



**Participatory Mapping in North West Ireland:
Key Observations and Takeaways**

Working Paper 3

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Re-inventory-ing Heritage: Exploring the potential of public participation GIS to capture heritage values and dissonance (REINVENT)*

REINVENT is a two-year EU-funded research project which addresses the challenges pertaining to the management of cultural heritage in contested cross-border contexts in Europe, with a focus on the cross-border cultural landscape of Derry~Londonderry.

The project engages with participatory practices in cultural heritage management and the application of Geographical Information Systems (GIS) to mapping heritage on a cross-border basis on the island of Ireland. More specifically, a public participation GIS (PPGIS) methodology and tool will be developed to capture a plurality of heritage values ascribed by a range of communities at multiple spatial scales in the region.

It is argued that mediating between the competing uses of heritage is ultimately founded on identifying value conflicts and ‘dissonance’ to manage any contestation over time. Developing strategies to address these challenges in local contexts can greatly assist spatial planning and cultural heritage management policymakers/practitioners.

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ABBREVIATIONS AND ACRONYMS

AIRO	All-Island Research Observatory
ELC	European Landscape Convention
GIS	Geographical Information Systems
GPS	Global Positioning System
NIRSA	National Institute for Regional and Spatial Analysis
PPGIS	Public Participation Geographical Information Systems
REINVENT	Re-inventory-ing Heritage
MSCA	Marie Skłodowska-Curie Actions

1.0 SUMMARY OF KEY OBSERVATIONS AND TAKEAWAYS

1.1 ONLINE PARTICIPATORY MAPPING:

Key benefits:

- Capacity to reach a large and diverse audience
- Ability to transcend administrative boundaries and scales
- Supporting better informed, more robust and sustainable decision-making
- Integrating, overlaying and visualising expert-driven and socially generated datasets
- Applicability to diverse public policy issues

Key limitations:

- 'Digital divide' impacting participation rates and data quality
- Limited adoption by policymakers and government agencies

Observations and takeaways following #MyValuedPlaces case:

- Reaffirms the method as a rich source of social and place-based data
- Indicates appetite for use of online participatory mapping in future consultations
- Underlines the continued importance of face-to-face engagement
- Emphasises need to embed use of the method within 'real-world' processes
- Demonstrates potential to develop compelling visualisations and narratives

1.2 WALKING INTERVIEWS

Key benefits:

- Richer and more nuanced insights about places
- Enabling two-way conversation and 'co-construction of knowledge'
- Applicability to diverse public policy issues
- Associating meanings, words and actions with locations using GPS
- Creating more sympathetic and authentic regeneration schemes

Key limitations:

- Complicating, exclusionary and restricting contextual factors
- Ethical and safety considerations necessarily permeate the process

Observations and takeaways following Ebrington Sense of Place case:

- Underlines adaptability of the method to a myriad of public policy and place-making processes
- Confirms utility of walking interviews to exploring social values and peoples' complex interactions with historic places
- Suggests potential to combine walking interviews with other participatory approaches
- Emphasises the contextual challenges of undertaking external interviewing processes
- Indicates the range of qualitative research skills required in successfully employing the method

2.0 INTRODUCTION

Public participation is a fundamental concern of numerous international, national and local charters, conventions and policy frameworks pertaining to the management of cultural heritage and landscape. For instance, the European Landscape Convention (ELC) explicitly talks about the importance of participation at all stages of the process of protecting landscapes, with its definition of landscape as an area ‘as perceived by people’ clearly emphasising the centrality of peoples’ perceptual values. However, the need for official heritage agencies, policymakers and practitioners to improve their collective approaches to public participation features prominently in the academic literature. Indeed, for Emerick (2017), how practitioners engage with people, think about, and see; historic places are areas of conservation practice demanding change for it to become more meaningful and sustainable. Moreover, the importance of developing new qualitative methodologies to involve the public, particularly in the integration of social values within assessments of heritage significance, is emphasised by others including Jones (2017). That landscape character assessments continue to ignore the ‘relationships and practices which underpin the landscape’, and, according to Butler (2016, p.249), effectively represent ‘work by planners for planners’, is perhaps indicative of multiple critiques of the predominant expert-based systems and processes.

This Working Paper distils some of the emerging learning from the REINVENT Project, with an emphasis on two recently completed cases in North West Ireland, both of which employed alternative public participatory mapping approaches to the valorisation of cultural heritage, including on a cross-border basis (see Figure 1). The cases contrast in several important ways. Firstly, they represent two distinct spatial scales, ranging from the regional scale encompassing two local authority areas, to a 26-acre regeneration site in an historic city centre location. Secondly, the ‘type’ of participatory mapping involved contrasts greatly between the two cases. On the one hand, #MyValuedPlaces entailed a ‘conventional’ public participation GIS (GIS) exercise, completed anonymously online by participants, where the principal tasks required interaction with the online mapping interface using the zoom and other functions.¹ On the other hand, Ebrington Sense of Place required face-to-face contact between the researcher and individual participants while ‘in place’, with the mapping component essentially occurring passively via the GPS tracking of the walking interview route taken through the study area.

¹ Note that the term online participatory mapping is preferred in the remainder of this paper rather than PPGIS.

Figure 1: Completed REINVENT Project cases in North West Ireland

	CASE	
ATTRIBUTES	#MyValuedPlaces	Ebrington Sense of Place
Scale	Regional / landscape	Local historic area
Geographic focus	Derry City & Strabane District and Donegal County Council areas	Former Ebrington Barracks site in Derry~Londonderry
Method	Online participatory mapping	GPS tracked walking interviews

However, several important similarities in the methods pursued in the REINVENT Project cases are also apparent. For instance, they represent relatively novel means of engaging the public in respect of cultural heritage and landscape, although their use has undoubtedly been growing in popularity in the last decade. Furthermore, both approaches emerge from particular understandings of place, recognising the experiential, relational and subjective dimensions of how people perceive and value their physical surroundings, embracing their tangible and intangible attributes, and acknowledging the inherently dynamic nature of heritage values. Hence, given that values are multiple and diverse, subject to change over time, they reflect and sometimes give rise to ‘value conflicts’ and dissonance, further underlining the importance of developing methods that can capture the multiple ways in which cultural heritage is valued. Finally, the data collated through both methods can be integrated, mapped and overlain with other datasets within GIS for visualisation and analysis purposes.

This Working Paper is structured into two principal sections focused on the cases undertaken in North West Ireland, beginning with online participatory mapping and #MyValuedPlaces. Key observations and takeaways concerning the future use of the methods are also elaborated at the end of each section. However, the paper is partial rather than comprehensive, and much analysis remains to be done, including drawing out firmer policy-praxis recommendations.

Further, visual, map-based, interactive and data-driven resources pertaining to the cases in North West Ireland are available online through the REINVENT Project website (<http://reinvent.maynoothuniversity.ie>).

In addition, data collated through the cases is mapped online in the REINVENT Project Mapping Viewer on the website of the All-Island Research Observatory (AIRO), which is layered with several dozen heritage and other official datasets and accessible through this web link: <http://airomaps.nuim.ie/id/REINVENT>

3.0 ONLINE PARTICIPATORY MAPPING

Terms such as ‘citizen science’ and ‘crowdsourcing’ are in popular use and denote the burgeoning public interest in using digital technologies to address real-world problems. Policymakers and heritage agencies are also paying increasing attention to the merits of online participating mapping as a method, particularly given continued technological advances, evolving public expectations of more sophisticated consultation processes, and emerging opportunities for more frequent participation in decision-making. The ‘spatial information’ collated through such online participatory methods ideally augments ‘expert’ produced datasets, while permeating and shaping official decision-making processes (Brown, Kelly, and Whittall, 2014). However, realising such participatory aspirations has proven problematic in practice, and recent studies have sought to address methodological challenges to meaningfully involving the public in official expert-driven exercises such as landscape character assessments (Santé *et al.*, 2018).

This section reiterates the principal benefits and challenges of online participatory mapping, referencing examples pertaining to the valorisation of landscape and place. The #MyValuedPlaces case in North West Ireland informs the key observations and takeaways elaborated at the end.

3.1 BENEFITS OF ONLINE PARTICIPATORY MAPPING

The multiple benefits of online participatory mapping attributed in the scholarly and practitioner-based literature include:

- Capacity to reach a large and diverse audience, including individuals and groups often underrepresented in traditional face-to-face participation processes, such as young people or those that find it difficult to attend public meetings (Kahila-Tani *et al.*, 2016).
- Ability to transcend administrative boundaries and scales, thereby facilitating a host of management, consultation and other decision-making processes relating to environmental and cultural heritage assets in multi-scalar and cross-border contexts (Brown and Brabyn, 2012).
- Supporting better informed, more robust and sustainable decision-making, particularly in informing decision makers of potentially competing priorities and public aspirations over the use and management of land and other resources (Strickland-Munro *et al.*, 2016).

- Integrating, overlaying and visualising expert-driven and socially generated datasets, thus helping identify 'blind spots' and previously unknown or overlooked issues and places, and assisting in the monitoring of environmental and other changes in place values over time (Brown and Weber, 2012).
- Applicability to diverse public policy issues, whether concerning the integration of local knowledge into landscape characterisation (Santé *et al.*, 2018), informing the management of marine protected areas (Strickland-Munro *et al.*, 2016), or facilitating the collation of place-based memories (Kahila-Tani *et al.*, 2018).

3.2 LIMITATIONS OF ONLINE PARTICIPATORY MAPPING

However, several major limitations of online participatory mapping include:

- 'Digital divide' impacting participation rates and data quality, whether due to poor broadband infrastructure in rural areas, limited access to computer hardware & software for socio-economic reasons, and digital skills gaps, for example, between older & younger people (Rinner and Bird, 2009; Huck *et al.*, 2014).
- Limited adoption by policymakers and government agencies, partly due to concerns over the perceived quality of geospatial data emanating from the public, as well as the lack of empirical evidence about the utility of the method as a participatory and decision support tool (Brown, 2015, 2017).

3.3 CASE FOCUS IN NORTH WEST IRELAND: #MYVALUEDPLACES

This section provides an overview of #MyValuedPlaces and some of the data emerging from the participant mapping tasks in particular.

However, the *Key Data Summary* report sets out a detailed analysis of the data collated through the survey, and can be found at the following link: <http://reinvent.maynoothuniversity.ie/wp-content/uploads/2018/08/MyValuedPlaces-Key-Data-Summary-report.pdf>.

The *Place(ing) perceptions in North West Ireland* story map also provides a highly illustrated and interactive overview of #MyValuedPlaces, and is accessible via this link: <https://arcg.is/XTOGO>.

3.3.1 Survey overview

#MyValuedPlaces was an online map-based public survey of special places focused on the Derry City & Strabane District and Donegal County Council areas in North West Ireland.

The survey launched 19 August 2017 via a Twitter talk during Ireland's National Heritage Week programme of events, and concluded after an 8-week period on 15 October.

The principal (and broad) aims of the survey were to test the application of online participatory mapping in this cross-border region and derive insights to inform policymakers and practitioners on applying such methods in the future.

Central to the survey was the identification of the places that participants positively perceive in the study area on a web-mapping interface, those they negatively perceive, and those most strongly identified with. Socio-economic and feedback questions were also included – see Figure 2 for the key stages of the survey process.

The Maptionnaire digital mapping tool was utilised, with the survey designed for completion by individuals anonymously at home, place of employment or elsewhere with an internet access. The survey remains available to view online at this link: <https://app.maptionnaire.com/en/2870>.

#MyValuedPlaces was mainly promoted through social media channels (Twitter and Facebook), with some face-to-face engagement undertaken at several events, in addition to information emails about the survey sent directly by both local councils.

Figure 2: Key stages of the #MyValuedPlaces survey process



3.3.2 Key statistics

Over 600 visits were made to the #MyValuedPlaces survey web link, 348 of which proceeded past the consent page, and 123 of which fully completed the socio-economic and feedback questions – see Figure 3.

However, 49 of the 123 respondents who fully completed the socio-economic survey did not identify any place-mapped data points. In contrast, another 41 respondents from the 348 who proceed past the consent stage, but did not complete the socio-economic survey, did identify place-mapped data points. The figures used below include mapped data from the latter group.

Figure 3: #MyValuedPlaces survey completion rates



551 place-mapped data points were recorded across the three mapping tasks, 441 of which relate to positively perceived places.

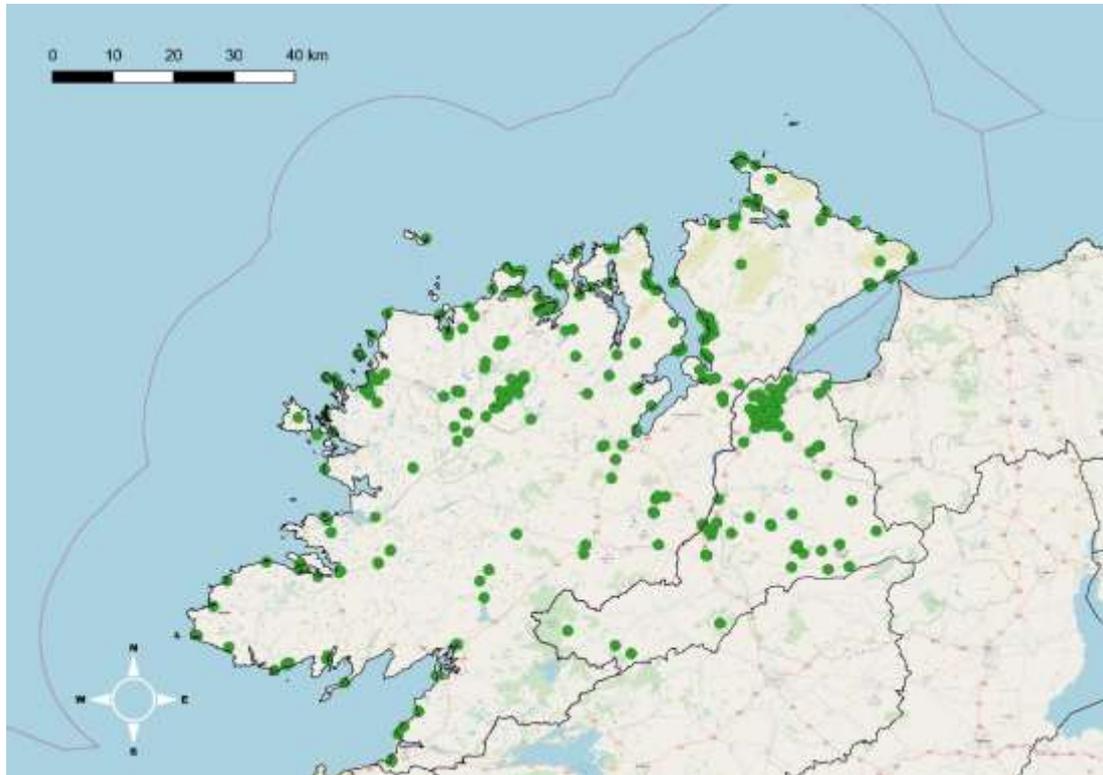
Respondents identified many fewer negatively perceived places, in addition to those places that they most identified with, representing 53 and 57 place-mapped data points respectively.

A further 19 place-mapped data points were stripped out for analysis and mapping purposes, predominantly because they identified places outside of the study area.

Positively perceived places identified by participants, as can be seen in Figure 4, are distributed throughout the study area, particularly along the Donegal coast and within key urban centres such as Derry~Londonderry.

Well-known, publically-accessible places such as Glenveagh National Park in County Donegal and St. Columb's Park in Derry~Londonderry, are particularly valued in terms of the number of the frequency of their identification by participants.

Figure 4: Distribution of positively perceived places (green dots)



Aesthetic was the most frequently selected value statement concerning the positively perceived places, followed by recreational and therapeutic values, while life sustaining and spiritual values were the least frequently identified – see Figure 5.

A qualitative statement elaborating upon why participants value places in the ways identified accompanied 243 of the positively perceived place-mapped data points, representing a rich source of qualitative information.

Clusters of negatively perceived places are particularly evident in relation to the largest urban centres in the study area, including Derry~Londonderry, Letterkenny and Strabane – see Figure 6.

Although the selection of value statements did not accompany the negatively perceived places, a qualitative statement elaborating on their identification, whether concerning perceptions of urban sprawl and the dominance of road infrastructure, accompanied most.

Figure 5: Frequency of positive place value statements identified by participants

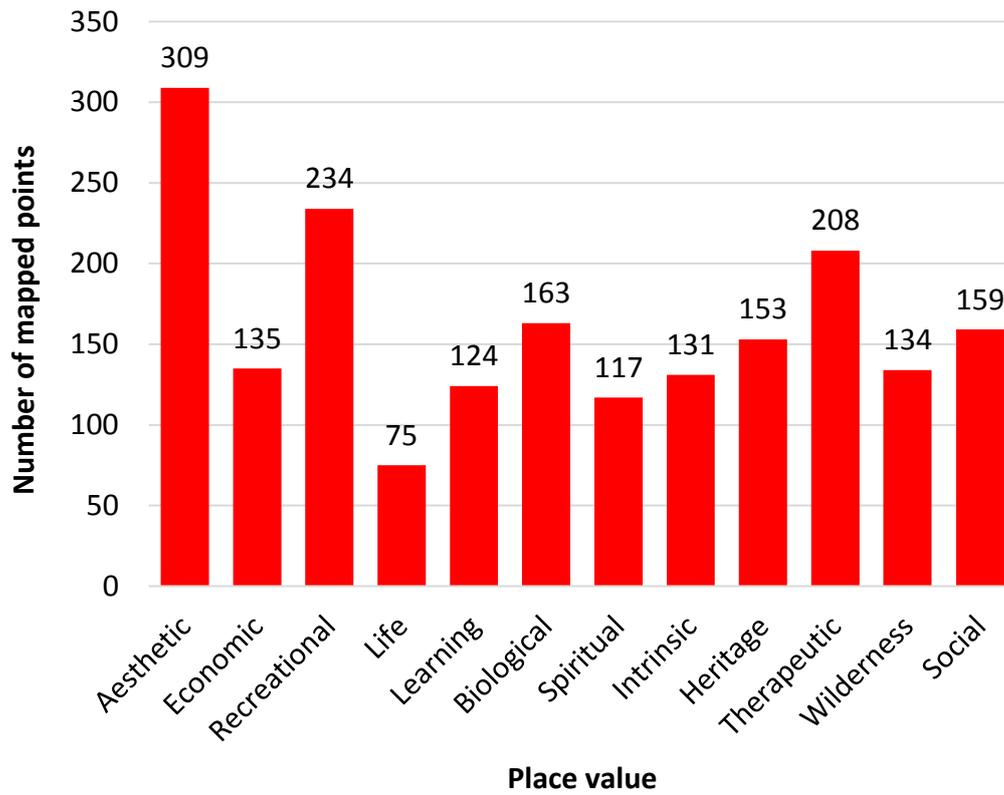
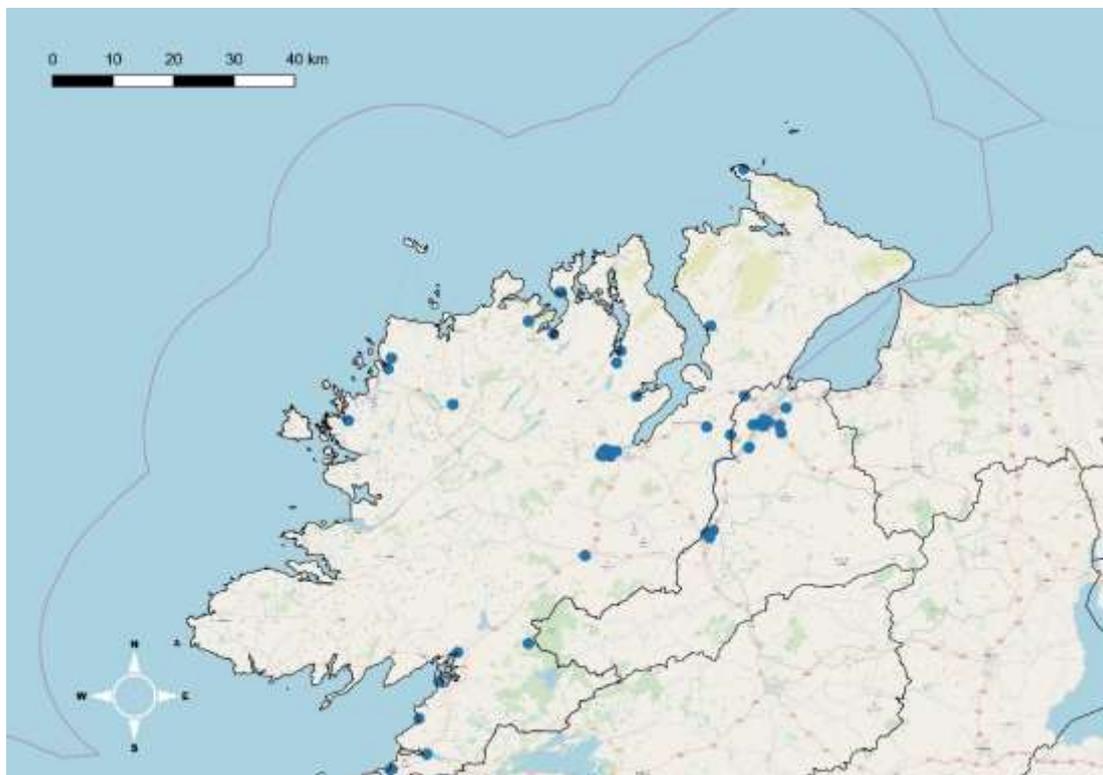


Figure 6: Distribution of negatively perceived places (blue dots)



3.3.3 Key observations and takeaways

Key observations and takeaways emerging from the #MyValuedPlaces case include the following points:

- Reaffirms the method as a rich source of social and place-based data, particularly useful at simultaneously capturing qualitative and quantitative information of significant value to policymakers and practitioners, while demanding analytical skills, breadth of knowledge and considerable time to comprehensively sift and analyse the amount of data collected.
- Indicates appetite for use of online participatory mapping in future consultations, reflected both in the generous responses to the survey mapping tasks, and the positive feedback left by #MyValuedPlaces participants as discussed in the *Key Data Summary* report, but could be further enhanced through face-to-face engagement and other measures noted below.
- Underlines the continued importance of face-to-face engagement, including combining approaches within a suite of complementary online and offline methods, amongst other things, aimed at increasing participation to ensure a more diverse and representative public, while helping to bridge the digital skills gap through on-the-ground assistance.
- Emphasises need to embed use of the method within 'real-world' processes, whether focused on landscape character assessments or city-wide development plans, exemplars of using the method outside of academic studies remain few, although several have emerged in recent years that merit further consideration (see, for example, Kahila-Tani *et al.* 2016; Santé *et al.*, 2018).
- Demonstrates potential to develop compelling visualisations and narratives, particularly through combining the socially produced data with official datasets through GIS-based mapping viewers and story maps, thereby reaching a wide audience in an interesting and effective/affective way.

4.0 WALKING INTERVIEWS

The walking interview is increasing in use as a participatory method to explore peoples' complex relationships with place. Researchers and practitioners are deploying it to a variety of real-world problems best understood when 'in-place', rather than solely relying on more traditional, sedentary processes such as semi-structured interviews and focus groups typically undertaken inside. Advances in GPS technology ensure that walking routes can be readily mapped, thereby facilitating accurate association of spoken words with locations, and meaning that the walking interview can be characterised as a form of participatory mapping. However, the degree to which such positive characteristics of the method manifest in practice is dependent on multiple factors, not least the interview approach preferred. For instance, variants include the 'go-along', 'participatory interview' and 'bimble', each with their own distinctive characteristics relating to format and focus, in addition to whether they are predominantly researcher or participant led (Kinney, 2017). Another methodological decision demanding prior discussion and agreement with participants, concerns the means of documenting the conversation, ranging from hand-written field notes to audio-visual recording.

This section reiterates the principal benefits and challenges of the walking interview as a participatory method, referencing examples pertaining to cultural heritage and historic places. The key observations and takeaways elaborated at the end are informed by the Ebrington Sense of Place case in Derry~Londonderry.

4.1 BENEFITS OF WALKING INTERVIEWS

The multiple attributed benefits of walking interviews identified in the scholarly and practice-based literature include:

- Richer and more nuanced insights about places, particularly as it is intuitively easier talking about a place when in it, with the act of moving through the environment providing multiple stimuli for discussion, the prompting of memories, and reflections on place-based experiences (Evans and Jones, 2011, p.850).
- Enabling two-way conversation and 'co-construction of knowledge', partly because interviews are typically naturalistic in their set-up, with participants able to 'gain control' of the process, and an 'egalitarian connection' potentially afforded between interviewer and interviewee (Finlay and Bowman, 2017, p.270).

- Applicability to diverse public policy issues, including capturing the social and intangible values of ‘everyday heritage’ (Madgin *et al.*, 2018), exploring sensory relationships with and alternative valorisations of historic places (Yarker, 2017), and investigating the recovering of those suffering from physical disability and ill health (Carpiano, 2009).
- Associating meanings, words and actions with locations using GPS, thereby unlocking ‘the potential of walking interviews for tackling more explicitly spatial issues’ through the mapping of social data (Jones *et al.*, 2008, p.4), in addition to morphological, route and other forms of analysis (Bergeron, Paquette, and Poullaouec-Gonidec, 2014).
- Creating more sympathetic and authentic regeneration schemes, particularly through capturing the affective relationships and complex associations that people develop with places prior to, and undergoing, physical and other change (Jones and Evans, 2012).

4.2 LIMITATIONS OF WALKING INTERVIEWS

However, several major limitations of the walking interview method include:

- Complicating, exclusionary and restricting contextual factors, whether due to mobility issues for some individuals or because not all places are amenable to walking, highly variable weather conditions and restricted daylight hours, as well as fluctuating noise levels in urban areas affecting the quality of audio-visual recording (Kinney, 2017).
- Ethical and safety considerations necessarily permeate the process, partly because some participants may be reluctant being interviewed when moving through public spaces for a variety of reasons, including matters of confidentiality & anonymity (Carpiano, 2009).

4.3 CASE FOCUS IN NORTH WEST IRELAND: EBRINGTON SENSE OF PLACE

This section elaborates an overview of the Ebrington Sense of Place case and emerging insights from the participant interviews.

However, the *Walking the talk through Ebrington Barracks* story map provides a highly illustrated and interactive overview of the case, and is accessible via this link: <https://arcg.is/OnPezP>.

In addition, the walking interview method is explored further in the “Walking the talk through historic places” journal article available to read open access online: <http://ihbconline.co.uk/context/155/34>.

4.3.1 Case overview

The Ebrington Sense of Place case comprised a series of 12 one-on-one walking interviews through the former Ebrington Barracks regeneration site in the Waterside district of Derry~Londonderry – see Figure 6.

Interviews took place, between November 2017 and May 2018, with participants representing three broad groups: (1) heritage and regeneration professionals; (2) local residents, and; (3) several people working or owning businesses on the site.

In common with #MyValuedPlaces, the principal (and broad) aims of the walking interviews were to test their application in this historic place and derive insights to inform policymakers and practitioners on applying such methods elsewhere in the future.

Prospective participants were recruited via direct approaches to government agencies, referrals from civil society organisations, pre-established contacts within the North West, and introductory visits to businesses on the site.

The socio-economic backgrounds of participants varied according to age, gender and religious affiliation, although representativeness was not an overriding concern of the research. More generally, the participants have diverse memories and experiences of the site and each coming into contact with it in distinctive ways in the present.

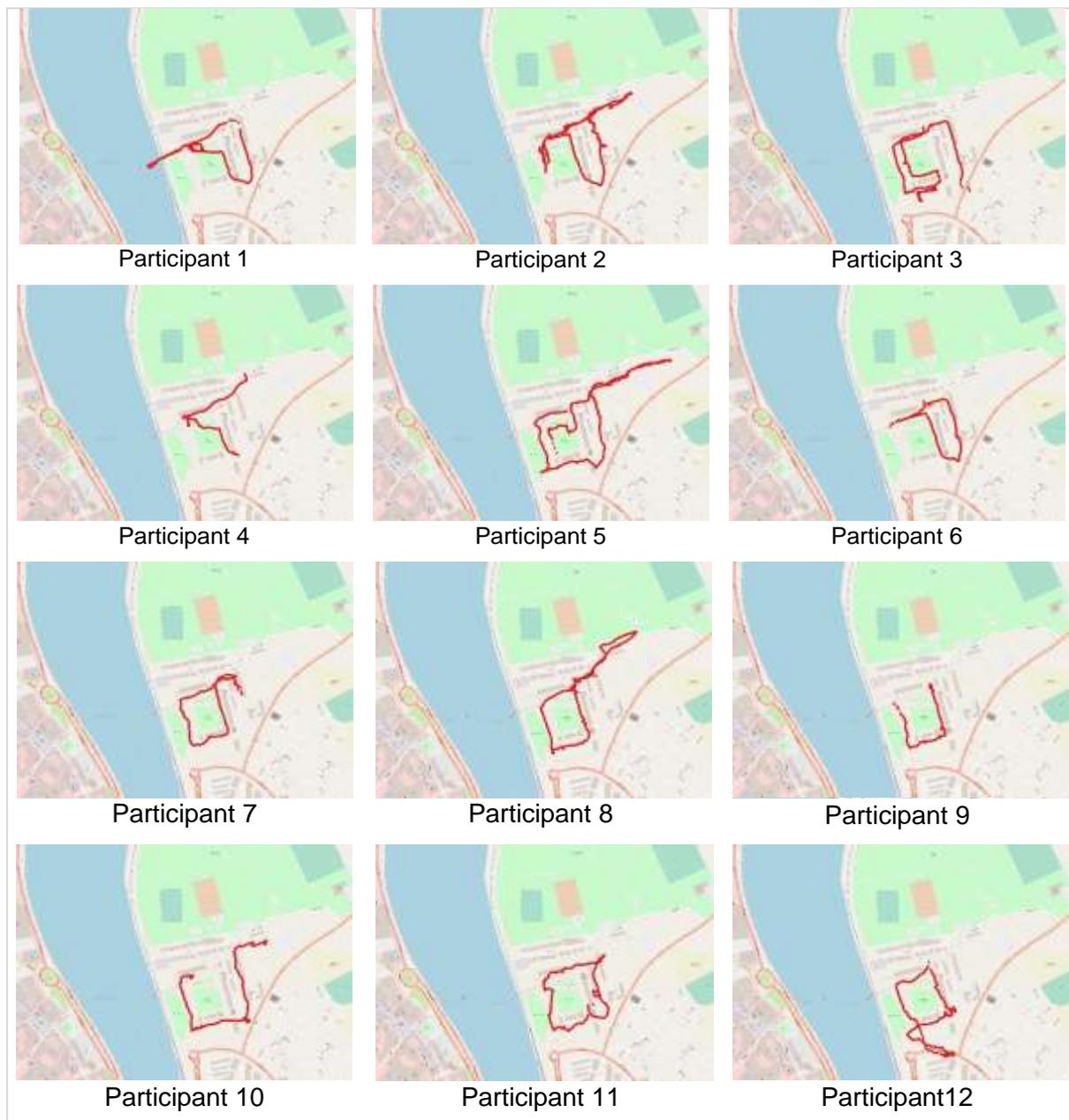
To maintain a sense of informality and participant control over the process, the length of the interview, starting/end points, and the walking route through the Ebrington site, were at the discretion of individual participants.

In most cases, participants freely narrated the walk with minimal prompting. However, open questions were sent in advance to stimulate thinking, including: What are your memories of this place? What do you think about how this place has changed and is changing? What does this place mean to you?

These questions were not posed in a programmatic during the walk, but rather helped puncture overly long pauses or bring conversations back on topic when necessary.

Walking interviews ranging in length from 22 minutes to one hour were recorded using a smartphone and the Ubipix app (www.ubipix.com), which enabled the GPS tracking of the routes taken – see Figure 6.

Figure 7: Walking interview GPS tracks through the former Ebrington Barracks



4.3.2 Emerging analysis

In addition to the much smaller number of participants, the rich, in-depth narratives emerging from the Ebrington case is very different to the quantitative data largely collated through #MyValuedPlaces, and is hence not conducive to the same kind of statistical analysis.

However, in the coding and narrative analysis conducted on the Ebrington interview transcripts to date, a large number of prospective themes emerge for exploration, with initial reflections focusing on multi-layered time and temporalities in how people understand and narrate their memories, experiences and perceptions of the site.

In particular, the emerging interpretation is centred on certain concepts and themes derived from the academic literature on cultural heritage, memory, regeneration and place, which relate to matters of time and temporality, including 'found space' (Madgin *et al.*, 2018), absence and presence (for instance, see Yarker, 2017), and the 'resistance of place' (Degen, 2017).

Several of these themes are briefly explored in the *Walking the talk through Ebrington Barracks* story map: <https://arcg.is/OnPezP>, and will be subject of further analysis, interpretation and writing in the near future.

4.3.3 Key observations and takeaways

Key observations and takeaways emerging from the Ebrington Sense of Place case include the following points:

- Underlines adaptability of the method to a myriad of public policy and place-making processes, including prospectively to conservation area appraisals, the early stages of preparing regeneration schemes, and designing critical interventions into the public realm.
- Confirms utility of walking interviews to exploring social values and peoples' complex interactions with historic places, revealing the multi-layered tensions that manifest in areas undergoing significant change or subject to contestation, and prospectively assisting heritage agencies to take better account of the often-unforeseen impact of decisions on localities.

- Suggests potential to combine walking interviews with other participatory approaches, including situating within a deliberative decision-making process such as a citizen jury, partly to focus the method on a particular policy issue, but also to ensure participant representativeness.
- Emphasises the contextual challenges of undertaking external interviewing processes, most especially the impacts of changeable weather prior to and during the walks, in addition to difficulties sometimes experienced with audio-visual (and GPS) recording, including inaudible segments.
- Indicates the range of qualitative research skills required in successfully employing the method, including in sensitively handling interviews, patience in transcribing and analysing transcripts, reflexivity in approach, and knowledge and ability to successful analyse and interpret the data.

5.0 REFERENCES

- Babelon, I. 2017. "Online participatory mapping for spatial planning." *AESOP Young Academics*. Accessed 16 August 2018. <https://aesopyoungacademics.wordpress.com/2017/03/31/online-participatory-mapping-for-spatial-planning>.
- Bergeron, J., S. Paquette, and P. Poullaouec-Gonidec. 2014. "Uncovering landscape values and micro-geographies of meanings with the go-along method." *Landscape and Urban Planning*, 122: 108-121.
- Brown, G. 2015. "Engaging the wisdom of crowds and public judgement for land use planning using public participation geographic information systems." *Australian Planner*, 52(3): 199-209.
- Brown, G. 2017. "A Review of Sampling Effects and Response Bias in Internet Participatory Mapping (PPGIS/PGIS/VGI)." *Transactions in GIS*, 21(1): 39-56.
- Brown, G., and L. Brabyn. 2012. "An analysis of the relationships between multiple values and physical landscapes at a regional scale using public participation GIS and landscape character classification." *Landscape and Urban Planning*, 107(3): 317-331.
- Brown, G., and D. Weber. 2012. "Measuring change in place values using public participation GIS (PPGIS)." *Applied Geography*, 34: 316-324.
- Brown, G., M. Kelly, and D. Whittall. 2014. "Which 'public'? Sampling effects in public participation GIS (PPGIS) and volunteered geographic information (VGI) systems for public lands management." *Journal of Environmental Planning and Management*, 57(2): 190-214.
- Butler, A. 2016. "Dynamics of integrating landscape values in landscape character assessment: the hidden dominance of the objective outsider." *Landscape Research*, 41(2), 239-252.
- Carpiano, R.M. 2009. "Come take a walk with me: The 'Go-Along' interview as a novel method for studying the implications of place for health and well-being." *Health & Place*, 15(1): 263-272.

Council of Europe. 2000. *European Landscape Convention*. Strasbourg: Council of Europe.

Degen, M. 2017. "Urban Regeneration and 'Resistance of Place': Foregrounding Time and Experience." *Space and Culture*, 20(2): 141-155.

Degen, M.M., and G. Rose. 2012. "The Sensory Experiencing of Urban Design: The Role of Walking and Perceptual Memory." *Urban Studies*, 49(15): 3271-3287.

Department for Regional Development, and the Department of the Environment, Community and Local Government (DRD and DECLG). 2013. *Framework for Co-operation: Spatial Strategies of Northern Ireland and the Republic of Ireland*. Belfast and Dublin: DRD and DECLG.

Emerick, K. 2017. "The language changes but practice stays the same: does the same have to be true for community conservation?" In *Heritage, Conservation and Communities: Engagement, participation and capacity building*, edited by G. Chitty, 65-77. Abingdon: Routledge.

Evans, J., and P. Jones. 2011. "The walking interview: Methodology, mobility & place." *Applied Geography*, 31(2): 849-858.

Finlay, J.M., and J.A. Bowman. 2016. "Geographies on the Move: A Practical and Theoretical Approach to the Mobile Interview." *The Professional Geographer*, 69(2): 263-274.

Jones, S. 2017. "Wrestling with the Social Value of Heritage: Problems, Dilemmas and Opportunities." *Journal of Community Archaeology & Heritage*, 4(1): 21-37.

Jones, P., and J. Evans. 2012. "Rescue Geography: Place Making, Affect and Regeneration." *Urban Studies*, 49(11): 2315-2330.

Kahila-Tani, M., Broberg, A., Kyttä, M. and Tyger, T. 2016. "Let the Citizens Map—Public Participation GIS as a Planning Support System in the Helsinki Master Plan Process." *Planning Practice & Research*, 31(2): 195-214.

Kahila-Tani, M., M. Kyttä, and P. Nummi. 2018. "Crowdsourcing place-based memories." In *Heritage is Ours: Citizens Participating in Decision Making*, edited by A. Halme, T. Mustonen, J. Taavitsainen, S. Thomas, and A. Weij, 128-131. Helsinki: Europa Nostra Finland.

Kinney, P. 2017. "Walking interviews." *Social Research Update*, 67, 1-4.

Kinney, P. 2018. "Walking Interview Ethics." In *The SAGE Handbook of Qualitative Research Ethics*, edited by R. Iphofen and M. Tolich, 174-187, London: SAGE.

Madgin, R., D. Webb, P. Ruiz, & T. Snelson. 2018. "Resisting relocation & reconceptualising authenticity: the experiential & emotional values of the Southbank Undercroft, London, UK." *International Journal of Heritage Studies*, 24(6): 585-598.

McClelland, A. 2018. "Walking the talk through historic places." *Context*, 155, 32-34.

Pietrzyk-Kaszyńska, A., M. Czepkiewicz, and J. Kronenberg. 2017. "Eliciting non-monetary values of formal and informal urban green spaces using public participation GIS." *Landscape and Urban Planning*, 160: 85-95.

Santé, I, A. Fernández-Ríos, J. María Tubío, F. García-Fernández, E. Farkova, & D. Miranda. 2018. "The Landscape Inventory of Galicia (NW Spain): GIS-web and public participation for landscape planning." *Landscape Research*, DOI: 10.1080/01426397.2018.1444155.

Strickland-Munro, J., H. Kobryn, G. Brown, and S.A. Moore. 2016. "Marine spatial planning for the future: Using Public Participation GIS (PPGIS) to inform the human dimension for large marine parks." *Marine Policy*, 73: 15-26.

Yarker, S. 2017. "Social housing as built heritage: the presence and absence of affective heritage." In *Heritage, Affect and Emotion: Politics, Practices and Infrastructures*, edited by D. P. Tolia-Kelly, E. Waterton, and S. Watson, 237-253. Abingdon: Routledge.