant perspectives”* (p8) The analysis will employ the first three of Kirstensen’s (2018) area. This will present richer thematic findings affording contextualisation for the reader.

## 5.7 Analysing Data

The Digi-Mapping project produced over 200 hours of video data from the video ethnography, approximately a thousand audio recordings from week two and 24 large-scale drawings. It was not possible within the time given to conduct in-depth analysis on all data generated. Five out of the six weeks have been selected for analysis with two groups within each class focused on. This decision was for two reasons: firstly, during initial parse of the data, the research yielded enough detailed examples to highlight coding (Fusch and Ness, 2015; Saunders et al., 2018). Secondly, focusing on two groups per class allowed for a focused depth to the analysis and to identify themes emerging from participants. The groups were selected based on field notes of groups that worked well together on the tasks and quality of the recording. The same group was not analysed for all of the sessions. This allows the research to look at the participants more widely.

**Week One** – This was the introduction to the workshop and the term ‘psychogeography’. The analysis specifically examines the psychogeography of the classroom and drawing their walk to school. This is worthy of investigation to understand how participants relate the ontology of objects and places within their local area. It is also an opportunity to examine the boundaries they create in their local area. It will use video analysis and looks for themes in the drawing produced by the participants.

**Week Two** – This is the week of the psychogeography walk. It is the point when participants gather all the data for the map. It is also when participants go around their area and discover how being at sites of meaning elicit knowledge and behaviours both individually and as a group.

**Week Three** - Participants are introduced to the Bare Conductive TouchBoards. This also includes learning how to make a drawing interactive using tin foil and crocodile clips. This is a chance for the participants to understand how the interactive drawing works and to experiment and play with the technology.

**Week Five** - Brings together the stories and drawings. Participants work in their group to pick what will be used for the final map. It is also an opportunity to understand how they decide what to choose and how they do this democratically.

**Week Six** - This when the participants see the final map and they are asked to complete an evaluation of the project. It will analyse video and the evaluation forms.

#### 5.7.1 Week 1 – Line Analysis

Week one will make use of thematic video analysis for the video ethnography, and line analysis (Booth, 2018) to analyse the participant group drawings. Booth's (2018) line analysis is heavily influenced by the work of Ingold. She uses line references (both literally and metaphorically) with participants to create narrative that locates a building (Museum of Old and New Art in Tasmania) within the everyday lives of residents. While Booth's analysis is rooted in the transcription of interviews and references to lines within Ingold's holistic sense of the word, this analysis approach can have other uses. She grounds the analysis on Ingold's assertion that "*the straight line has become an icon of modernity. It offers reason, certainty, authority, a sense of direction*" (Ingold, 2007, p.167).

#### 5.7.2 Week 2 – Thematic analysis Video

Week two transcribes recordings of note from the psychogeography walk and identifies themes.

#### 5.7.3 Weeks 3 and 5 – Thematic Analysis Video

Week three and five conducted video analysis using the layering onion method. Supporting screenshots are taken to capture gestures, contextualisation of the scenario and transcription of the interaction. This is richer than pure transcription as it has context, body language, text and environment.

#### 5.7.4 Week 6 – Quantitative analysis and thematic analysis

A basic statistical analysis was performed on the participant feedback forms using SPSS. This was used for the frequency of chosen words, if participants would do the project again and what participants like most and least about the project. Video thematic analysis was used to identify themes of how participants interacted with the final Digi-Map.

#### 5.7.5 An Inductive process

As previously stated, two groups were selected from Sighthill and the two classes at Canal View. Five out of six weeks were analysed. All of the groups from Clovenstone Primary were included in week two for the recordings and week six for their feedback responses. The selection of a group for analysis was based on the following criteria: clarity of the recording, and quality of the recording – batteries required changing in the GoPro cameras during the session. Quality in this case refers to the amount of time the GoPro recorded the group to ensure there was enough to understand the whole week's session and things of interest to examine from researcher field notes. Not all of the participants were in the

same group for all of the weeks. This was a decision taken by the teacher, partly to reflect the shifting class dynamics and absent participants. A group was not given the same number for the duration of the weeks; the number was a label that matched the GoPro camera and audio recorder. The amount of data analysed for each week was as follows:

- Week one: all 24 maps were analysed, 4 hours of video from Sighthill and 8 hours of video from two classes at Canal View were analysed.
- Week two: 6 hours of video and 15 hours of audio was analysed.
- Week three: 4 hours of video from Sighthill and 8 hours of video from two classes at Canal View were analysed.
- Week five: 4 hours of video from Sighthill and 8 hours of video from two classes at Canal View were analysed.
- Week Six: 101 evaluations and four hours of video were analysed.

A total of 46 hours of video and 15 hours of audio was analysed as well as participant-created artefacts and 101 feedback forms for Digi-Mapping project.

All of the data was viewed, or artefacts reviewed three times. The video was analysed using Adobe Premier. The markers function was used to make notes on the video including transcribing interactions of interest. These markers were then exported into NVivo for coding and comparing groups. Images were coded using NVivo. Feedback forms were transcribed into SPSS for a basic statistical analysis.

After the first parse of the data, it was found using the codes from Resnick's Ps of Passion Peers and Play were too broad. They did not sufficiently elicit the types of ephemeral meanings and knowledge that was unpacked, constructed, shared and contested among a group around place.

The second parse of the data looked to determine codes for the ways that participants worked together, the ways play manifested and how they undertook the tasks as part of a group. This began to show more specific ways a community of practice presented meaning about their local area within the structure of a creative placemaking workshop.

Using this new coding structure, the data was watched or reviewed again to ensure the consistency of the new coded weeks and all relevant data captured. The codes that emerged and the overall themes that emerged in comparison to Resnick's are presented in 6.7 Findings in relation to Resnick and a new 4P's Framework.

## 6. Chapter Six: Rediscovering Wester Hailes

The previous chapter detailed the research design of the Digi-Mapping workshops. It highlighted how participants were recruited and the structure of each of the six weeks. The chapter then discussed how the data was analysed, employing a thematic analysis approach.

This chapter presents findings from week one, two, three, five and six of the Digi-Mapping workshops. Findings are presented by week under sections that are the thematic codes for that week. Thematic codes emerged during the analysis process of each week. The codes were not the same for each week as participants were given different tasks during the weeks.

Two groups were selected from Sighthill and the two classes at Canal View in Weeks One, Two, Three, Five and Six. All of the groups from Clovenstone Primary were included in Week Two for the recordings and Week Six for their feedback responses. As previously discussed, according to Saunders et al. (2018) and Fusch and Ness (2015) this amount of data was used as it highlighted enough phenomena relevant to the research. The findings for each week are presented under their coded headings. Examples of findings have been used to demonstrate the types of data that has been produced under these codes.

In week one, participants worked in a group to draw their walks from home to school, drawing a map of their local area from memory. The analysis was interested in how the participants thought about their walk to school and how they worked collaboratively to work out their route to school.

In week two, participants in groups went on a psychogeography walk of their local area. The sites visited on the walk were picked by participants through a class vote at the end of Week One. The analysis was interested in what kinds of content was recorded by participants on the walk.

In week three, participants were introduced to the Bare Conductive TouchBoards. An HTML page of example sounds from week two were made into a local website for the participants to use. In groups, the participants were tasked with choosing a sound and loading it onto the board. They were then tasked to draw pictures and make them conductive so when the drawing is pressed it speaks their chosen recording. This analysis was interested in how the participants used the technology individually and collectively in their group. It also focused on how participants worked together to complete the task.

In week five, the groups were given copies of drawings that were made by the participants in week four. They were then asked to select a sound from the website to go with the drawing and make it interactive. These are the final sounds that make up the Digi-Map. The analysis for this week is looking for, similarly to week three, how participants used the technology individually and collectively. The analysis also looked at how participants collaborated to complete tasks.

In week six the participants had the opportunity to play with the final Digi-Map. The class was also asked to individually complete a feedback form of the project. The analysis of this week is in two parts: firstly, the feedback, and secondly how participants interacted with the Digi-Map.

The codes and definitions generated for the findings are highlighted in each section. The paragraphs present for the first time, dominant themes that help identify, organise and

describe the findings. As part of an initial process in documenting and analysing the data a thematic analysis comprises six steps that ensure clarity and consistency in the process of analysis: 1) getting familiar with the data; 2) creating primary codes; 3) searching for themes; 4) reviewing the themes; 5) defining the themes and naming them; and 6) putting together the report (Boyatzis 1998).

### 6.1 Findings Week One: Walk to School

Week one of the Digi-Mapping project introduced participants to the project and what to expect over the course of the project. Next the class was introduced to the term psychogeography with a short experiment to get participants thinking about spaces within the classroom and the meaning assigned to them. Examples included the imaginary boundary of the teacher's desk, the free time corner and the private spaces that are students' individual trays.

The main part of the session was to get participants in groups and to draw their walk to school. In these groups they were tasked with drawing school in the centre of the map and where their house is. They were then to draw their route and what they see on the way. All of the maps from the four classes were analysed. Findings are interested in how participants perceive their local area rather than accuracy of the drawing and how they worked to draw the map. All of the maps were analysed and coded under the following headings:

**Detail** - Detail is defined as attention paid to the detail of spaces or object drawn on the map.

**Routes** -Routes is defined as participants drawing types of lines to show their walk from their home to school.

**Relationship to Other Places** - Relationship to other places is defined as how places drawn on the map relate to other places. This refers to the scale of some places compared to others. E.g. the size of a playpark compared to the size of the school.

**Use of Colour** - Use of Colour is defined as things on the map that are either coloured in or use of colour to highlight something e.g. a route

**Boundaries** - Boundaries is defined as items on the map that have a boundary drawn around them.

Video observation was also used in the session to help to provide context around the way the participants worked together to create the map. The groups analysed for the video observation were chosen based on their map having substantial detail. Two groups have been selected for Sighthill and four from Canal View – two per class. Two themes help to support the understanding of the map drawing.

**Helping Each Other**- This is instances of participants helping each other to work out where things are to be drawn on the map.

**Routes** - This code reflects participants discussing the routes around the local area.

A selection of detailed images from the maps have been used to illustrate coded findings. Some images are shown twice as they fit under more than one code. The findings in week one aim to demonstrate that children can mentally conceptualise their local area and draw it based on memory. It also seeks to see if in a participatory setting, others in the group can help participants consider and share knowledge about their local area.

A glossary of significant points within the locale referred to by participants is highlighted below.

**The Plaza** - the main shopping centre of Wester Hailes with many large shops and a cinema. It is situated in the centre of Wester Hailes and is likely to be somewhere the children regularly visit.

**Spider Web** - The spider's web is a sizeable climbing structure contained in a large play area close to a row of shops and very close to Sighthill Primary School.

**Gate 55** – Is a community centre with a variety of activities and services for both adults and children

**WHEC** - WHEC is Wester Hailes Education Centre and is the High School in Wester Hailes. Within the building there is swimming pool for public use, a gym as well as a café and creche.

**Quarry Park** - This is Hailes Quarry Park, a large outdoor space with a wooded area, outdoor gym, playground and small climbing wall.

**Pirry** - The Pirry is the Wester Hailes Youth Agency. Several children attend the youth club here. Its name comes from a small stone pyramid type structure on the street outside the youth club.

**High Flats** - There are two sets of 'high flats' in Wester Hailes. The first is three blocks near Sighthill Primary School. The top of each building is a different colour: red, yellow and blue. There is a second set of blocks of high flats at Hailesland Park. These are the oldest flats of the brutalist style high flats still in Wester Hailes.

**Canal** – This is the Union Canal that runs from Edinburgh to Falkirk (31 miles). It goes through the middle of Wester Hailes.

#### 6.1.1 Detail

A total of 37 instances were coded under the heading 'Detail'. It appears in some cases that quite specific details are remembered about places e.g the logo of a store. A recurring

theme among the participant drawings was going into detail of the local shops. In this example a participant has drawn a branch of Greggs the bakers (Figure 6-1). The participant has drawn the correct logo and used the right colours of the store front. The participant has also drawn a correct offer that the baker often has of sausage rolls for £1. As with the Gregg's promotional poster, more attention has been paid to the text-based elements of the shops.



Figure 6-1 Greggs

In a number of the maps, particular attention has been paid to the detail of an area known locally as 'The Plaza'. This is Westside Plaza and is the main hub of Wester Hailes. Here

there is the main bus stop, local library, a shopping centre and an Odeon cinema. Participants drawings of the plaza identify particular stores, buildings and also places such as car parks which may not necessarily be considered prominent places within a local area (Figure 6-2).

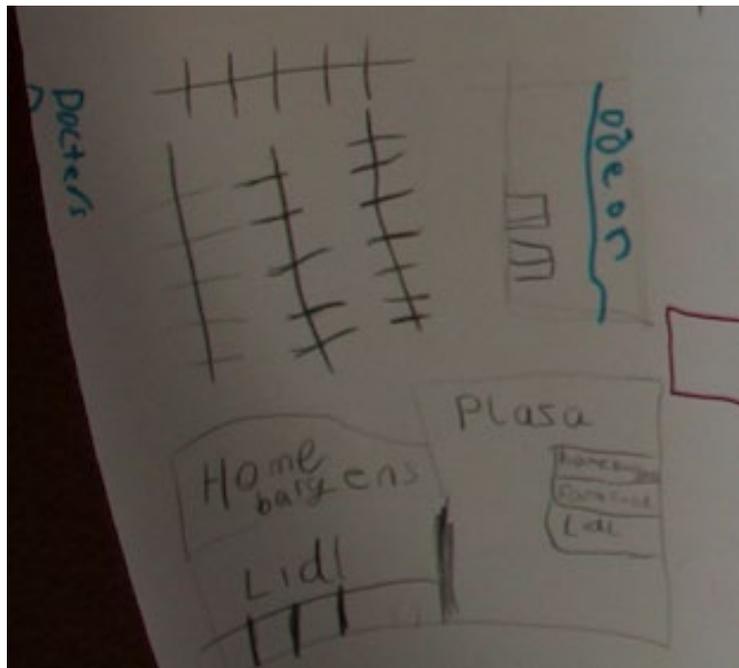


Figure 6-2 Car Park

When participants drew the playgrounds of the local area, they drew specific equipment they could play on. In Figure 6-3 the participant went into particular detail of how the swings in the local park looked. They also drew the canal beside the park with swans and fishes that live in it.



*Figure 6-3 Swings*

Lastly, although not in the local area, one participant has drawn Arthurs Seat (Arthurs Seat is a prominent park with a large volcanic hill located in the very centre of Edinburgh approximately 5 miles away) at the edge of the map (Figure 6-4). When asked why the participant had drawn Arthur's Seat, they replied that they could see Arthur's Seat from their floor in the high flats where they lived. Even though an area is not technically part of Wester Hailes, it may still become a significant locale as it is visible. For this participant a distant but visible place has created a memory attachment and knowledge about the local area. In this case, Arthurs Seat is connected to Wester Hailes because it can be seen from their home.



*Figure 6-4 Arthurs Seat*

#### 6.1.2 Routes

A total of 17 instances were coded under 'Routes'. Of the participants that drew their walk to school, it can be observed that many of the participants did not draw a straight line. Even though there may be no other detail drawn around the route, they still considered when they turn in a direction and how their route progresses. As can be seen in Figures 6-5 and 6-6 they have represented their journey with a mixture of curves and zig-zag lines. Some participants chose to highlight their walk to school as a dotted line creating an almost treasure trail effect on the paper.



Figure 6-5 Journey lines

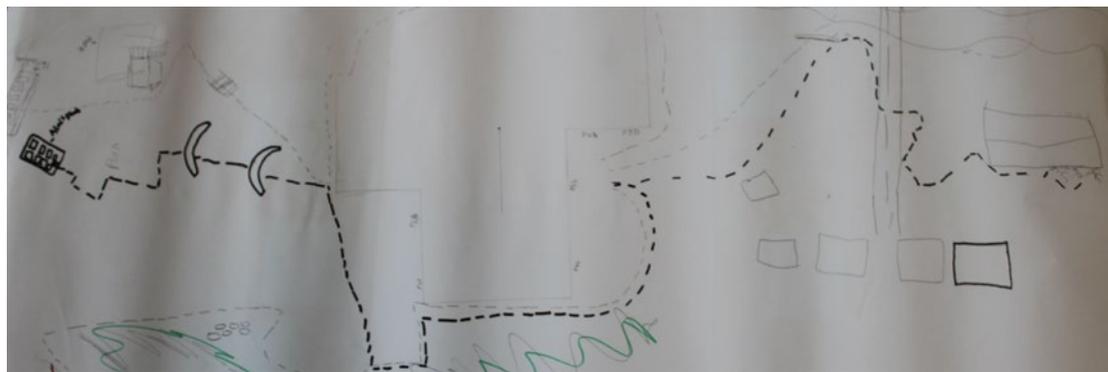


Figure 6-6 Journey Lines Treasure

Routes may not just be shown as lines demonstrating or considering how participants walk to school. In Figures 6-7 & 6-8 below, the route can be a detailed map of a particular part of the local area. This route still requires the participant to think about the structure of the place and how to represent it to a viewer. In the Figures 6-7 & 6-8, not just main roads are shown but also side streets, and footpaths to buildings in the local area. The second figure shows a purely pedestrian network of footpaths through a local housing

scheme. Using roads as routes appear to be a means for participants to work out positionality of spaces in their local area.

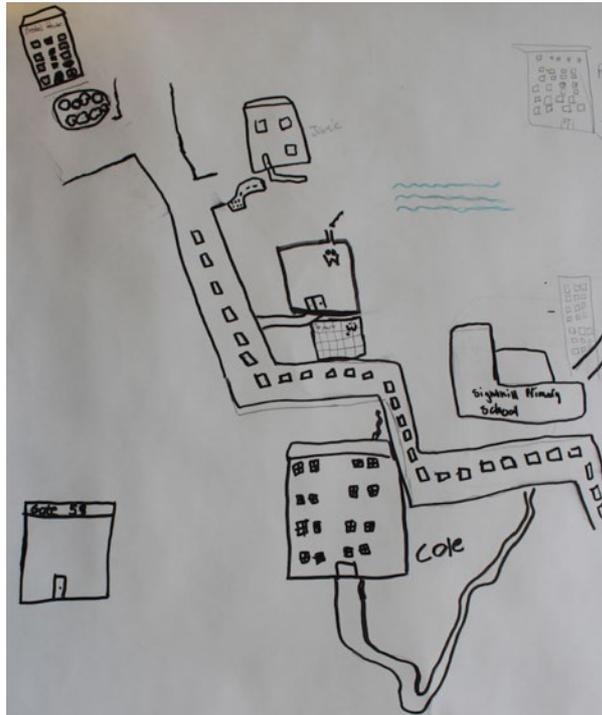


Figure 6-7 Road Route



Figure 6-8 Path Route

### 6.1.3 Relationships to Other Places

Map 1 - On this map the standout feature is the Spider web which is large and red. Apart from the school, it is the biggest drawing on the map. This size of the image suggests that this is a place of significance and regular use.

Map 2 - The biggest areas drawn by participants are those closest to the school. Areas such as the plaza and Gate 55 are further away however these have been drawn as areas in different colours that are quite detailed. This could suggest the sense of perspective when thinking in terms of distance from the school.

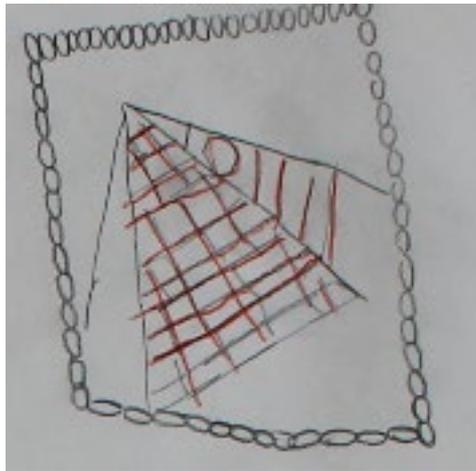
Map 4- On this map one of the largest places drawn is the Spider web. It is also the only place drawn in colour.

Map 5 - The biggest drawings are those of the high flats which are right beside the school. The area further away of the Plaza and WHEC are drawn quite small in comparison.

Map 11 - The biggest after the school is the canal. It is bigger and wider than anything else on the map. The canal is a dominant feature that runs through Wester Hailes.

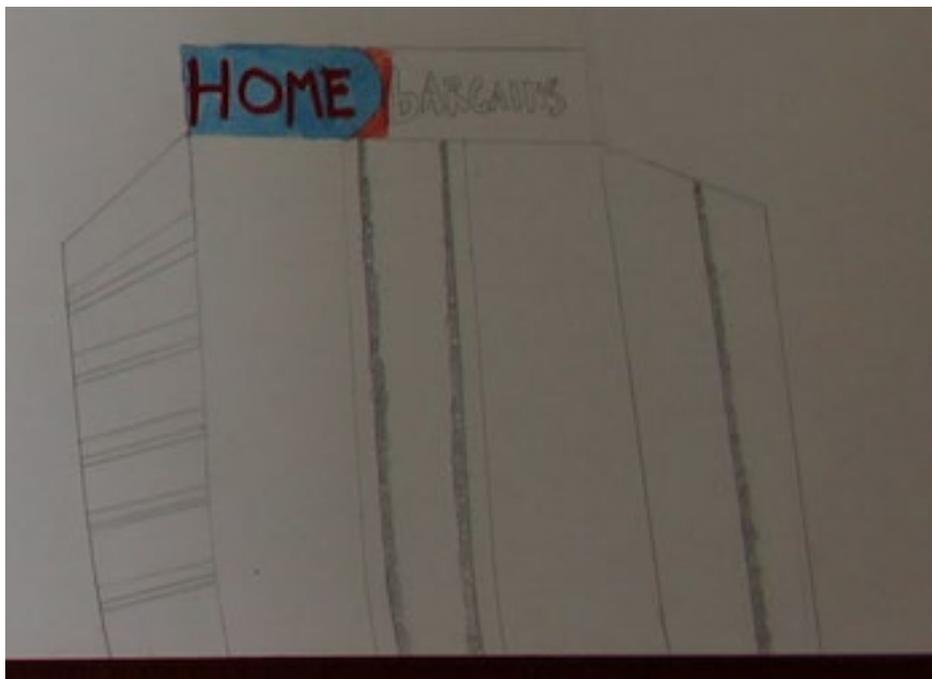
### 6.1.4 Use of Colour

There were 18 instances coded under 'Use of Colour'. On two of the maps, the only object that the participants chose to put in colour was the Spider Web (Figure 6-9).



*Figure 6-9 Spider Web Red*

One participant used colour to do precise branding of the shop 'Home Bargains' in the Plaza (Figure 6-10). While the rest of the drawing is not complete it seems care and attention has been paid to getting the logo of the shop correct.



*Figure 6-10 Home Bargains*

When identifying the high flats some participants have used colour to represent them. There are three high flats very close to Sighthill Primary. The tops of the buildings are red, yellow and blue and when drawn they have been represented with their corresponding colours (Figure 6-11).

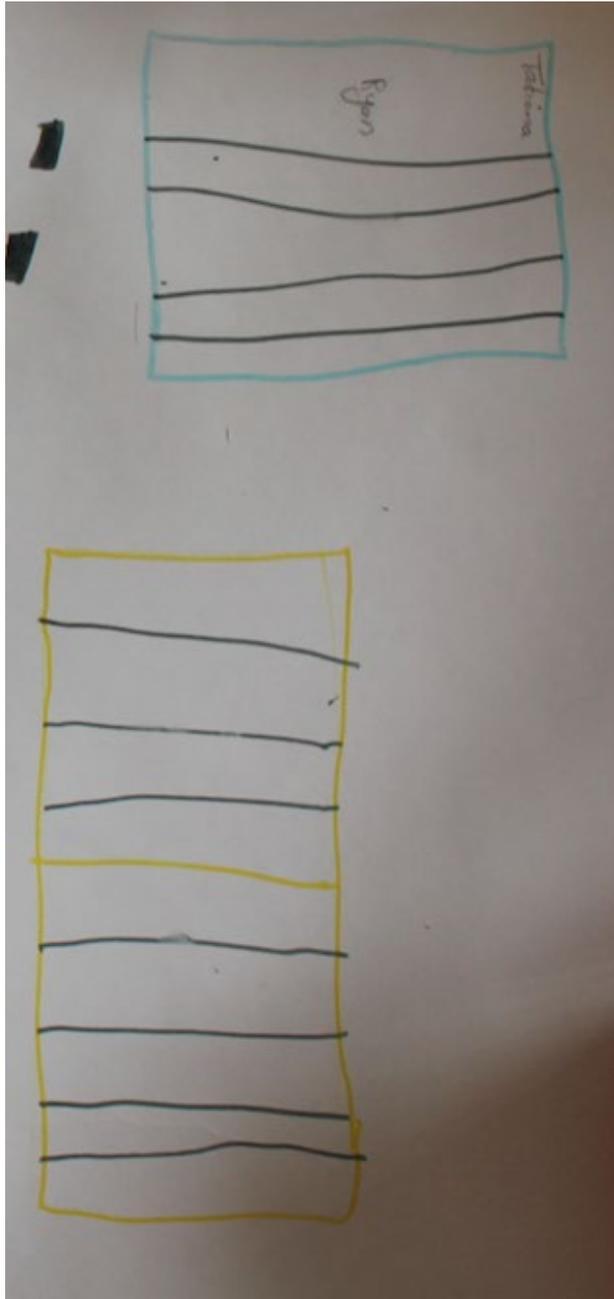


Figure 6-11 High Flats

To illustrate participant's homes, a yellow shade has been used. This could potentially be two things; that yellow is a common colour to colour houses, or, all of the houses drawn are in the same area, so this is why they all have matching colour. Different parts of Wester Hailes have different house colours. This is due to many of the homes being built at different times and owned by the council. Certain areas of Wester Hailes can be identified by the colour of the house (FIG 6-12 & 6-13).



*Figure 6-12 Houses 1*



*Figure 6-13 Houses 2*

#### 6.1.5 Boundaries

There were 21 instances coded under 'Boundaries'. Boundaries can show places with physical boundaries and those with imaginary ones not present at the physical site.

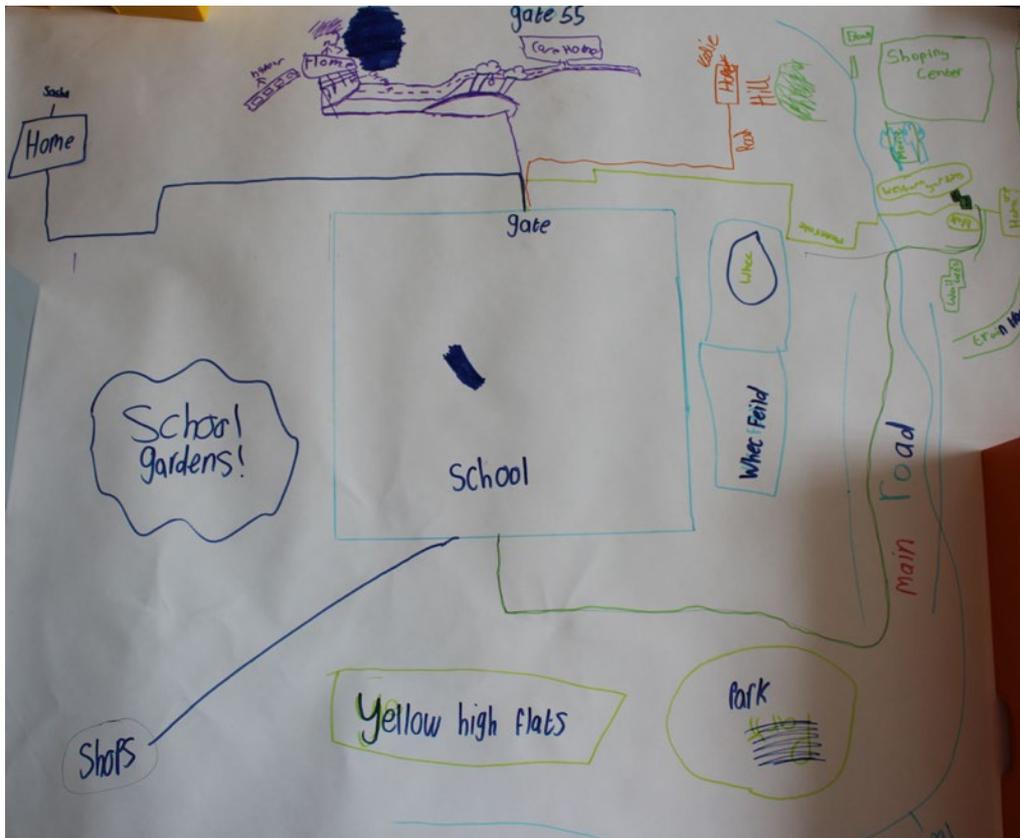


Figure 6-14 Whole Map

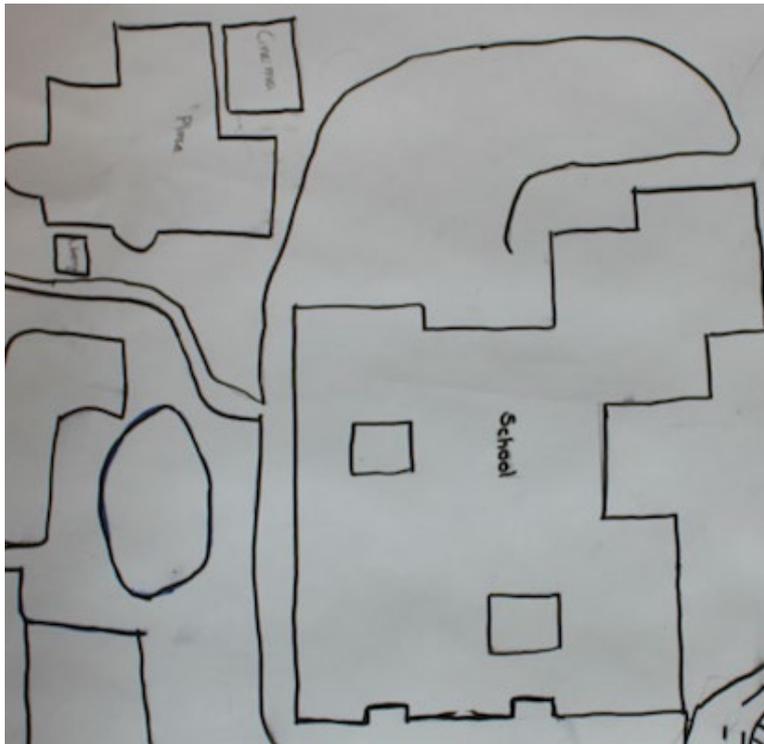


Figure 6-15 Boundaries of Places 1



they demonstrate the way participants package places of what they consider as counting as part of a place.

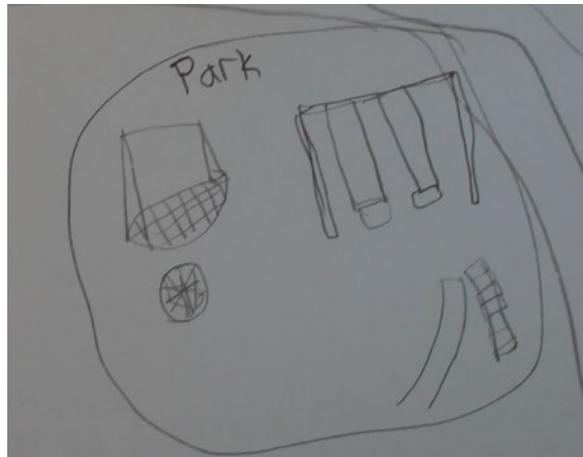


Figure 6-17 Swings in Park 1



Figure 6-18 Swings in Park 2

## 6.2 Contextual Video Observation

Two groups from Sighthill and two groups from each of the classes at Canal View were analysed while participants were drawing their walk to school. Two maps were selected from each class. Groups were selected based on the amount of detail in their drawn map. This video observation helps to understand how the participants work together to draw their map. At Sighthill audio from Week One was not recorded.

From the video observation the two following themes emerged:

***Working things out together*** – Defined as participants helping each other to draw the map

***Routes*** – Defined as participants working out how to draw their route to school.

***Storytelling*** – This is participants sharing stories about the local area while drawing the maps.

### 6.2.1 Working Things Out Together

There were three instances coded under ‘Working Things Out Together’. Participants appear to be keen to make democratic and ‘fair’ decisions. In one example, participants are discussing where the canal should go on the map. One of them states that it should go near WHEC and their house. They also share knowledge about the canal; that it goes all the way to Glasgow which one of the participants did not know. This is demonstrated by a surprised open mouth gaping at the other participants.



*Figure 6-19 Where I live*

In another example, the participants are working out where they live. In Figure 6-20 one participant indicated where they live on the map. Another is standing on one spot, turning his whole body to try and figure out where he lives in relation to the map, he asks the other member of his group if where he thinks his house is correct. Another member of the groups shows him where his house would be on the map.



*Figure 6-20 Directions*

### 6.2.2 Routes

There were seven instances coded under 'Routes'. When participants discuss where they live in relation to the school they do not just discuss and show on the drawn map, they also consider the direction they live in relation to school away from the map. This is evidenced when participants point in various directions to explain to others where they live in relation to the school.

When talking to the group one participant uses places, particularly coloured buildings in the local area, as a way of describing to another participant the way he would walk to school so they could understand where he lives

*[p2] to [p1] “[name] you know how you go over that bridge? [p1] nods, [p2] yea that’s the way I take’. You know those three buildings  
[p2] yea,  
[p1] the red, the blue and the yellow  
[p2] yea  
[p1] Well I live right behind the blue one  
[p2] {in a mock sinister tone} now I know where you live*

One participant appeared to find it difficult to visually represent their walk to school.

They speak their route out loud to try and make sense of it. One participant states

*“[p2] “So this is my house here and I go past WHALE Arts, along, down, go down the steps and through the tunnel and go past the road, see Odeon, then the centre.”*

In this example P1 is drawing a hill that is part of his walk on the way to school. P2 is not quite sure what P1 is trying to draw and offers to help him. P2 is talking to P1 about what he is drawing on the map and offers to fix a bit he feels is not drawn quite correctly.

*[p2] “I know what you’re trying to draw”  
[p1] “I’m drawing my flat”  
[p2] “Are you drawing the hill at the crossroads, and that’s the tunnel  
[p1] {nods} “correct”  
[p2] “let me fix it up a little bit”*

### 6.2.3 Storytelling

There was one instance coded under storytelling. In this instance, the participants are discussing one of the members moving to a new house. This triggers the group to talk about a story they heard happening in the Caldera and another local piece of gossip.

*[p4] I live I Caldera  
[p1] yea I moved to Caldera  
[p4] someone fell out the window*

*[p1] oh yea, at Calders.. somebody jumped out of a big red building and he committed suicide.*  
*[p4] did you see it?*  
*[p1] yea {nods head}*  
*[p5] to [p1] Did you see what happened at Michaels last night?*  
*[p1] What*  
*[p5] on the bridge right, at Michaels bridge somebody tried to kidnap someone*  
*[p2] I swear, me and my dad were walking down and saw somebody. I live at the quarry.*  
*[p5] and the guy pushed the kidnapper away, so he tried to kidnap a child, the child pushed him away and he ran to his mum and his mum phoned the polis and after he had stopped crying he said he would knock his teeth out*  
*{all laugh}*  
*[p5] why did he not do it there?*

### 6.3 Findings Week Two: Psychogeography Walk

In week two the participants went on a psychogeography walk of places they identified as meaningful in week one of the project. Participants used audio recorders to capture stories, feelings and sounds. The participants were split into groups by the teacher to go on the walk. Each facilitator was given a GoPro camera, the aim of this was to be a reflective source for the data and to understand the context of recordings of interest if necessary. The findings are presented under their coded headings. The walking routes for each group can be found in Appendix 1.

Groups were chosen based on two criteria, namely the types of stories recorded and the quality of the recording. The pilot of the Digi-Mapping was conducted at Clovenstone Primary. All four of the groups have also been included. After a first pass listening, recordings to focus on were selected based on the promise of the data i.e would likely reveal codes and the quality of the recording. Sometimes within a recording, participants jumped between codes e.g. interview and narration. Where it is not possible to separate

without losing the context then the most dominant feature of the recording is the guide for the code. The codes and their scope are as follows:

**Narration** – This is participants speaking in the present tense about places they are at on the walk.

**Sound Effect** – This is participants making recordings of sounds in their local area.

**Storytelling** – This is participants telling stories about their local area. They are usually in the past tense and include things such as memories, or stories they have heard about a place.

**Interviewing Each Other** - These are participants interviewing other participants on the walk. They may not be confined to other members of their group but the whole class and facilitators.

**Interviewing Others** – These are interviews conducted with people who are not part of the class. These can include people on the street and people working in shops.

**Singing** – This is participants singing for the recorder.

### 6.3.1 Narration

There were 102 instances coded under ‘Narration’. In one group, participants decide to do ASMR sessions within the recording. ASMR stands for Audio Sensory Meridian Response and are slow noise videos and audio extremely popular with young audiences on YouTube. Here, the participant is appropriating their own cultural knowledge of media and what is being done online and performing similar actions with their digital media tools. In this example one participant is walking and saying hello to other participants. They suddenly start to go into an ASMR session and tells the imagined listener to leave a like if they enjoyed it.

*[female 1 ] "Hello"*  
*[female 1 ] " So we're currently just walking across the path hi [name]"*  
*[female 2] "Hi"*  
*[female 1] "Hi [name]"*  
*[male 1] "Hi"*  
*[female 1] {whisper} "ASMR I hope your (deep breath} If you enjoy {deep breath} this ASMR session please leave a like if you enjoy {begins to make sound with lips into the mic}"*

There are a number of instances when participants are showing or giving their imagined listener a tour of a place. However, they do not consider that their audience cannot see what they are showing them.

*[female 1] "So we have just interviewed they people and we are just heading up to the cafe bit and stuff so let's go. So, here's the swimming pool, I come here quite a lot. I go off the diving boards quite a lot and I learned how to do a dive at the swimming pool for the first time and yea it's really good and the slide comes out, I think it's every Thursday or something. Yea you see that slide that's like crushed, like that long blue thing, that's the slide. Oh yea there's also a gym here but we don't really go because we're not old enough. "*

Narration can be used to share with the listener a sense of wonder and fantasy when at Hailes Quarry Park and directs the listener to go there.

*[female] "At quarry park, you should go next to the forest, there's bushes around it and, not knowing, there's a big hole, you go through that hole, there's a new new world. New world, there's bushes, trees you climb, so good. Go to Quarry Park, there's a new world, bye bye"*

Another participant takes this a step further and does an impression of Steve Irwin exploring the wood. His friend also assumes the same role. They pretend that they are running from snakes and spiders (there are no dangerous snakes or spiders in Scotland).

*[male1 ] {Australian Steve Irwin accent} "now we're entering the forest"*  
*[male 2] {Australian Steve Irwin accent} "Oh my god, such a scary place, RUN!"*  
*[male 2] "There's wild snakes"*  
*[male 1] "No, they're might be some snakes! and spiders, whichever, they're both dangerous"*

*[male 2] "Tarantulas"*

*[male1] "Oh no, run run Crickey! oh what even is this, running cross a medium hill, dunno, people chasing us, it's the security, wrong gate, no wrong gate {laughing} run"*

This fantasy can be used to create fantasy interpretations of an object in the local area of the listener. In this example, a participant has seen rubbish in the canal while on the walk and states that it is a treasure chest.

*[male] I was walking over a bridge and I saw something glowing in the water, but soon after that I figured it out, it was a treasure chest, it was glowing in the middle of the water, I tried to get a picture but it was too blurry, so then I just telled everybody This is a story what I'm making so I hope some people find that and they can sell it or something, but that's what I saw in the water me and my two friends saw it."*

Narration can also serve as a means for participants to share local knowledge about places. In this example a participant shares their knowledge about a set of high flats.

*[female] "We are now at Wester Hailes flats and thing I know about Wester Hailes flats is my grandma lives in them. No children are allowed to live in them, no pets are allowed to live in them just elderlies and adults."*

This local knowledge can also be a form of local folklore such as a haunted abandoned Tesco.

*[female] " We are not at Tesco, no one works in there anymore, it's very old now because it's been haunted for years now. Everyone's done graffiti on it, no ones ever even went inside like, in years because it got set on fire, and we think there's some spirits in there because we heard a lot about it"*

Multiple groups from Clovenstone Primary shared their local knowledge about a haunted patch of wood behind a local boxing gym in Clovenstone. This took the form of narration about the place itself, however the participants also shared emotional reactions to being at the place and performative narrative such as "it's too scary" and their opinions about the place.

*[unsure]"This is the haunted forest; this is where all scary creatures come"*  
*We're not joking" [male 1]*  
*"Here we are"[male 2]*  
*"Inside, wow wow"[male 2]*  
*"This is the scary forest and I go here kind of every day and yeah we do.... it is very haunted but lots of people go there cause they think its quite good tell us about the haunted forest [name][male 2]*  
*"The haunted forest is scary" [female 1]*  
*"and has lots of bad creatures and scary things in it".... "this is [name] tell us about the haunted forest" [male 2]*  
*"this haunted forest isnt very \*inaudible\**  
*"Its too scary" \*inaudible\* yes so we are just gonna explore it"*  
*"anyway go away for that dirty puddle... its quite a horrible smell but its pretty freaky, lots of broken toys and stuff"*  
*"no there wont be" [male1]*  
*"[name]! [name]! [male 2]*  
*"emm yea" [male 1]*  
*" come and see if there is a dead body!!" [Male 2]*  
*[Female] "There's a haunted wood behind the boxing hut that people say is haunted but I dae hink it's haunted"*

Narration can also be used to go into a lot of very specific descriptive detail that a participant knows about a place. In this example the participant does this, however they again assume that the imagined listener can see what they are talking about.

*[male] "So we are at the garden by Drumbryden Grove and I know a little bit about it because, in, they have the little hut over there and they have things inside of it that help them like grow like they have seeds because I've seen it before and they have this big tent thing it like holds vegetables in it and stuff, and they have like a big waterproof like tent thing to cover some vegetables and things. And they have huge watering cans, and they grow things like carrots and potatoes and stuff, and one of the main things they have is like yellow it's like a daisy and they have a lot of trees in there and in that little hut right now I'm pretty sure there's like cucumber and stuff growing and every day they'll come out and they'll pick up like little wooden sticks that they don't want and they'll put them into big bins. They have a big bag of soil that they like to use, because I've seen them use it and now, we're just going across the bridge to our next place."*

### 6.3.2 Sound Effect

There were 79 instances coded under ‘Sound Effect’. The sound effects created by participants generally fell under two categories; sound made on objects in their local area e.g. railings, or sounds created by them e.g. zips on their jackets or whistling. In many instances the participants did not say what the sound effect was. Sometimes they were accompanied with a statement:

*[sound effect] stamping feet*  
*[female 1] "we're walking"*

There are instances where participants have engaged in active listening in order to find sounds to record at sites. Combined with this, participants test and play with places to perform with them in recording. Examples of this included finding wonky paving slabs to record their clunking sound when walked over or in this example, recording shouting and the echo of tunnels:

*[female] {shouting in tunnel} "DRIP DROP DRIP DROP DRIP DROP. It smells like pee."*

Participants also recorded noises that were familiar to certain places. When participants interviewed a worker in the local Odeon cinema they asked if they could record noises of the popcorn machine making popcorn. They repeated this with a woman who worked in Costa coffee shop and asked if they could record the coffee machine making coffee. The participants also recorded the sounds of shopping rustling and checkout scanners in the shop ‘Home Bargains’ in the Westside Plaza shopping centre.

On an interesting way, a group captured sounds of their local area was to turn it into an audio quiz for an imagined listener to play. The participants began by making a sound and asking the listener if they could guess what it is. The next recording was the answer to the noise.

*[SFX] feet stamping on the bridge*  
*[female 1] "Can you guess what that is? The answer will be in the next recording"*  
0112  
*[female 1] "and that noise was us the group stamping on the bridge. Just not [name]"*  
0113  
*[SFX] hitting and kicking metal pole*  
0114  
*[male] "This is the answer of the previous recording. The recording was us hitting and kicking the rail of the bridge down to the canal."*  
0015  
*[SFX] feet scraping on the group*  
*[female] "before we head on to the next recording and I tell you what it is, can you guess it?"*  
0116  
*[female] "The noise was [name] scraping her foot against the concrete floor"*  
0117  
*[SFX]*  
*[female] "can you guess that noise? I'm sorry if not but I'll tell you."*  
0118  
*[female] "The noise was [name] ripping up leaves, yep leaves."*  
0123  
*[SFX] water splashing*  
*[female] "Can you guess that noise? It's pretty simple but weird."*  
0124  
*[SFX] unclear*  
*[female] "can you guess that noise? maybe tricky but oh well if you can't guess soz. aka sorry."*  
0125  
*[female] "The noise was ripping out the wishing flowers aka the grown daffodils."*

### 6.3.3 Storytelling

There were 67 instances coded under 'Storytelling'. Many instances of storytelling are memories of something that participants did either themselves or with friends. Two examples of this can be seen below.

*[female] " So one day I was over this park walking up to the centre and I saw a rat on the road and I was like so scared because I hate rats and it was ginormous so I was like with my mum and I was trying to get past it but I was like really scared."*

*[male] "Okay so I was walking over this bridge with some friends and we saw this older, elderly lady and she was really sick and she could barely walk and some of my friends were making fun of her saying she was stoned out her nut*

*and that but she wasn't she was just really sick. So, and she had a big trolley with like food, and she could barely push it up the hill, so I had to help her with my friend and then she gave us all a kiss and a fiver."*

In this example, storytelling can be a collective remembering and also a performance for an imagined listener.

*[male 1] {in a performative storytelling voice} "So once upon a time on a really creepy day one of my neighbours called [name] was being too noisy upstairs so we needed to call the police and report him and one of [name]'s friends was being violent towards the police.*

*[male 2] "and then we had to go to the police station and report a statement just saying that they were being too noisy.*

*[male 1] "So there you go fellas, bye."*

One participant has appropriated social media knowledge and declared that the recordings he has made are not "click bait"

*[male] " All the stories that I told were not click bait by the way."*

Examples of storytelling also included folk tales about the local area such as haunted woods and Bloody Mary that lives in them.

*[female] " My friend said apparently there's a killer clown and Bloody Mary in the haunted forest"*

There are also a number of stories about the canal. Some of these stories are associated with folklore, danger and death. The next story is in-keeping with the reputation of Wester Hailes from the 1980s and 1990s

*[female] "I've heard that back in the days someone lots of people killed people and chucked them in the canal, so they couldn't get found and also the weapons they killed them with."*

*[male] "Yea that happens a lot in the canal."*

In another example about the canal a participant tells listeners that you can die if you go into the canal.

*[male] "If you jump in the canal, the mud will sink you right down and you will drown. So I suggest you to not jump in there."*

*[female] "And you'll also get eaten by leeches in the summertime."*

*[male] "yea"*

Some participants before telling their story, first introduce where they are specifically, further demonstrating that being at specific site while on the walk can trigger memory and storytelling. The below examples are when being at a specific site triggers a story.

*[Female] "Hi We're at Hailesland Grove and I was having a sleepover with my cousin and this is what happened. So, we were at her house and we went to the park then I found out that I had some money so then, we went in the shop, Michaels. And then, what happened we didn't have enough to buy some sweets so then we found some money on the floor and we had enough, and it was really fun and yea, Bye."*

*[male] "This is the community garden, last year, last year we planted wild saplings"*

#### 6.3.4 Interviewing Each Other

There were 29 instances coded under 'Interviewing Each Other'. There are numerous examples of participants interviewing each other, which allowed participants to assume distinct characters and roles and to thereby stage relationships of authority and knowledge. The interactional contexts that interviewing made possible gave participants new positions in relation to place and storytelling conventions. There are instances when this performed relationship suddenly stops and participants come out of character and change topic or do something else, for instance when the participant in this example assumes the role of a media presenter. He begins by conducting interviews, then creates an advert break then comes back to news stories before returning to interview others. He

changes his voice when doing the news segments assuming the role of a different character. Of note is when the participant begins to do an ASMR session. Here, the participant is appropriating their own cultural knowledge of media and what is being done online and performing similar actions with their digital media tools.

[male1] "So guys, this a new recording, so we are approaching Calder Drive right now, my old house, erm [name] how do you feel about this place?"  
[male 2] "my house"  
[male 1] "That's very nice"  
[male 1] "[name] How do you feel about this place?"  
[male 3] "umm scary"  
[male 1] Scary, that's a very good one, now time for an ASMR session. {in a whisper} A.....S.....M....R {makes pitter patter noises with mouth}  
[male 2] "Stop it with the ASMR.... {male one keeps going} Stop that, it's creepy,  
[male 3] "[names] going to be like, what are these kids doing?"  
[name 2] "Interview me, go on interview me [Name]"  
[male 1] "how do you feel when you go into the lift in the highFlats?"  
[male 2] "I feel like Jack and Victor " ( From the Scottish T.V. show Still Game)  
[male 1] "What's the most scariest thing that's ever happened to you in your entire life?"  
{sensitive - removed}  
[Male 1] " Right we'll be back after the show, after the break"  
[Male 1] {very heavy Scottish accent} "Right so today a bird smashed a window of an aeroplane of an easyJet plane"  
[male 1] "Donald Trump has been elected President of America"  
[male 2]{cuts in} "And he has liposuction"  
[Male 1] "We'll be back after the break"  
{male 1 & male 2} laughing  
[female 1] "So I've got some stories about WHEC as we're at WHEC now"  
[male 1] "What's your stories about WHEC?"  
[female 1] "I go to WHEC quite a lot for swimming and I go to the cafe a lot as it's so nice. And we went there for Transition for High School. We go there for like quite a lot of trips"  
[male 2] "So basically I went in the swimming pool and I done a front flip of the diving board and I landed on my back and it really hurt"  
[male 1] " We'll be back after the break {starts to hum a tune}

In this example a participant goes through the motions of interviewing however lacks sympathy or empathy with stories. In his interview one participant is describing when he was assaulted at the Spiderweb. The interviewer consistently has an upbeat tone and asks another participant almost laughing how it felt to help an innocent boy getting battered.

*[male 1] "Have you got any stories about the Spiderweb?"*  
*[male 2] "well basically I got battered there by a teenager"*  
*[male 1] "How did that make you feel?"*  
*[male 2] "It made me feel depressed for a long while, I was scared to go back to the park"*  
*[male 1] "did anyone help you?"*  
*[male 2] "Erm yes [name]"*  
*[male 1] "[male] how does it feel to help an innocent boy getting battered?"*

There are also examples where the participants who are being interviewed, are either not sure what to say, or they do not like being interviewed. This is revealed in examples where participants give one-word responses.

*[female 1] "so [name] what is one of your memories about WHEC?"*  
*[female 2] "Transition"*  
*[female 1] "So what's your favourite part about transition?"*  
*[female 2] "literacy"*  
*[female 1] "and what were you doing in literacy at transition?"*  
*[female 2] "ummm sentences"*

We can also see examples of participants assuming different characters when interviewing each other when discussing folklore within the local area. Particularly in the case of the haunted woods behind the boxing gym. In this example those being interviewed assume the role of the storyteller and create performative voices for an imagined listener such as whispering into the recorder. Interviewing each other can help to enhance connection through the joint and collective remembering of an event.

0013

*"Tell us about the haunted forest" [male]*  
*\*in a whisper\* "I've never been in there" [female]*

0019

*"Tell me about this haunted forest" [male 1]*  
*"It's scary and Bloody Mary live here she might kill you" [male 2]*  
*"no she doesn't [female]"*

### 6.3.5 Interviewing Others

There were 12 instances coded under 'Interviewing Others'. Sometimes the participants did not plan what they were going to ask people they wanted to interview. You can often hear others in the background whispering questions to the person 'doing the interview'.

This meant that often the interviews were quite short.

*[male 1] "We just want to ask you some questions"*  
*[man] "That's fine"*  
*[male 2]{whispers} "Chinese"*  
*[male 1]" How did you feel when the Chinese set on fire?"*  
*[man] " Scared, cause this place was full of smoke"*  
*[male 1] "ermm.."*  
*[male 2] "what's the first thing to mind when you think of Wester Hailes?"*  
*[man] "Home... is where I always grew up"*  
*[female 1]"What's your favourite thing in Wester Hailes?"*  
*[man]"mm.... probably the people"*

Sometimes participants did not want to interview the person and instead just ask who they are

*[female] " Who are you?"*  
*[woman] I'm [name] and I work at Clovenstone Community Centre*

In this example, the participants have decided to interview two older women handing out religious leaflets outside the Westside Plaza shopping centre. The participants decided to focus the questions around their opinions of the local shops and facilities. The facilitator reminds them of other types of questions they can ask, and they learn about a piece of local history. The participants do not react or appear to be interested and end the recording.

*[Woman1] "You gunna ask us a question then?"*  
*[Female] " ermm... what do you like"[cuts off]*  
*[continuation]*  
*[Woman 1]" not a lot, {laughs} I'm being honest really, being honest it's handy for Lidl's for shopping yea erm the*  
*[Woman 2]"The Bank*  
*[Woman 1] "The bank mhhm and the post office"*  
*[Female] " What do you think about Home Bargains and the others"*  
*[Woman 1] " They're prices are amazing{laughs}*  
*[Woman 2] "We like Home Bargains, it a good price, especially when you're on*

*our age and on a pension {laughs}*  
 [Female] " Do you like to get food from Greggs?"  
 [both Women] "No"  
 [Woman 1] " because it makes you fat {everyone laughs}  
 [Woman 2] " and it's also expensive"  
 [Female] " Do you like the library?"  
 [Woman 1] " yes"  
 [Woman 2] " Yes uhuh very good"  
 [Woman 1] " Do you like the library?"  
 [Female] " yea, what do you like reading there, like what's your favourite.."  
 [Female 2] book"  
 [Woman 1] " We read the Bible"  
 [Female] " oh.. (disappointment in tone)  
 [facilitator]" We were asking about memories so are we going to see if there are any memories of the area or stories?" (to the participants)  
 [Female] "Do you have any memories here like from when you've came here before"  
 [Female 2] "like from ages ago"  
 [Woman 1]" Things have changed quite a lot since I came here, I came here in 1983 that was a long time ago eh {laugh} I don't think... the centre wasnae built back then it was one shop called Presto"

### 6.3.6 Singing

There were five instances coded under 'Singing'. Sometimes the participants are alerted to the fact that they are being recorded. For some, that triggered a performative action for an imagined listener like singing. In this recording a participant has become aware he is being recording and sings a Minecraft song to the tune of 'Take On Me' by A-ha. Other participants join in and become part of the performance.

*[male1] "... He moved... he did he moved....he moved away from the blue High Flats"*  
*[male 2] "HAHA [name]'s in your high flats"*  
*[female 1] "Its recording by the way"*  
*{all begin to laugh}*  
*[male 1] "Is it actually?"*  
*[female 1] "yea. yea"*  
*[male 2] "Wait, wait [name]"*  
*[male 1] "let's see"*  
*[male 2] "how do you know?"*  
*[female 1] "because the red light's on"*  
*[male 2] {singing to the tune Take on Me by Aha} "mining away"*  
*{male 1} "I don't know"*  
*[male ...2 ] "What to mine"*

*{male 1 & 2} "I'll mine it anyway"*  
*[female 1] " oh wait I know it"*  
*[male 1 & 2] "In this Minecraft world so beautiful"*  
*[male 1] "who lives in the blue high flats {laughs}"*

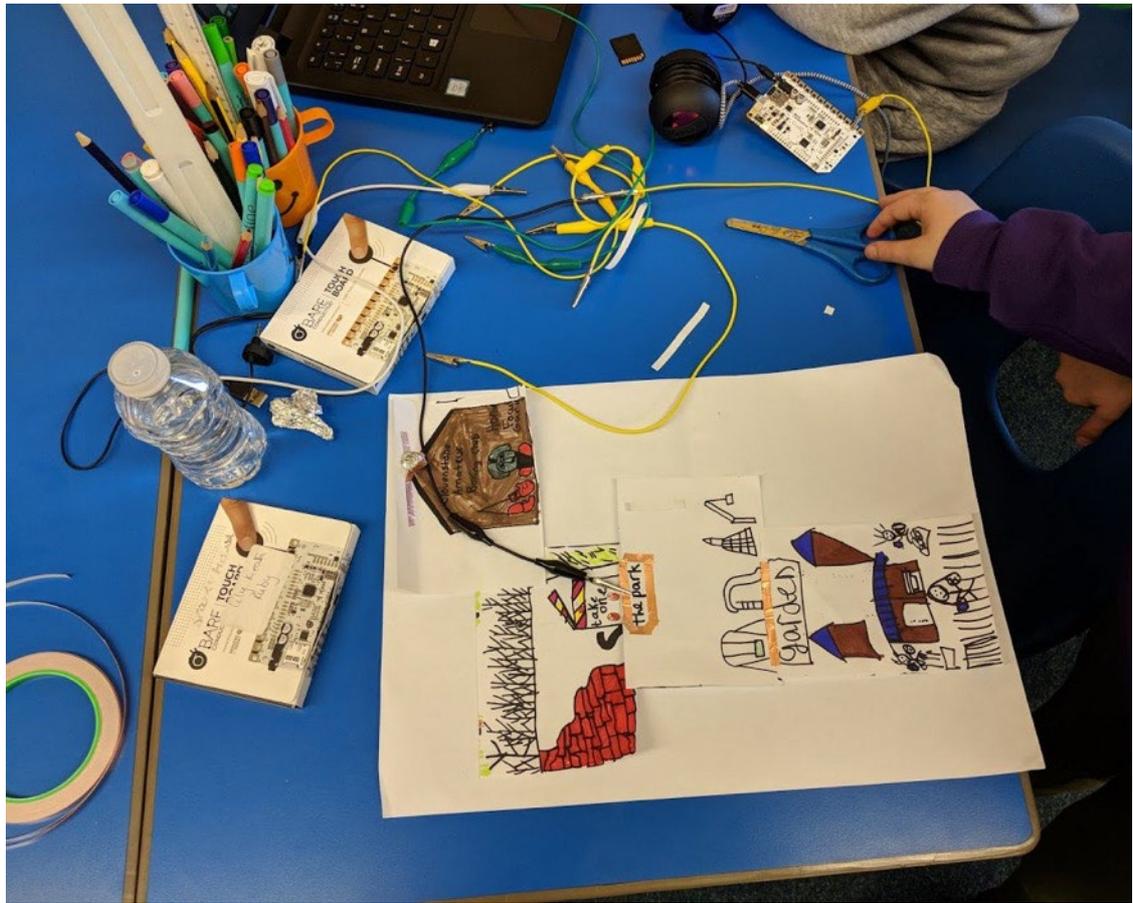
In another example, the site can create an interaction and performance with the space. In this clip the participant is walking through a tunnel and notices the echo. He then decides to sing 'Let It Go' from the movie Frozen.

*[male] {in tunnel with echo singing Frozen} "Let it go, let it go, can't hold it back anymore, let it go, let it go, I don't know the rest of the lyrics. So here I stand and..... the snow comes on."*

## 6.4 Findings Week Three

### 6.4.1 Introduction

In week three of the Digi-Mapping workshop, participants were put into groups by the teacher. The facilitator introduced the Bare Conductive Touch board and participants were taught how to download a sound to the board and design an interactive experience by pressing a drawing they had previously made (Figure 6-21). This provided an opportunity for participants to experiment and play with the technology.



*Figure 6-21 Image of Interactive Drawing with Bare Conductive Touch board*

The findings that follow focus upon what participants did when making an interactive drawing. Two groups were selected from Sighthill and two groups from each class as Canal View. The dataset was chosen based on specific criteria, how well the group worked together from reflective researcher notes in session, a representative balance of male and female participants and, the clarity of the audio recording and the amount of video observation data that was captured of the group.

The themes below are a product of working through these first steps in the analysis process of this research. The codes and definitions generated for this session were:

### ***Playing with Technology***

Defined as participants playing, experimenting with the technology outside of the instruction from the facilitator. It also includes any performative actions that the participants engaged in during the session that was influenced by the technology.

### ***Triggering Memory***

This code has two parts; Firstly, triggering memories of trying to remember what sound the participants recorded and the identity of who recorded other sounds, as well as what the sound is of. Secondly, when listening to a sound, remembering something that happened on the Week Two walk, or as a catalyst for sharing some other memory about the local area.

### ***Democratic Process***

This code has two opposing parts. Firstly, any action between participants to work out a perceived fair way of sharing and using the technology. Secondly, specific instances when participants do not engage in democratic practice e.g demanding to use something first.

### ***Helping Each Other***

This refers to a participant helping another to complete a task. It also includes participants working things out together when none of them are sure what to do.

#### 6.4.2 Playing with Technology

A total of 36 instances were coded under 'Playing with Technology'. In one of the groups that were not closely analysed, it was noted at the time of conducting the workshops, that one of the participants decided to try and make a metal jewel tiger head into a conductive

trigger for the touch board. A photo of the playful action was taken at the time of facilitating the workshop and can be seen in Figure 6-22.

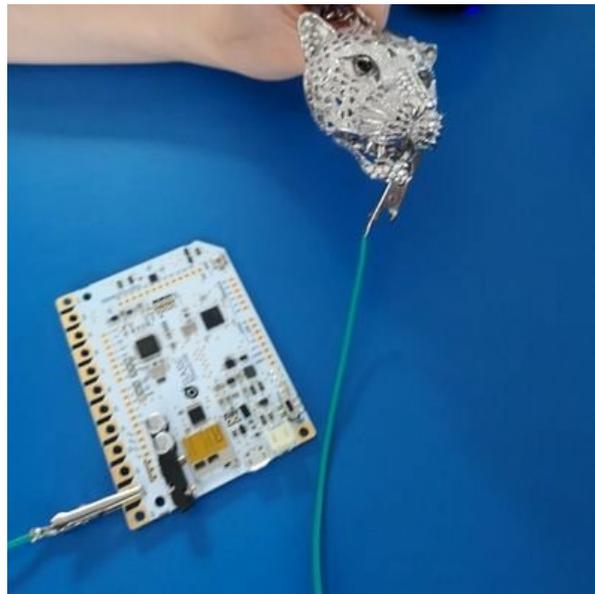


Figure 6-22 Conductive Tiger Head

One recurring finding was the way in which participants experimented with the technology to see how long they could make the cable of connected crocodile clips to trigger their chosen sound on the TouchBoard. There are instances where participants take the experiment further by trying to make a conductive object at the end be the trigger for the long cable. This activity was not always done alone. Testing the boundaries of the technology can be a collaborative effort. One such example is in Figure 6-23. A participant (P1) starts by connecting cables together at the table. Another participant (P3) notices what is happening, and they start to work together to create a long cable.

*P1 picks up the cable and grins “So many! I want to get more!” He helps P3 stretch the cables out. P3 passes him another clip P1 “Ah it’s going at my end, get some more” P3 “I got another one, it’s a yellow one” P3 “This one needs to get plugged in” P1 “Here pass” The long cable now stretches to the next table.*

The group is stretching the cable to the other side of the classroom attempting to trigger what appears to be a metal water bottle on top of a chest.



Figure 6-23 Group stretching cable to the plan chest

Another two participants tried to do a similar experiment in a different school, by making a table leg conductive across the room. The same participants then attempted an experiment to see what other metallic objects would be conductive. They try to do this with a small metal shopping basket (Figure 6-24). Initially, it did not work, after some tinkering, the participant is visibly proud that the experiment has worked and asks the facilitator to come over and see what they have done. Another participant then comes over to see and asks for a turn using it. Thus, creating a connection between people around the experimentation with the basket. A sense of accomplishment and happiness can be seen.

*P2 "lets wire it up"*

*P3 "wait please don't, no"*

*P3 attaches a croc lip to the basket and switches on the board "please work" It doesn't appear to work*

*P3 test the crocodile clip to see if that is triggering the sound. It doesn't appear to be.*

*P3 tries turning it off and on again and connects to the basket. This time it works. She is visibly pleased grins and punches the air.*

*P3 calls over the facilitator to show them P3 "Look!"*

*The facilitator "Ah I like that, that's very clever"*

*P1 "Can I try it?"*

*P3 "Yea"*

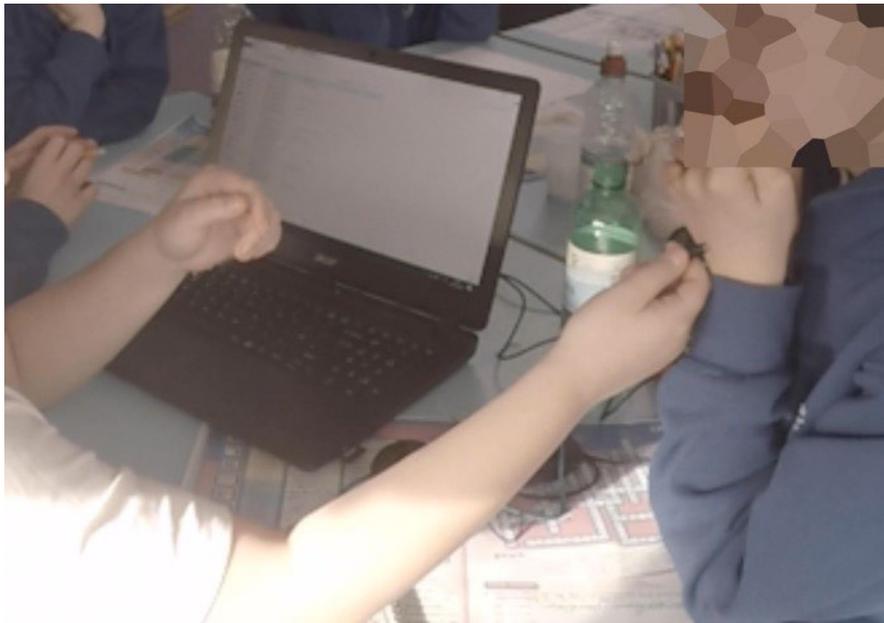


*Figure 6-24 P3 happy she has got basket to be conductive*

A second popular means of ‘Playing with Technology’ involved participants sampling the audio tracks. Specifically, when a participant had successfully downloaded an audio file from the laptop to the touch board and made it conductive; they repeatedly pressed the sound at a specific point to try and make a tune out of it. Many participants who did this assumed the role of something similar to a stereotype DJ; bobbing their head to the beat. In the example in Figure 6-25, this participant (P5) goes further. He picks his group mates recording (P1) and downloads it onto the board. He then proceeds to use the cable to touch P1 and say:

*P5 “[name] {Presses on P1’s hand}, Talk[name] {presses on P1’s hand}, talk [name] {presses on P1’s hand}”  
P1, P3, P4, and P5 all laugh.*

P5 is still behaving in a stereotypical DJ manner but is including others in their playful practice.



*Figure 6-25 Using a hand to trigger sound*

A third common action of ‘Playing with Technology’ was participants making ‘wands’ out of the tin foil. Participants then used this “wand” as a trigger to tap a crocodile clip or used it to tap the touch board directly as can be seen in Figure 6-26. In this image, the participant is making an exaggerated magician like gesture to trigger their chosen sound recording on the touch board.



Figure 6-26 Magic Wand

Another participant decided to take the tin foil and make a conductive mask for himself (Figure 6-27). Although it was not captured in the recording, the participant described it as his Iron Man mask. When he gets the mask working, he shouts “*There we go!*”. Assuming his new Iron Man identity, he then walks around wearing the mask and triggering his chosen sound.



Figure 6-27 Iron Man Mask

There are two examples of participants taking on performative identities when using technology. The first instance is one participant taking on the role of a hacker (P3). It is unclear if the participant truly believes that he is a hacker. The repetition, confidence, and emphasis he has when making these statements suggest that he believes he is. He claimed to the rest of the group repeatedly throughout the session that “*I’m a hacker*” and that he was going to hack the technology and the computer. In one of his declarations he first begins by stating that he is going to hack the crocodile clips:

*P3 gets one of the crocodile clips and states to the group*

*P3 “Right I’m going to hack this, I’m going to hack this and see what kind of technology is in this.”*

*He then goes back to clipping crocodile clips together*

Once he has done this, he is playing with the laptop. Again, he states that he is a hacker and that he is going to hack into the security cameras. Another participant (P2) decides to join in but pretending to be a hacker. P3 begins to get annoyed at P2 interfering with his “hacking”. P2 accuses him of lying and not being a hacker. Another participant in the group has had enough and decides to report this to the facilitator. When the facilitator asks, he changes tact and states that he is only trying to “fix” the laptop.

*P3 “Move move move” {takes control of the laptop from P2} I’ll hack into the security cameras.*

*P2 {Signing and pretending to tap the keyboard} “I’m hacking {and makes noises}*

*P2 “I’ll do the typing yea?”*

*P3 “What one do you want to do guys?”*

*P4 {in an annoyed tone} “What you doing [name P3]?”*

*P2 “He’s going to hack into things”*

*P4 “You’re not even meant to be mucking about”*

*P3 “I’m not”*

*P4 “Then what are you doing?”*

*P3 “What you doing [name P2] stop!”*

*P4 “What you doing?”*

*P3 “Trying to sort this out, stop [name P2]”*

*P2 is still pretending to try and type on the keyboard.*

*P2 "You cannot hack"*  
*P4 "Stop [name P3] they're recording"*  
*P3 "stop [name P2]" who is still interrupting what P3 is trying to "hack"*  
*P3 "God, now you've made it full screen, Oh my god what did you do?"*  
*P4 "Do the line, do the line, do the line" P4 {calling the facilitator} "[name] keeps trying to mess about with this bit"*  
*P2 "He keeps trying to hack the computer"*  
*P3 "No I'm not, I'm fixing it"*  
*Facilitator "Why would you try and hack the computer"*  
*P3 "I'm not, I'm doing this, I'm trying to fix it"*  
*P2 "He says he's going to hack the computer"*  
*P3 "It was a joke"*

A second example is when one participant decides to create a YouTube tutorial video of making a conductive pencil holder out of tin foil. She has assumed the identity of an American by changing her accent and imaging an audience to present to. Halfway through she appears to get distracted and forgets that she is making a YouTube video.

*P3 {in an American accent} "Hi guys this is [name] and today we're going to be making a pencil holder. So we're going to take our pencil and put it on the tin foil okay. We'll put the pencil right at the end and we're just going to roll round guys. So we're just making sure it's packed tight around the tin foil, like this". P3 then drifts off and becomes absorbed in the task of playing and cutting up the tin foil.*

#### 6.4.3 Triggering Memory

A total of fourteen instances were coded under 'Triggering Memory'. There is a common practice among the groups where one of the first things they do is try to find and claim ownership of their sounds and to identify who in the class recorded what sound. During this process participants appear to be either excited and proud to hear their recordings made on the week two walk or; embarrassed and do not want to hear them at all. In one case, a participant keeps playing another's recording. Although initially embarrassed, she then embraces it and assumes a performative role in which she mimes out her recording with over exaggerated gestures as can be seen in Figure -28.

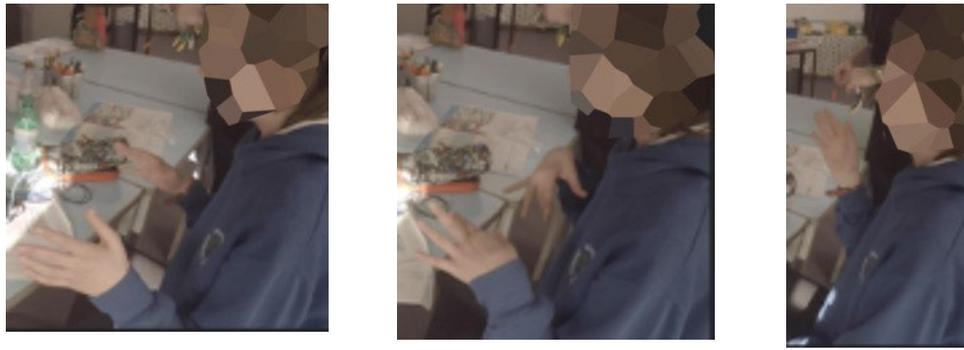


Figure 6-28 Miming their Sound

Listening to these sounds as a group created acts of collective remembering. In this example, participants are carefully and collaboratively going through each sound on the player to figure out who recorded what sound. P3 becomes embarrassed when she hears her own recording of a memory about attending a Harry Potter potion-making workshop at a local community centre.

*P3 “Aww let’s not, let’s not, let’s not, can we just do the next one please? I’m not listening to that”*

*Approx. 2mins later P3 decides that she does want to listen to her recording*

*P3 “Where is it? Is it this one?”*

*They all lean in to listen, P3 starts laughing*

*P3 “Why do I sound so sad!”*

*P4 “Oh yea, I remember that”*

*P2 “Same, that was so boring”*

*P3 “Yea I know”*

The group worked together, asking each other for help in remembering something about the local area, which in turn helped others in the group develop their own local knowledge. It was an avenue for participants to learn and connect through revelation and sharing of personal facts about themselves. In this example P1 is asking for help to try and establish what shop is next to the Chinese takeaway for her drawing. This leads onto a discussion about chip shops.

*P1 “Do you know on this side of the Chinese {using her hand}, you know close to the Chinese beside the red flats”*

*P4 nods his head*  
*P4 "The Chippy"*  
*P2 "I think it might be Marios [a local fish and chip shop]"*  
*P1 "Marios?"*  
*All nod*  
*P5 "I've never had a chippy"*  
*P2 {Sounding surprised} "You've not had a chippy? Have you had like a chippy from other places?"*  
*P5 "Nope"*  
*P4 "That is mental man"*  
*P2 "You need a chippy in your life"*  
*P1 "Go to Marios and order"*

It was also a chance to see if when hearing a recording, it could be used a platform to unpack any other stories participants had about a particular place such as rumour or gossip. During week two, not recorded, some participants shared stories about the canal, some being folklore. The researcher asked participants while they were working if they had heard the canal recordings, and if they knew any other stories about the canal. This prompted some participants to share stories:

*P5 "So I was once walking with my mum and she fell in"*  
*P2 "I don't know if it's true or not, I've been told this, it's not really that scary, but apparently this guy, he's like he's been in jail loads of times. But apparently there's this guy who walks along the canal, but when you're walking along the canal when your like small. This guy apparently threw a little girl into the canal. People say if you bump into him, you have to run away because he might like go crazy at you"*

And in another group

*P1 "yea the canal monster, there's a giant octopus that lives in the bottom of the canal" Facilitator "Who told you that story?"*  
*P1 "I can't remember"*  
*P3 "Can I say a story that's happened to me?"*  
*Facilitator "Yea you can say a story that's happened to you"*  
*P3 "So this wasn't exactly at the canal, so there's this place right next to the canal called the burn. So basically when you go down there's a tunnel thing beside this bit of woods. This one time on the way to the canal, it's kind of hard to explain, but, I was there, then at the other side of the water, There was a guy and he was just like a teenager and he was wearing a purge mask and he was just standing there so we all got such a fright. It turns out it was just a teenage guy and his friend was there and he was like hiding. It was really scary."*

#### 6.4.4 Democratic Process

There were seven examples coded under democraticProcess. Age was used by two groups to determine who got to use the computer first. These were groups in different classes. Whoever was the youngest/oldest got to go first. All the participants knew they would each get a turn of making a sound, but this process of who gets to do it first seems important to the group as they take time to discuss it.

In one group:

*P4 "Wait who's the oldest here?"*

*P1 "Me"*

*P2 "I'm 10"*

*P5 "and, what's to do with the oldest?"*

*P4 "Oldest goes first"*

*P5 "no no, it's always the youngest"*

*P3 "It's always youngest"*

*P5 "Always youngest, {to P3} What age are you?"*

*P3 "I'm 9"*

*P5 "When's your birthday?"*

*P3 "28th February"*

*P5 "Mine's December 3rd, who's first here then {looking at P4}"*

*P4 "February or December"*

*P1 "Mine is January 1st"*

*P5 "I think I'm the youngest"*

*P1 "But mine's is January 1st"*

*P5 "I think I'm the youngest"*

*P4 "Yea, how old are you?"*

*P5 "I'm 9"*

*P4 "I'm 10, You're 9 {at P3}"*

*P4 "Okay you go first {P5} you go second {P3}, {looking at P2} When your birthday"*

*P2 "I'm 10, 15th"*

*P4 "15th of what?"*

*Facilitator comes over and suggests turning the computer on and start getting things ready. The age debate ends.*

What is interesting here, is that P1 has figured out what was happening and immediately said Jan 1<sup>st</sup>, the rest of the group ignored him. This could be because he already claimed to be the oldest at the start of the negotiation.

In another group the age process was used by one participant as a way to engineer him going first. It appears that he was not the oldest but decided that he was going first anyway, another participant said he could go first. He was trying to get hold of the laptop from the start and used this as a tool to legitimise his claim.

Another way democratic process was used in the group was for one participant who was downloading their sound, so still create an inclusive experience by asking the rest of the group what track she should place her sound on.

*P2 "Guys give me a number from zero to 11"*

*P3 "11"*

*P5 "5"*

*P2 points at P4.*

*P4 "10"*

*P2 then points at P1*

*P5 "Choose a number from zero to 11"*

*P2 "Pick a number from zero to 11"*

*P1 "5".*

*P2 "5 is the most rated"*

*P2 then connects the croc clip to track 5*

#### 6.4.5 Helping Each Other

There were 20 documented examples coded under 'Helping Each Other'. In some of the groups there is one member that takes on the persona of the "expert". This expert is the one that helps the rest of the group to complete their task of downloading the sound to the board. One particularly interesting example of this was in a group where one participant was quite upset that they were absent the previous week and did not get to go on the walk.

At the beginning of the session, they were quite disengaged and visibly annoyed that people were finding their recording. When the teacher came over to see if they could remember how to download the sounds, she immediately responded that she could. As she knew the answer, she became the expert and authoritative person for how to do the process. The group also considered her the expert and went to her to seek advice. These different tasks allow participants to feel knowledgeable and contribute to the group in different ways. (P1) helps different participants in the group to download their sounds. P1 is now well aware of her role within the group and declares herself as the leader of the group.

*P2 ask P1 if they can download the sound of Pirrie onto the touchboard*  
*P2 "Can you download Pirrie? Please? PLEAAASEE?"*  
*P1 "I'll be 2 seconds, I'm the leader"*  
*P4 "Yea you are"*  
*P1 "Aww thanks [name]"*

In this new "leader" role P1 is also responsive to ensuring others in the group do not feel left out. At one point, P4 is sitting alone not doing anything. P1 gets P4 engaged and gives him tasks to do.

*P1 "{name P4 } you okay?*  
*P4 gives a slight head nod.*  
*P1 gestures and waves P4 over to her side of the table*  
*P1 "Are you okay? Do you want to do something?"*  
*P4 nods his head*  
*P1 "I'm just editing something here because I'm the only one that knows how to do it"*  
*P1 "[name] talk to [name]" {P2 talk to P4}*  
*P4 "no no no no no"*  
*P1 "what?" P4 {in almost a whisper} "Don't want to"*  
*P4 is now standing watching P1 use the computer*  
*P1 "I've almost got it uploaded hold on"*  
*P1 to P4 "Can you put tape on the bottom of that" {meaning copper tape on his picture}*  
*P1 tears a piece of tape off for him*  
*P1 "Stick it at the very bottom or something so that you can take, here {a croc clip}"*  
*P4 "Here like that {looking at the picture}*  
*P1 "Yea mhmm"*

*P4 "It's not sticking" P1 takes the tape and peels the back off  
P1 "here you go" hands it to P4 to stick onto the picture  
P4 "I'm going to stick it here, like that?"  
P1 "Yea"  
P1 "Now take this [croc clip] and put it on this exactly [the copper tape]  
P4 "Like that"  
P1 "yea, good"*

Some participants were not that engaged with the computing part, but this does not deter other members of the group from trying to create an inclusive atmosphere and engaging with the task. In this excerpt, one participant (P2) is trying to get their group mate (P4) to download a track onto the board by P4 to do it.

*P2 {pointing at the screen} "right click track 2, delete..wait.."  
P2 "double press there {pointing at screen} P4 presses  
P2 "wait that's not it, you're pressing down"  
P2 takes the mouse from P4 and adjust something, then gives P4 back the mouse  
P2 {pointing at the screen} "now press delete, delete it" P4 does the action.  
P2 "good"  
P2 "Now go on splashing, click the writing, no no no, click the writing. Double click, no just click P2 "Now do you want to write this? P4 "no response" P2  
"I'll write it okay?" P4 nods head P2 is typing on the laptop P2 "That's it"*

Individual drawing can still create a sense of group connection. In the excerpt, P1 & P5 are drawing a picture and ask for feedback from the rest of the group. One of the participants responds "We can do better" using a language of group ownership of the drawing.

*P1 & P5 have been drawing a large picture together  
P5 states "I'm done"  
P1 "Did you say I'm done"  
P5 holds up the picture for the rest of the group to see  
P5 "We're done [name]  
P1 "No we're not"  
P2 "We can do better, do like a hand splashing  
P1 "That's what I'm trying to do"*

As well as using the language of group ownership, another form of group connection manifests itself when participants come together in a collaborative effort with different opinion on how to best make a drawing for the TouchBoard. In another group, three participants are making a drawing together and are debating how best to create the drawing

*P2 was drawing something then states*

*P2 "I will make it better by using my vroom vroom rubber"*

*P2 then watched P1 draw his part of the picture (P1 drawing himself)*

*P2 "How about we make the fence a bit better?" He then rubs out part of the drawing and both P1 & P2 are drawing on the page.*

*P3 "Do we need to colour it in?"*

*P1 "Yea"*

*P3 "What could should we make the fence"*

*P1 then picks up the copper tape as if it is going to be the fence in the drawing*

*P1 "Make the tape, we need to peely it"*

*P3 starts peeling off bit of copper tape But does not stick to the drawing, the conversation drifts off to discuss doing Tik Toks at people houses (Tik Tok is currently a popular video social media platform.*

## 6.5 Findings Week Five

In week five of the Digi-Mapping workshop, participants are randomly assigned depending on group size between two and four images - that were drawn by individuals in week four. The goal of this session is for the participants to work together to choose a sound for the drawing and to make that drawing interactive. The sounds and images participants have selected will be the content for the final Digi-Map.

The participants were taught how to make conductive drawings in week three. This is a chance for them to draw on that knowledge, to carry out the tasks, and to have an agency on what will be the final sounds for the Digi-Map. If there was not a suitable recording for one of the pictures, then the participants had the opportunity to record a new sound

for the map. This week is very similar to week three. The main differences are that firstly, week three gave the participants a lot more opportunity to experiment and play with the technology. Secondly, the participants are given drawings, rather than drawing their pictures of anything they wanted.

One of the challenges of this week is that to ensure the final map is inclusive and gives the participants a say on what the content of the final map will be, the week is quite limited and specific in what participants are required to do. This means there were not many opportunities to be as creative as in Weeks One, Two, and Three.

The same codes were used in Week Five as in Week Three. These are:

### **Playing with Technology**

Defined as participants playing, experimenting with the technology outside of the instruction from the facilitator. It also includes any performative actions that the participants engaged in during the session that was influenced by the technology and the equipment to use the technology such as tin foil.

### **Triggering Memory**

This code has two parts; Firstly, triggering memories of trying to remember what sound the participants recorded and the identity of who recorded other sounds, as well as what the sound is of. Secondly, when listening to a sound, remembering something that happened on the Week Two walk or as a catalyst for sharing some other memory about the local area.

### **Democratic Process**

This code has two opposing parts. Firstly, any action between participants to work out a perceived fair way of sharing and using the technology. Secondly, specific instances when participants do not engage in democratic practice e.g. demanding to use something first.

### **Helping Each Other**

This is a participant helping another to complete a task. It also includes participants working things out together when none of them are sure what to do.

#### 6.5.1 Taking Part

Unlike the other weeks where all of the participants analysed took part in the project, this week there were a number who either did not engage at all or in a limited way. Below is a breakdown of the groups that had participants that either did not engage or engaged in a limited way.

#### **CV MC G1**

Two members of the group used the laptop. One participant did not engage in any part of the session.

#### **Week 5 CV MC G2**

This group is the first to finish in the class. P2 does not engage at all with the task for the week. P4 listens to the sounds on the laptop but does not touch the computer as another participant plays recordings for him. P1 retains control of the computer for the whole session

## **WK5 CV MW G6**

This group picked all of their sounds before connecting them to the picture. P5 was the group expert and took charge of most of the work. P4 did not do anything, he was talking to other groups for most of the time. P2 also kept disappearing to other groups. P1, P3, and did not download any content but did have a turn on the laptop.

In comparison Group 5 at Sighthill was the most enthusiastic and cohesive group to do the task. Compared to all of the other groups, this was the only group that was all female participants. One participant P5 who had additional support needs was initially hesitant to take part but after coaxing from others in the group and being supportive, P5 took part and enjoyed the task.

### 6.5.2 Playing with Technology

There were 19 instances coded under 'Playing with Technology'. One common recurring theme similar in week three, was of participants playing with the crocodile clips to see how long they could make them. In one group a participant made a long cable to the edge of the classroom and made it trigger a sound. Unlike in week three, these instances were mostly done by participants on their own and not a collaborative effort. In one example, P4 has connected all the crocodile clips to extend to the whiteboard across the classroom. She manages to make it trigger her audio recording and is visibly pleased with her achievement.



Figure 6-29 Testing conductive cable

Similar to week three, there were examples of participants mimicking the recordings, acting as a DJ sampling the recordings to try and make a tune. In one example a participant is mimicking one of the recordings from the website and decides to do a dramatic performance to the rest of her group.

*P3 “wait I’m going to do it all dramatic”*

*Does a dramatic mime of ‘I fell in the quarry woods and broke my arm’ sound clip.*

*Rest of the group laugh*



Figure 6-30 Dramatic Retelling

Again, one group decided to try and make ‘wands’ to trigger their drawing. They were the first group in the class to finish making all of the pictures interactive with their chosen sounds.

*P3 “Can we make a magic wand to touch it with?”*  
*They all go off to get more tin foil from the facilitator*  
*They try it and it does not work initially*  
*P3 “maybe its....”*  
*P1 “I know what it is” {He makes more of a stump at the end}*  
*He taps the picture and it works*  
*P1 “Yes”*  
*All of the participants in the group make wands and they have a wand fight*

Another example is of one participant that takes on the performative role of someone doing a crazy experiment that might get them electrocuted. Initially, P5 was not engaged at all with the task for the week. After constantly rejecting offers by others in the group if she wanted to do certain things, she relented and took part. From that encouragement and inclusivity, P5 became quite engaged with the overall aim for the week. In this example, P2 and P5 are working together to make their picture interactive.

*P5 “I’m gonna do some electricity”*  
*P2 “Stand back”*

*P5 “When I do this the world going to explode {laughing} are you ready for this?”*

*All participants laugh*

*P5 “3...2....1”*

*P2 {covers her head with her hands}*

### 6.5.3 Triggering Memory

A total of 12 instances were coded under ‘Triggering Memory. Two popular forms of ‘Triggering Memory’ were identified which member of the class made what drawing in the previous week (Week Four). Secondly, remembering who made what recording for the HTML page. In this example, there is a disagreement between participants about who made which drawing. P2 is convinced a drawing is his and begins to get annoyed when challenged by others that it is a drawing by someone else in the class.

*P4 “Who did that”*

*P2 “That’s mine” {pointing at a drawing}*

*P4 “That’s [name]”*

*P2 “No that’s mine”*

*P1 “let’s see”*

*P4 “Oh and that’s my one!”*

*P2 turns page so P1 can see “That’s mine”*

*P4 “That’s [name]”*

*P2 “That’s the rock, the rock climbing bit”*

*P2 holds it up to show someone in another group*

*A person in the other group “That’s my one! The wall’s my one”*

*P2 “No that’s mine”*

*P3 “That’s [name’s]”*

*P2 “No it isn’t I made the exact same one”*

*Participant from another group “I can tell from the colouring in” {that it’s not P2’s}*

*P2 “Well I done the exact same one”*

In this example, a discussion about another participant and why they are absent from school can lead to new knowledge about others. In this example, one of the participants who are usually in the group is absent this week. Another participant is asking why they are not there.

*P3 "We're missing one member of our group"*  
*P1 "[name] she's at Eid"*  
*P3 "Eid, is that even a country?"*  
*P2 "No it's like a celebration"*  
*P3 to P1 "Why you not doing it?"*  
*P1 "It's like Christmas for Christians"*  
*P3 "For Christians?"*  
*P3 then goes round to see what P4 is doing on the laptop*

While listening to sounds on the website, one participant tells a fictional story about a dramatic encounter she had with coyotes at a local golf course. There are no wild coyotes in Scotland.

*P1 "Wait you know how in Clovie there's a golf bit that you're not allowed in, where the golf is?"*  
*P2 "yea"*  
*P1 "I snuck in there yesterday because two bits of the pole were taken out and I sneaked through and there is this bell and if you ring it coyotes come out."*  
*P2 "Coyotes?"*  
*P1 "Yea and I rang it and I nearly got caught by one"*  
*P2 "What are they?"*  
*P1 "I just got out, they're like quite fast animals and they eat you"*

#### 6.5.5 Democratic Process

A total of 30 instances were coded under 'democratic process'. In this example, the laptop has just been placed down at the table by the facilitator at the beginning of the session. P1 states that he is going first. It has been observed from the previous researcher notes that this participant likes attention and also to be in control of things without consideration for others.

*P2 "Why do you get to use the laptop first?"*  
*P1 "Because it's quicker"*  
*P3 "[name, P1] I swear you started last time as well"*  
*P1 "No I didn't"*  
*P3 "Actually I think [name, p2] should get to go first as she didn't have a chance last time"*  
*P2 "I didn't get to see it"*  
*P3 "Yea [name] should start"*  
*P1 ignores him*  
*P3 "[name,p1], [name, p2] should start"*  
*P1 "I want to start"*

*P3 “[name, p1] don’t be selfish”*

*The facilitator comes over to check on them and P3 explains why P2 should get to go first, facilitator agrees and P1 shoves the laptop at P2 and looks annoyed. He then does not engage at all as P3 and P2 get started.*

Later in the session, P1 has decided to re-engage and he now wants a shot of the laptop.

As he has not helped at all P2 is reluctant to let him have a turn.

*P1 takes the SD card out and says he wants to do one.*

*P2 “no we’re all doing it”.*

*P1 “I haven’t got to do one.”*

*P2 “That’s because you said you didn’t want to do anything”*

*P1 takes the mouse*

*P2 “I’m telling [facilitator] as your taking over”*

*P1 “no I’m not”*

In this example, the participants have decided that there is not a suitable sound that matches with the picture of the high flats. They were going to use the sound recording of the nearby Chinese restaurant. The facilitator suggests recording a new sound and P1 is reluctant. P2 and P3 decide that they want to and offer P1 the opportunity to do the recording. P1 then decides that he wants to do the recording. They collectively agree that they should all record a new sound together.

*P2 and P3 tell the facilitator that they don’t have a sound for the high flats.*

*The facilitator “If you think that there isn’t a good enough sound for the high flats*

*P3 “I was thinking around outside the Chinese”*

*The facilitator “Or we can make a new sound”*

*P1 shakes head no*

*P2 “I don’t mind”*

*The facilitator “It’s up to you, think about it”*

*P3 “I think we should”*

*P2 “okay”*

*P2 to P1 “Then you can record us”*

*P1 “I want to speak”*

*P2 “Why don’t we all speak”*

*\*inaudible\**

The participants decide to write a script for what they are going to record. They agree on the script and head off to record their new sound.

There are examples of participants actively trying to get others in their group engaged and be part of the task, even if the participant is not that interested.

*P5 has still not had a turn of the computer after 50 mins of the sessions start.*

*P3 “ Let [name, p5] have a shot, [name] I’m letting you have a shot of the computer because you’re the only one that hasn’t”*

*P5 shows no initial interest in the computer and is playing with the tin foil smoothing it out.*

*P3 tries again “[name, p5] you want to have a go”*

*P5 “yea let me get the headphones, right let’s look”*

*P3 “Try looking for one for this {image}”*

*P5 is now clicking through and listening to sounds*

*After two mins of listening to sound*

*P1 “Can I have a go of the laptop I like doing it”*

*P5 “Okay”*

*P1 takes the laptop*

*P5 goes back to playing with tin foil*

In another clip P3 notices P2 is sitting there not doing anything, he hands P2 the sheet with the pictures and the scissors P3 “Here you can cut out the last one” Meanwhile P1 hands P4 the headphones so she can listen to some sounds.

There are also examples where participants undertake a voting process to determine what sounds should be on the touch board.

*P3 “Broken arm’s the best”*

*P5 “no”*

*P3 “Who thinks that Canal View is the best?”*

*P1 raises his hand*

*P3 “Everybody right, we’re going to do a final vote”*

*P3 “Hands up for baby swans”*

*Nobody raises their hand*

*P3 “hands up for bike puddles”*

*Nobody raises hand*

*P3 “Hands up for dog prints {p4’s recording}”*

*Three participants raise their hand*

P5 *“three for dog prints that a majority”*  
P2 *“The dog prints did you say? Aww yea please!”*  
P3 *“Right”*

#### 6.5.6 Helping Each Other

There were 19 instances coded under ‘Helping Each Other’. In this example, P4 has done all of the work on the laptop so far. P1 is now having a turn of the laptop to download a sound to the board. P1 asks P4 for help but P4 is reluctant to help her. It is unclear why.

P1 *“Alright [name] how do I do this? How do I get*  
P4 *quickly looks at the laptop and says “I don’t know”, then walks off*  
P1 *“Yes you do, you just done one, can you do it;”*  
P4 *shakes her head*  
P1 *“help me do it”*  
P4 *“I can’t remember how to do it”*  
P1 *“[name] come and do it, [name] come and do it”*  
P4 *comes over to the laptop to help*  
P1 *“I’ll pick the sound and you do the thing”*  
P4 *helps*  
P1 *“Thank you”*

In this example, P5 is very reluctant to be part of the group but P2 persists in trying to get P5 involved. It pays off as P5 eventually comes around and helps P2 with the touch board.

P3 *“Where do I plug it in?”*  
P2 *hands P3 the SD Card adaptor with the micro SD Card in it. P3 takes the SD Card and looks for where to insert it. While doing this P2 states*  
P2 *“but make sure it comes up there” [screen]*  
{p4 find the slots for it}  
P2 *“and [name] you see the little card in it (about the SD reader) yea?”*  
P3 *“Where?”*  
P1 *“See inside little card inside it... if you want to put a song thing onto it, just take it out the little baby card inside of it and then pass it to me and I’ll put it in.”*  
P2 *“[name p5] come over here, [name] come and do this with me {holding up the Bare Conductive TouchBoard}*  
P5 *“I don’t want to do that”*  
P2 *“Come touch it, it goes bing bing. Who wants to do something with it?”*  
No response from P4 & P5  
P2 *“Anyone....anyone?”*  
P5 *“What do you do?”*

P2 "All you do is touch it  
P5 "Is that it?"  
P2 "Yea"  
P1 "You also have to plug these in {croc clips}"

*They keep trying as a group to get P5 to come and help but she does not, but smiles and responds when they are listening to the sounds.*

*... approx. one min later*

P2 "[name, p5] Do you want a shot of this?"  
*This time P5 does and gets up to go round the other side of the table to sit beside P2*  
P5 "I want to touch the board"  
P5 *at this moment starts asking questions*  
P5 "How do you turn this on?" [the speaker]  
P2 & P5 *start touching the board and laughing {the board isn't powered on}*

When helping others, in this example, P1 has again forgotten how to transfer the sounds. He was not paying attention when he was last shown. He asks P3 again for help. P3 is patient and helps P1 to download and make a recording interactive. P1 is visibly pleased with his accomplishment and claps

P1 "So how do I do it again?"  
P3 "So you have to find it in here {pointing at the screen}, drag it in to..."  
P1 "Yea"  
P3 "TB audio"  
P1 "Where's TB audio?"  
P3 *gets up to check the SD card "There, there it is"*  
P3 "Now which of the numbers, four?"  
P1 "Do you want to have it on four?"  
P3 "Yea I think four"  
P3 "Delete, then find it, and then you rename it track four, track 004"  
P1 *typing*  
P1 "right now I need to connect it"  
P3 "Right {reaches over to get SD card} we need to put the card in, that's why it wasn't working, Okay"  
P1 "Now we add this {croc clip} to number 4"  
P1 *one then turns on the board, it works and he claps.*

## 6.6 Week Six Findings

This section presents findings from the final week of the Digi-Mapping workshop. This week participants had the opportunity to see and interact and with the final Digi-Map. Images of the final Digi-Maps can be found in Appendix 4. They were also asked to individually complete a feedback form to share how they felt about doing the project and to give their feedback on the Digi-Mapping project.

This section is presented in four parts. It begins with quantitative analysis of the first part of the form in which participants were asked to circle responses of how they felt about the project. Secondly qualitative analysis of participant written responses to the questions on the feedback form. Thirdly, the findings from the video observation are presented, specifically the time when participants interacted and engaged with the final map. Finally, findings from short unstructured interviews with teachers at Canal View are presented. While the participants were asked to complete the form individually, many of the participants copied what others had responded on their evaluation.

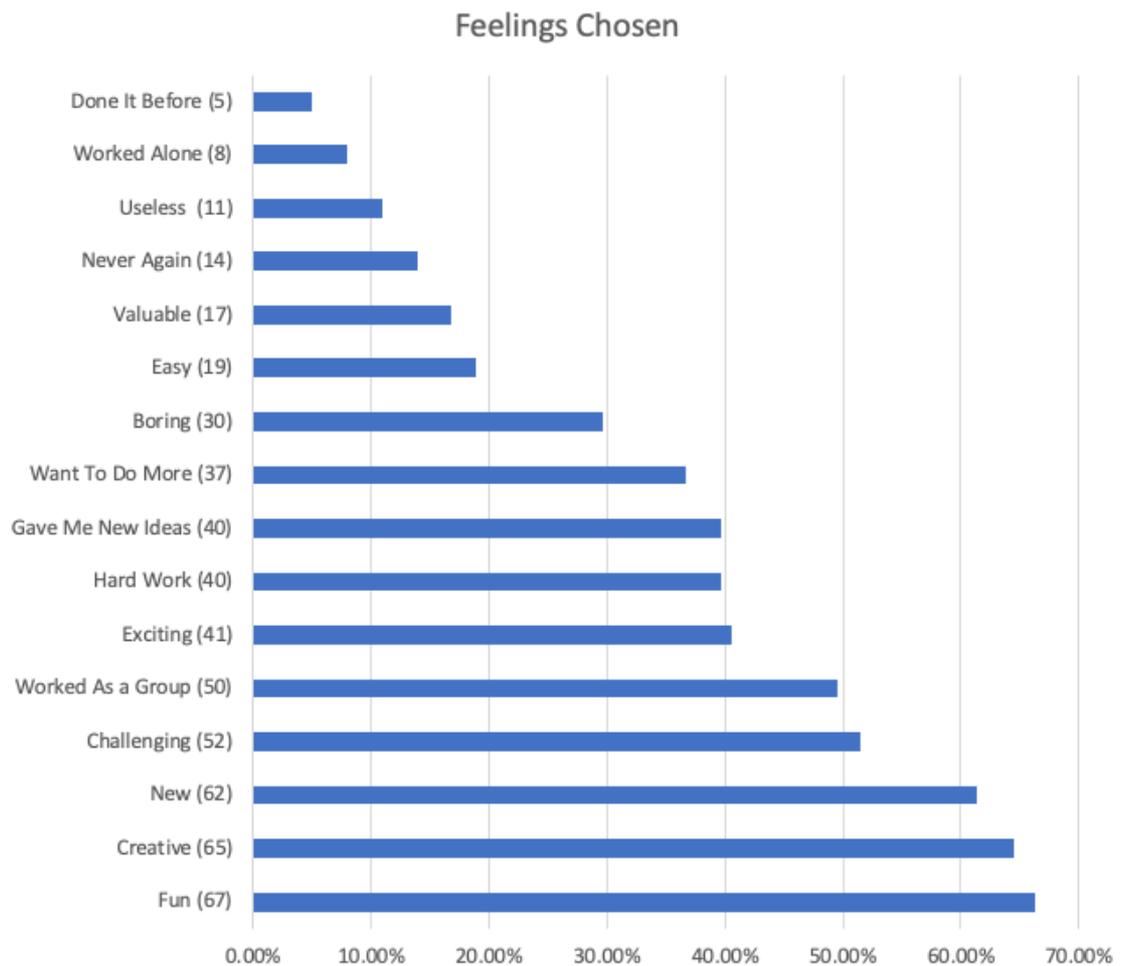
### 6.6.1 Responses of How Participants Felt About the Project

Analysis by gender is not part of the scope of this research. However, 40.6% were male and 59.4% were female.

<b>DESCRIBE YOUR FEELINGS ABOUT THIS PROJECT</b>				
Circle the ones that apply to you				
<b>FUN</b>	<b>VALUABLE</b>	<b>CREATIVE</b>	<b>EXCITING</b>	<b>NEW</b>
<b>DONE IT BEFORE</b>	<b>WANT TO DO MORE</b>	<b>HARD WORK</b>	<b>WORKED AS A GROUP</b>	
<b>NEVER AGAIN</b>	<b>USELESS</b>	<b>WORKED ALONE</b>	<b>EASY</b>	<b>BORING</b>
<b>GAVE ME NEW IDEAS</b>	<b>CHALLENGING</b>	Add an extra word of your own in this space if you want to		

Figure 6-31 Describe Your Feelings About This Project

Figure 6-31 shows the first part of the evaluation form. It asked participants to highlight words to describe their feelings towards the Digi-Mapping project. The participants could choose as many words as they wished. Participants could also add their own word if they wanted. Figure 6-32 shows the frequency of the words chosen by participants.



*Figure 6-32 Feelings Chosen*

The most frequently chosen words were ‘Fun’ at 66.3%. 64.4% said the project was ‘Creative’, and 61.4% said that the project was ‘New’ to them. Even though 66.3% said the project was fun, 51.5% said it was Challenging and 39.6% responded ‘Hard Work’. This indicates that even though the project was seen to be hard and the majority said Challenging still found the project fun overall.

#### *6.6.1.1 Relationships Between Feelings*

The participants could choose more than one word to describe their feelings about the project. The participants were given space to write their own feelings about the project. This section presents analysis of words selected in combination with other words chosen

by the participants as a whole. It will also show how the participants own additional words feeds into ‘Feelings’ This will show patterns of word choice.

The forms were inputted to the software SPSS which specialises in data analysis and cross tabulated. These results were then exported into a spreadsheet for presentation. Figure 3 shows when a word has been selected by participants, what other words were chosen in conjunction with it. For example; of all the participants that chose the word ‘Fun’, 77.6% also chose the word ‘Creative’. Of all the participants that chose the word ‘Creative’, 80% of them chose the word ‘Fun’.

(Case)If they Picked VVV	Fun	Valuable	Creative	Exciting	New	Done It Before	Want To Do More	Hard Work
Fun (67)		22.4% (15)	77.6% (52)	55.2 (37)	68.7% (46)	6% (4)	52.2% (35)	40.3% (27)
Valuable (17)	88.2 % (15)		100% (17)	76.5 (13)	88.2% (15)	11.8% (2)	64.7% (11)	52.9% (9)
Creative (65)	80% (52)	73.8% (48)		55.4% (36)	75.4% (49)	6.2% (4)	49.2% (32)	46.2% (30)
Exciting (41)	90.2% (37)	68.3% (13)	12.2% (5)		78% (32)	7.3% (3)	65.9% (27)	48.8% (20)
New (62)	74.2% (46)	24.2% (15)	79.0% (49)	51.6% (32)		4.8% (3)	51.6% (32)	41.9%(26)
Done it Before (5)	80.0% (4)	40.0% (2)	80.0% (4)	60.0% (3)	60.0% (3)		60% (3)	60% (3)
Want To Do More (37)	94.6% (35)	29.7% (11)	86.5% (32)	73% (27)	86.5% (32)	8.1% (3)		48.6% (18)
Hard Work (40)	67.5% (27)	22.5% (9)	75% (30)	50% (20)	65% (26)	7.5% (3)	45% (18)	
Worked As a Group (50)	82% (41)	28% (14)	92% (46)	58% (29)	78% (39)	6% (3)	54% (27)	42% (21)
Never Again (14)	14.3% (2)	7.1% (1)	35.7% (5)	7.1% (1)	64.3% (9)	0% (0)	0% (0)	14.3% (2)
Useless (11)	27.3% (3)	9.1% (1)	18.2% (2)	9.1% (1)	36.4% (4)	9.1% (1)	18.2% (2)	27.3% (3)
Worked Alone (8)	75% (6)	0% (0)	62.5% (5)	37.5% (3)	37.5% (3)	0% (0)	25% (2)	37.5% (3)
Easy (19)	68.4% (13)	21.1% (4)	84.2% (16)	47.4% (9)	57.9% (11)	10.5% (2)	36.8% (7)	42.1% (8)
Boring (30)	40% (12)	10% (3)	40% (12)	13.3 (4)	43.3% (13)	6.7% (2)	10% (3)	50% (15)
Gave Me New Ideas (40)	82.5% (33)	25% (10)	85% (34)	60% (24)	72.5% (29)	2.5% (1)	55% (22)	40% (16)
Challenging (52)	75% (39)	28.8% (15)	86.5% (45)	48.1% (25)	69.2% (36)	9.6% (5)	50% (26)	51.9% (27)

(Case)If they Picked VVV	Worked As A Group	Never Again	Useless	Worked Alone	Easy	Boring	Gave Me New Ideas	Challenging
Fun (67)	61.2% (41)	3% (2)	4.5% (3)	9% (6)	80.6% (54)	17.9% (12)	49.3 % (33)	58.2% (39)
Valuable (17)	82.4% (14)	5.9% (1)	5.9% (1)	0% (0)	23.5% (4)	17.6% (3)	58.8% (10)	88.2% (15)
Creative (65)	70.8% (46)	7.7% (5)	3.1% (2)	7.7% (5)	24.6% (16)	18.5% (12)	52.3% (34)	69.2% (45)
Exciting (41)	70.7% (29)	2.4% (1)	2.4% (1)	7.3% (3)	22.0% (9)	9.8% (4)	58.5% (24)	61% (25)
New (62)	62.9% (39)	14.5% (9)	6.5% (4)	4.8%(3)	17.7% (11)	21% (13)	46.8% (29)	58.1% (36)
Done it Before (5)	60% (3)	0% (0)	20% (1)	0% (0)	40% (2)	40% (2)	20% (1)	100% (5)
Want To Do More (37)	73% (27)	0% (0)	5.4% (2)	5.4% (2)	18.9% (7)	8.1% (3)	59.5% (22)	70.3% (26)
Hard Work (40)	52.2% (21)	5% (2)	7.5% (3)	7.5% (3)	20% (8)	37.5% (15)	40% (16)	67.5% (27)
Worked As a Group (50)		8% (4)	2% (1)	6% (3)	22% (11)	14% (7)	58% (29)	66% (33)
Never Again (14)	28.6% (4)		42.9 (6)	0% (0)	21.4% (3)	78.6% (11)	14.3% (2)	28.6% (4)
Useless (11)	9.1% (1)	54.4% (6)		9.1% (1)	18.2% (2)	72.7% (8)	0% (0)	27.3% (3)
Worked Alone (8)	37.5% (3)	0% (0)	12.5% (1)		37.5% (3)	12.5% (1)	75% (6)	62.5% (5)
Easy (19)	57.9% (11)	15.8% (3)	10.5% (2)	15.8% (3)		31.6% (6)	57.9% (11)	63.2% (12)
Boring (30)	23.3% (7)	36.7% (11)	26.7% (8)	3.3% (1)	20% (6)		16.7% (5)	46.7% (14)
Gave Me New Ideas (40)	72.5% (29)	5% (2)	0% (0)	15% (6)	27.5% (11)	12.5% (5)		65% (26)
Challenging (52)	63.5% (33)	7.7% (4)	5.8% (3)	9.6% (5)	23.1% (12)	26.9 (14)	50% (26)	

Figure 6-33 Feelings Relationship words

Fun appears to be most closely linked with 'Creative' (77.6%) and 'Easy' (80.6%). 40.3% found it 'Hard Work', 58.2% 'Challenging' and 17.9% responded 'Boring. Even with responses that could be interpreted as negative, 52.2% said they wanted to do more.

'Gave Me New ideas' appears to be closely linked with 'Fun' (82.5%), 'Creative' (85%) and 'Challenging' (65%). Of the of combination feelings, 'Working as a Group' was the third highest at 72.5%. Of all the participants who chose 'Gave Me New Ideas', 40% also responded that the project was 'Hard Work'. None of the participants thought the project was 'Useless'.

Of those who selected 'Hard Work', the highest associated words are 'Fun' and 'Challenging', both at 67.5%. 65% said the project was 'New' to them. Even if the project was 'Hard Work' 45% still said they wanted to do more

Hard work was the highest aligned with Boring but only at 50%. Surprisingly, 40% still thought the project was fun even if it was boring. The highest associated words with Challenging are Creative (86.5%) and Fun (75%). Half of those who found it Challenging still 'Want to do More'.

Over half of the participants who chose 'Creative' also chose 'Gave Me New ideas' (52.3%). The highest associated word was 'Fun' at 80%. 73.8% found the project 'Valuable' and 69.2% said it was also 'Challenging'.

Exciting appears to be closely aligned with Fun (90.2%). Over half the participants who chose exciting also chose Valuable (68.3%), New (78%) Want to do More (65.9%), Challenging (61%) and 'Gave Me New Ideas' (58.5%).

All of the participants who chose 'Valuable' also chose 'Creative'. Of all the participants who said the project was 'Valuable', 88.2% said the project was 'Challenging' and 59.2% said it was 'Hard Work'. 52.9% also said that they wanted to do more.

Of the participants that chose 'Want to do More' 70.3% also chose 'Challenging' and 59.5% also responded with it 'Gave them new ideas'. 94.6% also responded 'Fun' and 86.5% responded 'creative'. 48.6% said it was hard work and 8.1% said it was boring, but they wanted to do more.

Over half (54.4%) of the participants that said the project was 'Useless' also responded 'Never Again'. However, 27.3% of those that chose 'Useless' also chose 'Fun'. Out of those that responded 'Useless', no participants said that the project Gave them new Ideas

Out of those that responded, 'Never Again', 35.7% still said that the project was 'Creative' and 14.3% said it was 'Fun'. 78.6% said the project was also 'Boring'.

Participants were provided with a blank space where they could add their own word(s) to describe their feelings about the project. 23 participants chose to add their own word(s).

They were:

*"Done it before (not at the start)", "Fun", "All", "made me want to learn science", "hard but easy", "cool", "imaginative", "Phanomanal and Brilliant", "extrordnery fun", "Boring at tech parts", "alaright", "boring sometimes", "misson", "little boring", "Great", "loved", "enjoyed", "dull", "interesting", "Super Fun", "very fun", "Creative".*

Figure 6-34 shows the % of other words chosen alongside their additional word.

<b>Fun</b>	82.60% (19)	<b>Worked As A Group</b>	60.90% (14)
<b>Valuable</b>	30.40% (7)	<b>Worked Alone</b>	4.30% (1)
<b>Creative</b>	87.00% (20)	<b>Useless</b>	0% (0)
<b>Exciting</b>	73.90% (17)	<b>Worked Alone</b>	0% (0)
<b>New</b>	78.30% (18)	<b>Easy</b>	13% (3)
<b>Done It Before</b>	4.30% (1)	<b>Boring</b>	17.40% (4)
<b>Want To Do More</b>	56.50% (13)	<b>Gave Me New Ideas</b>	47.80% (11)
<b>Hard Work</b>	47.80% (11)	<b>Challenging</b>	60.90% (14)

Figure 6-34 Own word association

The table in Figure 6-34 indicates that those who contributed an additional word were also those who chose generally positive feelings to describe the project. Some participants clarified some of their choices by stating that it was “Boring at tech parts” or “boring sometimes”. Other responses were that it was “extrordnery fun”, “Phanomanal and Brilliant”. These phrases show that participants where keen to feedback using words beyond basic vocabulary.

6.6.1.2 Would you do this again?

The final question on the feedback form (Figure 6-35) is whether participants would do this project again. The results are presented in Figure 6-36.

**WOULD YOU DO THIS AGAIN?**

YES 😊      NO 😐      DON'T KNOW ☹️

Figure 6-35 Would You Do This Again Smiles

		Frequency	Percent	Valid Percent
Valid	Yes	48	47.5	47.5
	No	22	21.8	21.8
	Don't Know	31	30.7	30.7
	Total	101	100.0	100.0

Figure 6-36 Responses to Would You do this again

Out of all the participants, 47.5% said they would do the project again, 21.8% responded No and 30.7% responded 'Don't Know'. The written comments about feelings stated things like "*boring at tech parts*". It could be that the participants who responded Do not know did so because there were parts of the project they did and did not like.

It was noted in field notes that participants were copying answers that the person sitting next to them had. An example of this is when two participants suggesting crisps and sweets should be provided.

### 6.6.2 Written Responses

This section presents the written feedback from participants on what they enjoyed most, least and why. Thematic analysis of the data used top-level codes:

**Place** – Place specifically referred to anything the participants did on the psychogeography walk in Week 2.

**Computing-** Computing referred to anything that the participants did in week Three or Five When participants said something vague e.g. sounds. This was examined against

their other responses to determine if the participant was referring to week 2 or another week.

**Drawing-** Drawing referrers to the drawing participants did in Week 4.

**Groups** – This is defined when participants explicitly discuss working in groups.

**Enjoyed Everything** - They enjoyed all of the project, there was nothing specific they did not like

**Dislike Everything** – Referrers to participants that disliked everything about the project.

**Week One** – This is when participants state that they did not enjoy the first session

When participant responses were unclear, it was checked against their other written responses. For example, one participant wrote “The sounds” for what they liked most. This could still be either Week 2, Week 3 or 5. However what they liked least was Week Two. This suggests what they liked most was the computing weeks.

If the participants were still vague in both their most and least responses, the words the participants chose in the first part of the evaluation -the feeling words - were cross-matched with their responses as can be seen in Figure 6-37.

Feeling Chosen	Feeling Chosen	Feeling Chosen	Enjoyed The Most	Why	Code	Enjoyed The Least	Why	Code
Hard Work	Boring	Challenging		Most of all of it	Nothing		Because I was the only one working	Groups

Figure 6-37 Most Least Why

From the Figure 6-37 above, when the participant asked what they enjoyed the most and why, the response was “Most of all of it”. This could be interpreted that the participant mostly enjoyed all of the project. However, when their response is examined against the other responses in ‘Feelings Chosen’, their responses were deemed negative. So

their response of “Most of all of it” was interpreted as they did not enjoy most of the project. When asked what they enjoyed the least, the participant chose to highlight that they did not enjoy working in groups.

This section will present the coded findings from the evaluation.

#### *6.6.2.1 Place*

A total of 33 responses were coded under ‘Place’. 30 instances were for what participants enjoyed the most. Two of those instances were under what participants enjoyed the least. The participants that enjoyed it the least, said it was because “it's boring but fun” and “the walking and the birds”. Out of those that responded they enjoyed it the most, two main themes that emerge from this code. Firstly, going to new places in their local area. Participants shared responses such as:

*“Because I went to places I have never been to before”,*

*“the technology was fun and to know new places”,*

*“It was fun because we travel to different places”,*

*“because it was like being on adventures”.*

The second theme within place is storytelling. Participants responded that they liked sharing their own stories and hearing other people’s stories about their local area.

*“I enjoy seeing places I live in and enjoy sharing memories”,*

*“because I like sharing my stories”,*

*“I get to be imagining” and*

*“because it was fun hearing the stories”.*

#### 6.6.2.2 Computing

A total of 44 responses were coded under 'Computing'. Out of those 21 instances were for what participants enjoyed the most and 23 for what participants enjoyed the least. Out of those that 'enjoyed themMost' a popular theme is around learning more about computing with statements such as:

*"because I've leard to work a computer",*

*"I didn't know before",*

*"I want to do it when I'm older",*

*"to learn about computers",*

*"because never used it before"*

Within this one participant who was competent with computers responded and discussed the effect on their confidence *"because everyone else struggled and I felt smart"*.

Out of those participants that enjoyed computing the least. The majority responded that it was boring. Other responses included:

*"I felt embarrassed", "it was complicated", "It's hard work and knowing whats what" and "because know one shard"*

#### 6.6.2.3 Drawing

A total of 21 responses were coded under 'Drawing'. Out of those, ten instances were for what participants 'enjoyed the most' and 11 for the least. The majority of 'Liked The Most' responses to drawing was that the participants like to draw. One participant said they liked the drawing the best because they wanted to be an artist. Out of those that said they enjoyed it the least, it was mainly because they do not like drawing or it was boring. Responses included

*"cause it hurts my hands",*

*“because I don’t really like doing art” and  
“because I was just really tired”.*

#### 6.6.2.4 Groups

A total of 11 instances were coded under ‘Groups’. Out of those, four said it was what they enjoyed the most and seven responded it was what they enjoyed the least. Those that enjoyed it the most was predominately “because Im with my friends”. One participant responded with “I don't like to be lonely”. Those that said it was the part they enjoyed the least was mostly due to frustration with their group mates. Responses that highlight this were

*“because I was the only one working” and  
“because they moaned and I found it tough to concentrate”*

#### 6.6.2.5 Dislike Everything

Eight participants responded that they disliked everything. In “What you enjoyed the most” section there were three responses, one blank, one “because” and “most of all of it”. Five participants said they dislike everything in the “what they enjoyed the least” section. The three written responses given were “because”, “it’s boring” and “IDK”. Without more detail it is hard to know more around why they did not enjoy the project.

#### 6.6.2.6 Enjoy Everything

A total of 44 responses were recorded that participants enjoyed everything. 19 said under what they ‘enjoyed theLeast’ that they enjoyed everything. Responses included  
*“becous it was all sum”*,

*“because it was fun”*,

*“because I loved all of it”* and

*“because everything was so much fun”*

25 participants were coded under enjoy everything for what they ‘enjoyed the most’.

Many of the Responses included a language of ownership in the work they had undertaken:

*“because we made the map”*,

*”we got to see the work we done”*,

*”because we get to see what we worked for”* and

*”It was fun and I had not ever done it before”*

#### 6.6.2.7 Week One

None of the participants said that Week One was the part they ‘enjoyed the most’.

However, seven participants said it was the part they ‘enjoyed the least’. Six of the responses said it was because it was ‘boring’ and one participant stated it was *“because I didn’t really know what was coming”*.

#### 6.6.2.8 Improvements

Out of the participants that suggested improvements, the most common theme was to let the participants choose their own groups. Another theme was to make the map a broader area and to make it in a different way such as *“Make it 3D”* , *“make the map light up”*, and *“construct something and build something out of it”* Other comment were that every

participant should get a laptop and that instead of just doing Wester Hailes, it should be a map of Edinburgh.

### 6.6.3 Observation Findings

This section presents the findings from the participants interactions with the final Digi-Map.

At Sighthill the participants were invited to WHALE Arts to see the final map. This was due to the proximity of the school to WHALE. The Creative Placemaker was keen to show the maps here and it also provided space so the participants could have the opportunity to interact with a large-scale map and also to complete their feedback forms.

Canal View was a considerable distance from WHALE Arts. As there were two classes, the Digi-Maps were set out in the dining hall directly outside the two classrooms. This meant that small groups could come out from each class at the same time to interact with the map. This was done so that the participants could see and talk to members of the other class about their map. The feedback forms were completed in the classrooms.

The first major difference between the way that the groups interacted was the context of the setting. At WHALE Arts the participants were in one large room where they both completed the evaluations and interacted with the map. The first groups to come up were visibly nervous as they were interacting in front of all of their peers. Once the participants started completing the evaluation this began to change but throughout there was always a hint of self-consciousness. In contrast, at Canal View the participants were eager to play with the maps right away. Their peers were in class completing the evaluations. The

overall atmosphere in the session was more relaxed and due to the size of the space, gave participants much more room to engage and perform with the map. It also provided an opportunity for other members of staff to come and play with the map.

#### 6.6.3.1 Sighthill

Before the participants interacted with the map, the facilitator asked them why they were here today.

*[facilitator] “So who can remember what we’re here for and what we did?”*

*[p1] “We’re looking at the map”*

*[facilitator] “What map?”*

*[p2] “Digi-map”*

*[facilitator] “Whose Digi-Map?”*

*[p3] “Our Digi-Map”*

*[facilitator] “Your Digi-Map okay..”*

The participant responded, “our Digi-Map” indicating a sense of ownership. When the teacher sees the map she is positive about it says

*[teacher] “that’s amazing... that’s basically my ICT for the year in that*

*{laughs}”*

Although she is laughing, after being in the school and the few resources they have, the teacher’s statement quite possibly holds some truths. At the end of the sessions she goes on to state to the class

*[teacher] “What do you say to everyone, you’ve been so lucky to have [names] to come and do this because this is something we would struggle to do in class because 1. I couldn’t do it and two. We don’t have any of the facilities or*

*resources. You've been really really lucky so give them a massive big thank you."*

This statement reinforced that this project may equate to a year's worth of ICT education at the school.

#### *6.6.3.2 Canal View*

The findings from Canal View are presented under two thematic codes:

**Performing** – These are actions such as movement.

**Appropriation:** - Ways that participants use the map to perform another function.

These two themes show the way in which participants interacted with the Digi-Map.



*Figure 6-38 Canal View Maps*

Figure 6-38 shows the way the two maps were laid between the two classrooms (top left and top right).

#### 6.6.3.2.1 Performing

Dancing

The participant highlighted hears his sound being chosen. He is happy and smiling. The participant does a small dance to celebrate. Another participant comes up to him and recites his story to him. She is smiling. This demonstrates that they are enjoying interacting with the map



*Figure 6-39 Story Recital*

Another participant dances around map chanting “swans” (one of the recordings).



*Figure 6-40 Jumping*

Repeating

In this example the group starts to laugh at participant (highlighted 6-41) that he has triggered his own story. Another participant repeatedly presses the story and the group continues laughing.



*Figure 6-41 Story Trigger*

## Movement

In this example the participant on the far left in Figure 6-42 is triggering sounds then runs around the maps. When she arrived arrives at an area, she then attempts to push all of the buttons as quickly as possible.



*Figure 6-42 Pushing Buttons*

### Finding Out

One participant asks another (possibly from another class) if they are the one "that did the dessert menu". She says "no". They are engaged and want to find out who recorded what sounds.



*Figure 6-43 "That's Our One"*

The participants are still together, she states “that’s our one” indicating her groups recording. She is smiling and pointing, indicating they are happy or proud with their sound being chosen.



*Figure 6-44 Chosen Sound*

## Storytelling

One participant hears a recording (possibly her own) and decides to act out a mime of the story for the others around the table



*Figure 6-45 Miming a Story*

### *6.6.3.2.2 Appropriation*

## Music Making

Three participants play the sounds like it is a musical instrument trying to create a song from the sounds. They work together to time the triggering of the samples.



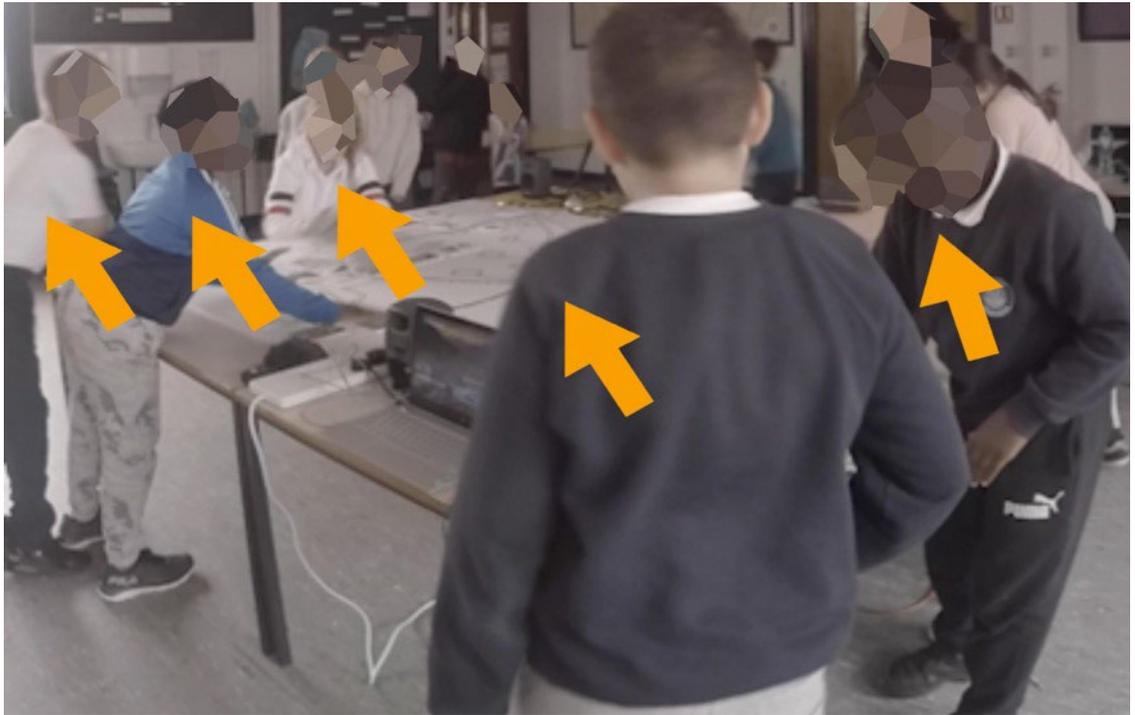
*Figure 6-46 Musical Instruments*

In the below image a participant is excited and trying to push as many buttons as possible, again to try and make "music". The participant then moves around the table stating "people come here, people come, people, people". They manage to create a song from the recording.



*Figure 6-47 Pushing all the buttons*

Five participants start copying each other to try and create a music track.



*Figure 6-48 Laughing at the DJ*

Two participants (to the right of highlighted participant) managed co-ordinate to create a song. Another one pretends to be a DJ and dances like a DJ on the spot (bouncing and making a record scratching motion). The rest of the group are laughing.



*Figure 6-49 DJ*

#### 6.6.4 Interviews

At Canal View short unstructured interviews were conducted with three teachers to gain feedback on their perceptions of the Digi-Mapping project. The main interviews were with the two class teachers. A short interview was had with another teacher who taught IT. That teacher came into the classes on occasion to see a specific student and to observe what was happening in the sessions. The teacher made a comment about the effect the project had on one of the students and it was felt important to capture their comments.

#### 6.6.5 I.T. Teacher

One of the issues raised was teachers not having the opportunity for training or time to learn new technology for classroom use:

*“The problem is we have all the tech but teachers don't get to take it home or to have it with them when they have time to muck about with it”*

Creative technology can be a useful tool to engage students who struggle and are disengaged in the classroom. In this instance one participant's enthusiasm for technology out of school was brought into the classroom.

*“So like [name] that's it, he is always disengaged in the afternoons and moves around and stuff like that, so I'd say with him it's given him a real focus and it's really brought a smile to his face because he's obviously engaged with his learning and he loves his tech at home. Also he can see the relevance of it and how it all works out. It's just brilliant to see them so engaged.”*

When asked on his thoughts on whether projects such as Digi-Mapping could have a place in classroom learning, his response was that he can see how this project can be used in school and that it fits within the digital strategy for Scotland. However, he claims that the curriculum has not caught up with the technology.

*“If you look at digital strategy for Scotland, schools need to change. So for example when I first started teaching and I went to a school I was like there's nothing different from when I was at school in the 80's there's a whiteboard but that was it. Society has changed but the education hasn't changed. So that it .. hold on...{laughing} So why's technology not playing a bigger part in it? It's because we see it as a distraction. It's not seen as a vehicle for the curriculum. Does that make sense?”*

Having people come into the school that know how to creatively use technology for whom it is their job can impact how children think about computing and the possibility of technology-based careers. If participants do not know that these technologies exist and get to use them, then they will not know of its opportunities.

*"it's seeing adults like yourselves do a job with digital technology, so that alone is valuable. So them seeing you, so their thinking so wait the now, this is...this is your job? If you were a kid, how would you know that there is a job like that if you don't know anybody that does that job..... And that's good it's opening it up. It's opening up that schematic in their brain to think oh wait the now I might be able to do that. If they only see Wester Hailes shopping centre, their house and the school then they're going to think they can be a teacher, a cleaner, a receptionist or somebody who works in Greggs. That's all they're going to think because nobody else in their house might work or their grandparents might have never worked. So how do you know what opportunities are out there?"*

#### 6.6.6 Class Teachers

The short interview with the two class teachers took place together at the end of the final session when the pupils had gone home. In the interview, one thing was noted that the participants used iPads a lot in coursework. While this is a positive technology output often simple computing skills can be missed.

*[Miss C] Yea! and I said that to you {Miss W} after it didn't I? Like we're sitting doing the progression pathways and it's like yea they can, you teach them how to do Word, and teach them how to do all this but actually like one of the key important things and I do it all the time is transferring files and they didn't know how to it. It totally makes you think and you're like actually there's a lot of the basics*

*[Miss W] Yea*

*[Miss C] They don't know, and I hadn't even thought about it till they were transferring.*

*[Miss W] Yea like finding the memory card when the memory card was it, like how do you find the memory card folder once you've put it in the computer*

The teachers discussed how Week Two of the project gave the participants confidence and changed the roles so that the children became the experts, guiding the facilitators around the local area and sharing their knowledge. The children and facilitators also gained new knowledge about the local area.

*[Miss W] Because they really enjoyed that, just getting out and about, we bumped into*

*people, we bumped into [name] mum who recorded a story for us. We bumped into my old childminder as well, so I told the kids the story of my childminder and me playing about in this area as well as a kid is was just great and it was nice to have the interaction with the kids where they were the experts*

*[Miss C] Yea*

*[Miss W] They were taking us about, because we were like oh I don't know how to get to this bit, oh right you gotta do this*

*[Miss C] Yea, like I didn't even know about Pirrie*

*[Miss W] I didn't know about Michaels*

*[Miss C] Michaels either, and they were like what! you don't know where Pirrie is?*

Here is an example of the same year group in the same school and they are still quite different in how they feel about the drawing week in the project. The part of the project is necessary, but it is always unclear how the participants will engage with it as this is based on their own personal interests.

*[Miss W] I mean for mine you saw, mine struggled with sitting and drawing, that is hard for them to do, so as you saw they were just kind of like up and over, up and over. I don't know, I don't know if having like even splitting it so they have a chance or choice in those sessions to do some of the tech stuff or drawing stuff because some of them just really bizarrely hate drawing.*

*[Miss C] mhmm whereas mine do the opposite, you remember mine, mine spent ages on the drawing.*

Although the teacher chooses the groups, being with the same group each week for six weeks was a new experience for the participants. They had to work together and listen to each other to achieve the tasks set during the project.

*[Miss C] A lot of mine put that they took from it was group work because they had to have, so I tend to do a lot of swapping and changing groups and chopping and changing them all the time. They've never had that group for the full six weeks so, I had to not put them with their friends on purpose. So, a lot of mine were like yea we actually had to listen to our group and get on with them*

*[Interviewer] and what impact do you think that had on them? Do you think it worked okay?*

*[Miss C] Yea because I think they knew that they had to listen to each other and move past things because they were going to be with each other for the next six weeks. Whereas if they had been with their friends, they would have..*

The variety of tasks within the Digi-Mapping project allowed a number of participants to become experts and lead in their learning. The project creates an even field between the teachers and students for mutual learning to occur and gives participants confidence.

*[Miss W] and the turning it on and off and that, yea there was tones of times I was going over to help groups and I was like I'm actually no help*

*[Miss C] I know*

*[Miss W] and then a kid would come up with the solution to it like oh the memory card's not in it. Ah that's not why it's working okay*

*[Miss C] mhmm*

*[Interviewer] and to you think that affected their confidence?*

*[Miss W] Absolutely!*

*[Miss C] Yea uhuh*

*[Miss W] kids love being the expert*

*[Miss C] I know*

*[Miss W] and I think as well, being put in a position that you were learning with them*

*[Miss C] Yea*

*[Miss W] and it is modelling that good learning, like oh I'm getting frustrated because I don't know how to do this*

*[Miss C] yep*

*[Miss W] but it's like aww I've seen you do it so I'm going to ask someone else what they're doing*

*[Miss C] Yea*

*[Miss W] they can come over and show me and I'm going to listen to them and then we're going to...yea...*

This confidence and level playing field can also help those that struggle in class and help them to feel more confident, that they have something of value to contribute to the session.

*[Miss W] I think it highlighted some kids that usually seen as kind of not very valuable in their group. Because actually they had quite a lot to bring this. Like [name] I'd say he's quite strong on the tech stuff but the kids struggle to get along with him, they can find him quite intense. This was brilliant for him as he had a lot to bring to it. He knew how to do the file transfer and putting it on and that showed him in a really positive light to like actually he can contribute to this, he's not just a nuisance to the group he's actually a valuable member. So that was quite nice to see. And like [name] as well when it got onto the tech stuff, he knew a lot about that and again he's one that would sit back.*

...

*[Miss C] [name]'s concentration. So [name] doesn't usually concentrate for a sustained amount of time. He has a lot of movement breaks, He's on the spectrum so he, in an afternoon will take a good couple of movement breaks.... for him, he never needed that break or anything. His concentration during this was amazing.*

## 6.7 Findings in relation to Resnick and a new 4P's Framework

Resnick's framework, although designed for investigating creativity with digital media, has a number of previously highlighted elements that are particularly useful for creative placemaking practice. It focuses on the process of creativity and creates, it could be argued, authentic participation. As Courage (2021) stated creative placemaking needs to place more emphasis on the ephemeral process. Although there are useful elements in Resnick's 4Ps for creative placemaking, the framework needs revising to present more focus on how meanings, knowledge or participation manifest within creative placemaking practices. These ephemeral processes are the interest of this new 4Ps Framework.

As previously discussed, the P or Projects is not immediately of relevance to creative placemaking as the projects are set by the facilitator for a community to participate in. However, Resnick argued that when it something the participants are interested in supports imagination and engage in reflective processes. These elements present themselves in the new Ps of Polyvocal, performative and Playful. Figure 6-50 shows imagination in for example the use of storytelling about place, and reflection by working things out together and playing with the technology.

### **Peers**

In Resnick's framework, Peers referred to collaboration, showing and building on others work in a community (online in Scratch). Within the Digi-Mapping project there is collaboration however what is of interest to this framework is the way it manifests. The findings showed this was often in performative actions such as recording content and helping each other using the TouchBoards. There are some similarities with Resnick's sources of inspiration in the way the Scratch platform was developed. However, when looking at this from the perspective of place it is the new P of Polyvocality that is the driving force that supports the inspiration and knowledge within the group. Different ideas converge and align to examine place. For example, in Figure 6-50, under Polyvocal and Performative we see codes such as narration, storytelling and interviewing as ways to elicit different types of knowledge about places. An element that is limited within Resnick's framework is the criticality and contested knowledge between those within a community of practice. This new P of Polyvocal supports the elicitation of perspectives and feelings contributed to the complexity of meaning toward place.

At the core of creative placemaking is that it should be a community of practice. These new Ps of Participatory and Polyvocal helps to consider that when using digital media tools, it supports these two Ps to occur.

### **Passion.**

The feedback from the workshops does mirror Resnick's ethos of hard fun when immersed. Passion is not necessarily the best term to describe engagements with place. Within this framework it is interested in the ways that feeling, memories and knowledge about place are presented. Although participants could have passion what we saw from the findings that this was done as performative and playful actions particularly when physically at sites of meaning. In Figure 6-50 participants want to include those that were struggling and engaged in democratic processes to ensure everyone had a turn with the technology. Inclusion was also done in playful ways e.g. pretending the board was going to explode. This also can feed into the P of participatory. While passion does exist, for creative placemaking this is included as part of Performative and Playful actions.

### **Play**

In this case the new P of Playful is similar to Resnick's P of Play. However playful when looking at Figure 6-50 in this research also considers playful encounters with site, not just digital media. It also looks at the playful encounters with each other when constructing, sharing and importantly contesting narratives about place.

While Resnick talks about play as a mode of learning, in the case of creative placemaking playful encounters are actually an important aspect how of a community shares and co-constructs meaning about place.

The new P of Performative is something that was explicitly missing from Resnick's 4Ps and also incorporate playful aspects. Although he does talk address play, performative actions were an important way that participants shared and expressed meaning in amongst the group; especially as a way to appropriate their own cultural knowledge as meanings about place. In Figure 6-50 we can see that playing with technology and storytelling were both under performative and playful. This is because learning and experimenting with the technology can then lead to performative ways of sharing meaning using the tools.

Figure 6-50 shows how the codes that emerged in each analysed week of the Digi-Mapping workshops and how they fed into and influenced the new proposed 4P's framework this thesis argues for. While there is overlap between some of the codes. In Chapter six, the most dominant feature of that code applied to that week's tasks.

This new 4Ps Framework as will be presented in more detail in Chapter Seven: A new 4Ps. The framework ensures that by having these top-level themes as part of the design of a creative placemaking workshop then this can elicit important aspects of sharing, constructing, contesting and gaining a rich picture of places and meaning with participants using digital media tools. These 4P's all feed into each other for example a participatory settings leads to polyvocal and playful engagements amongst a community of practice. It is not enough to just bring a group of people together, what they work on has to ensure these Ps have opportunities to occur.

Inductive Coding Process

<b>Participatory</b>	<b>Polyvocal</b>	<b>Performative</b>	<b>Playful</b>
Relationships To Other Places Detail Routes Storytelling Democratic Process Helping Each Other Working things out together Interviewing Trigger Memory	Storytelling Democratic Process Helping Each Other Working things out together Boundaries Interviewing Trigger Memory	Storytelling Routes Narration Sound Effect Singing Playing with technology Democratic Process	Routes Use of Colour Sound Effect Singing Playing with technology Helping Each Other Interviewing Each Other Democratic Process Working things out together Storytelling

Figure 6-50 Coding the 4Ps

## 7. Chapter Seven: A New 4Ps Framework

The previous chapter presented thematic findings from selected weeks of the Digi-Mapping workshops that took place in each of the primary schools in Wester Hailes. Findings from week one demonstrated how participants worked collaboratively to draw their local area by focusing on their walk to school. Week two demonstrated the ways in which participants shared meanings about their local area with audio recorders while on a psychogeography walk. In Weeks three and five, findings established the ways in which participants collaborated and used Bare Conductive TouchBoards to create interactive drawings of meaningful places in their local area. Findings from feedback forms and participant engagement with the final Digi-Maps were presented in Week six. These findings were complemented by unstructured interviews with class teachers to gain feedback on the Digi-Mapping project.

The PhD research this thesis describes set out to examine how digital media tools can be used within creative placemaking practice. The questions that this thesis aims to answer are:

- How can digital media tools facilitate creative placemaking?
- In what ways can digital media tools support community agency in the representation of place?
- What conceptual framework will support creative placemaking with digital media tools?

Findings from the literature review argued that while Resnick's framework is useful for understanding and facilitating creative processes in digital media creation, there are elements that do fit well for creative placemaking. This chapter develops Resnick's

conceptual framework by linking findings from the Digi-Mapping workshops to arguments presented in the literature review. The chapter proposes an augmented 4Ps Framework that better supports the convergence of critical heritage and communities of practice in creative placemaking work. The aims of the newly revised 4Ps Framework is twofold: firstly, to function as a guide for creative placemaking practitioners unfamiliar with digital media and secondly, to develop a participatory research framework for researchers working in both creative placemaking and critical heritage studies.

We return firstly to Resnick's original 4Ps of Creative Learning Framework: Projects, Passion, Peers and Play, which provided the basis to test participatory workshops in Wester Hailes. At the outset, it was the intention of this research to exemplify the different ways in which the 4Ps could be manifest within creative placemaking practice. During the onsite workshops, this happened in different forms, during specific weeks of the Digi-Mapping workshops. In light of the empirical findings, a new 4Ps Framework consists of Participatory, Polyvocal, Performative and Playful elements, which are not mutually exclusive. Instead, they often overlap and support each other in interesting and correlative ways.

In the context of this thesis Participatory refers to how the participants interact amongst themselves and with the facilitator. Polyvocal is the critical and contested conversations participants engage in. The way these polyvocal interactions happen means it can closely align with Performative, Playful. Performative within the framework is understood as giving the participants space to use the digital media tools in ways that are meaningful to them. Lastly, closely linked with performative is Playful. This is understood as the way participants experiment with the tools to test and share meaning.

During the project workshops, participants were asked to complete different types of tasks using different digital media tools. The framework is evidenced through the empirical research findings and how these findings are supported by the theoretical literature critically presented in Chapter Two and Chapter Three. This chapter's structure is organised to give an explanation of each of the amended 4Ps. Each of the four sections demonstrates the P's manifestation within the Digi-Mapping workshop and its theoretical connections and implications. At the end of each section a criterion for each newly proposed P is presented.

### 7.1 Participatory

Courage (2021) encourages a reading of creative placemaking, which at its heart is a participatory process, wherein the community is elevated to the status of expert in relation to knowledge about their locality. Courage (2021) argues that creative placemaking is a community of practice. Critical heritage, creative placemaking and digital media can all be understood as facilitators of communities of practice that have the potential to create distributed expertise (Jocson, 2015). This distributed expertise manifested in a number of ways throughout the Digi-Mapping project, examples of which are outlined in this section.

The theme 'Participatory' is the most important of the 4Ps in the revised framework.

This is the P that initially helps to create a community of practice as identified by Wenger-Trayner (2015) and brings together the area of critical heritage and digital media into creative placemaking.

The following sections will discuss why Participatory is the most important P by demonstrating how it feeds into the other Ps of Polyvocal, Performative and Playful. When participants share digital tools and work collaboratively this also supports participation within the group.

#### 7.1.1 Polyvocal

The definition of Polyvocal will be presented in section 7.2. Evidence that participation facilitates Polyvocality was demonstrated during the workshops when participants collaborated to construct maps of their local area. Working in a participatory setting, the pupils contributed to a community of practice wherein they both critically engaged with and supported other group members. This was observed in week one when participants worked collaboratively to work out directions, such as one participant physically turning while other members of his group advised him in what direction his house was. Participants talked to each other and worked together to draw roads and paths around their local area. Another observation captured a moment when participants drew boundaries in their local area. Participatory processes can be a way of socially constructing place through collective remembering. This collective remembering is similar to Sontag's (2003) argument that collective memory stipulates. This is an important aspect of creative placemaking as through a community of practice coming together, they collaboratively sharing knowledge and beliefs with each other. Collective memory can aid in the construction of self and social identity (Waterton and Watson, 2015) within a community.

Further, working together can be a catalyst for storytelling. This was observed in one group sharing knowledge that they knew about the Calders and the story of an attempted kidnapping. The workshops revealed how these types of stories can help to facilitate new

knowledge about the local area. During the workshops this kind of 'gossip' functioned as a type of local folklore that was passed onto other members of the community. It was through these forms of storytelling that intangible cultural heritage was performed and shared.

Polyvocality was also demonstrated during the psychogeography walk in week two. Participants contested each other's beliefs in the haunted woods behind the boxing gym in Clovenstone. Participation facilitated polyvocality by supporting the co-construction of knowledge about the local area. This was fed back in the evaluation of the project when participants were able to discover new places and hear other's stories. Participation also fed into Polyvocality in weeks three and five when participants worked in groups to download sounds and make them interactive.

Recognised in the community of practice is the theme of fairness which is evident particularly in the weeks using the Bare Conductive TouchBoard. Participants decided the order of who got to use technology first based on age. Similarly, the performance of democracy was observed within the group. Democratic processes were demonstrated by participants asking others in the group what track they thought they should use. It was also an observable theme in the splitting up of tasks in weeks three and five when participants ensured that each group members took a turn using the technology. One striking example of this kind of democratic process was when the participant who had additional support needs was hesitant to engage. The rest of the group actively tried to make sure they were part of the process.

By working in a community of practice the findings showed that the participants can learn to use the technology, if they wish, in a relatively short period of time. Participants were

able to make interactive drawings in a two-hour session and helped others in their group that were struggling. The process of making the maps creates a sense of ownership and collective identity. This was evidenced in the feedback forms when responses included “our map” and “what we made”.

As discussed in this section, participation is what creates polyvocality and supports collaborative performance and play. Furthermore, we can observe the essence of Resnick’s Peers within the ‘Participatory’ theme. Specifically, in relation to the use of digital media tools that support collaboration and finding new information. Although the participants already knew each other as they are in the same class, we can see evidence of a community of practice formed (Wenger-Trayner, 2015). This community of practice changed focus with the tasks in each week of the project.

#### 7.1.2 Performative

Performative will be defined in section 7.3. Evidence of how participation facilitates performativity was frequently observed in week two during the Digi-Mapping workshop. Working in a participatory setting meant that participants could interview each other to create content. They could work together to figure out what content they wanted to record. Furthermore, being in a participatory setting created space to share stories and personal memories. These types of participatory settings reflect Lambert’s (2013) argument that participants are more willing to share and perform stories and meanings in an environment they think of as safe.

In week three and five we observed similar performative actions, specifically when one participant repeatedly claimed he was a hacker and another that claimed they took on the identity of being the expert of the group. Working in participatory settings that supports

this kind of performative communication can support participants in the creation, testing and reinforcement of identities. We saw the capacity of performativity in the performances for the imagined listener; the creation of radio shows and YouTube content as a way to construct and share meanings about places.

It could be argued that these types of performances and appropriations of cultural knowledge were examples of remediations (Bolter, 2016). The participants took key elements of digital media and used them with new technology e.g. the audio narrative of YouTube and asking for likes. It could also be seen when a participant remediated and performed the role of Steve Irwin. Using this cultural figure became a mechanism for a participant to discuss meaning of a local woodland. A second way participation facilitated performative actions was during week two when the participants interviewed each other to uncover feelings and peer perspectives about place. They also tactically engaged with physical sites to create sound effects which demonstrated what they thought about when at sites of meaning.

### 7.1.3 Playful

Playful will be defined in section 7.4. Participation also facilitates playfulness, an element that mirrors Resnick's (2016) initial concepts of hard fun. Workshops revealed that playfulness can be a way for participants to experiment and understand the technology they are using without fear of reaching a preferred or correct outcome. This was evident particularly in weeks three and five when participants tested different objects of the classroom for interactivity as well as making long cables to test if it still triggered sounds. Participants who did not understand how to do tasks turned to others for help in their group. They also mimicked others when experimenting, such as making magic wands to

trigger interactive images. This playfulness contributed to a collaborative learning environment.

Playfulness is also closely linked to Kane's (2006) arguments about the social actioning of play. As Kane highlights, play is not leisure, it is vital to our development and the way we adapt using experiments and imagination. Further to this, Kane argues that play can support development of identity within a community. Through participation and working in a group these types of play manifested in the Digi-Mapping workshops. When participants created the audio quiz they experimented and became imaginative in the way they presented sounds of Wester Hailes. The act of choosing and curating sounds to share can influence the forming of their identity within the community of Wester Hailes. Adding to the many ways in which playfulness corresponded to and sustained other activities was the instance when participants created their own form of participation, with its own codes and content by inviting the imagined listener to play their audio quiz.

#### 7.1.4 Defining Participatory

The P of Participatory in creative placemaking is defined as participants needing to be collaborative not just with the facilitator but with each other when undertaking tasks. The creative placemaker needs to ensure that the tasks are collaborative, but also have an element of openness to allow participants freedom to engage in ways that are of interest to them. This type of participatory practice can lead to the other 3Ps:

- Polyvocality in contested narrative,
- Performative actions in the way participants perform meaning,
- Playing and testing with the technology collaboratively to understand and appropriate.

## 7.2 Polyvocal

Polyvocality allows for contested narratives surrounding place to occur and be shared (Farman, 2018). Polyvocality is also a vital component in participants' process of performative sharing. The first effect of polyvocality is the shift in expertise. From the interviews with teachers, they reported experiencing a shift firstly with participants on the walk when the participants told teachers the way to go and what was around them. Secondly, when using the Bare Conductive TouchBoard. Some of the participants quickly became experts showing the teachers what to do. It was also shown in the participant feedback forms when responses included statements such as they got to hear other people's stories.

One predominant way participants engaged in polyvocality was in the use of narration while on the psychogeography walk in week two. While much of the narration could on the surface be considered mundane, Mols et al. (2014) argue that it is in the mundane repetition of everyday life experiences that meaning arises in its comparisons. We see this when participants narrate where they are in the local area. This is then mixed with memories such as being at the WHEC, then sharing memories about going swimming there. We also can see this when one participant goes into extensive detail for the listener about a community garden.

Narration can also be used in combination with interview and memory. Participants created content around a haunted patch of wood behind a boxing gym in Clovenstone. Participants mixed narration sharing their own thoughts about the haunted wood with combined interviewing asking the perspective of their classmates as to whether the woods

were haunted or not. Within the narration, participants whispered into the microphone conveying a sense of fear and danger to the listener that they were now in a scary place. The participatory nature of this storytelling is closely aligned to Coser (1992), that collective memory is socially constructed. This can be observed in the ways that participants share collective knowledge about the haunted wood. Part of the reason why participants may whisper or use digital media tools is for sharing memory or knowledge. As Assmann (2008, p.50) suggests, embodiment is required for experiential memory and because of this it therefore cannot be transferred to other people. She argues often what is not addressed in memory work is interaction with other people and the objects, symbols and signs. We can observe this embodiment in the process of content production when a memory is shared. It can be argued that when participants use digital media tools, then this digitally augments the space and can help create significance and present us with information that cannot be effectively delivered through other means (Farman, 2018, p.195). What is shown in the findings is that digital site-specific storytelling offers audiences a chance to empathically engage with the space which they are discovering. de Saint-Laurent (2018) suggests that collective memory affords the study and dissemination of different discourses of the past and the methods by which they are created.

In week three, we can see that polyvocal discussion can lead to new knowledge about each other. In one group, while drawing, a participant needed help with what can be seen beside the Chinese restaurant. This leads to a discussion about someone who has never had fish and chips (a chippy) and that they should try the local outlet Mario's. This new knowledge can extend beyond the group. For example, in week two, participants interview members of the local community to find out their opinions on the local area. They also learned more details around local gossip. One such example being the Chinese

restaurant being set on fire. When interviewing the owners of the shop next door, the owner discussed his experience of being flooded when putting out the fire.

In contextualising Wester Hailes it was positioned that it is one of multiple deprivation. In the 1980s there were high levels of crime, unemployment as well as drug and alcohol abuse. The reputation of Wester Hailes earned itself the reputation of ‘Wasters Hell’ (Matthews, 2014). During the psychogeography walk in week two, participants were able to counter these narratives and share their own connection and identity with Wester Hailes. The participants discussed that they loved certain areas where they liked to go e.g. the park and the ‘new world’ that is the wooded area. They shared their own personal experiences about the area e.g. swimming at the WHEC and activities at the community centre. However, the research also detected hints in the narrative that still show the flow of the reputation and folklore (McNeill, 2013) of the stigmatised Wester Hailes in the younger generations. Participants discussed dead bodies being thrown into the canal. Other stories shared by participants reflected on how the canal is often a dangerous place, where things can pull you under and where you can die if you fall in. It is possible that these stories have been passed on to children by their parents as a deterrent to playing close to the canal. What has been demonstrated is the canal’s ‘lived-ness’ (Krawczyk – Wasilewska, 2017, p.29) shown by the modifications and its repetition among the local community or a folk group.

Polyvocality can amplify the ordinary voice (Lambert, 2013). Specific sites and objects can act as triggers for memory. Denson (2017) argues that when objects such as monuments are erected that this gives a right to those places and an authority to tell the stories of such places. That “*When we create a place through public history, we frequently take it as our own, identifying its past as the cultural patrimony of our specific community*

*or population*” (p.12). This was observed when participants shared their knowledge through different types of recording when visiting the Odeon cinema and the shops in Westside Plaza. They recorded sounds that were familiar to them at those sites, such as the popcorn machine and the sound of the tills in Home Bargains. They shared knowledge of what shops they liked and what they bought. This knowledge was also highlighted in the participant drawings in week one. Again, mundane but potentially important details were shown in how participants drew places in their local area from memory. Examples of this included how they drew logos of shops such as Greggs and Home Bargains. It was also evident in the size of particular objects such as the spider web and also their colour e.g the High Flats.

Again, in week one we can see that repetition of the mundane through the routes that the participants took to school, a route they walk frequently. They can remember the turns and ways they move through the space to get from their house to the school. This shows that these mundane aspects are important to people to share in their construction and meaning of place. These things are still of interest to creative placemaking to further understand the associations people have with their local area. In remembering place, this gives rise to contested knowledge. Evidence of this happened where participants in one group were discussing where the canal should go on the drawing; a participant did not know that the canal was not at one place and that it went from Edinburgh to Falkirk. This can be useful within creative placemaking to determine how much people know about their local area, what is included and left out.

Places not conventionally considered to be part of a local area can be still be connected through an individual’s constructed meaning of place. This was evident in week one, a participant drew Arthur’s Seat on the group map. Arthur’s Seat is approximately 5 miles

away from Wester Hailes. The participant said that they lived in a high tower in Wester Hailes and they could see Arthur's Seat from their window. It can be argued that other non-local places can become part of the constructed memory of place.

#### 7.2.1 Defining Polyvocal

When using digital media tools within creative placemaking, polyvocality is closely aligned with performative (discussed further in the next section) and participation. Polyvocal within creative placemaking practice means giving participants the freedom to critically engage with each other and document these experiences in a way that is meaningful to them. When participants work together, they are in a position to hear knowledge of others and can even collaborate to unpack knowledge about a local area.

#### 7.3 Performative

This section demonstrates the ways in which the theme 'Performative' manifests within the Digi-Mapping workshops. It shows that meaning is processed and shared through appropriations of participants' own cultural knowledge such as YouTube and T.V. personality Steve Irwin. The findings demonstrate that giving participants space to self-express in ways that are interesting to them reveals creative approaches of expressing meaning. These performative actions are the meeting point between culture and context as positioned by Anderson (2009). This forms the definition of Performative within the 4Ps Framework. This is the essence of Rensick's P 'Passion'. What was observed from the Digi-Mapping project could potentially be displays of passion. However, what is interesting is the ways that participants appropriated their own cultural knowledge and things they were passionate about e.g. YouTube and use that as a mechanism to discuss their local area.

Lefebvre (1991) defines space as also being made up of three sections: Social Practice, Representations of Spaces and Representational Spaces. When we look at how the participants interacted within spaces on the walk, we can see evidence of these three areas in what they record and ways they record content on the psychogeography walk. It can be observed when participants assumed the role of characters like Steve Irwin telling the imagined listener that there were spiders and snakes in the woodland. Another participant described the same woodland as a “new world”, instructing the listener to go there. This correlates with Overall (2017) and the position that mythogeography can be a platform for the creative interpretations of place and the meaning it can hold for individuals. It can also be a metaphor to engage with space (Smith, 2010). It could be suggested that the woodland at Hailes Quarry park holds a sense of wonder and fantasy for participants, a place where they can imagine an alternative world to explore. A theme of meaning making can be observed about the woods, the perspectives by participants are constructed in layers or palimpsest (Meining, 1979) with emphasis upon visions and meanings by individuals upon a landscape or, as Mitin (2017) describes them, projections upon the landscape.

It can be argued that the process in creating types of content such as performing, the audio quiz, interviewing and singing is the process of remediation. This takes the form of collaborative filtering, curating and co-production of media (Papacharissi, 2015, p.34). We also see participants in other groups undertaking a similar practice; it is unclear if it is the practice of copying other groups which creates a type of spreadable media. It is also evident that some participants consider what they are making as a type of social media content. Participants asked for likes when they were creating content and one participant stated that the stories he had shared were not click bait. These types of media creations

again demonstrate that meaning of place is as Anderson (2009) describes: a point between culture and its context.

The psychogeography walks enabled participants to phenomenologically engage with sites of meaning. Roadaway (1994) states that sensory experience with place can elicit hidden geographies that are driven by sensory experiences. Examples of this were particularly evident when participants performed with space to record sound effects. Participants engage in sensory touch and audio to test objects in their local area, for their suitability to become an audio recording. This was taken further by one group who developed and delivered an audio quiz for the listener. They asked the listener to guess what the noise was and that it would be revealed in the next clip.

We can also see evidence of performative content when participants decided to create ASMR content for the listener, signing for the recorder or as in week three, assuming the role of a YouTuber to create an instructional video. Further, it can be seen when one participant performs like he has a radio show, he begins by telling a story, cutting to an advert break, then delivering news, then interviewing his peers.

Stone in Lambert (2013) states that mainstream culture has affected our ability to understand the effects of storytelling in every day lived experience alongside our processes of meaning making and sharing. This thesis argues against this position. What has been evidenced in the findings is that mainstream culture such as YouTube and the idea of presenting a show can be an effective means with which to construct and share meaning. These types of actions manifested repeatedly with participants e.g. the participant who said their stories were not click bait. What has emerged is what Farman (2018) describes as a media ecology of storytelling. As already stated, Assmann discussed

that tools are used to share memory as they cannot be implanted. In the cases of this research we can see that in the way that participants perform memory.

One of the possible reasons for performativity is the impulse of imagination felt by participants at both familiar and unfamiliar places (Kearns et al., 2015). These types of impulses can be both individual and collective in process. Another possible reason for the performative actions by participants, particularly in week two, is that as Oppezzo and Schwartz (2014), argued, walking outside can help creativity and the flow of ideas. Further, being outside has a creative residue that may have also fed into the following weeks of the Digi-Mapping project.

What we can see from the performative actions particularly on week two of the Digi-Mapping workshop is what Anderson's (2009) argument that anyone who uses place can edit and re-edit such places. We can see how participants do this through the construction of performative storytelling. Benford & Giannachi (2011) proposed the idea that trajectories within digital media, unlike a route, afford opportunities to explore emerging and embedded narratives. So, while not just a way of representing a route, a trajectory lets individuals explore ways of experiencing in digitally mediated spaces (Benford & Giannachi, 2011, p.15).

### 7.3.1 Defining Performative

When using digital media tools in creative placemaking, practitioners need to ensure that there is space within the tasks to allow participants to perform with technology to express knowledge in ways that are meaningful to participants. While instruction can be given to participants, it still needs to be open enough that they undertake the process of tasks in ways that are interesting to participants. The digital media tools that are used within the

session needs to be something that affords participants a chance for play and experimentation. This can be done individually and collectively.

#### 7.4 Playful

This section will discuss the importance of playfulness in creative placemaking practice. It highlights the difference between open and closed play that is evidenced in weeks three and five. It demonstrates that having an open play structure within the workshops means that participants can engage, test and appropriate technology into objects and interactions that are meaningful to them and their peers. This playfulness can support participants to work out problems, enhance connection with their peers and come up with creative alternatives. Resnick (2016) highlights the importance of open play as a means of engaging in creativity that people are passionate about.

There are similarities between week three and week five. The difference between the two weeks are that, in week five, the participants had already been introduced to the touch boards. In week three, participants could draw their own pictures to connect to the sounds. In week five, the participants were given pictures to find sounds that would match. In week three participants engaged in much more playful actions than in week five, where the focus was on completing the task.

The first element of playful that can be observed from the Digi-Mapping project is the taking on of identities and roles. One participant in week three assumed the role of a hacker. He consistently stated that he knew what to do as he was a hacker. He then said he was going to hack the technology and see how it worked. It could be for this participant that any type of interaction which is above the level of basic e.g. word processing, is a

type of 'hacking'. It is, for him a chance to perform and pretend that he is a hacker, similar to what he has been exposed to in the media. The second identity that is evidenced is that one participant in the group appears to naturally assume the role of expert. This identity does not appear to be one of imagination. Often, the rest of the group turn to this individual for advice and support with completing tasks. This playfulness also created a peer support structure which was evident in the group with the participant who had additional support needs and actively tried to include her even when she initially refused. She actively enjoyed and explored the technology and wanted to have a turn, with help, to complete tasks.

Playing with technology was also demonstrated when participants played with space. One example of this was when participants investigated the room and attempted to find objects that were metal so that they could be triggers for sounds they had downloaded onto the Bare Conductive TouchBoards. These objects included things such as table legs, chairs, zips and objects on the table including a small shopping basket. Participants also appropriated some of the materials used in the Digi-Mapping project. Particularly the crocodile clips and the tin foil. They used these materials to make necklaces, magic wands and masks.

Playfulness does combine elements of performativity. We see this in the roles that had been assumed and showcasing their playful experiments to the rest of their group. We can also see this when the participants appropriate the technology to behave and perform like a DJ. This playfulness was also evident when participants from the classes at Canal View showed the other class their map. They collaboratively danced, performed and asked each other questions about who made recording or what points were on the map.

#### 7.4.1 Defining Playful

Playful is defined as within sessions affording the participants the ability to be able to experiment with the digital media tools, to test different ways of using them and to appropriate the technology as way for them to explore its functionality. When creative placemakers use digital media tools in practice, there must be opportunities for the participants to undertake these actions.

#### 7.5 Summary of Discussion

This section will summarise the main points presented in the discussion. It will examine them within the wider context of creative placemaking and digital media. This section will also argue that the methods used, supported the unpacking and sharing of meaning by participants.

As Courage (2021) argues, the role of creative placemakers is not to empower others; participants already have power. It is instead a creative placemaker's role to create a platform. Using digital media tools in the Digi-Mapping workshops gave space to participants to interrogate, perform and play to construct and share meanings about their local area.

Psychogeography was a vital component of eliciting meaning from participants. Attachment to objects that trigger memory can create a sense of ensoulment (Blevis and Stolterman, 2007). Some of the ensoulment that was observed, it could be argued, was mundane however these details matter to the participants as a means of comparison (Mols et al., 2014). This is also why open play approaches to creative placemaking are vital to its success.

The examples of the narration around the local area, shows how important a role a psychogeography plays in uncovering meanings attached with the local area. Being at the sites of meaning can help participants go into specific detail about places in the local area. This was seen by the participants discussing particular elements of places such as the community gardens. If the project asked to share stories about their local area was only done in the classroom, it is highly unlikely that the participants would have gone into the specific detail about places in the local area. There was also a physical reaction when being at sites of meaning. One such example is Michael's, a local shop visited on the walk. When the participants were on the walk they were visibly excited to see Michael's and discussed how much they liked the shop. However, none of the participants mentioned Michael's when asked in the classroom what their top places were in the local area. We also saw that mundane objects such as the popcorn machine in the Odeon cinema were recorded by participants as they were connotations of place. Participants also expressed the value of psychogeography as part of the Digi-Mapping project with statements such as :

*"I injoy seeing places I liv in and enjoy sharing memors",*

*" because I like sharing my storys",*

*"I get to be imaginating" and*

*"because it was fun hearing the stories".*

Giglietto et al. (2019) highlighted that technology needs to be community focused rather than function focused. What is evidenced from the findings is that simple technology such as an audio recorder can facilitate a way for participants to be creative with the tools if

they know how to use them. Participants have told stories in performative ways; as Schofield (2014) notes, storytelling is a vital element in the creation of memory.

Benyon (2014) defines blended space as space that is purposefully integrated between digital and physical spaces. He argues that blends are a result of connecting two sets of concepts together. We can observe these blends in the way that the participants use the digital media tools and blend types of digital media. The final Digi-Map is a representation of a blended experience for the participants. The findings from the Digi-Mapping workshops demonstrated the layers of meanings that places hold for participants using digital media tools. These layers revealed themselves through areas such as storytelling, performance, imagination, remediation and appropriating participants own cultural knowledge.

While to some extent the technology needs to be community focused, as exemplified, new technology can be appropriated to imagine other technology sharing such as YouTube. It is possible to use more complex technology; in doing so, it is vital that the technology is used in a participatory setting where members can support each other in the process of learning. What is important in using technology with communities is understanding what the technology affords the individual or community. Learning new technology can open up new modes of expression and sharing of memory. It also gives participants a chance to assume identities with that knowledge.

An important aspect to consider when using digital media tools within creative placemaking to unpack meanings assigned to place is the use of psychogeography. Methods using collaborative activities, modes of engagement, and how we identify with

spaces can demonstrate how spaces can contribute to cultures of place (Malpas, 2008, p.207).

We can observe how physically being at sites of meaning triggers memory and associations both individually and collectively. Further, we can see how members of the community can collaborate to create a community of practice about their local area. Both creative placemaking (Courage, 2021) and critical heritage (Harrison, 2013) place emphasis on the idea that everyone is a heritage expert. We can see this mirrored in creative placemaking, that people who live in an area are experts about where they live and the value of their experiences within a community.

From the participant feedback of the Digi-Mapping project we can see that ‘Fun’, ‘Creative’, ‘Gave Me New Ideas’ were frequently used to describe the participants’ feelings about the project. An interesting finding was the link between ‘Fun’ and ‘Hard Work’. This shows that giving participants challenging tasks and using new pieces of technology can prompt new creative ways for participants to engage and express themselves.

While there is an element of curation in creative placemaking practice (Courage and McKeown, 2019), the recordings are the participants’ own content, likewise with their drawing. The participants used language of ownership in the feedback. They demonstrated what they felt is their map and their knowledge that they have shared. It is **their** map of meaning of Wester Hailes. This was also seen when participants collaboratively interacted with the final map. The participants created ‘music’ together through triggering images and danced together to the sounds on the map.

Further, projects that were challenging yet fun enhanced participants' own confidence. One participant stated on the feedback "*because everyone else struggled and I felt smart*". This was also mirrored in the teachers' comments. The teachers discussed that they had noticed a shift in dynamics when the pupils became expert and explained things to them e.g directions and how to connect components. Teachers also observed a change in participants who they considered disruptive in class. They stated these participants became much more focused and engaged. The value of participation, particularly working in groups for the duration of the project was also highlighted by teachers, who said that it was uncommon for pupils to work collaboratively for such a long period of time. This, the teachers said, enhanced their listening and consideration for others. These observations demonstrate the ways in which participation leads to polyvocality.

This chapter has demonstrated how even with set tasks, by affording participants an open and collaborative structure, they can engage in mutually supportive learning through performative and playful interactions. This chapter has argued that not only are the 4Ps interlinked, but their combined effects support creative and collaborative activities. The newly revised 4Ps Framework guides a process of creative learning and sharing. Moreover, it encourages critical and counter narratives and positions to emerge. The 4Ps Framework allows participants the latitude to see, hear, critique, test and share discoveries.

The Digi-Mapping project demonstrated that creative placemaking with technology can focus on the deeper aspects of identity and connection to place. The findings demonstrated emotions around place, performing with place, play and experimenting with the physical environment. The findings also presented how polyvocal practices

among participants can be used to discover feelings, attitudes and memories attached to their local area.

Although not the focus of this PhD, the research has also highlighted the opportunities of this new 4Ps Framework for use within educational settings. Teachers commented on the Digi-Mapping project being a year's worth of ICT. Teachers also saw the benefits of group work and the change in some pupils during the workshops. There are possibilities of exploring place and identity within the school curriculum. There is scope to connect creative placemaking with education when considering the work of Grimshaw and Mates (2020). They found that engaging in these types of narratives can help children learn new knowledge but also to help better understand themselves and their connection to their community.

The essence of this newly revised framework is about working individually and collaboratively to accomplish creative digital media creations. The literature review highlighted that performative actions are vital components of constructing, testing and presenting meaning. The workshops demonstrated that acts of sharing create performative relations between participants, which in turn foster collaboration and mutual feedback. This observation is particularly useful to practitioners of creative placemaking, who are tasked with representing different community voices and facilitating platforms where meanings and thoughts about the local area can be shared. As evidenced throughout the workshops, this can be done in playful ways with digital media tools. These actions, however, are done within a project structure set out by a creative placemaker. This thesis proposes an amended framework of Participatory, Polyvocal, Performative and Playful.



## 8. Chapter Eight: Conclusion

This concluding chapter is split into six sections. It begins by presenting how this thesis has addressed the proposed research questions. Next, the original contribution of the research is discussed which, as its main contribution, is the proposal of a conceptual framework that will support creative placemaking with digital media tools: a 4Ps Framework of Participatory, Polyvocal, Performative and Playful. This thesis then highlights the novelty of this research in relation to how the proposed 4Ps Framework can practically support creative placemakers who wish to use digital media tools in practice. The framework and methodological approach undertaken in this research may also be of interest to those who engage in critical heritage practices. The chapter then develops a discussion around the impact of the PhD research thus far. Lastly, the chapter turns to the limitations of the research before finally proposing the need for further research around this thesis topic and methodology.

### 8.1. Answering the Research Questions

This thesis set out to understand how digital media tools can effectively be used within creative placemaking practice. This section will evidence how this thesis has answered the research questions.

#### 8.1.1 How can digital media tools facilitate creative placemaking?

This thesis argues that digital media tools can be a powerful tool to unpack, process, and share meanings associated with place. Combining digital media tools with site-specific methods and challenging tasks can create a fun experience that participants want to engage with and be part of. Developing challenging tasks with digital media tools gives space to participants to collaborate and build confidence. Further using digital media tools

means that blended experiences can be created the result being that multiple layers of meaning can be added onto physical spaces. This has been shown in the literature review when drawing on the use of digital media tools within critical heritage practice and demonstrating how many of these practices are mirrored in creative placemaking. Further, this research designed a Digi-Mapping study that employed digital media tools in a creative placemaking project. The Digi-Mapping project found digital media tools were an important component of the way participants shared meanings particularly by appropriating the technology to share meaning in new creative ways

8.1.2 In what ways can digital media tools support community agency in the representation of place?

Upon reflection of the whole project and the data that was elicited from the Digi-Mapping workshops, there was much more focus on playful and performative actions when exploring place using digital media tools. If the research was to begin again a more apt question could be: How can creative placemaking facilitate playful encounters with place? During the research, the findings indicated that one technique the participants use to engage in these playful encounters is by appropriating their own cultural knowledge through performative actions and this is how place for them is represented.

These playful encounters were also demonstrated in the literature in the affordances of digital storytelling and how it can create polyvocality around a subject. Digital storytelling can also be an interpretive tool for people to share and construct new knowledge around place. This was demonstrated in the findings from week two of the research study 'The Psychogeography Walk' which found that participants could have

similar meanings, but they were playfully performed in different ways with the digital media tools.

In weeks three and five, it was observed that hearing other peer stories further triggered storytelling between participants. This brings to the fore the social processes of the workshops which afforded an expanded polyvocality wherein testing and challenging dominant meanings was part of a lively and dynamic workshop space. Drawing on critical heritage theory, we can understand how this distributed knowledge (Jocson, 2015) of the workshops provided the means for the social actioning of heritage (O'Reilly-de Brún et al., 2017). Further, playful encounters can create opportunities for communities to be part of heritage making. Combining this with learning digital media tools also enhances capacity building, which was evident in weeks two, three and five when participants used play as a way of sharing and collaboratively learning. These processes supported an environment where local meanings could be shared and where participants could learn new knowledge about their area.

With this new research question, it opens up much more possibilities to investigate playful approaches to critical heritage practice. Further the exploration of using play to enhance agency and social inclusion within creative placemaking and critical heritage practices.

8.1.3 What conceptual framework will support creative placemaking with digital media tools?

This thesis has demonstrated that to successfully capture the ephemeral expressions and knowledge about place, an approach that is sensitive to the complex ways that people construct and understand their local area both individually and collectively is necessary.

It requires an approach that focuses on site-specific storytelling, that is participatory and allows room for different perspectives to be shared. Moreover, to do this with digital media tools requires an approach that supports collaborative storytelling, appropriation and ground-up meaning to be constructed by participants. To support such a process, this thesis proposes a 4Ps Framework: Participatory, Polyvocal, Performative and Playful for practitioners wishing to use digital media tools in creative placemaking practice. The framework focuses on the **process** rather than the end product of creative placemaking and the effect this has on participants in the ways knowledge is expressed. The framework that this PhD has tested and reflectively developed is informed by Resnick's 4Ps for creativity. This new 4Ps Framework aims to support practitioners in creative placemaking who are non-experts in the use of digital media tools. Using the framework can help to elicit types of information and meaning making that align with the fundamentals of creative placemaking. This thesis also highlights that site-specific methods are an important aspect of unpacking meanings associated with place.

## 8.2 Contribution to Knowledge

This thesis contributes to the limited literature on approaches and frameworks for creative placemaking. Arguments have been presented as to why critical heritage is a valuable area in which to inform and develop creative placemaking practice. There has been limited work on the use of critical heritage references within creative placemaking practice. This thesis demonstrates why digital media tools have an important place within creative placemaking practice. The literature and Digi-Mapping workshops demonstrated that digital media can be a powerful tool in constructing, sharing meaning and creating communities of practice with shared understanding. Digital media tools also offered the

ability to create blended spaces. These blended spaces mean that unlimited digital layers of meaning can be added onto or complement physical space.

Based on the theoretical underpinning and the empirical study; this thesis contributes a 4Ps Framework:

- Participatory
- Polyvocal
- Performative
- Playful

This framework is a guiding set of principles for engaging in creative placemaking practice using digital media tools. Further, this framework demonstrates why site-specific interactions with place within practice are vital for unpacking and sharing meaning both individually and collectively. This contribution to knowledge responds to the gaps identified by Courage and McKeowen (2019). This thesis corroborates the author's argument that creative placemaking needs to focus more on citizen engagement and ephemeral practices. Perhaps most importantly, this thesis contributes to Courage and McKeowen's (2019) call for new creative placemaking frameworks that focus on community voices and citizen-led agency. Additionally, the contribution of the thesis also adds to the field of practice as highlighted by Zitcer (2020) and supports the continued success of creative placemaking practice.

#### 8.2.1 A Significant contribution to Knowledge

As highlighted in the literature review, technology has become cheaper and easier to use. When using digital media tools within creative placemaking it is important to ensure that what is used supports the ethos of creative placemaking practice. This framework allows

researchers to consider whether these digital media tools afford the 4Ps of Participatory, Polyvocal, Performative and Playful when undertaking creative placemaking practice. Additionally, the research undertaken to develop this framework has been done a large group of 101 participants.

### 8.2.2 An Independent contribution to Knowledge

While this work was a partnership with WHALE Arts, the researcher designed the study, collected all data and analysed all data to present findings that contributed to new knowledge. The creative placemaker was consulted as part of the design process of the study due to their expertise of working with children and the local community.

### 8.3 Novelty of the Research

The research has presented novelty in five ways throughout this thesis. Firstly, novelty has been demonstrated through the convergence of literature. The literature review has demonstrated an approach to bring together the disciplines of critical heritage and digital media to show how, when combined, they can support the processes of creative placemaking. This connection has been made through linking the principles of bottom-up approaches, creating communities of practice, participant agency and contested narratives by performing and sharing knowledge. Secondly, the thesis has examined Resnick's 4Ps of digital creativity for their appropriateness for creative placemaking with digital media tools. Novelty has focused on the processes of creative placemaking rather than the end product. Thirdly, novelty was evident in the number of participants engaging in the Digi-Mapping project. The project engaged a large number of 101 participants and conducted the project with all of the primary schools in Wester Hailes. Fourthly, this thesis has demonstrated novelty of research through the methodological approach of

engaging in creative placemaking using digital media tools. The research developed an innovative Digi-Mapping workshop utilising participatory approaches and psychogeography. It placed focus on processes of sharing by participants and tested approaches to digital creativity set out by Resnick in his 4Ps

Framework. Finally, based on the literature and empirical research, a new 4Ps Framework has been proposed to facilitate creative placemaking using digital media tools. This framework is a practical output for practitioners who are non-experts in digital media.

In summary, the contribution to knowledge responds directly to identified gaps in knowledge made through a review of literature that evidences the need for new frameworks. This thesis also contributes to new knowledge through the empirical research that reveals the need to create collaborative approaches that elevate ephemeral experiences and community voices to the role of expert.

#### 8.4 Limitations of the study

This research study took place within the participants' school during the school day. This was a structured learning environment that participants had to attend. It is not known if the Digi-Mapping project would work as effectively in an out of school environment. It would be of interest to the researcher to conduct further Digi-Mapping projects with different ages groups in Wester Hailes or similar communities. Then, a tangible multi-layered map of meaning can demonstrate the complex and potentially entwined relationship the community have with their local area.

## 8.5 Impact of the Research

The guiding framework proposed in this thesis has been used in two successful bids in research funding totalling £65,000. It was used as part of a successful bid for UKRI funding totalling £40,000 to undertake a public engagement project called Seven Kingdoms of Wester Hailes. The project involves a partnership between Edinburgh Napier University and the community contributing to a local place plan.

The project received support from the Scottish Government's Chief Architect. People living in the area were asked to be community researchers and contribute to a number of place-based projects. Secondly, a successful application to the Royal Academy of Engineering Ingenious Award for £25,000 was made. The project is still conducting creative placemaking working with children in Wester Hailes. The project 'Let's Play Wester Hailes' is a collaboration between community arts organisation WHALE Arts and the School of Computing at Edinburgh Napier University. The 'Let's Play Wester Hailes' project will be discussed in more detail in Section '8.6 Further Research'.

Thirdly, the Digi-Maps have been displayed at a number of public engagement events, both locally in Wester Hailes and nationally. The maps have also been displayed at British HCI. The research project also generated impact for WHALE Arts. At the end of each year, the creative placemaker had to report to the Lottery Creative, Connected Communities project as they funded the role at WHALE. The Digi-Mapping project was explicitly mentioned as supporting building connections with the local community and to get children to attend WHALE Arts (see Appendix 6).

### 8.5.1 Community Legacy

There are two main ways which community legacy can be seen from this PhD. Firstly, the research helped the creative placemaker to build relationships in the community. This was done by the creative placemaker establishing contact with the schools to conduct the Digi-Mapping study. The project also helped the creative placemaker to build relationships with the participants of the project. As outlined in the WHALE end of year report, through the Digi-Mapping project children attended other activities at WHALE and because of the rapport built with the creative placemaker.

Secondly, the project helped to develop both participants' and the creative placemaker's skills. Participants engaged in collaborative activities which involved them having to listen to each other and support each other to complete tasks. The project helped to build confidence with participants and develop new relationships with their local environment. The creative placemaker was involved with the development and supported the delivery of the Digi-Mapping project. This means that now the creative placemaker has gained the knowledge in how to run these workshops. The creative placemaker can run similar projects themselves long after this research project has finished.

### 8.6 Further research

There are a number of avenues through which this research might develop, so it can continue to contribute to creative placemaking research and practice. Although the research participants in this thesis were children, the thesis does not explicitly examine children's relation to creative placemaking. However, future research would allow practitioners and scholars to more fully understand the ways in which creative

placemaking might be made more accessible to children. The next research project will further test the new 4Ps Framework with different digital media tools.

A successful application to the Royal Academy of Engineering Ingenious Award for £25,000 was made by Dr. Tom Flint. The project aims to develop creative placemaking with children in Wester Hailes. The project 'Let's Play Wester Hailes' is a collaboration between community arts organisation WHALE Arts and the School of Computing at Edinburgh Napier University. The project manager is Craig Tyrie of WHALE Arts. Scratch workshops will be developed and run by myself a research assistant in the School of Computing.

The project will engage with young people in the area of Wester Hailes to create and code a series of video games based around the area in which they live. We will work with local primary schools to run in class sessions developing games with Scratch. These games will be installed in School of Computing's bespoke arcade machines. Coinciding with this project, we will be inviting games companies and young software engineers who work in the gaming industry to share their experiences at large-scale events. It is the hope that this will encourage young people to consider a career in the games industry.

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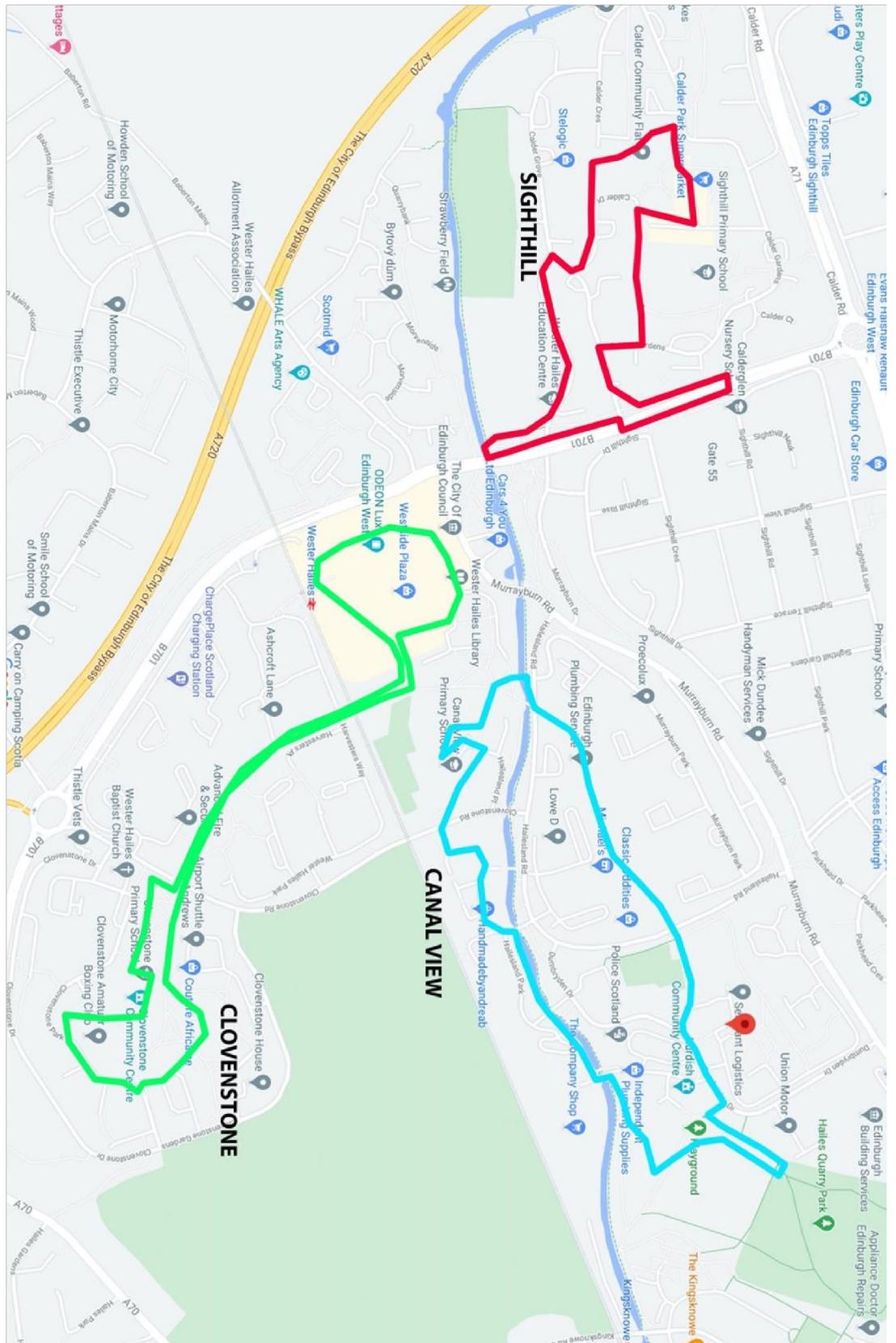
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## APPENDICES

### *Appendix 1: Map of Walking Routes*



Appendix 2: Consent Form

**Edinburgh Napier University Research Consent Form**

**Interactive Map Project**

Dear Madam/Sir,

Your child's class is partaking in the creation of a digital interactive map in collaboration with WHALE Arts and Edinburgh Napier University. Edinburgh Napier University requires that all persons who participate in research studies give their written consent to do so. We are asking that you provide this consent on behalf of the child in your care.

The person responsible for the project from the university is Tanis Grandison who can be contacted via email at: [t.grandison@napier.ac.uk](mailto:t.grandison@napier.ac.uk)

During production of the map, it is our intent to record the children's creative process through the use of still and video cameras and audio recorders. We aim to interview some of the children. Any data we gather will be stored securely and will not be made available beyond our research team. We hope to publish results in international conferences and journals. Any published material will take steps to disguise the identity of any participants.

If you would like the opportunity to ask any questions or express any reservations you have regarding the project, please email Tanis Grandison. Alternatively, Tanis Grandison will be at school at the end of the school day on Thursday 10<sup>th</sup> of January to answer any questions you may have.

Please read the following and sign it if you agree with what it says.

1. I freely and voluntarily consent for (please insert child's name)

\_\_\_\_\_ to be a participant in the research project on the topic of using creative technology to understand people's feeling toward their area conducted by Tom Flint who is a staff member at Edinburgh Napier University.

2. The broad goal of this research study is to explore how creative technology can help people express their feelings about the world around them. Specifically, the child I am responsible for has been asked to undertake a series of exercises that will result in the production of an interactive digital map over the course of a number of school sessions.
3. I have been told that my child's responses will be anonymised. My child's name will not be linked with the research materials, and s/he will not be identified or identifiable in any report subsequently produced by the researcher.
4. I also understand that if at any time during the sessions I feel my child is unable or unwilling to continue, I am free to withdraw my child from the study. That is, my child's participation in this study is completely voluntary, and I may withdraw her/him from it without negative consequences. However, after data has been anonymised or after publication of results it will not be possible for any data to be removed as it would be untraceable at this point.

5. In addition, should I not wish my child to answer any particular question or questions, I am free to decline.

6. I have been given the opportunity to ask questions regarding the procedure and my questions have been answered to my satisfaction.

7. I have read and understand the above and consent to participate in this study. My signature is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

\_\_\_\_\_  
Child's name

\_\_\_\_\_  
Parent/ Guardian's Signature

\_\_\_\_\_  
Date

I have explained and defined in detail the research procedure in which the respondent has consented to participate. Furthermore, I will retain one copy of the informed consent form for my records.

\_\_\_\_\_  
Researcher's Signature

\_\_\_\_\_  
Date

**Edinburgh Napier University Research Assent Form Clovenstone Interactive Map Project.**

**What's going on?**

In collaboration with Whale Arts we're asking you to make an interactive map.

**Who are you?**

My name is Tanis (Tanis Grandison), I am a PhD student at Edinburgh Napier University.

**What's this letter for?**

I am hoping to do some research activity. Your parents/carers have been asked for permission, but I need to make sure that you are happy taking part. This means being recorded on audio and video.

**What's the research?**

I am interested in how we can use digital technology to express ourselves, particularly about the places we live. The research will involve you recording each other, exploring and making maps. You will also be using some new technology.

**What happens to the recordings?**

Only my team and I will see them, we will publish some results but will make sure no one can recognise you.

**What if I don't want to do this?**

No problem. We will have an alternative activity for you to engage with.

You are free to ask any questions or express any reservations you have regarding this project.

Please read the following and sign it if you agree with what it says.

1. I (please insert your name) \_\_\_\_\_ agree to be a participant in this research project.
2. I know I am making an interactive map.
3. I know that if things are published, I won't be recognised.
4. I know that I can ask to stop taking part at any time with no problem
5. I know I don't have to answer any questions if I don't want to.
6. I have been given the opportunity to ask questions and feel comfortable with taking part in the project.

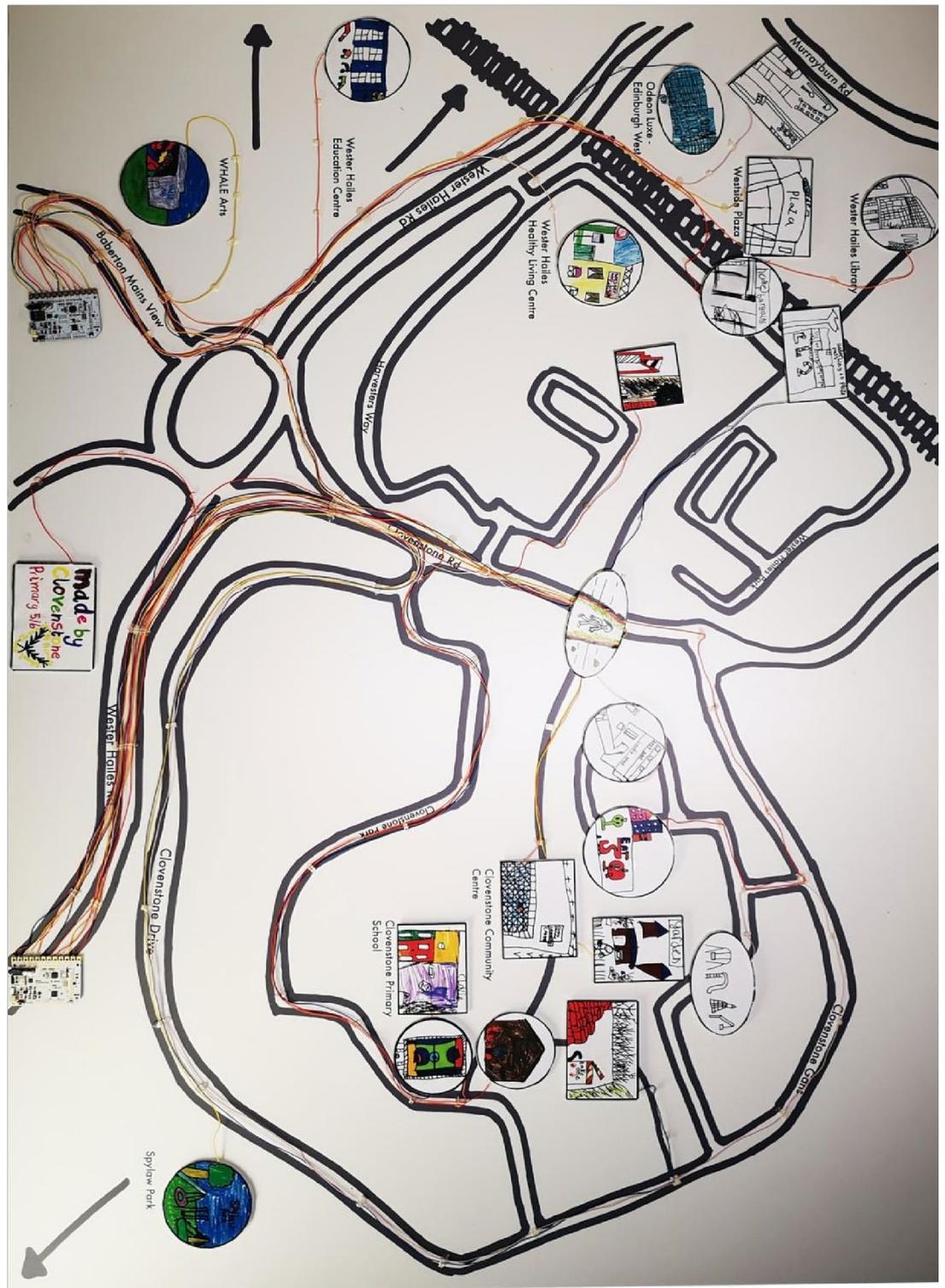
\_\_\_\_\_  
Your name

\_\_\_\_\_  
Researcher's Signature

\_\_\_\_\_  
Date

Appendix 4: Final Digi-Maps

Clovenstone

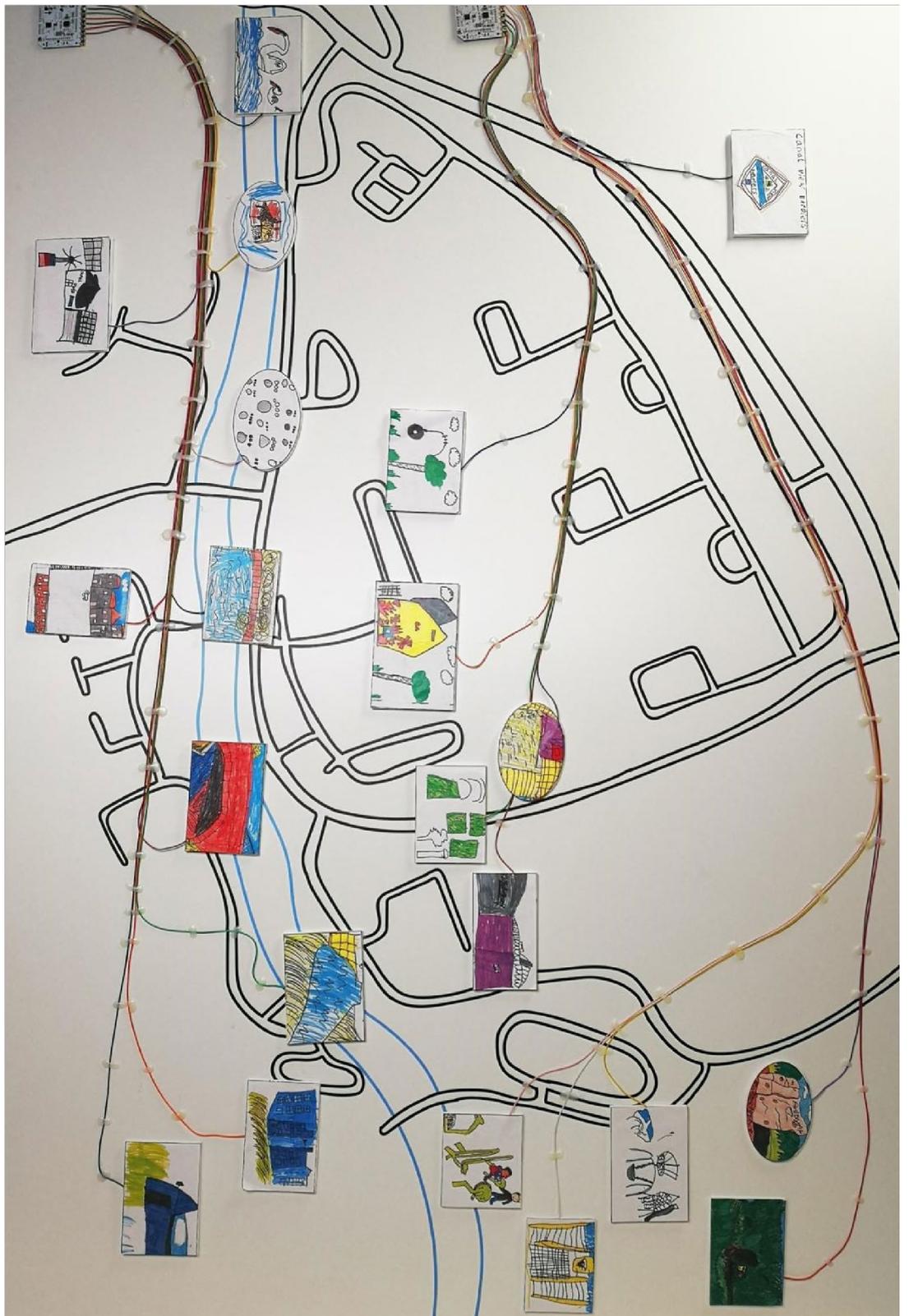


Sighthill



Canal View





Appendix 5: Feedback Form

<b>CLOVENSTONE DIGIMAP PROJECT EVALUATION</b>		
<b>ABOUT YOU</b>	Today's Date:	Gender:
Age:	Year:	School:
<b>DESCRIBE YOUR FEELINGS ABOUT THIS PROJECT</b>		
Circle the ones that apply to you		
<b>FUN</b>	<b>VALUABLE</b>	<b>CREATIVE</b>
<b>DONE IT BEFORE</b>	<b>WANT TO DO MORE</b>	<b>HARD WORK</b>
<b>NEVER AGAIN</b>	<b>USELESS</b>	<b>WORKED ALONE</b>
<b>GAVE ME NEW IDEAS</b>	<b>CHALLENGING</b>	<b>EXCITING</b>
		<b>EASY</b>
		<b>WORKED AS A GROUP</b>
		<b>BORING</b>
		Add an extra word of your own in this space if you want to
<b>BEST &amp; WORST</b>		
<b>WHAT I ENJOYED MOST:</b>	<b>WHAT I ENJOYED LEAST:</b>	
<b>WHY?:</b>	<b>WHY?:</b>	
<b>ROOM FOR IMPROVEMENT?</b>		
<b>IS THERE ANYTHING YOU THINK COULD WE DO BETTER?</b>		
<b>IS THERE ANYTHING YOU THINK WE SHOULD DO THAT WE DIDN'T?</b>		
<b>ANY OTHER COMMENTS?</b>		
Continue on the back if you need more space		
<b>WOULD YOU DO THIS AGAIN?</b>		<b>THANK YOU!</b>
YES 	NO 	
	DON'T KNOW 	 

Based on the Youth Scotland evaluation toolkit

Edinburgh Napier University

Appendix 6: WHALE Arts Report

These are excerpts that mention the Digi-Mapping Project in the end of year report for

The Big Lottery Fund.

**Digi-mapping in Clovenstone:** In Clovenstone we responded to and worked alongside a community consultation process being led by Clovenstone Community Centre and Clovenstone Primary School to re-design their community campus. In partnership with Edinburgh Napier University we delivered a 6 week project with Clovenstone Primary School where the children designed their own interactive community map, highlighting areas that were important to them. They learnt how to use touchboard technology to programme the map to play recordings of sounds and stories they had made all about their environment. Ideas from the map fed back into the community consultation and we will be working with this community next year to design a ‘Welcome to Clovenstone’ piece of community art. Follow [this link](#) for a short taster of how the map works.

**Digi-mapping in Clovenstone:** As part of the digi-mapping project with Edinburgh Napier University pupils ran their own stall at Edinburgh International Science Festival’s Edinburgh Mini Maker Faire teaching visitors how to use the touchboard technology they had learnt to create an interactive map of Scotland. The children took complete ownership over their project with one electing to stay on the stall all day telling

visitors all about the map they had created of their local community. They learnt how to use innovative technology to teach people about their local environment.

**Case study 2 (H):** The creative placemaker first met H and her family when running taster arts session as part of the Clovenstone Community Centre after school club. She then formed a good relationship with the oldest child through running the Digi-mapping project with his class. He attended WHALE arts for the first time through the project, despite living 5 minutes away. The whole family attended the Tinker Town den building summer school for the whole week. During which H disclosed to the Creative Placemaker issues she has with mental health that prevents her getting out to things with the children, and causes anxiety over trying new things. On the back of the Tinker Town she brought the family to WHALE for the first time to the Picnic and Play event. After our discussion H was gifted some free tickets to the Edinburgh Festival Fringe that WHALE arts had been given to distribute to families. She took her three children independently to see a festival show in the city centre that summer.

*'The boys had a fantastic time...A was that excited he couldn't sit still...thank you ever so much again'* (H, participant in multiple creative placemaking activities)

It was by developing a relationship and trust with the Creative Placemaker that H felt supported to access different creative opportunities for her and her family.

*Appendix 7: Publications Associated with this thesis*

As requested by Edinburgh Napier University, the thesis must include a reference to publications associated with the thesis and the published material must be included with the submitted thesis. Two publications are included below. The remaining materials were either demonstrations of the final Digi-Maps at conferences or presentations at conferences that did not include a paper publication.

**Flint, T., Grandison, T., and Barrett-Duncan, H., (2018), Psychogeography with technology. In Proceedings of the 32nd International BCS Human Computer Interaction Conference (HCI '18). 187, 1–2.**

# Psychogeography With Technology

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*Psychogeography, Co-Creation, Physical Computing, Play*

## 1. BIOGRAPHIES

Tom Flint is a lecturer at Edinburgh Napier University. Tom's research revolves around interpretation of the arts and the communication of heritage through digital media. His practice is in creative technology and he has a history of building and exhibiting bespoke electronic devices and experiences.

Tanis Grandison is a PhD student at Edinburgh Napier University. Tanis' research seeks to understand how folklore and digital media can be used as a toolkit to unpack the meaning of place when situated within a Critical Heritage Framework.

Helena Barrett-Duncan is Creative Placemaker WHALE Arts. Helena works with residents Wester Hailes to develop and deliver a program of regular creative activities, one-off events, a participatory public art installations that respond local assets and aspirations.

## 2. OVERVIEW OF THE WORK

This submission is a co-created map of Wes Hailes which draws from methods psychogeography. The map is touch sensitive. Touching pictures on the map triggers bespoke audio clips recorded by our co-creators. This map was created with local primary school children.



Figure 1 Completed Map

© Flint et al. Published by  
BCS Learning and Development Ltd.  
Proceedings of British HCI 2018. Belfast, UK.

The project was conducted in collaboration with WHALE ARTS, a community led arts agency and charity. Wester Hailes is an area of Edinburgh situated approximately five miles west of the city centre. The area is a 1960s brutalist housing scheme built on ex-farmland. Wester Hailes is according to the SIMD (2016) one of the most deprived areas in Scotland.

The technology behind the map is two Bare Conductive Touch Boards. The touch boards use capacitive sensors to trigger sound files stored on a micro SD card. Touch boards have embedded sound circuitry enabling them to play the sounds stored on the memory cards through an attached speaker.

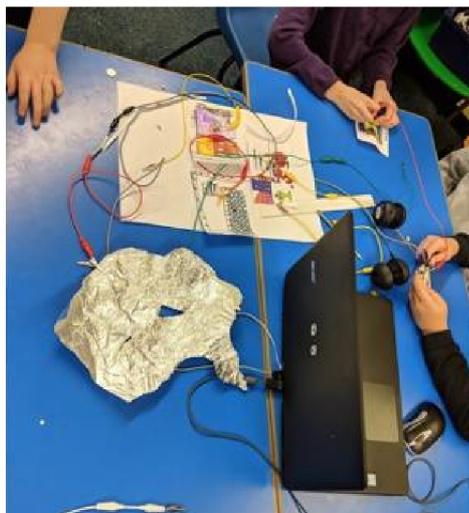


Figure 2 In-Class Playful Technology Session

The map was developed over a series of sessions exploring the notion of Psychogeography within class. Debord (1955) defined psychogeography as "the study of the precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behaviour of individuals."

The sessions ran over six weeks in a local primary school with a P5/6 class ranging in age of between 8 and 10. Informed consent was given by a responsible adult for all children. All children gave assent to take part in the sessions apart from one child who negotiated participation without being recorded.

The sessions began with discussions of the children's experience of walking to school and the important land marks in their area. We then accompanied the children on a walk (derivé) around their local area with recording devices. The children were encouraged to use the recording

devices to reminisce and record stories and sou of their area.

The recordings were edited into snippets presented back to the children. Working in gr the children selected sounds and created image accompany them. These were developed thrc playful in-class technology sessions.

The team worked with the children to constr final prototype of the map which was developed into a finished piece for exhibition.

As well as several local events, the map has t shown at Edinburgh Mini Maker Faire 2018. children accompanied the map, delive demonstrations throughout the day. Alongside map display the children ran a live work constructing an interactive map of Scotland.



Figure 3 Live workshop at Edinburgh Mini Maker Fa

This investigation is the first in a series technology interventions exploring themes of p and cultural heritage within Wester Hailes.

Evaluation has resulted in spontaneous wr comments from participants including:

- "made me want to learn science."
- "hard but easy"
- "imaginative"
- "extrordnery [sic] fun"
- "Phenomanal [sic] and Brilliant"

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Meaning of Place Through Digital Storytelling. *Interactive Storytelling*,  
652-656. [https://doi.org/10.1007/978-3-030-04028-4\\_78](https://doi.org/10.1007/978-3-030-04028-4_78)**

# Folklore and Digital Media: Unpacking the Meaning of Place Through Digital Storytelling

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**Abstract.** This research investigates how digital folklore and digital media can be used as a method to unpack the meaning of place and to discover personal geographies of place. The research focuses on Wester Hailes, a deprived area to the West of Edinburgh. This research combines a critical heritage approach with psychogeography to elicit folklore from Wester Hailes school children. The paper argues that this inter-disciplinary approach affords children with competencies to create their own stories through physical computing and digital storytelling techniques.

**Keywords:** Psychogeography · Physical computing · Co-creation  
Digital media · Critical heritage

## 1 Introduction and Background

### 1.1 Wester Hailes

Deemed as one of the most deprived areas of Scotland [1], Wester Hailes lies approximately 5.5 miles West of Edinburgh city-center. The area's reputation and folklore consistently revolve around the themes of crime, poverty, drug abuse and undesirable individuals [2]. The studies undertaken in this research are in collaboration with a local arts organization WHALE Arts, established in the area for over 25 years. WHALE Arts have recently recruited a new role, that of Creative Placemaker, a position that has been agreed for three years. The Creative Placemaker aims to develop digital technology as a key method in the Placemaking process. Reflecting on recent research with school children from the area, this research investigates how digital media and folklore can be used as a method for unpacking individual place-based meanings.

The research explores the ways in which the creation of digital folklore through participatory mapping exercises can lead to communities of practice [3]. Research suggests that collective emotion is fostered through a shared interest in both the medium and the stories involved in the co-creation of place [4].

## 1.2 Digital Folklore and Digital Media

Folklore consists of two main components. The Folk; defined as two or more people with a commonality. Lore, delineated into four broad categories of Things we (i) Say (ii) Do, (iii) Make and (iv) Believe [5]. For something to be folklore it needs to be 'traditional'. In this context, this means that it needs to be passed on through time in some way, by methods such as sharing on social media [5]. In this way, we can understand folklore as *flow* rather than content; this emphasis allows for an understanding of how flow might be transposed onto digital media. In the context of digital media, the flow of folklore is key because it affords individuals methods of appropriating place-based narratives in ways that are meaningful to them; thereby making folklore a "living category" [6]. This livedness is demonstrated through modifications and repetitions of folk group [6].

## 1.3 Critical Heritage

Critical Heritage occupies a counter-position in relation to mainstream heritage and the tourism industry with which it is associated [7]. Critical Heritage can be understood as oppositional to Authorised Heritage Discourse (AHD) which constructs categories of value, systems of protection and cultural identity. AHD is also associated with an educational imperative whether through heritage sites, museums or digital resources. As the dominant heritage discourse in society AHD often leads to an authoritative singular 'expert' voice which can exclude narratives that do not align with wider issues of national identity and cultural institutions. AHD necessarily excludes more complex narratives that belong to minority groups whose histories are not formally recognised through funding or institutional systems [7]. Winter [8], argues that the critical element of Critical Heritage should go further to address social issues. He argues that we need to recognise the impact heritage can have on issues such as the socio-political environment.

Digital media has created a shift from audiences as observers to creators and producers [9]. This shift is significant in the production and consumption of heritage. Gürel's [10] examination of Xerox folklore proposed that digital technology is no longer the medium used solely to consume folklore, instead it can also be used as a tool to produce new folklore. Using digital media to share their collective stories through interactive drawings on a co-created map, participants were able to articulate a counter-heritage.

The evolving use of digital media within Critical Heritage affords numerous opportunities for exploring narratives, spaces and identity in a variety of ways. Collaborative Methods such as the co-creative mapping workshops undertaken as part of this study afforded participants a platform to reveal the significance of local places. These methods facilitate a more plural approach to the identity of place wherein a polyvocal narrative of place opens up multiple identities and interactions [11]. Modern practice employing Digital Media "do not obscure but bring to the fore the character of place as the very matrix out of which human significance and meaning arise" [12].

### 1.4 Gap in Knowledge

Critical Heritage has previously been informed by digital media, most notably The Center for Digital Storytelling [13]. However, there are opportunities to further understand the process of Critical Heritage, digital storytelling and meaningful geographies as a collaborative approach with community organisations and not as a means of eliciting creative storytelling.

## 2 Digi-Mapping Pilot Study

The Digi-Mapping project is a participatory design project that initially took place over six weeks in collaboration with Clovenstone Primary School, WHALE Arts and Dr. Tom Flint. The project uses mapping to elicit memories, feelings and stories (folklore) about the local area. This project is the first in a series of three similar projects being conducted with primary school children in Wester Hailes. Using various media such as audio recording, photography, drawing and storytelling. This project is in partnership with primary school children collaboratively creating a large interactive map using Bare Conductive ‘Touch Boards’ to tell their stories. The ‘Touch Boards’ have capacitive touch sensors that enable sound files to be triggered that are stored on a micro SD card. The ‘Touch boards embedded circuitry lets participants play these sounds stored on the micro SD card using an attached speaker.

Part of this project took place outdoors in the form of a derive, a method of spatial enquiry rooted in psychogeography [14], which can broadly be defined as “the study of the precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behavior of individuals” [14].

Using this method, the children recorded stories of importance to them, feelings and memories of places they had identified as meaningful (Fig. 1).

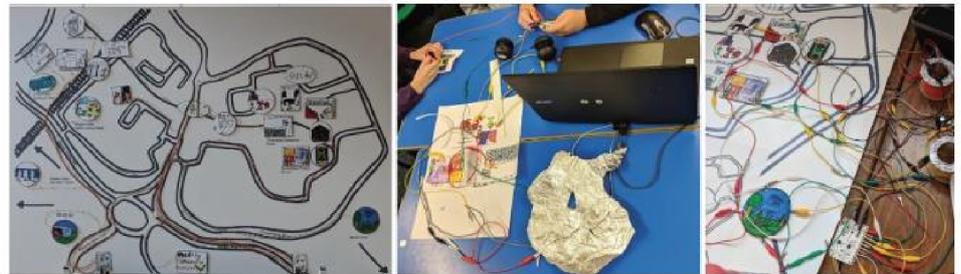


Fig. 1. Final map and development in workshops

### 2.1 Findings

From the first pilot study several observations have emerged, helping to shape the final empirical research approach.

Firstly, the workshop itself; (i) Children were engaged with digital media and c learn it in a relatively short period of time which is shaping the timeframe of t workshops. (ii) After demonstrating the ‘Touch Boards’ and conductive materia creative enquiry quickly began with some of the pupils. They began testing as ma metallic materials as they could find to see if they could be an audio trigger for th stories. Examples of this included paper clips, staples and even the zip on a jacket we tested for interactivity. (iii) Having conversations and encouraging participants to creative with their storytelling helps the research to consider other creative methods storytelling through folklore.

Secondly, some of the children that co-created the map were invited to demonstr what they had learned at Edinburgh Mini Maker Faire 2018. It is unlikely that childr from Wester Hailes would venture into the city to see the Mini Maker Faire, let alo take part. They were given a large map of Scotland and various sounds with the aim demonstrating how to create interactive touch sounds. With very little support th took charge of their exhibit and were enthusiastic in helping others. In a short period time, the children became confident computing demonstrators.

Lastly, from the evaluation of the workshop, children commented on how th found the experience; comments such as “made me want to learn science”, “imag native”, “Phenomanal [sic] and Brilliant” and “extrordnery [sic] fun”, and “hard t easy” showed that children engaged and enjoyed the workshop’s and that the wor shop’s design appropriate, fun and learning is suited to the age range.

### 3 Next Steps

The next stages for this research project is to carry out the Digi-Mapping project another two primary schools in the local area. From these studies, themes of meani can begin to be identified of community attitudes to meaningful places.

Building on the workshop structure from the Digi-Mapping project and usi similar methods, the next series of workshops will focus on memories, stories a feelings about the local community-built huts which were important places to t community in Wester Hails. Children will be tasked with finding out about these ht and imagining what they would be like today and in the future. They are to tell th stories using Augmented Reality authoring software and placing their stories onto o of the remaining huts in the local area. The cumulation of this research aims to propc a method and for unpacking meaning of places by using folklore, psychogeography a sharing stories through digital media tools.

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