Cultural mapping and planning for sustainable communities

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Since the 2000s, cultural mapping and planning have been widely adopted and applied in the strategic development of cultural activities, facilities, and resources for incumbent and new communities. These have produced more systematic approaches to capturing cultural assets, in particular in response to regeneration, major events, population growth, and diversity. This chapter is based on the evolution of cultural mapping as both a methodology and set of techniques drawing on various cartographic and digital data analysis and visualization tools, based on a U.K. Arts and Humanities Research Council funded project: *Cultural Planning for Sustainable Communities*. This incorporates a toolkit/resource developed for the U.K. Cultural Ministry (DCMS) entitled *Cultural Asset Mapping* under the Culture & Sport Evidence (CASE) programme, and the precursor *Living Places* action research program which developed a Cultural Planning Toolkit—led by the author.

The development of cultural mapping and planning approaches and models has been applied in a number of case study areas in England and elsewhere, undergoing various cultural infrastructure strategies, including areas experiencing population growth and land use change, such as new housing and areas subject to environmental risk (for example, flooding/erosion, and major redevelopment and regeneration). The latter scenarios incorporate the role and intervention of practising artists in visualizing and mapping land use change as a consultative and scenario building process, both complementing and challenging traditional environmental agency/scientist/planner hegemonies. Ecosystems mapping and the notion of *sustainability* has thus been extended to encompass *culture* and cultural governance through this cultural mapping

approach. The chapter outlines some of the underlying data classification and collection systems, including GIS-Participation techniques developed to engage communities and to capture "cultural assets" and perceptions of place and the environment.

Culture and sustainability

The concept and principle of sustainable development is closely associated to environmental impact and climate change imperatives, originating in global summits and dialogues—from Bruntland (WCED, 1997) to the 2002 Rio Earth Summit and successive principle and measurement setting summits. While culture has struggled to find its place and value within the sustainability debate, parallel initiatives have sought to redress this omission, stressing the importance of culture in sustainable development. For example, the United Cities and Local Governments' *Agenda 21 for Culture* (UCLG, 2004), which established culture as a "fourth pillar" of sustainable development (Hawkes, 2001) within cities and local government; subsequent UN and agency declarations on culture and development and diversity; and, most recently, the Hangzhou Declaration, *Placing Culture at the Heart of Sustainable Development* (UNESCO, 2013). Earlier in Europe, local authorities developed a schedule of Urban Cultural Rights in an attempt to enshrine access to a range of cultural facilities within EU policy and political notions of a common European culture and heritage. These initiatives make the case for culture's contribution to *inclusive economic development* (e.g., cultural heritage, cultural and creative industries, sustainable cultural tourism, and cultural infrastructure); *inclusive social development* (e.g., local and indigenous communities, respect for cultural diversity, safeguarding cultural and natural heritage, fostering cultural institutions); and *environmental sustainability* (e.g., protection of cultural and biological diversity and natural heritage, traditional protection of environmental protection and resources, increased sustainability of fragile ecosystems). Culture is

thus seen as both the fourth pillar of sustainable development as well as linking the social, economic, and environmental pillars. As *Agenda 21 for Culture* suggested:

> The role of culture in sustainable development is not only about "using artists to raise concern on climate change" or about "building cultural venues that are efficient in the use of energy and natural resources". … These are very important questions that need to be addressed, but they do not articulate the core question. The role of culture in sustainable development is mainly about including a cultural perspective in all public policies. It is about guaranteeing that any sustainable development process has a soul. This is the core question. (UCLG, 2009, p. 6)

Notwithstanding these assertions, cultural resources and access are still not reflected in planning systems (ACE, 2011): "while culture is embedded in geographies, societies and histories, its voice is weak in planning. In fact culture rarely seems to speak meaningfully in planning at all" (Young, 2006, p. 43). It is also underrepresented in national ecosystems assessment (UK NEA, 2011) and in global development goals (i.e., Millennium Declaration, 2000), which "failed to highlight the role that culture plays in the achievement of sustainability" (IFACCA, 2014, p. 4). The observation that "most often, development policies and projects that do not take into account the cultural dimension have failed" (p. 3) has led to the latest move to "ensure cultural sustainability for the wellbeing of all" is adopted in the Post-2015 Development Agenda (IFAACA, 2014). These policy movements are, however, largely framed by a development ("north-south," developing country) agenda and by a notion of (human) "rights." The challenge, as experienced in other global initiatives such as Agenda 21, is how these principles might be operationalized: how do we define and measure the "culture" to which equitable access is

required? In particular, how can culture and sustainable development be interpreted at a local/regional level within national governance and planning systems?

Cultural mapping

Cultural mapping, as a stand-alone exercise and resource, or as part of a wider cultural planning and needs assessment process, responds to this policy challenge by presenting a flexible approach to capturing a particular community's cultural assets, needs, and aspirations. This is underpinned by a set of techniques which range from the more systematic cultural audit, consultative planning, and visualization models (Evans, 2008) to artist and community-led mapping projects which can engage community creativity, resistance movements, and practice-based arts interventions across art forms.

The context of Sustainable Communities (ODPM, 2005) as a U.K. national planning-led response to the *sustainable development* imperative, for example, sought to apply the above principles across planning policy in general; in the measurement of quality of life; and in development project assessment. The latter arose as a result of housing growth linked to a rising population and associated demographic change (i.e., an ageing population, migration, social change, single person households, etc.), and consequent urbanization and extension of existing towns and cities, as well as the creation of new "urban villages." This presented cultural and town planners as well as arts and cultural agencies with the challenge and opportunity of integrating culture within sustainable development and growth goals. Many technical and "cultural" barriers had to be overcome, however, given the cultural deficit in planning and development and the traditional resistance to planning for culture in a standards-based or quantitative system (Evans, 2001, 2008). These included a lack of data and consistent classification of cultural assets, facilities,

tangible, and intangible cultural heritage; the need to ensure cultural diversity and "choice" at local and regional levels; and a lack of cultural governance at the local level, particularly over the distribution of cultural resources and the identification of "need" and preferences (Grodach, 2008).

According to a review of cultural mapping and mapping guidance (Evans, Curson, Foord, and Shaw, 2007; Evans, 2008, and see Table 2.1), what constitutes "cultural assets" varies. In a few examples this included sport and recreation facilities, but in most cases this was limited to arts and (some) heritage amenities (e.g., museums). Few included natural heritage or environments, whilst some pilot projects were more inclusive in capturing community assets, local heritage, and user interpretation of these through local histories. More sophisticated spatial models have also been developed in the U.K. to plan for changing and growing communities and population groups, and their future cultural and social amenity needs. This has also seen a convergence of cultural with sustainable development policy goals, as a form of managed community cultural growth. What this also confirms is that cultural mapping does not draw on a single model (i.e., "one size does not fit all"), but that it is both socially (and politically) produced (Gray, 2006), and reflects national/regional planning and cultural policy systems and priorities (Guppy, 1997).

Sustainable communities and cultural planning

Sustainable development has been operationalized in two ways. The first of these has been through the proxy of "quality of life," where an extensive set of indicators—social, economic, and environmental—has been created to monitor performance over time. These indicators are applied at varying spatial scales: local ("quality of life counts"), regional, and national (Dalal-Clayton and Bass, 2002, p. 7). Culture (including sports, parks, and heritage) tends to feature in

these indicators in terms of access to services and satisfaction with provision, that is, benchmarks against which cultural provision and usage can be compared.

The significance of this approach is that certain cultural services were at least an *implicit* consideration in both quality of life measures and in the planning of sustainable communities. Secondly, in the U.K. it came to be an *explicit* one, as culture featured in housing growth and related amenity planning, and for the first time engaged with the development process (Evans, 2008). This responsive position provided a catalyst for cultural planning that, on one hand, challenges the master planning, regeneration, and mega-event imperatives and, on the other, seeks to embed culture in the planning and resource distribution processes. A particular manifestation of this approach was "Creating Cultural Opportunities for Sustainable Communities," an initiative jointly funded by the government's Department for Communities and Local Government (DCLG) and the Investing in Communities (HM Treasury) program. The stakeholders involved included a collective of national and regional cultural agencies (arts, heritage, museums and libraries, sport, and tourism) under the umbrella *Living Places*, whose main aim was to create a national Cultural Planning Toolkit—a set of guidelines, good practice, and principles—to inform the assessment and development of cultural needs within the context of new or growing communities.

As is evident from a review of cultural mapping and planning guidance (see Table 2.1), advice and guidance on undertaking cultural baseline mapping, and subsequent planning, takes various forms and is designed to serve different purposes, scales, and users—policy, practitioners, technical—and communities (Guppy, 1997; Evans, 2008). However, most of the cultural planning "toolkits" produced generally combine step-by-step guidance on cultural audit,

assessment, and mapping stages, but contain less on planning, forecasting, and scenario-building, or on links to arts policy and strategies around key art form development (Evans et al., 2007). These resources are generally in printed/downloadable report form, with checklists and inventories, but are not interactive, or linked to maps or databases. They are therefore useful guidance manuals but are not really planning "toolkits" (as many are called). City and provincial authorities in Canada—Toronto and Vancouver, for instance—developed online inventories of cultural facilities, and online databases of performing and public art installations that provide location, capacity, and operational information. The Vancouver-based national organization, Creative City Network of Canada, stimulated by the planning for the 2010 Winter Olympics, developed comprehensive cultural mapping and planning "toolkits" (Stewart, 2007; Russo and Butler, 2007), while in Australia and New Zealand, cultural planning resource sites have gone further in terms of community input and inclusion, allowing local areas and communities to write their own cultural histories and profiles, linked to facility maps and images. For example, a GIS-based cultural atlas in Western Sydney created a web resource allowing the user to zoom in to images, video, audio, stories, and links to documents and producing trails and tours, while in Queensland, a locally generated web resource provides maps and links to culture in terms of places, people, events, tours, and the history of an area.

Several toolkits have also been developed in response to major development projects, as well as these online resources. Table 2.1 summarizes these, indicating their main purpose and underlying method. In all cases, however, these online reports and mapping resources have proved to be time limited, a product of project/event-led initiatives, rather than integrated within planning and data resource systems. Their application in other areas and projects has also been limited due to their perceived high cost and timescale, for example in Canada, the Cultural Mapping/Planning

Toolkits developed in Vancouver were not taken up in 19 subsequent cultural mapping projects (Gordon, 2014).

Table 2.1. Cultural mapping and planning guidance

Table 1. Cultural Mapping and Planning Guidance (adapted from Evans, 2007)

Title (Year)	**Main Purpose and Scale**	**Content**	**Format – Sources and type of data**
Cultural Planning Toolkit North Kent, U.K. (2006)	To guide planning for culture in growth areas in sub-region (Kent , Medway Swale, Thameside)	*Executive Summary; Cultural Framework & Toolkit*. Maps cultural provision - Arts, Sports, Heritage, Community, Lottery by postcode location	Guidance. Local and County council databases, websites, online listings
Cultural Planning Toolkit, Vancouver, Canada (2007)	To encourage community leaders, planners and local government to explore the potential of cultural planning. Local authority/ city scale.	Guide to cultural planning process. Model and practical checklists; key definitions, types of cultural plan, process, planning timescale (13-20 month duration).	Guidance manual. Worked examples with websites, reference and data links.
Cultural Mapping Toolkit, Vancouver, Canada (2007)	This accompanying guide to the Cultural Planning Toolkit was designed to take the user through the entire mapping process, from creating an inventory to drawing up and presenting your map.	Step-by-step companion guide to CPT. Six stage process with examples, checklists, work-sheets. Workbook designed to serve as a record of the suggestions and solutions developed by the process.	Guidance with data/web and map links, data inventory categories, survey and interview guide, level and scale /scope of maps, classification system for cultural assets/facilities.
Creative Community Builders Handbook, USA (2006)	Builds on Partners for Livable Communities *Culture Builds Community* program and publication (1993). Scale - local area, project/site, city	Handbook with 'snapshot' case studies, with checklists for planning and assessment, project timeline and budget. Suggests 14 to 16 month time period for plan completion.	Handbook. Community cultural planning approach to asset mapping, consultation, identity and stakeholder building.
Cultural Planning Guidelines for Local Government, Australia (2006)	Outlines the importance of local cultural planning. Contains the information necessary to assist councils in preparing cultural plans for their communities. Scale - Local authority	Policy principles for cultural planning; background and benefits of local cultural planning; detailed guidelines and practical advice on developing a cultural plan, including a step-by-step guide.	Guidance with indicators 9 step local cultural planning process of 12-18 month duration.
Queensland Cultural Mapping Project, Australia (2001)	To provide 18 Local Council's in the Region to build their own Cultural Maps. Scale - local authority	Locally-generated web resource providing maps and links to culture of an area. Supports the process of understanding, preserving and sharing private and collective memories of places, people & events, creating a shared view of traditions, values and ideas.	Web resource producing a Cultural Map reflecting identity and aspirations of a diverse community. Councils received a copy of the template of the Cultural Map system, software, a training program and support.
The Digital Cultural	Seeks to develop	Incorporates complex spatial	The Atlas adds to the

Atlas of Greater Western Sydney, Australia (2007)	informational tools to support cultural mapping and cultural planning at the local government level through the development of a Digital Cultural Atlas for Greater Western Sydney. Scale - local and regional authority	data in reader-friendly and usable form with other views and related information in other formats. Navigates between GIS and related web resources; standards for resource discovery allowing identification relevant to a particular place, time or theme, and issues relating to the authority and provenance of resources, digital rights management and privacy	planner's "bird's eye" view by providing on the ground/community view by allowing the user to zoom in to: images; video, audio; documents, stories; and links to related information wherever it is; online exhibitions and access to digital collections; linking information together to provide trails
London Thames Gateway Social Infrastructure Toolkit and Framework (2006)	To assist in social planning and delivery and to promote 'healthy, successful and sustainable communities' by ensuring population growth, matched by supporting network of high quality, accessible and effective social infrastructure services and facilities. Scale – local and sub-regional	Makes the case for social planning and integration through stakeholder partnership and community consultation. Methodology for evidence-based decision-making in local contexts / sectors: education; health; recreation, culture, community; emergency & essential services. Guidance for using data and mapping/ forecasting plus e-based (GIS) model for assessing population impacts of new housing; method for testing against local facility capacities, catchments and stakeholder needs.	Regional baseline socio-economic data . Social Infrastructure Planning Model - local data on existing and proposed services and facilities including locations; size composition of new housing; modelled local population projections . Four modules: 1.Baseline Assessment 2. Mapping Supply and Demand 3. Evolve and test solutions 4. Identify Delivery Mechanisms

Adapted from Evans et al. (2007)

Drawing on both this international evidence and good practice—but also on deficits in their coverage, transferability, and longevity—the *Living Places* Cultural Planning Toolkit took a "whole population approach" to the iterative mapping, needs assessment, and planning process, as shown in Figure 2.1. This aimed to combine and integrate people and places with change/drivers, underpinned by a wide range of quantitative and qualitative data (shown in brackets), and spatially visualized where possible (Evans, 2008 and 2013). By providing the planning system with guidelines for cultural and leisure planning and related social infrastructure (e.g., health, education, and community amenities), the Toolkit sought to ensure that facilities

necessary to support a sustainable community are provided and fit for purpose, thus enhancing quality of life. A key strategic objective of the Cultural Planning Toolkit was, therefore, to support the work of the local planning authorities and delivery organizations tasked with managing areas undergoing population growth and change, including priority areas defined in the national Sustainable Communities Plan. Key to "populating the cultural map" as a baseline from which consultation, planning, and scenarios can be developed is the classification of "cultural assets" and the data architecture that underpins the information gathering and visualization process.

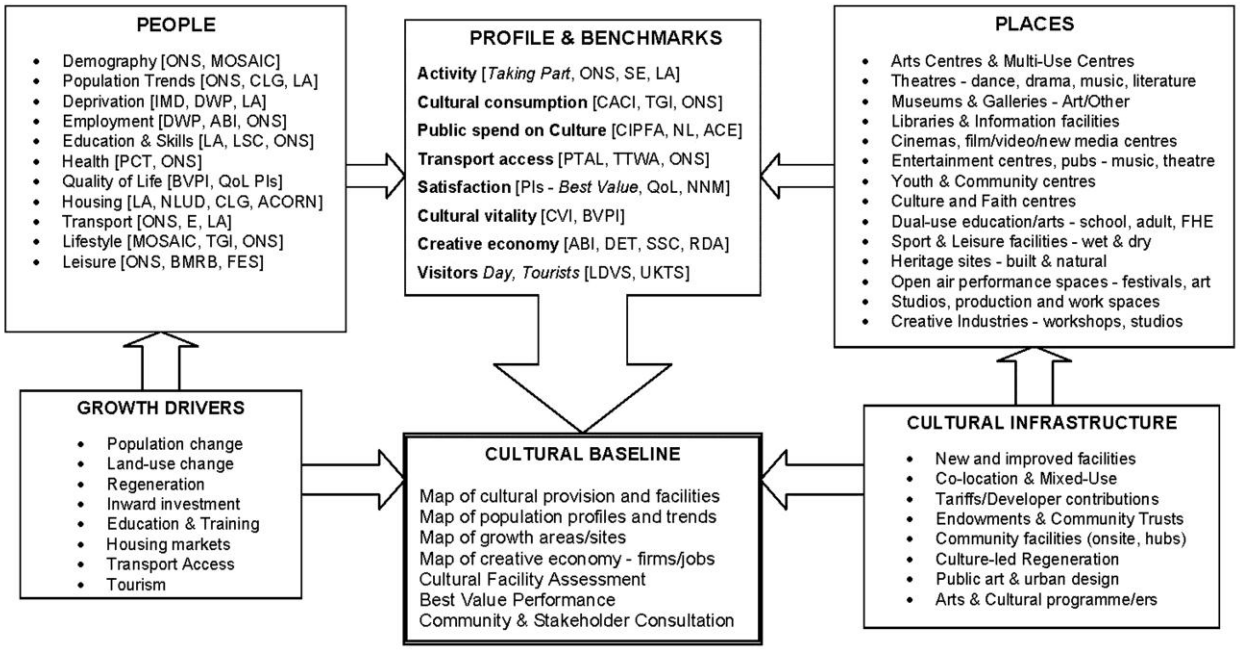


Figure 2.1. Populating the cultural map. Source: Evans (2008)

North Northants Living Places

As an example of the toolkit in action, a regional Cultural Infrastructure Plan was created as part of the Cultural Planning Toolkit development for North Northamptonshire ("Northants") in central England—a designated growth area requiring investment in new and upgraded cultural

facilities and improved access in a sub-regional area with no major metropolitan cities and therefore no higher-level facilities. Comprehensive mapping was undertaken, with over 25 detailed maps across cultural, environmental, and social domains, in collaboration with local authorities, a development agency, a regional arts organization, and other cultural bodies. The context was that of a growing population and specific housing growth areas, as well as town center regeneration (e.g., Corby) in what is a mixed post-industrial (e.g., steel) and semi-rural region, and consequently with a socio-spatially divided population. Extensive baseline mapping of a range of socio-economic distributions included household income, educational qualifications, population density, age ranges, disability/illness, and lifestyle groups—all indicators of cultural participation and "cultural capital" —along with population and housing growth over the following 20 years. The categories of cultural amenities are indicated in the example map (Figure 2.2), which were "layered" over the various spatial data analysis and housing growth areas where cultural facilities were most needed.

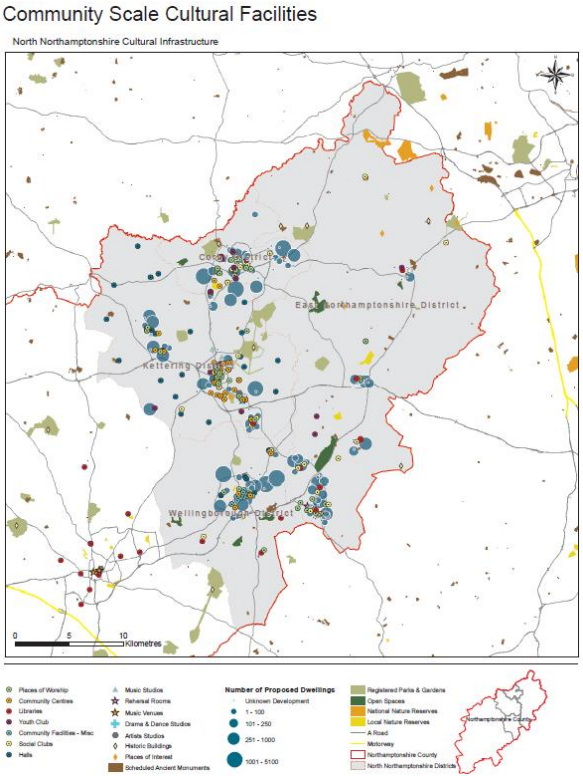


Figure 2.2. North Northants community-scale cultural facilities

These annotated maps were used as the basis for consultation with residents and stakeholders and to highlight the distribution of cultural assets and gaps and in access and provision. For example, top-down cultural facility development included a newly built "Corby Cube" combining library, health centre, and other town center facilities, but the town lacked a single cinema screen, as was evident from the mapping and consultation. Furthermore, the "rational" relocation of a youth theatre to an exhibition centre, away from the concentration of young people, local transport, and the town center of Kettering, also emerged from correlating population groups with amenities and accessibility. Engagement also included community artists ("Think Space") working with local residents on a range of local issues/themes and routes, through artworks, events, and other interventions.

Cultural asset mapping

Major mapping and planning projects such as *Living Places* require both professional resources and expertise, and significant time and funding to achieve (cf. Gordon, 2014 and Table 2.1). So in response to the dearth of consistent and available data on a range of cultural facilities—a perennial problem in cultural mapping—the U.K. Culture Ministry commissioned Cultural Asset Mapping guidance and toolkit resources for local areas looking to develop better knowledge about their local supply of culture (DCMS, 2010). This was carried out under the DCMS' CASE (Culture and Support Evidence) programme in the form of a series of accessible and downloadable online guidance and templates. The cultural mapping guidance identifies a range of readily available sources of data, allowing communities to get a good picture of what already exists without commissioning expensive work. It also provides data definitions and frameworks for allowing local areas to generate comparable definitions of asset types, as well as for recording new data resulting from focused data collection. This ensures data comparability between areas and allows a richer picture of culture to emerge over time, reducing duplication and increasing data use and re-use. A particular objective of this exercise was to mainstream and make cultural data compatible with national datasets on social, environmental, and other planning (e.g., land use) data.

From the outset it was recognized that *mapping* has different meanings (and a different end point) depending on the reasons why you are undertaking the exercise and the outcome you wish to generate. Mapping can simply be an audit of facilities through which you collect information about the location and purpose of your physical resources and record the information on a spreadsheet or in a database. Supplementary information on the asset type, its scale, quality, and role can be added as fields. The spreadsheet or database can then be used to create the evidence

base for strategic planning, for example, a mapping resource to quantify the number of facilities by district. This helps to identify the gaps in provision by type of asset and by locality. Collection and sorting of data can also be an important first step leading to visualization/mapping and analysis using GIS. For this to take place, particular data on the address and postal (zip)code of each asset needs to be recorded accurately. A number of decisions then arise once the purpose of your mapping becomes clear. These are outlined in the flow chart in Figure 2.3.

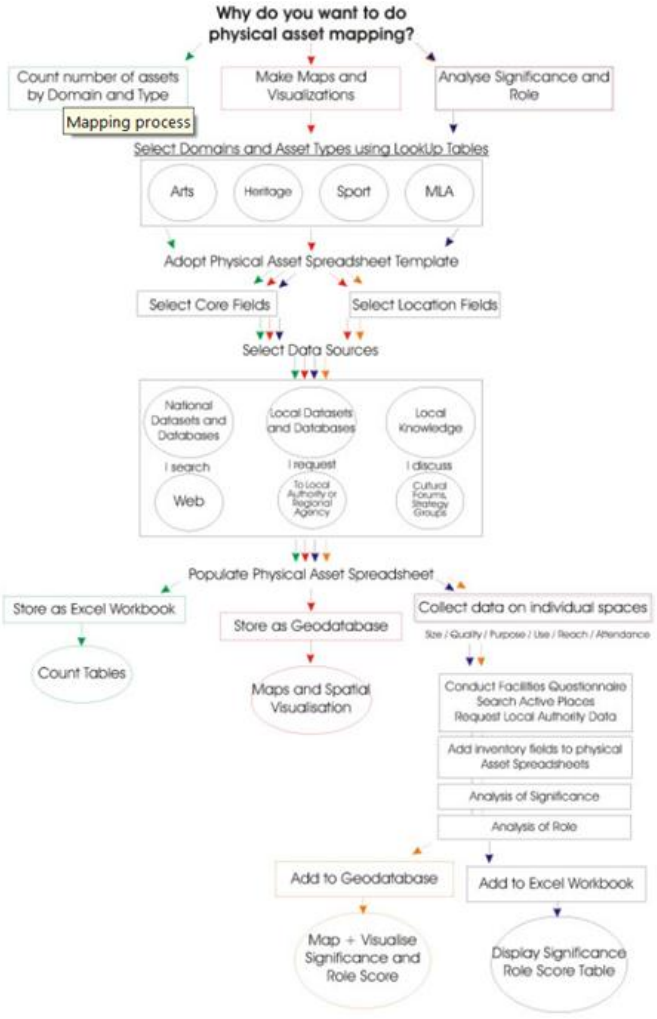


Figure 2.3. Flow chart of cultural asset mapping

Defining physical cultural assets poses particular problems, particularly when an asset is used for more than one purpose. Our starting point has been to identify those where most cultural activity takes place. These assets have been grouped into broad Primary categories (see Table 2.2) to represent venues and physical assets where similar types of activity take place. To ease data collection, the identification of physical assets has drawn on the categories used in some of the most accessible national datasets (for example, the National Monuments Register). Assets have been grouped by domain (Arts; Heritage; Museums, Libraries & Archives; and Sport). The Primary description identifies a general group of assets. Depending on your reasons for undertaking cultural mapping, you may only need to represent your assets at this aggregate level.

Table 2.2. Physical asset primary description, excluding "Sport"

Arts	**Museums, Libraries and Archives**	**Heritage**
Art Galleries and Visual Art Venues	Museums	Historic Buildings and Structures
Music Venues	Libraries	Historic Monuments
Theatres, Dance and Drama Venues	Archives	Historic Parks and Gardens
Multi-Use Venues		Historic Landscapes
Cinemas		Protected Natural Landscapes
		Archaeological Sites
		World/National Heritage Sites

Secondary and Tertiary descriptions have also been developed to enable further disaggregation where this is required. Again, these are based on categories used in national datasets. Mapping physical assets is an iterative process. It is suggested that the definitions in the templates guide initial search for regional and local assets using national and local datasets and local knowledge.

Once individual assets have been identified, they can be included in an Asset Data Template (Table 2.3). However, it is also suggested that Primary, Secondary, and/or Tertiary type are allocated for each individual asset entry. If data on the Secondary Asset Description (Table 2.4) and additional local data is recorded (for example, on Local Types, Art Form, and other headings) important features of the *current use* of that asset can be identified (see Figure 2.4); for example, that an asset listed under the Heritage Domain and identified as a domestic building is used as a space for adult visual arts education. Likewise, assets that are primarily used for Arts can have their listed and heritage status recorded.

While it is recommended that the typologies in the templates be used to guide data collection and classification, it is recognized that some flexibility is appropriate to meet local mapping needs and to reflect the multiple use of certain assets. In some extreme circumstances, individual assets may need to be allocated a dual Domain or Primary Asset status. Local information can also be included which identifies the main activity undertaken in a venue, its ownership, or whether or not the organization using the asset undertakes outreach work. Identifying current usage will be particularly important where the asset description refers to the original, rather than current use.

Table 2.3. Primary asset template

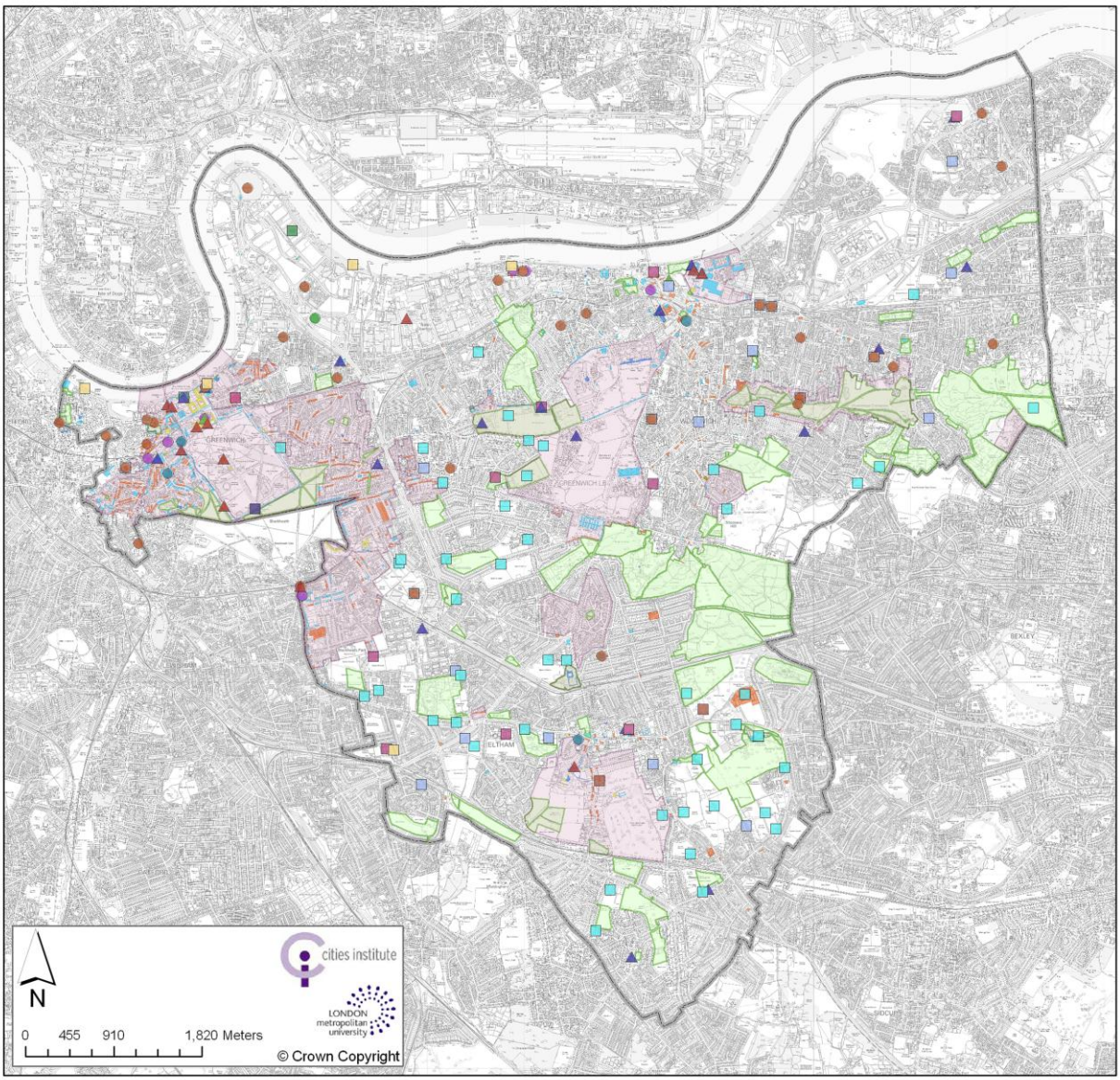
	Location type	**Catchment**	**Size**	**Reach**	**Quality**	**Significance score**
Cultural Asset name	*Metropolitan Centre/Town Centre/local Neighbour-hood*	*Assessment of travel distance*	*e.g. seating capacity*	*Audience segment /penetration*	*Expert judgement of programming*	*Rating 1=-4 (1 international, 4 local community)*

Tramshed, Woolwich	Town Centre	1.5 km.	150		Local/ Community	4
Theatre Royal Stratford East	Town Centre	1.10 km.	460		Professional/ Regional	2
Geoffrey Whitworth Theatre	Neighbour-hood	1.3 km.	152		Amateur/ Club	4

Table 2.4. Secondary asset template

Asset/Venue	Domain	Primary description	Secondary description	Location type1	Location type2	Art form	Outreach	Education
Phoenix Hall	Arts	Arts Centre/ Multipurpose Arts Venue	Public hall	Professional	Arts performance	Drama, Dance	Yes	No
Mill Hill Library	MLA	Library	Local Public	Information hub	Local Archive	Literature	Yes	No
Avenue House	Heritage	Historic building and structure	Domestic	Voluntary sector	Community use	Adult visual education	Yes	No

GIS software can also be used to display not only the locations but also other attributes of physical assets. Most mapping projects simply identify and display the locations of assets, either by domain and type or by area. Such mapping shows distribution but does not attempt to capture the significance of distributions or their catchment/usage (see Figure 2.4). The following case, *Shaping Woolwich through Culture*, applies this cultural asset mapping process, illustrated by a selection of maps.



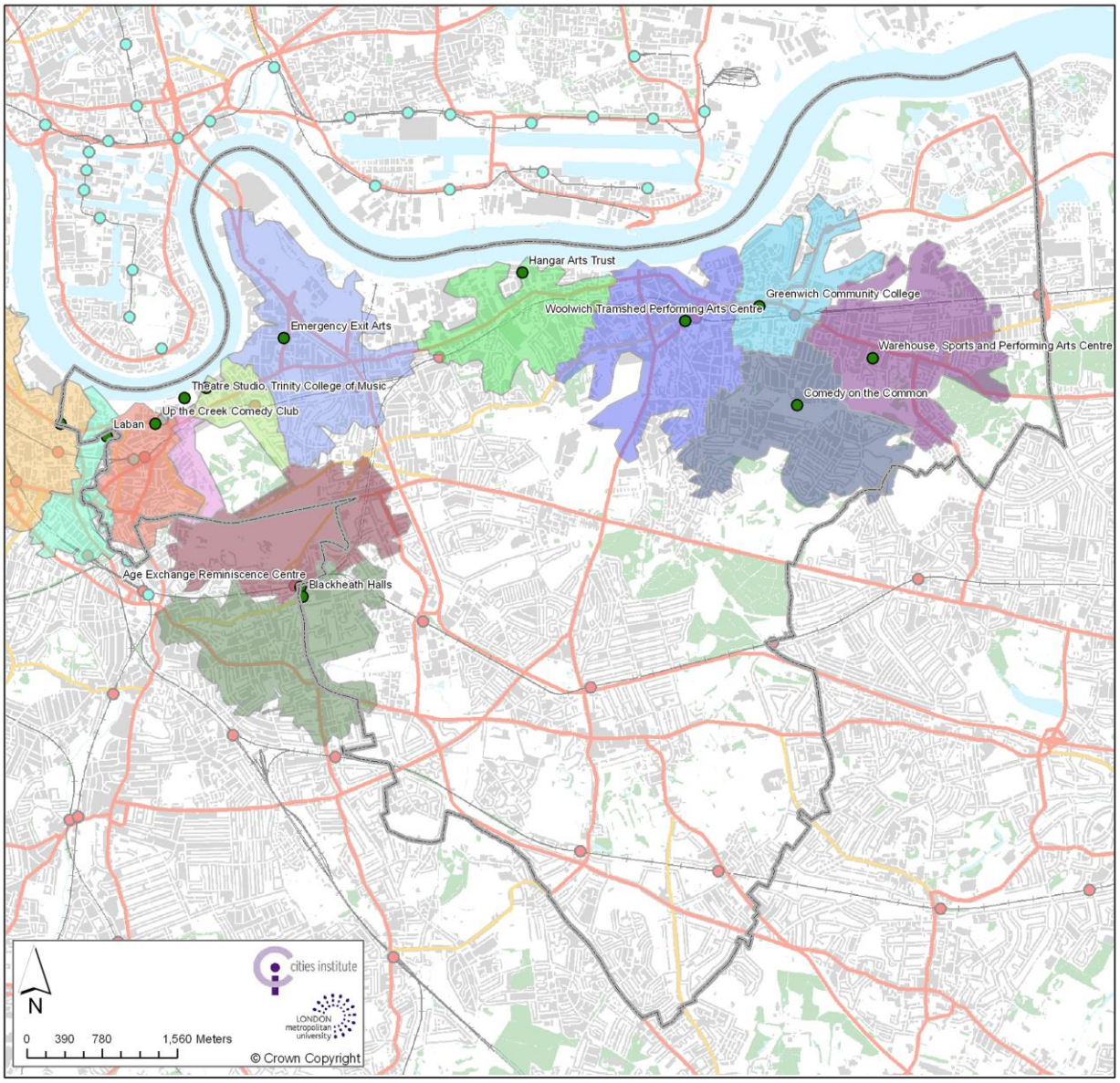
- Art Galleries and Visual Arts Venues
- Cinemas
- Multi-Use Arts Venues
- Theatres, Dance and Drama Venues
- Archives
- Libraries
- Museums
- Bowling Greens
- Golf Facilities
- Leisure and Sports Centres
- Specialist Facilities
- Sports Courts
- Sports Grounds, Pitches and Tracks
- Swimming Pools
- Sport (Undefined)
- Listed Grade 1
- Listed Grade 2*
- Listed Grade 2
- Locally Listed
- ConservationAreas
- Parks & Open Spaces_region

[INSERT FIGURE 2.4 HERE]

Figure 2.4. Woolwich Culture Map

Shaping Woolwich through Culture

Shaping Woolwich through Culture worked with detailed address information captured in a spreadsheet to enable accurate asset identification at a detailed geographical scale. This required repositioning assets to reflect their building rather than postal code location. This level of detail increased the analytical potential of the data and its use in a "master planning" approach to developing strategy for the town center. In Woolwich town center, a key driver is supporting cultural and sporting infrastructure development in areas of anticipated housing growth. Further analysis of the accessibility of existing cultural and sporting infrastructure can help to identify the gaps in both current and future provision, after the new housing development has been completed (see Figure 2.5), as in the case of North Northants above.



Multi-purpose performing arts spaces
20-minute walking catchments

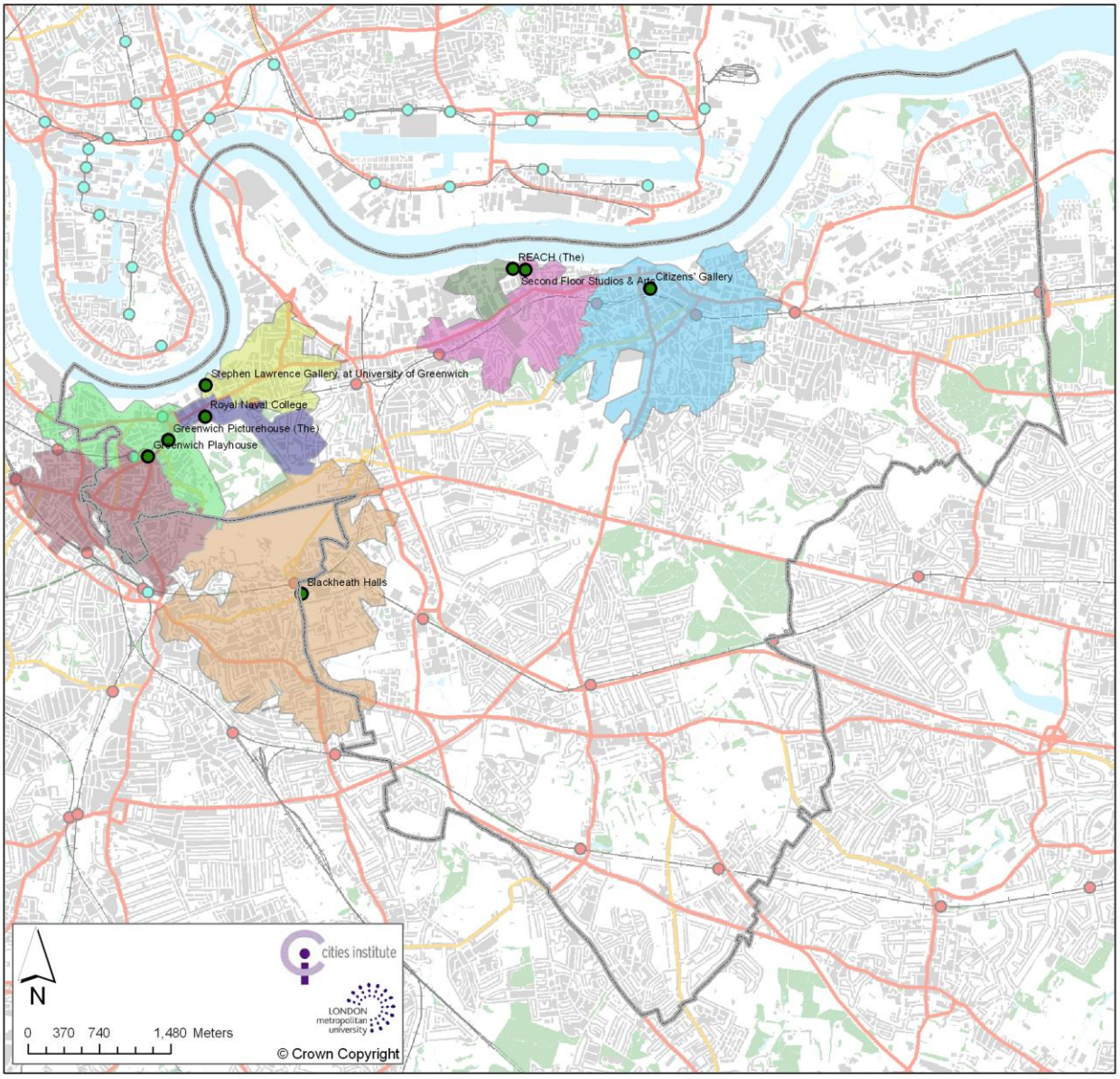


Figure 2.5. Woolwich cultural facility catchment areas

In Woolwich, knowing the relationship between individual development sites, projected population growth, and existing assets' locations was considered critical to building scenarios for the creation of Woolwich as a good place to live and work. Analysis of the spatial clustering of

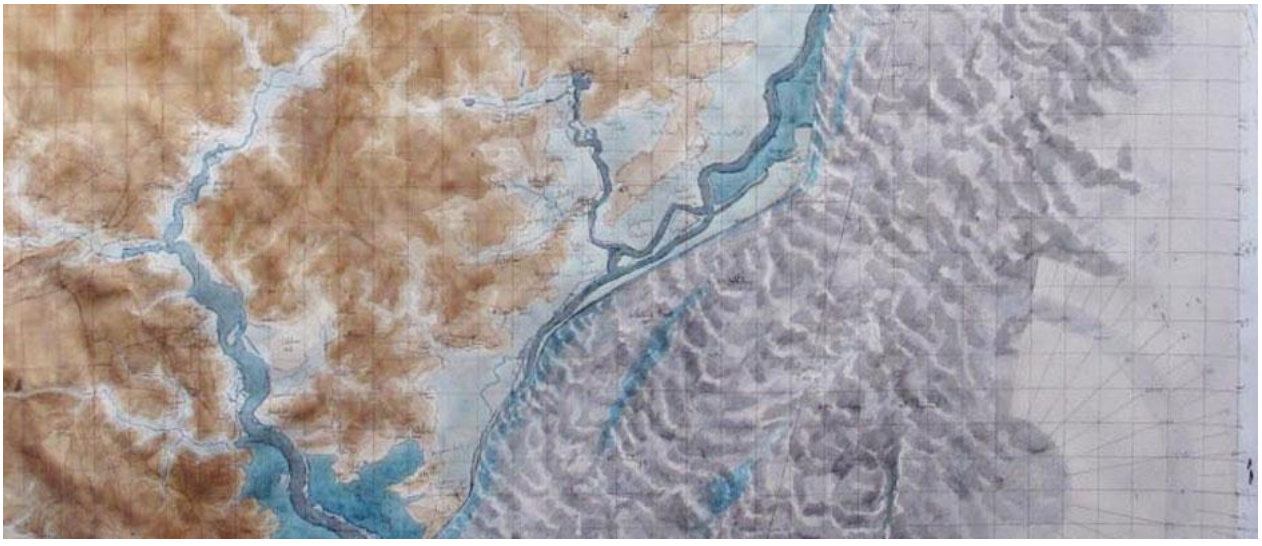
physical assets has also led to the identification of cultural nodes as shown in Figure 2.6. It is also possible to annotate visualizations with data from an inventory to display information about the size, quality, and use of individual assets. Such data can also be collated and summarized to present tables or graphs to be presented alongside maps.

Figure 2.6. Woolwich clustering of cultural assets

Cultural mapping can also employ visual consultative methods such as GIS (Geographic Information Systems)-Participation (GIS-P) with small groups working with large-scale maps that can be annotated with perceptual as well as community information (see below). This local knowledge and opinion can be digitized back into interactive maps containing geo-demographic, facility, transport, and other data, and be repeated iteratively with the same/different groups. This technique, which draws on the earlier "Planning for Real" exercise using simple board games, models, and maps, is used successfully from primary school children to pensioners, and around urban design, transport, and heritage interpretation (Evans and Cinderby, 2013) as well as in conflict sites and resolution situations. Visualizing and animating land use and cityscapes,

together with human activity and flows in terms of cultural activity, participation, and aspirations, can also benefit from the direct involvement of artists and designer-makers, whether as interpreters, catalysts, or visionaries. Community and public arts practice, long established, would appear to have a renewed importance in helping to bridge the current development and planning process and pressures for new and high-density housing and environmental impact assessment (for example, for climate change, flooding) through involvement in cultural mapping.

For example, visual artists have played an increasing role in mediating and interpreting environment change and conflicts, such as in coastal areas and estuary management. Their intervention and engagement can help in interpreting changes to the environment over time, and visualize scenarios in a non-scientific fashion, such as in the work of artist Simon Read (Jones, Read, and Wylie, 2012), who has been active in estuary and flood risk mapping schemes on the English east coast.



[INSERT FIGURE 2.7 HERE]

Figure 2.7. Visualising the Suffolk Coast, by Simon Read

Cultural ecosystem mapping

As an extension of cultural asset mapping into the ecosystems dimension, the GIS-Participation approach has been applied in testing local community perceptions of place in terms of a range of experiences and attitudes towards their local environment and hydrosphere (river/canal system, wetlands areas/reservoirs). The notion of "Ecosystem Cultural Services" (UK NEA, 2011) is generally rationalized in terms of externalities—health, recreation, tourism—and as cultural *goods* ("human benefits from nature") arising from environmental settings—and these are dominated by so-called "natural settings," green space/parks, recreation, and tourism. Little recognition is given to the established work in environmental art (Lacy, 1995), art and regeneration (Evans, 2005), or the transformative role of community arts in urban and sustainable development. The U.K. national ecosystem review (2011), for instance, drew mainly on environmental studies/science in the treatment of cultural services, acknowledging that "this approach to cultural services struggled to find a consistent theoretical and methodological framework to match that underpinning other areas of the NEA" (p. 639). The NEA also highlighted knowledge gaps related to ecosystem cultural services, specifically in "data collection and the uneven monitoring of change in different environmental settings" (p. 638).

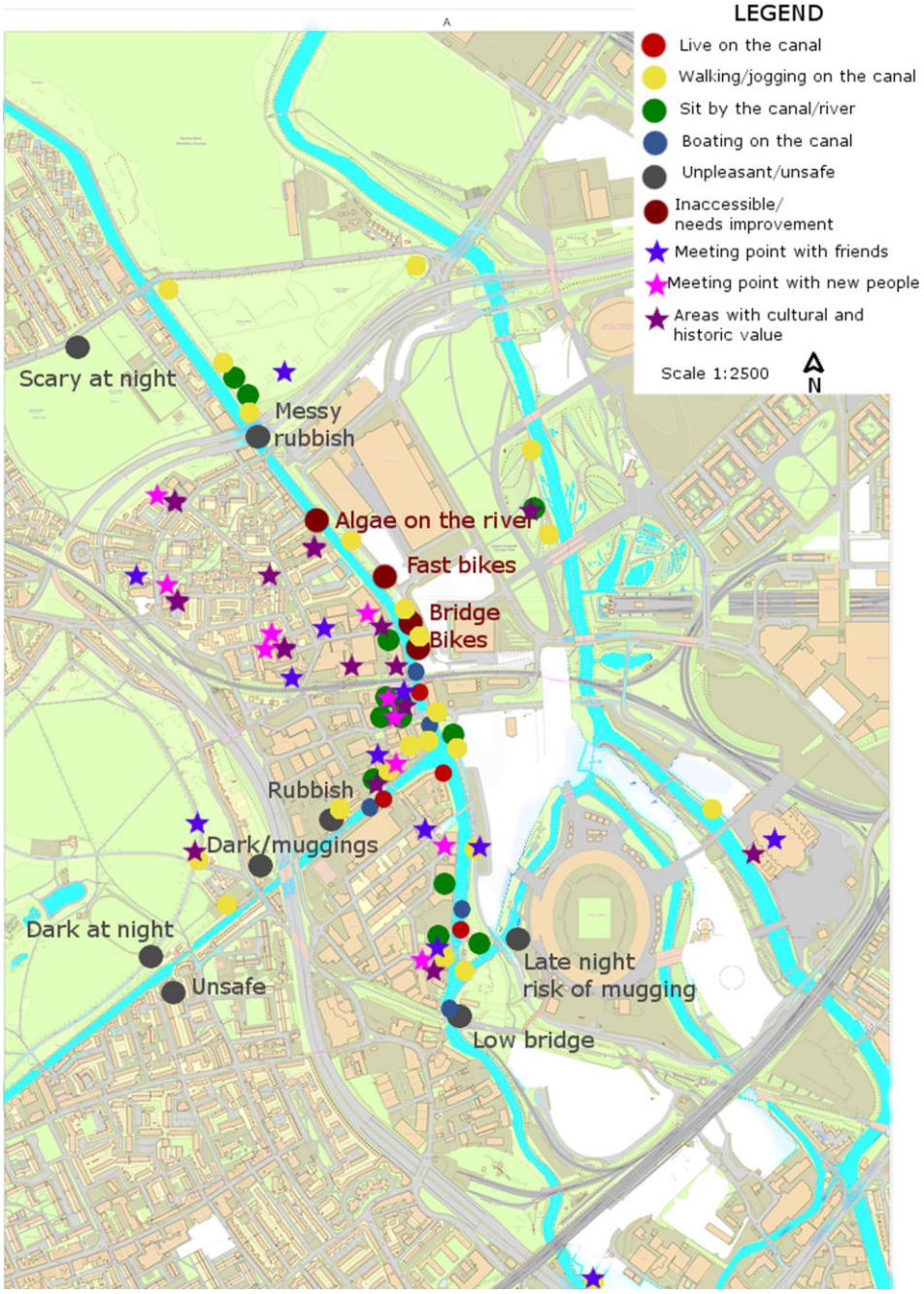
In a neighborhood undergoing major change due to regeneration and population growth with new land and waterscapes (a legacy from the London 2012 Summer Olympics), GIS-Participation workshops were held with local residents which sought to capture their perception and usage of the local area based on an assessment of Cultural Ecosystems Services (Table 2.5). This uses a self-completed questionnaire and place-based responses which participants annotated on large-scale maps of the area (Figure 2.8).

Table 2.5. Cultural ecosystems services mapping values

Cultural Services/ Values	Definition
Spiritual services	Sites of spiritual, religious, or other forms of exceptional personal meaning
Educational values	Sites that widen knowledge about plant and animal species
Inspiration Sites	Sites that stimulate new thoughts, ideas or creative expressions
Aesthetic values	Sites of particular beauty
Social relations	Sites serving as meeting points with friends
Sense of place	Sites that foster a sense of authentic human attachment
Cultural heritage values	Sites relevant to local history and culture
Recreation and ecotourism	Sites used for recreational activities (walking, dog walking, horse riding, swimming, gathering wild food, angling etc)
Unpleasant Sites	Sites that are neglected, abused, damaged, or unpleasant
Scary Sites	Sites that feel dangerous or threatening
Noisy Sites	Sites that are disturbingly noisy

Source: Plieninger, et al. (2013)

Adapted from Plieninger et al. (2013)



[INSERT FIGURE 2.8 HERE]

Figure 2.8. Cultural Ecosystem Mapping GIS-Participation workshop and analysis

This textual and visual mapped data is then analysed and re-digitized for further workshops in an iterative process, accumulating local knowledge and perspectives. This local knowledge can be

layered with other cultural, social, and environmental asset and amenity data (as in the Cultural Asset maps above), to show correlations, gaps, and points and clusters of interest, opportunity, and conflict. These can be articulated and disseminated in further rounds and via web resources in order to develop cultural plans and interventions.

Conclusion

What these cultural planning models and tools have in common is a response to change, whether regeneration (event-based, major sites), environmental, new housing (urban villages, brownfield, mixed-use), or cultural development, and a need for more effective resource planning. They frequently arose through specific initiatives—policy, funding, efficiency—rather than a systemic change to the planning system or culture, although most cultural planning approaches have explicitly sought to engage the planning system and profession in their guidance and methods. Certainly, we have observed a spatial turn in cultural policy and planning over the past 10 years (Young and Stevenson, 2013), in part facilitated by GIS and spatial visualization techniques and take-up. However, their initiative-led and special event status has often rendered them time-limited and therefore not sustained—victims of funding expiry, political and regime change, or just obsolescence. This is evident by the fact that web links to several of these resources are no longer active, host organizations no longer exist, and event roadshows move on.

What this signifies is that there has been a failure to embed cultural planning into the mainstream planning system, including the education and training of planners and related professionals (e.g., architects, environmental officers, public administrators). This is reflected in the adoption of an increasingly micro-level approach to place-making, or strategic policy-making, which is preferred to more comprehensive planning and a cumulative knowledge/evidence base that is also

both sustainable and inclusive. This conclusion is also reflected in the reliance on external consultants to undertake periodic or special project cultural plans and strategies, with the lack of knowledge and skills transfer that this practice infers (Evans, 2013). Such a situation also creates an inconsistent range of approaches, classifications, and data, in contrast to, say, standard land use classification, economic and employment data, and other social indicators. Efforts at integrating culture within sustainable development principles and practice have, therefore, had only a limited effect. In other words, the level of knowledge and the point in the learning curve has been advanced, but this is not universally transferable or well distributed across localities, practice, and policy realms. It has already proved to be fragile in the face of shocks such as economic recession, political uncertainty, and unsustainable (and unplanned) growth.

Learning from the significant developments in cultural mapping and cultural planning is, however, evident globally, in some respects filling a vacuum left by a rolling back of the "cultural welfare state" and funding cuts to arts and community budgets. Cultural mapping is being applied in novel ways: for example, in the Connected Communities project *Hydrocitizenship*, above, where local mapping around environmental change and water issues are combining GIS-Participation and co-designed cultural mapping of local amenities and access, with the input of practising artists. It is also evident from the diverse range of applications of cultural mapping beyond the data-driven and cartographic approaches reviewed here; related approaches such as deep mapping and performative mapping are extending the methods and application of cultural mapping into arts and humanities spheres (including literature, crafts), challenging, perhaps, its historic geographic bias. This is widening both the epistemological and heuristic basis on which mapping is undertaken.

By the same token, the development of online guidance through Cultural Asset Mapping, in particular, seeks to integrate (national) data sources and to combine these with local knowledge through generic data templates and GIS platforms that can be adapted and customized for local needs. It will be interesting to see how far this and other resources are used in future cultural planning exercises and methodological development. This includes greater emphasis on the consumption (usage, participation, audiences) for arts and cultural activities and facilities, and barriers to take up of cultural opportunities (Evans, 2008; Brook, Boyle, and Flowerdew, 2010). The greater the consistency and the greater the sharing of data and cultural maps that emerges, in time we should see efforts "join up" rather than produce fragmented and static cultural maps. This should also lessen the cost and timescale barriers that clearly limit more sophisticated mapping and the creation of a range of resources that should arise from this approach over time.

Finally, if culture and governance can be seen as mediating forces in reaching some equilibrium between the three pillars of sustainable development, planning practice and principles should arguably engage with these through cultural planning approaches. This entails planning that is consultative, informed, and democratic in considering both the whole population (past, present, and future) and culture in all of its diverse and collective manifestations and desires. This equilibrium would appear to be a necessity given the difficulties that initiative-led and toolkit paradigms have had in influencing planning and development imperatives—and therefore practice and outcomes. Returning to some basic principles—bringing sustainable development and community aspirations down to the everyday uses and experience of space, social exchange, cultural expression, and "ways of life" —we can present planning as a facilitating and mediating process rather than something defined through its reductive valorization (land/exchange values), homogenous standards (amenity, space, design), and control (of development, conservation)

functions. In sustainable cultural planning, cultural activity, programs, traditions, and engagement together drive facility access, provision, heritage protection, and spatial equity—not the other way around. As Lefebvre (1974) observed, we do not "use" a sculpture or work of art, we live and experience it.

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