

SEVEN

Participatory mapping and engagement with urban water communities

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Introduction

The use of interdisciplinary methods has been a key approach to better capture and analyse complex relationships and address ‘wicked problems’ in urban environments (Harrison, 2000). Exploring issues and conflicts around the sustainability and ecosystems agendas by deploying multi-partner, arts and humanities-centred interdisciplinary research promises to untangle some of the complexities in the different layers of urban governance and experience. Water is a fundamental necessity for sustainable communities, economies and biodiversity. It also forms an intrinsic, but complex and contested, part of our cultural landscape and heritage. By investigating how local communities relate to and engage with urban water environments using arts and humanities methodologies, this can help to explore and develop notions and practice of community resilience in eco-social and cultural terms.

The research approach in question uses a combination of in situ methods, such as Participatory Action Research (Pain et al, 2012), practice-based art research, cultural geography and cultural mapping, as vehicles for engaging communities and reflecting existing understandings, and for engineering new affective relations and possibilities. Cultural ecosystems mapping in particular draws from Participatory Geographic Information Systems (PGIS) and is considered a useful tool for imagining and visualising the sociocultural realities and aspirations of communities and their local landscapes in place and time. This chapter therefore focuses on the application of cultural ecosystems mapping as a participatory, co-produced visualisation and engagement method, based on a case study of the Lee Valley – London’s second or ‘hidden river’ stretching 26 miles from the home counties through north and east London to the Thames and

1 with a flood catchment of over 1,000km². Engaging people with issues
2 around cultural ecosystem services through the interaction with large
3 scale maps of the local area helps to ground the more abstract issues
4 of identity, connectivity, sense of place, emotional attachment and
5 spirituality, as well as overcome the traditional barriers to participation
6 and inclusion at various spatial scales. Cultural mapping in particular
7 helps to articulate the spatial and historical relationships and triggers
8 debate over connectivity, governance, environmental justice and both
9 environmental and social change.

11 **Towards sustainability and culture-led sustainable** 12 **development**


14 Sustainability is a complex term that has been defined and applied in
15 various ways by different disciplines. Although sustainable development
16 is a fairly abstract and broad 'meta' subject, it has caught the attention
17 of policymakers and citizens worldwide, not least in the context of
18 climate change and everyday environmental concerns and practice. One
19 of the most remarkable challenges of the term sustainable development
20 is that it seeks to explain different things to so many different people
21 and organisations. Therefore, it is no surprise that the concept of
22 sustainable development usually reflects the political and philosophical
23 position of those proposing the definition rather than any clear-cut
24 scientific view (Mebratu, 1998).

25 The emergence of the sustainability concept has developed from
26 a global geopolitical perspective, which searches for solutions to
27 the most powerful needs of the anthropocene era, namely the need
28 to balance and in many senses, reconcile, economic development/
29 growth, environmental protection, social justice and cultural diversity.
30 Sustainability does not therefore simply refer to achievements in the
31 environmental arena, but also social and economic development.
32 Sustainable development necessitates policy changes in many sectors
33 and greater coherence between them; as Dalal-Clayton and Bass state,
34 sustainable development requires 'integration of objectives where
35 possible; and making trade-offs between objectives where integration is
36 not possible' (2002: 7). These objectives act in different ways and scales
37 – at global, national and local levels, but should be consistent between
38 these levels (Evans, 2013). There are a wide range of sustainable
39 development approaches which reveal different challenges faced by
40 individual countries and regions and their response to these. Hence,
41 although sustainable development is a global challenge, it can only
42

1 be operationalised through a national framework and local practice
 2 (Dalal-Clayton and Bass, 2002).

3 The sustainability discourse is not surprisingly dominated by the
 4 economic, social and environmental impacts of growth, while the
 5 cultural dimension to sustainability has been lacking (Evans, 2013).
 6 However, culture in various forms now appears as an emerging
 7 component of regeneration and development (Evans, 2005) in both
 8 economic and symbolic ways: from revitalising decaying centres with
 9 iconic buildings and public spaces, to bringing communities together
 10 around cultural events, as well as being promoted in both Agenda 21
 11 and UNESCO Culture and Sustainable Development initiatives (2009).
 12 The role of culture in sustainable development has been key in more
 13 progressive urban policy and planning. In particular, cultural planning,
 14 which is ‘a process of inclusive community consultation and decision-
 15 making that helps local government identify cultural resources and
 16 think strategically about how these resources can help a community to
 17 achieve its civic goals’ (Stewart, 2007: 1 {not in Refs} a novel way
 18 to integrate the cultural values of a community into otherwise abstract
 19 and bureaucratic local and regional planning initiatives and processes
 20 (Evans and Foord, 2008). Culture in this respect can be viewed as a
 21 ‘fourth pillar of sustainability’ (Hawkes, 2001) but this concept has been
 22 more prevalent in developing countries where the separation between
 23 heritage, culture and everyday life is not felt. Universally, however, the
 24 area of human behaviour within governance systems is where culture,
 25 governmentality and sustainable development offer the possibility for
 26 notions of eco-citizenship to emerge and solidify.

27 There have been several important initiatives to encourage a balance
 28 between development and sustainability. For example, the Millennium
 29 Ecosystem Assessment (MEA) was carried out between 2001 and
 30 2005 to assess the role of ecosystem change for human quality of
 31 life, and to establish the scientific basis for actions needed to enhance
 32 the sustainable use of ecosystems and their contribution to human
 33 wellbeing (Plieninger et al, 2013). Ecosystem services are the benefits
 34 that people obtain from nature, and the MEA identifies {where?} our
 35 ecosystem services: *provisioning, supporting, regulating, and cultural services*.
 36 In order to evaluate how the changes in ecosystems affect wellbeing, the
 37 following dimensions have been determined: *security, basic material for*
 38 *good life, health, good social relations and freedom of choice and action*. Cultural
 39 services differ in various aspects from other ecosystem services since
 40 they are difficult to quantify and their economic evaluation is usually
 41 controversial. They are contributions that ‘ecosystems are deemed to
 42 make to the non-material benefits (e.g. capabilities and experiences)

1 that arise from human–ecosystems relationships’ (Chan et al, 2012: 9).
 2 They are less directly linked to human wellbeing than, say, provisioning
 3 and regulating services, but their potential for mediation is low (MEA,
 4 2005 {not in Refs} 

5 Potentially, therefore, cultural mapping can be considered as a useful
 6 tool for articulating the sociocultural realities of communities in relation
 7 to their landscapes and ecosystems (Ryan, 2011), particularly in light
 8 of the physical and economic bias of environmental sustainability and
 9 ecosystems analysis. The initial *UK National Ecosystem Assessment* had for
 10 instance lacked an arts and humanities dimension – or input from arts
 11 and cultural organisations and practitioners. Ecosystem cultural services
 12 (DEFRA, 2011, Chapter 16) have been largely rationalised in terms
 13 of externalities – health, recreation, tourism – and as cultural ‘goods’
 14 (‘human benefits from nature’) arising from ‘environmental settings’
 15 – and these are dominated by natural settings, green space/parks,
 16 recreation and tourism, rather than urban settlements. Little recognition
 17 is given for example to the established work in environmental art (Lacy
 18 et al, 1995), art and regeneration, or the role of community arts groups
 19 (an exception is Commonground’s ‘Parish Maps’) in ecosystem, urban
 20 and sustainable development. This national ecosystem review drew
 21 mainly on environmental and ecosystem studies in the treatment of
 22 cultural services, and did acknowledge that ‘this approach to cultural
 23 services struggled to find a consistent theoretical and methodological
 24 framework to match that underpinning other areas of the NEA’
 25 (DEFRA, 2011: 639). The NEA also highlights knowledge gaps related
 26 to ecosystem cultural services, specifically in ‘data collection and the
 27 uneven monitoring of change in different environmental settings’
 28 (DEFRA, 2011: 638) – and spatial data generated through cultural
 29 mapping methods will hopefully contribute to meeting this gap.

30 In response to this deficit, the *UK National Ecosystem Assessment*
 31 *Follow-on* report (DEFRA, 2014) offers new approaches and tools to
 32 help decision makers across all sectors to understand the wider value
 33 of ecosystems and cultural services. This includes recognition of the
 34 value of mapping in different forms including Geographic Information
 35 Systems (GIS), participatory/creative mapping (Church et al, 2014)
 36 and digital data analysis: {where does the following quote end?}
 37 ‘Mapping is fundamentally about meaning and the environment, about
 38 what we care about in place, space, site, landscape and physical setting,
 39 and how these overlapping entities can be disclosed and represented. As
 40 a form of modelling, mapping is both metaphorical and material. Maps
 41 can combine and display a range of multi-layered information, past,
 42 present and projected, textual as well as pictorial. They can encompass

1 cultural memory and possible scenarios (Read, 2012). Maps are a
 2 metric, indeed often technically sophisticated, whether on paper or in
 3 digital form. They are a form of practice, ‘both scientific and artistic’
 4 (Coates et al, 2014: 39 {not in Refs – there is a Coates 2014}).

6 Participatory creative methods

8 A number of creative methods have been developed especially from
 9 the 1990s to include communities in the decision making process of
 10 development and the design and use of local neighbourhoods and public
 11 spaces. Depending on the goals of public participation, methods can be
 12 varied. For example, Beierle (2002) identifies educating and informing
 13 the public, incorporating public values into decision making, improving
 14 the sustentative quality of decisions, increasing trust in institutions,
 15 and reducing conflicts as the main aims of public participation.
 16 Cultural mapping is considered as a practical, participatory planning
 17 and development tool and an emerging mode of research (Duxbury
 18 et al, 2015; Longley and Duxbury, 2016). It is potentially a linking
 19 methodology for interdisciplinary projects, especially ‘to bridge forms
 20 of artistic inquiry with research based in other disciplines’ (Longley
 21 and Duxbury, 2016: 1). Consulting communities to identify the
 22 needs assessment for planning by using the mapping and visualisation
 23 of physical/environmental and human activity can lead to a broader
 24 approach to development in general and notably to local environmental
 25 improvements and relationships (Evans, 2013).

26 Stewart (2007: 8 {not in Refs}) defines cultural mapping as ‘a process
 27 of collecting, recording, analysing and synthesizing information in
 28 order to describe the cultural resources, networks, links and patterns of
 29 usage of a given community or group’. Therefore, the mapping process
 30 usually helps to reveal unexpected resources, values and problems in an
 31 area and can also build new cross-community connections (Longley
 32 and Duxbury, 2016). Cultural resources incorporate both tangible
 33 and intangible cultural assets that ‘fuel local cultural vitality and
 34 contribute to defining the unique local cultural identity and sense of
 35 place’ (Ontario-MCP, 2010: 51). Cultural mapping can be enabled in
 36 different ways, and using GIS – which has been considered as a driver
 37 for technical development around geographic representation since
 38 the 1960s (Goodchild, 1992) – is one of the most promising ways.
 39 While there are a variety of approaches to engage with communities
 40 and get them involved in the decision making process within their
 41 local neighbourhoods, techniques of PGIS used for community
 42

1 mapping have been considered as particularly reassuring for participants
2 (Crawhill, 2008; Smeets and Yoshida, 2005).

3 PGIS in particular facilitates the representation of local people's spatial
4 and site-specific knowledge with maps, which can subsequently be used
5 in decision making processes, as well as supporting communication
6 and community advocacy (Corbett et al, 2006). It seeks to contribute
7 to the enhancement of methods appropriate for use with the general
8 public. Cinderby, for instance, has applied PGIS in England to urban
9 renewal projects, air quality and accessibility assessments (2010, 1999).
10 The relatively informal setting of the approach allows for wider
11 inclusion of normally excluded participants – so-called 'hard-to-reach'
12 communities, while Rambaldi et al (2006) define PGIS as a practice
13 with a special emphasis on empowerment and communications.

14 PGIS projects can also take many forms, depending on the way they
15 are conducted and which GIS features are used. While using online and
16 interactive methods are possible, the least technologically demanding
17 method is using paper maps, which was implemented early on in the
18 development of PGIS. PGIS approaches often involve significantly less
19 sophisticated techniques; using topographic maps or satellite images.
20 For example, Cinderby's (2010) hard-to-reach methodology used
21 an aerial photography-based map to examine urban design (such as
22 streets, squares or transport) with participants. They were invited to
23 apply comments directly on the map using flags, thus taking part in
24 the collection of knowledge. Paper-based maps were seen to be widely
25 accessible and eliminated possible technology and language barriers
26 as well as fieldwork based limitations. The application of PGIS-based
27 cultural mapping in urban water environments has therefore been
28 developed in our case study river system.

30 **Engaging with water communities**

31
32 Water is one of the most essential elements for sustainable communities,
33 economies and biodiversity, as well as a key part of cultural landscapes
34 and heritage. There are multiple water-related challenges in urban
35 environments as a result of climate change, population growth/density,
36 including increased flood risk, drought/scarcity risk, pollution and
37 degradation of aquatic ecosystems, which are all embedded in numerous
38 social, cultural, political and economic contexts. Confronting these
39 water-related risks generates different forms of conflict in communities
40 that need to be negotiated both within and across wider networks and
41 geographic areas (for example, upstream, downstream). Governance
42 processes at local, national and transborder scales all over the world need

1 to negotiate and manage these issues through collaborative dialogues
2 both at the local community and riparian community levels. Cultural
3 mapping in particular is a stimulating method to generate conversations
4 within and between communities around water spaces and urban
5 waterfront areas. For Longley and Duxbury (2016: 1), cultural
6 mapping is a method that ‘aims to advance our conceptualization
7 and understanding of diverse approaches to mapping intangible
8 dimensions of culture, and to synthesize some insights from these
9 approaches to advance methodological practice in this area’. Therefore,
10 it can bring non-human and ecological materialities into creative
11 conversation within social and community concerns. Approaching
12 water as a connecting element in urban environments and landscapes
13 and developing narratives around them, helps in the understanding of
14 the ecological and social production of the places where people live.
15 In our case study, cultural mapping has been practised in focus group
16 meetings and arts and community festivals along the River Lee by the
17 authors, as part of the Hydrocitizenship project research team. The
18 project has been funded for three years under the Arts & Humanities
19 Research Council Connected Communities programme with a
20 particular emphasis on co-design and co-production. The cultural
21 mapping method has been used to collect data about spatial and
22 sociocultural issues derived from cultural ecosystem services within
23 this urban river environment and to visualise these perceptions and
24 experiences on both a site-specific and iterative basis. The Cultural
25 Ecosystem Services Framework (Figure 7.1) first makes a distinction
26 between cultural values, environmental spaces, cultural practices
27 and cultural benefits (Church et al, 2014). In order to assess cultural
28 services (as established in the UK NEAFO: DEFRA, 2014) the
29 following indicators have been created: *Use* (sense of place, activities,
30 and recreational use), *Cultural Value* (recreation, social relations, and
31 cultural heritage values), *Problems* (accessibility, safety, unpleasant) and
32 *Community Cohesion* (diversity, involvement). Cultural mapping in this
33 situation is used to better understand the issues around the access to,
34 and use of water spaces, and to engage with the general public through
35 the use of these indicators. The following sections therefore focus on
36 some of the results of the cultural ecosystems mapping undertaken in
37 the Lee Valley,¹ including discussion of this participatory method and
38 issues arising.

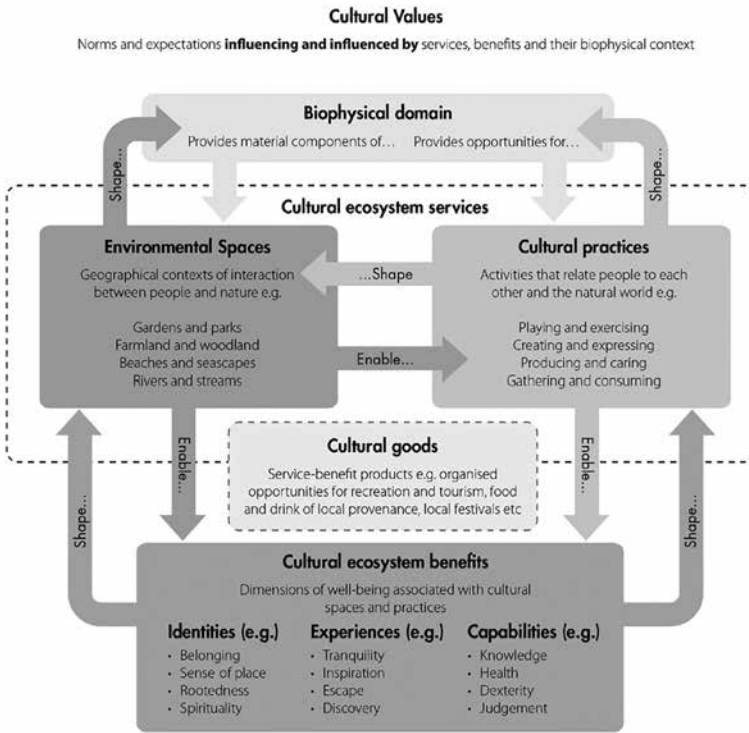
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Figure 7.1: The cultural ecosystem services framework



Source: Fish and Church (2013)


Cultural ecosystems mapping in focus groups

At the outset of the cultural mapping sessions, a set of sociodemographic questions are asked of participants in order to start the conversation. This captures information such as gender, age, home postcode and familiarity with the study area. This information is useful for subsequent analysis, representation and locating participants in relation to the study area. Since this is an iterative process the mapping exercise can be carried out in the same location but with different participants as well as in different locations. Participants are then asked to identify recreational uses, cultural uses and problem areas with the use of a large aerial view map. Using colour-coded sticker dots and sticky notes for locating sites on the map, participants were also asked to mark areas with landscape values and special places. The data on the maps and questionnaires are then transferred onto a digital database and entered onto GIS. Cultural mapping in particular helps to articulate the spatial relationships and stimulate discussion over ‘accuracy’, sense of place,

1 history, connectivity, governance and change in different parts of the
2 study area.

3 Focus groups are an effective method to explore the ways in which
4 people perceive their local environments and reflect on each other's
5 approaches about the same issues and areas. This method is a form of
6 group 'interview' and workshop, which involves several participants and
7 a facilitator/moderator, and there is an emphasis in the questioning on
8 a particular topic where the focus is on interaction within the group
9 (Bryman, 2008), in this case over a map. During cultural ecosystems
10 mapping, participants usually reveal a wide range of views across a
11 broad section of social experience and, while this does not claim to
12 identify public opinion in any definitive sense, it does provide good
13 qualitative evidence based on participant experience and interaction.
14 Undertaking the cultural mapping activity through a focus group
15 format also offers the chance of letting people explore and challenge
16 each other's reasons for holding a certain view (Bryman, 2008), while
17 in a one-to-one exchange, interviewees are rarely challenged.

18 As a first pilot, perspectives on local cultural ecosystems values were
19 collected from a focus group meeting held in Hackney Wick (adjoining
20 the Lee Navigation Canal) at the Cre8 Lifestyle Community Centre
21 and analysed collectively to derive local community values. Several
22 techniques can be used in order to represent landscape values and special
23 places when creating the map such as defining sites and routes through
24 use of pencils or markers, using colour-coded stickers for locating sites
25 and identifying and numbering special sites and annotating them on
26 the map (Plieninger et al, 2013) – see [Figure 7.2](#).

27
28 **Figure 7.2:** Cultural ecosystems mapping in the Hackney Wick focus 





By the nature of focus groups, the method helps to gather in-depth information about the area in an interactive way. Participants discuss each other's points of view and their knowledge of the history of the river and waterfront areas, and map anecdotes about certain locations and experiences, which helps to explore the intangible features that create the identity and perceptions of the area and water resources.

1 This process can lead to bringing creative solutions for conflict sites and
2 issues as well as 'benefit from the direct involvement of artists, crafts
3 and designer-makers, whether as interpreters, catalysts or visionaries'
4 (Evans, 2013: 231) in visualising and animating the physical landscape,
5 human activity and aspirations, which became clear in the case of
6 Hackney Wick. Annotated cultural maps, which can be layered with
7 the results of other mapping exercises, or revisited with the same
8 cohort of participants, can also be analysed with other spatial data
9 once digitised. This can add layers of different information on, say,
10 demography, housing, land use, environmental quality (such as air,
11 noise, water), crime incidents, flooding/flood risk, and so on, providing
12 a rich canvas which can be the basis for artistic interventions (such
13 as drawing/painting, sculpture – Read, 2012) and for feedback to
14 participants. This can also reveal divergence between lived experience
15 and official data, and provide stakeholders and stewards of the water
16 system with important local knowledge (Geertz, 1983) which can
17 inform policy, planning and operational practice.
18

19 *Cultural ecosystems mapping in arts and community festivals* 20

21 As well as the more closed group meeting, arts and community festivals
22 can bring local residents and users of a neighbourhood together
23 in a friendly, relaxed and animated way. People can also have the
24 opportunity to hear about the latest developments, events and concerns
25 such as safety/crime, new building developments/changes of use. Here,
26 the conversation through the cultural map helps to identify not only
27 tangible aspects of the area but also the intangibles. The intangible
28 elements of a place such as stories, histories, values are 'the aspects that
29 provide a "sense of place" and identity to specific locales, and the ways
30 in which those meanings and values may be grounded in embodied
31 experiences' (Longley and Duxbury, 2016: 2). The dialogue developed
32 around the map captures features that are not easy to quantify but are
33 important to truly understand a place and its value to its residents and
34 visitors. People's interactions in their community as well as personal
35 and collective memory help to build up the narratives. The activity
36 itself helps to create a community-driven 'visual' of values and place-
37 based meanings which are evidently different from official plans and
38 maps (Cauchi-Santoro, 2016) and even of official history, narratives
39 and 'worldviews'. This is in contrast to the masterplanning process
40 that dominates the design and development of major regeneration
41 sites, as experienced by these communities as a result of the major
42

1 redevelopment of the Lower Lee Valley during and following the
 2 nearby London 2012 Olympics (Evans, 2015).

3 Mapping at open festival environments also brings together locals
 4 and visitors who may have differing perspectives and experiences,
 5 while mapping as part of a wider festival provides the opportunity
 6 for participatory arts activities, installations and performances to
 7 allow cultural expression, exchange of ideas and complement the
 8 responses to the cultural map, and vice versa. In the Hackney Wick
 9 Festival, alongside artists open studios, street performance and design
 10 exhibitions, open debates were held on topics such as community
 11 land trusts, while a derelict site was occupied along the canal to build
 12 a temporary DEN-City from recycled materials and rubble where
 13 residents and visitors could explore the waterside environment in the
 14 context of urban change and sustainability with a group of independent
 15 artists, whose installations, artworks and performances reflected and
 16 responded these concerns (Figure 7.3). Cultural ecosystems mapping
 17 has therefore been undertaken during several community events along
 18 the River Lee such as the Hackney Wicked Connected Communities
 19 Festival 2015 (above), Love the Lea Festival 2015, the National Mills
 20 Weekend at Three Mills 2016 and Firs Farm Wetlands Festival 2016.

21
 22 **Figure 7.3:** DEN-City, Hackney Wick Connected Communities Festival



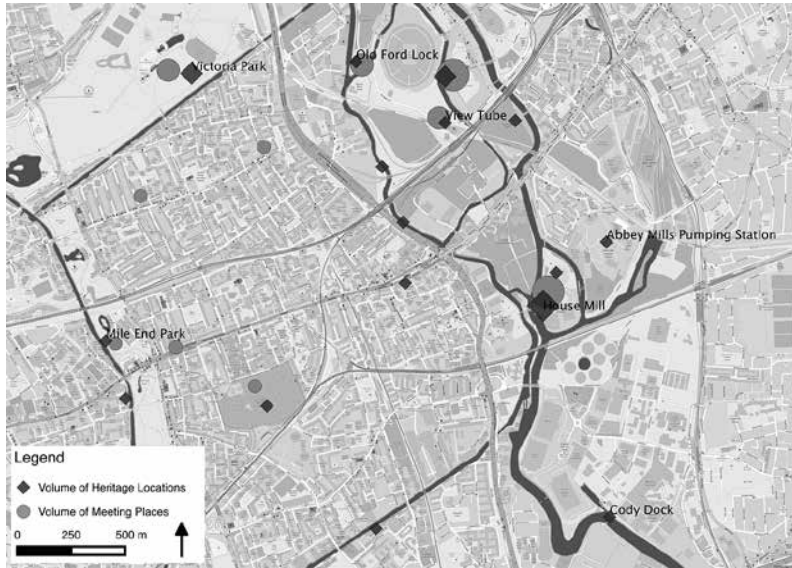
39 From these iterations it is possible to identify three types of interaction
 40 around the mapping exercises during these festivals. The first form of
 41 interaction is the conversation that takes place between the participant
 42 and the researcher, which is mainly about understanding their use

1 of space and values in the area. The participants are asked several
2 questions that draw on the Cultural Ecosystems Assessment approach.
3 Also, this sometimes evolves into a form of knowledge exchange
4 between researcher and participant. While having the meeting places
5 and heritage locations being clustered around the same areas is not a
6 surprise, the findings also reveal interesting and unexpected results,
7 which can help in the further planning, development and priority
8 setting for the area. For example, the findings of the National Mills
9 Weekend cultural mapping revealed that Victoria Park, the House Mill
10 and Olympic Park are indicated as meeting places where people get
11 together to have a drink/meal or enjoy the natural environment and
12 also considered as a part of local and regional heritage. This shows that
13 people like to spend their time around locations that they value as part
14 of their cultural heritage. On the other hand, there are some conflicting
15 locations in terms of their use and how they are perceived by local
16 people. The results of the Love the Lea Festival cultural mapping show
17 that participants value being around the river path and marina most,
18 and raise safety issues (such as lighting at night and muggings) in these
19 same locations (see [Figure 7.4](#)). While green spaces such as Springfield
20 and Markfield Parks are acknowledged as pleasant and peaceful as well
21 as hubs of meeting places for locals and have heritage value such as
22 the Beam Engine (Grade II listed), they can still be neglected at times
23 with rubbish, littering and antisocial behaviour. Therefore, cultural
24 mapping was able to uncover the fact that sometimes the problem areas
25 are the same as the culturally and aesthetically valued areas, but that
26 these are experienced differently by different users, and at different
27 times (Lefebvre, 1974).

28 The second type of interaction takes place between participants
29 while contributing to the research. Sharing knowledge, experiences
30 and memories in certain locations on the map is most of the time a
31 conversation starter, which leads to exploring some of the perceived
32 qualities and recent history of the area. While this is a key feature in
33 more intensive focus groups, the interaction between participants also
34 takes place at more open community festival exchanges.

35 The final type is the interaction of participants with the marks and
36 textual responses that other participants leave on the map. People usually
37 start with analysing the map themselves and trying to understand why
38 others chose certain locations to identify certain feelings and activities.
39 While this process may end with agreement with other participants,
40 sometimes complete opposition comes across. During the mapping at
41 the Three Mills, National Mills Weekend, after one of the participants
42 put a sticker on Cody Dock as a valuable asset in the area, the others

1 **Figure 7.4: Cultural mapping findings from Love the Lea Festival (volume of likes and dislikes)**
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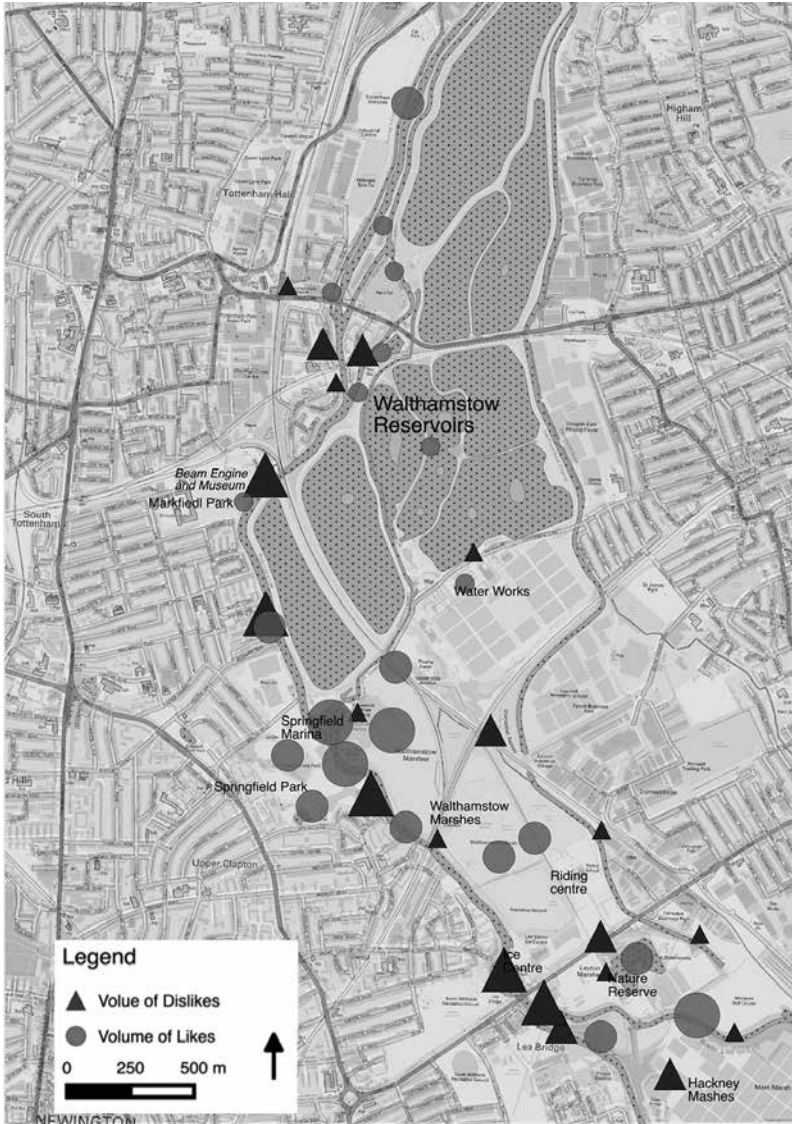


20 also considered and acknowledged this and the local community
 21 organisation based there (Figure 7.5). The Gasworks Dock Partnership
 22 based in Cody Dock is a charity for community-led regeneration
 23 and encourages public engagement in the revitalisation of waterways.
 24 Its vision is to rehabilitate Cody Dock, create a creative industries
 25 quarter with new workspace, visitor facilities and public space, and to
 26 foster a stronger sense of place and civic pride by celebrating the area's
 27 waterways and rich industrial heritage through increased participation
 28 in the arts and improved access to the River Lea. Seeing the mark
 29 that one of the participants had put on Cody Dock led the others to
 30 question the value and importance of this location. Eventually, some
 31 others of the group who did not think about it immediately or had not
 32 heard about it before, ended up learning about and appreciating this
 33 emerging creative quarter as a result of the cultural mapping activity.

34 This map-based activity in particular helps to remove the limitations
 35 of the structured and solely text-based survey questionnaire, and brings
 36 engagement and participation to the process in a more interactive
 37 way. Some of the participants leave the cultural ecosystems map
 38 acknowledging that they have found out more about the area and feel
 39 more ownership of it, sometimes mentioning that taking part in this
 40 activity inspired them to get more involved in the decision making
 41 for the development and usage of their water environment. Here
 42 engagement included campaigning on issues such as tow path safety,

1 improved but sensitive lighting, clean-up of waterside areas, retaining
2 community facilities and raised awareness around new developments
3 such as restoration of heritage buildings, redevelopment of industrial
4 sites and new housing.
5
6

7 **Figure 7.5:** Cultural mapping findings from Three Mills, National Mills Weekend
8 (volume of meeting and heritage places)



Conclusion

It is evident that ‘the symbolic marking of places, the preservation of symbols of recognition, the expression of collective memory in actual practices of communication’ (Castells, 1991: 351) are very important in order to recognise and, if necessary, protect the identities of places. However, the cultural assets that communities value are not always the same as those that local authorities consider as ‘culturally’ or environmentally ‘significant’ (Cauchi-Santoro, 2016). In the Lee Valley, for example, Cody Dock has been acknowledged on the one hand as a cultural heritage asset for the area not just because of its history but more for its contribution to the values and sense of place; on the other hand, this is not mentioned in either official policy documents or promotional literature. This suggests that cultural mapping can be considered as a useful tool to make some of the intangible amenities and less obvious heritage more valued and recognised, particularly where they are absent from official documents and narratives.

Besides making some of intangible heritage visible to officials and communities themselves, cultural mapping also helps to bring public awareness of developments in the local neighbourhood and river. Public awareness of changes and developments are usually controlled by the efforts of local government and other planning authorities – in the case of water resources this includes a plethora of intermediary agencies such as the Canals & Rivers Trust and Environment Agency who are distant and not democratically governed locally, but who can override local governance systems. Some of the information presented on the cultural maps, or provided verbally by the researcher/facilitator, can help the participants understand the impact and scope of developments in their area, as well as visualise future scenarios, and encourage participants to get involved in the planning and design consultation process. In the case of the Love the Lea Festival for example, the aerial map included the Greenway initiative between otherwise disconnected Walthamstow and Woodberry Down Reservoirs, which caught the attention of the participants and helped them learn more about this ‘green’ cycle route which otherwise was not widely publicised. Moreover, some of the participants acknowledged that contributing to the cultural ecosystems mapping of their neighbourhood was the start of more active involvement in the changes and developments underway in their local area and waterfront environment.

While organisations like the Chartered Institute of Water & Environmental Management (*Arts and Environment Network*) and Canals & Rivers Trust (*Arts on the Waterways, Humans of the Waterways*),

1 have been developing initiatives that promote more cultural forms
2 of engagement with communities, the Hydrocitizenship project
3 has used participatory cultural mapping in order to bring a better
4 understanding of the physical, social and environmental connectivity
5 and characteristics of these urban water spaces and systems – both
6 natural and anthropogenic. Overall, cultural ecosystems mapping
7 helps to approach water-related issues in a more holistic way rather
8 than a single dimension by generating public interest in wider water
9 and ecological issues. Cultural maps (printed and digital) provide a
10 practical resource and legacy – the maps do not seek to ‘make physical
11 spaces static, to connote ownership, or to articulate territory’ but to
12 demonstrate the ‘dynamic lives of places in their complexity, diversity,
13 and richness’ (Longley and Duxbury, 2016: 6).

14 To conclude, our research indicates that cultural ecosystems
15 mapping can be a valuable tool to articulate community perspectives,
16 experience and aspirations and thereby to inform local agencies and
17 other policymakers about the values, concerns and knowledge that
18 people have of their environment. It can also serve as a grounding for
19 socially engaged arts practice that can benefit from the co-design and
20 co-production of knowledge and visualisation of community visions.
21 For example, following the cultural mapping undertaken at Three
22 Mills, an artist-led citizen’s science project will construct and install a
23 live water wheel at this heritage venue, to oxygenate the water in order
24 to encourage fish life and demonstrate the power of the water (‘Active
25 Energy’), working with a group of local pensioners who were former
26 dock workers. Here cultural ecosystems mapping has combined with
27 practice-based art and engineering science to engage local communities
28 in co-production. Interdisciplinary working in this sense has helped
29 develop collaboration and methodological innovation. In turn it is
30 hoped that this will also lead to more sustainable and resilient planning
31 and usage of the water resource, as well as empowering residents and
32 other users to co-create and link this embedded knowledge with official
33 narratives and day-to-day usage and management.

35 Notes

36 ¹ See www.leevalley.org for fuller results and maps.

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