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Tangibles, intangibles and other tensions in the Culture and Communities Mapping Project

Title: Tangibles, Intangibles and Other Tensions in the Edinburgh Culture and Communities Mapping Project

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ABSTRACT

This paper describes the Culture and Communities Mapping Project, a study that uses cultural mapping to understand the relationships between the Edinburgh's cultural spaces and local communities. The paper begins by detailing different methodological paths those carrying out cultural mapping projects will navigate: formatting the project to collect quantitative or qualitative data, which is usually correlated with tangible or intangible data, as well as approaching the map as a means to policy outcomes rather than as part of a process of community building through collective memory. The paper then offers an in-depth case study of the Edinburgh-based map, a tool that artists, art institutions, and policy makers can use to better understand Edinburgh's cultural geography and guide further research on arts equity and access. The findings section concludes with thoughts what the project reflects about the cultural mapping enterprise more broadly.

Introduction

> Every place is unfathomable, infinite, impossible to describe because it exists in innumerable versions, because no two people live in quite the same city live side by side in parallel universes that may or may not intersect.
> - Rebecca Solnit and Rebecca Snedeker, *Unfathomable City: A New Orleans Atlas (Solnit & Snedeker, 2013)*

In October 2018 we began a project to map cultural spaces in Edinburgh. Very little data existed for the project to build upon, so we used cultural mapping to ask people about the cultural spaces of interest to their communities. Participatory mapping allowed us to ask participants what counts as culture and what categories to include in the map, rather than us determining these in advance. This method also helped us examine the relationships between Edinburgh's cultural spaces – from rehearsal spaces, to venues for live performance and temporal events – and local communities, particularly on areas outside the City centre.

From March to July 2019, we held seven public mapping events that invited people from the cultural sector to offer their perspective on the city's cultural infrastructure – to name spaces they value and identify vital community hubs. **The project set out to highlight, in particular, cultural spaces that engage with local communities and operate outside Edinburgh's tourist-ridden core.** We drew from community feedback to guide the data collection, hosting three organised workshops and bringing print-outs of a map to four community events, where passers-by could interact with it at their leisure. 115 people took part in identifying spaces they knew and that mattered to them. One main output of these

events is a digital map of cultural spaces enriched with demographic and geographic layers that illuminate meaningful differences across Edinburgh's neighbourhoods, **such as the greater density of cultural spaces clustering in the city centre and the importance of cultural hubs to certain areas.**[1]

This paper analyses the Culture and Communities Mapping Project by drawing from literature on the geographic and community-oriented dimensions of culture. Through this analysis, we make two contributions to scholarly understandings of cultural mapping. **First, we detail different methodological and epistemological approaches taken by cultural mapping projects: between capturing tangible and intangible, as well as qualitative and quantitative data, and between using maps for policy outcomes versus as a process of community building and collective memory making.** Second, we offer an in-depth case study of our project, which has designed a tool that artists, art institutions, and policy makers can use to reflect on Edinburgh's cultural geography and, we hope, steer the city in a more inclusive manner. Our findings section lays out the methodological and epistemological choices we made as the project unfolded. We conclude with final thoughts on what the project reflects about the cultural mapping enterprise more broadly.

In the next section we review literature from critical cartography, cultural geography, and cultural mapping that help us orient our project theoretically and better understand the tensions that characterise it.

Mapping spaces and values

Rethinking the Epistemologies of Maps
In the 1980-90s critical cartographers, such as J. Brian Harley, began examining maps as a colonial medium – a form of religious and racist propaganda that, by representing the boundaries of empire, reify the colonial project (J. B. Harley, 1992). Cartography as a field had traditionally regarded mapping as a way to represent the reality of geographic features, both political and natural (J.B. Harley, 1989), but, as these scholars showed, in the process of drawing a map, the cartographer determines what is visible or erased from view, selecting symbols, content and colours; these acts of interpretation are required at each step of the mapping process (J.B. Harley, 1988). By subjecting maps to cultural analyses and cartographic semiotics, critical cartographers, cultural geographers and non-representational theorists view the iconography of maps in complex relationships with the political, religious, and cultural struggles during the time of their creation (Cosgrove, 2008).

Even more, maps shape, rather than reflect, the territories their creators try to represent.

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[1] www.edinburghculturalmap.org

Pickles writes that a map "is not a representation of the world, but an inscription that does (or sometimes does not do) work in the world," (1991, p. 67). Maps are formalized abstractions, but when they are presented as real objects, their effects are also very real. To see maps as scientific one-to-one representations of the world is a 'mimetic fallacy' that ignores maps' displacement from and bearing on the original object now being imitated (Huggan, 1989, p. 117). These scholars deconstruct maps to reveal the power and knowledge structures behind their creation and to understand their political and social force in the world and on their viewers (J.B. Harley, 1989). This critical project continues today, even in the new era of computer technology, as dominant groups of elites, both government and corporations such as Google and Apple, continue to control the creation of the maps we use.

In line with this deconstructivist way of looking into maps, cultural geographers and artists throughout the 20th and 21st centuries have used mapping as part of artistic practice (Cosgrove, 2008b). Cosgrove discusses cartography as a cultural act, from *arte povera*, Sol de Witt's work, and Henry Lefevre at 'la production de l'espace', to the surrealist map of the world, maps of Situationist derives, and land art. These maps are often anti-mimetic, abstract, and expressive of their creators' or users' affective and psychological dimensions – in their playfulness they reject the positivist paradigm of mainstream cartographic efforts. More recently, GIS offers cultural producers a new medium for politicising spatial knowledge, from the Spatial Information Design Lab's Million Dollar Blocks project – a map that foregrounds the costs of incarceration in the United States – to the Just Data Lab's anti-eviction map, a geographical database capturing the struggles of the unhoused. Cosgrove draws on Harley's critique to represent and highlight the 'performative role of maps as objects' that artists use to intervene in daily life (2008b, p. 165).

Epistemologies of Cultural Mapping
These reflections and critiques of traditional cartography have provided a theoretical basis for many cultural mapping projects (Duxbury, Garrett-Petts, & MacLennan, 2015). Since its origins in the 1970s,[2] cultural mapping offers a democratic approach to regional cultural policy – both in terms of *who* can define and access culture and shape cultural policy and in terms of *what* gets counted and funded as part of the cultural landscape. Early practitioners made concerted critiques of colonial geographies, countering their colonising logics with indigenous 'counter-maps', first in Canada and later Australia, South America, then around the world. Like critical cartography, these early cultural mapping initiatives in indigenous territory position maps and geographic knowledge in relation to power and politics. While indigenous counter-mapping intervenes in the politics of representation by democratising the mapping process, it also often appropriates more traditional cartographic techniques in order to legitimate those local views, rather than critiquing the dominance of Euclidean geometry –

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[2] General consensus in mapping literature places the origin of this practice with indigenous First Nation communities in Canada in the 1970, then Brazil, Australia, and all around the world.

points, lines, and planes – to demarcate space (Lee Peluso, 1995; Segalo, Manoff, & Fine, 2015).

Practitioners have used counter-mapping to include minoritized voices in cultural policy-making. Writing in the Australian context in the late nineties, Bennet and Mercer describe counter-mapping as a form of cultural mapping that offers a more evidence-based, collaborative and inclusive approach to cultural policy and reconciles local knowledge with the goals of administrators. The authors argue that cultural mapping democratizes conceptions of culture by involving minority and indigenous perspectives, not only those of nationalist or elitist values and state power (Bennet & Mercer, 1998). In Crawhall's 2007 paper prepared for the UNESCO commission for cultural policies and intercultural dialogue, cultural mapping is a valuable tool for gaining the consent of indigenous people in policy that concerns their territory; it also diversifies cultural expression by capturing intangible heritage – the cultural traditions of oral cultures or nomadic pastoralists, for instance, that graft onto shifting natural landscapes (Crawhall, 2007). Electronic maps, Crawhall also points out, can keep these multiple contexts in play, overlaying different participant perspectives, whether those of academics, public authorities, community members, or cultural producers.

Contemporary literature on cultural mapping broadens the method's application beyond indigenous geographies to encompass local geographies of any sort, including urban contexts. One effort to develop a robust literature of eclectic case studies around cultural mapping is *Cultural Mapping as Cultural Inquiry*; the editors define cultural mapping as a participatory tool for communities to identify local cultural assets and define, categorise, and visualise local culture. The outcomes and goals of these activities, however, vary. Cultural mapping can be used for community building, by making visible how local stories, practices, relationships, memories, and rituals constitute place as meaningful (Duxbury, Garret-Petts, & MacLennan, 2015). In a special issue published in *City, Culture and Society* on intangible heritage, the editors emphasise the value of cultural mapping for capturing the "embodied, ephemeral, transitory, tactile, and affective elements" of urban life, not only the quantifiable aspects of culture (Longley & Duxbury, 2015 p 3). Other cultural mapping projects may be more pragmatic, as when planners use cultural mapping to create inputs to inform city planning in a more inclusive way. There now exist formalised cultural mapping toolkits and manuals for administrators seeking citizen input; Canada-based non-profit Creative City Network of Canada, for instance, offers a toolkit for collecting, analysing and synthesizing information regarding cultural assets and their links to a community (Stewart, 2010).

Many cities have also adopted cultural mapping for planning in light of population shifts and gentrification; these projects often reflect the popular view that cultural assets encourage city regeneration. **Lee and Gilmore describe four such cases in the UK, where regional governments have used cultural asset mapping to guide planning and investment**

decisions (2012). Shruti, Sitikantha, & Sasmita review how the city of Cuttack, India, drew on cultural mapping methods to enhance its prospects as a tourist destination (2019). These more instrumental, policy-focused applications of cultural mapping are often not participatory nor focused on community empowerment, as described by Duxbury et al. Currie and Hsu, for example, write about the City of Los Angeles' cultural map developed by the Department of Cultural Affairs, used to understand the distribution of city-owned cultural spaces and publicly funded arts organisations, particularly in areas of economic need. The map, which is public but not participatory, guides funding decisions in a way that the Cultural Affairs staff hope will broaden Angelenos' access to the arts (Currie & Hsu, 2019). **In some cases, officials use cultural mapping to rationalise culture as quantifiable economic assets. Freitas explores two cultural mapping projects in Portugal that used quantitative information to create indicators for the cultural sector, using these to predict economic growth in certain areas (2006). The broad term 'cultural mapping' therefore, comes laden with a history of practice that includes these very different methodologies and aims (Freitas, 2016).**

The theoretical literature on cultural mapping looks at how how cultural maps engage, sometimes simultaneously, these different epistemological registers: on the one hand, humanistic and intangible forms of knowledge about the qualitive, conceptual, and affective dimensions of culture, versus more instrumental, utilitarian, managerial intelligence in service of cultural development and economic policy (Duxbury et al., 2015; Freitas, 2016). Cultural maps can accommodate subjective experiences, varied social values and multiple interpretations, just as they can capture more utilitarian data to produce cultural metrics. **Cultural mapping practices often draw on these different modes, determining in part the methods used, as shown in Figure 1. For instance, cultural mapping activities often capture tangible, quantitative information, such as geographic coordinates or prices of property values. Tangible information concerning material spaces can also take qualitative form, such as notes about a space's physical qualities. Intangible information, whether memories or feelings towards places, captures 'some of the most important aspects of human culture', by representing cultural resources not as commodities, but as sets of relations (Crawhall, 2007, p. 9). Intangible information most often takes qualitative form – handmade drawings, conversations about values, oral histories and the like. The relation between intangible information and quantification is least direct, since it requires reducing rich subjective perceptions into codifiable information, such as a person's ranking of their favorite places; some information will be more amenable to this reduction than others, and narratives connected to a certain place may be degraded through the quantification process. Cultural mapping can explore these different modalities of representing cultural geography and community.**

Figure 1. Matrix of cultural mapping practices

The type of data collected will in turn inform the kinds of knowledge claims the mapping project can make and the applications it can be put to. For example, projects that focus on capturing intangible, qualitative data may have more aesthetically oriented outputs that explore affective and ephemeral qualities of space; they may bring together a range of voices that create intersubjective knowledge about a geographic community or challenge our understanding of maps themselves, producing poetic, artistic, abstract, subjective renderings of geographic space that veer from Cartesian norms and positivist claims (Cosgrove, 2008a; Wood, 2006). As Longley and Duxbury document, cultural mapping projects that focus on capturing intangible information create events for exploring the links between history, community, and geography and offer "modes for attending to place" (2016). More tangible, quantitative methods, in turn, tend to support utilitarian approaches to public policy planning. Of course, there is not a hard dualism at work here, as some projects may capture both types of data, while intangible outputs can be converted into numerical indicators for decision-making, **though this can reduce the richness, specificity and complexity of this information.**

Longley and Duxbury also question the difference between the process and any research output of a cultural mapping exercise – outcomes should not be seen outside the context of the embodied and contingent processes that produced them. This idea engages directly with the critical cartography literature: Dodge, Kitchin, & Perkins, for instance, conceive of maps as a set of transitory elements that result from a specific context and time and are shaped in part by the viewer's own subjectivity (2012). The map itself is always only the sum of this process, manifesting with each viewing – maps should be understood in the context both of their production and their subsequent use. As a result, those using a cultural map for policy-making or actionable decision-making should account for the methodological choices made during the map's construction. Any instrumental use of the map will need to account for the inherently partial and limited knowledge claims the map can make, due to the interpretive and contingent practices that gave rise to it.

We bear in mind these multifaceted aims of cultural mapping– democratising and humanistic, pragmatic and utilitarian, sometimes all adhering in one project – throughout the remainder of this paper. In the next section, we describe the Culture and Communities Mapping Project in greater detail, before exploring the methodological choices that characterise it. That mapping is a social act and an unfolding practice will be the focus of the methods and findings described in this paper's final section.

Methods: The Culture and Communities Mapping Project

The Festival City

Edinburgh's renown as the 'Festival City' is important context for our project. Historian Angela Bartie describes Edinburgh's long history as a place of cultural contestation (2013). The first festival, the Edinburgh International Festival of Music and Drama, took place in 1947 during a post-war context when culture was seen as an economic boost to Scotland's young tourism industry, one that gathered the best artists of the world together in the capital for audiences linked to traditional society and the church (Bartie, 2013). The Edinburgh Fringe Festival began that same year and challenged its high-culture counterpart. The difference between the International Festival and the Fringe Festival was, and still is, that the former requires an invitation from the director, whereas anyone can participate in the Fringe. The Fringe not only widened participation to artists and audiences, it also encouraged a more liberal moral code – Bartie recounts the episode of a naked model attached to a wheel across from McEwan Hall at Edinburgh University in 1963 (2013).

From early on, the Edinburgh festivals scene has ignited discussion around the definition of culture: who is it for, elites or wider society? How should artists be funded? Should this definition include music, theatre, and opera and also circus, political theatre, Scottish folks singing, and other diverse expressions (Bartie, 2013)?

Seven decades have passed since the festivals started, but there are still critical questions around the accessibility of Edinburgh's cultural spaces and how festivals relate to a flourishing local scene. Sensitive to these concerns, the City began DesireLines in 2014 with public workshops and an online survey (DesireLines, 2015). A committee identified several challenges and actions to take, such as venue regulation, as local artists continue to struggle to pay high rents for spaces due to price inflation from festival season tourism. The report details a need for affordable venues and rehearsal space, an action line that led to a website dedicated to helping local artists find available spaces.[4] One of the most crucial challenges found, however, is arts equity. This group declared the need to allow all residents and visitors access to culture, despite their economic situation, and recognised that the Festivals are not affordable for many. Venues are concentrated in the city centre, making them less accessible to families living in the outskirts (DesireLines, 2015). DesireLines acknowledged the challenge of making the city reasonable in terms of costs for local artists during the whole year and for residents who want to attend events.

The authors propose flexible venues and pop-up events over temporary periods to "facilitate affordable and accessible spaces for artists to use," (DesireLines, 2015, p. 19). In terms of general cultural access, DesireLines suggests producing cultural maps of the city for sharing information about culture to local artists and residents and making activities and resources across the city more visible. The Culture and Communities Mapping Project answers this last recommendation to give visibility to cultural spaces spanning the city, outside the centre.

We held seven participatory workshops and mapping exercises from February through August 2019, involving approximately 115 participants. In the next sections, we describe the cultural mapping methodology developed for these events.

[Figure 2. Mapping activity. Workshop at Storytelling centre on May, 2019.]

The Participatory Process

The cultural mapping events took two shapes. One mode were three three-hour workshops where participants broke into small groups to engage with the map and join in guided discussion. **Our workshops targeted people who worked in the cultural sector, and they took place in three well-known cultural institutions.[3]** We printed base maps on large sheets of paper and placed the maps on tables so groups of five to eight people could gather around and interact with them using colour stickers and pens**; the map helped orient people through streets names and geographic features** (see Figure 1). **First, and following Liben's advice on mapping literacy, we asked participants to find their homes and places of work; we then asked them to review the categories in the map legend and to tell us whether any should be added or edited. Participants also pasted stickers to locate missing and most valued places (See Figures 2 and 3 for mapping instructions). A discussion then followed, focused on identifying cultural hubs, identifying challenges that communities might find when accessing culture, and asking for ideas about the potential uses of the map. We asked participants to create a rank of the most valuable hubs, which we defined as infrastructures and organisations that support cultural producers and engage with local communities. Participants also identified communities in 'deprived' areas of the city that were struggling to engage with existing cultural spaces, and people who worked at cultural hubs told stories of their neighbourhoods. We did not record the discussion; our focus was on how people interacted with the map as it activated collective memories and revealed invisible geographies of the city** (Crang & Thrift, 2000; Crawhall, 2007).

[Figure 1. sheet handed to participants containing a description of the map]
[Figure 2. sheet handed to participants containing instructions for the mapping activity]

The second type of event we called 'the itinerant map'; for this, we brought the map to four community events hosted by other institutions – the map was one activity among many others for audiences to engage with. **These venues were spread across the city, ranging from a national meet-up of Scottish performers at a cultural space in the more central Marchmont area, to a gathering of cultural freelancers in the Leith neighbourhood called Creative Circles, and a cultural centre in the neighbourhood of Muirhouse, an**

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[3] The venues for the workshops were the Storytelling Centre, Out of the Blue and WHALE Arts.

economically deprived area;[4] the type of participants at these events depended on the institution in charge of the activity. For this itinerant version, we used a cardboard surface to prop up the map vertically, and we asked people in passing to interact with it using pins and pens, following a set of printed instructions that mirrored Part 1 of our workshop activities (see Figure 4).

We created the printed map using QGIS, an open-source geospatial information system. The map developed and grew dynamically in response to each event. The map initially presented landmarks and streets on a scale of 1:15.000, but the scale increased to approximately 1:10.000 to include more places. The team added categories and spaces to the base map based on participants' input after each event, creating a new iteration of the map for the following event.

The first version of the map began with 95 spaces, based on data from City of Edinburgh Council of community centres, libraries and schools, and data scraped from Google of museums, main galleries, theatres, and music venues. We determined from the beginning that the map should include sites for the public consumption of culture as well as spaces that support its production and development, including non-traditional, flexible spaces for rehearsals, writing and making. Otherwise we left the determination of the legend's other categories to participants, following best practices found in much of the cultural mapping literature (Bennet & Mercer, 1998; Crawhall, 2007; Rambaldi, 2010)

Drawing on the report "Making Cultural Infrastructure", written by London-based group Theatrum Mundi (Bingham-Hall & Kaasa, 2017), we included three primary categories of space to organise the Edinburgh map from the start: performance, making, and virtual spaces. *Performance* includes cultural acts that put the body in the centre of creation, including music, dance, theatre and performative art. The *Making* category focuses on the creation of objects, including painting, sculptors, craft, jewellery, printmaking and wood. The *Virtual* category describes the creation of objects that do not have a fixed time or place, such as literature, journalism, illustration, and filming. These three categories allowed the project from the beginning to include a wide spectrum of infrastructure critical to the culture industries, from training and rehearsals to subsequent parts of the production chain (Bennet & Mercer, 1998, p. 25)

Once added, we filled out quantitative data about a space, such as the name and location, which categories and subcategories it falls within, and any website and descriptive details

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[4] The four events we brought the itinerant map to were: Articulation, a national performance organisation that met in Summerhall (city centre); Creative Circles at Custom Lane (Leith); a University of Edinburgh Creative Informatics event held at the Edinburgh Sculpture Workshop (Trinity); and a community festival at North Edinburgh Arts (Muir House).

['Basic information and categories' metadata see [Table *1* List of fields collected through the participatory process.]
]. We also included qualitative information if participants found a space valuable, identified it as a community hub, or found it at risk in some way. By labelling spaces with these qualitative dimensions, we could record the frequencies of these labels for each activity and ultimately frequencies for the whole participatory process, creating quantitative data representing these intangible dimensions of culture [see 'Frequencies' metadata see Table 1].

[Table 1 List of fields collected through the participatory process.]

Data collected from these participatory events informed a dataset called 'cultural spaces'. In the months that followed the participatory process, our team added spaces to the dataset that corresponded to the categories suggested by participants. Thanks to participants' feedback, we also produced separate datasets for festival venues, murals, public sculptures, care homes and the history of the slave trade in Edinburgh; these are now additional layers to the online map. In the next section we describe the mapping process and insights gained on the link between Edinburgh's cultural sector and local communities.

Results: Tangible and Intangible Data
Our mapping events created three main types of data: quantitative, tangible data; quantitative intangible data and qualitative data. We collected quantitative, tangible data when we asked participants to name places and classifications to add to the map and its legend. Participants contributed a total of 211 cultural spaces during workshops and itinerant mapping events, and we added another 453 assets based on categories that participants suggested, going from 95 assets at the beginning to 759 in total.

[Table *2* shows how our data changed from February 25 to July 8, the date of the last event. [Table *3* highlights how the number of spaces in some original categories remained fixed, such as museums, libraries and schools, but other categories increased based on participants' feedback, particularly for the 'making,' 'digital' and 'performance' categories. The temporal progression of the map makes clear how each iteration reflects the inputs of participants in their particular contexts.

[Table 2 Categories & cultural assets. This table shows how data increased from the first to last event in July 2019.]

[Table 3 Categories used for the participatory process]

The map's legend also developed from six categories to 14 and around 150 subcategories as participants suggested types of spaces not included in the original legend: heritage, archaeology, historic archives and landmarks, cemeteries, open spaces, community gardens,

mosques, youth centres, theatres, pubs, parks, street art, festivals and care homes that offer cultural activities. Participants also suggested new contextual layers. In response to one group that thought the map could show whether schools are culturally engaged, we added information on which schools are reached by Council-funded cultural organisations, based on outreach data collected by the Council. Responding to a participant's feedback at North Edinburgh Art's community event, the map now includes a category for wheelchairs and scooters rentals and a layer of cultural spaces that have accessible toilets.

We collected quantitative, intangible data by asking participants to place in the map spaces based on their feelings about them: those they found valuable, those they consider important community hubs, and those they perceived as being at risk. Valued spaces varied greatly across the seven events, unsurprising given that each attracted different audience types. For instance, the first itinerant map event gathered the country's performance sector, allowing us to collect more data on theatres, rehearsal spaces and the circus scene. In the event held by Creative Circles, digital creators located co-working spaces and multi-use hubs. In total, participants placed around 80 pins and stickers to highlight valuable spaces, 22 for places at risk and 53 for cultural spaces engaging with local communities. However, because these numbers are not representative of what the general public values or feels but only of the sample of participants from the cultural sector captured at the events, we did not incorporate this information on the map.

We did, however, create a new category based on the second intangible dimension: spaces participants considered community hubs, around which there was general consensus. As mentioned, we define the 'hub' category as publicly accessible spaces that support a variety of cultural producers and engage actively with local communities. Participants identified ten spaces that function in this capacity.

Participants also identified 23 places as at risk.[5] The concept of 'at-risk' raises the question of how the project will capture change over time as venues close, particularly important to consider in light of the damage that the Covid-19 pandemic is having on the sector at the time of writing. Future versions of the map will need to include a layer that captures spaces that existed in the first instance but subsequently closed.[6]

Finally, we collected qualitative data based on participants' stories told at the three workshops; **several themes emerged during these conversations that enriched our**

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[5] The three most mentioned were Leith Depot, a music venue in a gentrifying area of town; Edinburgh Palette at St Margarette's house, an art centre with a theatre and studios that was sold to a private developer, and Tollcross Community Centre and Adult Learning Project, a Council-owned building that hosts creative events for the community.

[6] We also responded to the question of 'at risk' spaces by conducting interviews with cultural hubs about their reaction to the pandemic and any damage it has incurred on cultural programming in their communities. We are interested in understanding how the idea of 'at risk' is changing in light of the pandemic.

understanding of the contexts for the data mapped. One theme formed around the definition of culture itself, which guided the cultural spaces we included on the map, and the question of whether the map ever could sufficiently capture all spaces in Edinburgh that play some cultural role. A few participants took a maximalist view, proposing a widely inclusive definition that included nail salons, beauty salons, and tattoo parlours as aesthetic working-class outlets: "through the eyes of anthropology, rather than art history, these are human creative impulses that predate western European art history," (Participant A, 13 June 2019). Another argued that places where people entertain themselves, such as bingo halls, dockers clubs and pubs, should be included, rather than "art [that] is for the top one percent. We spend so many resources as a society, including education, servicing this one percent," (Participant B, 13 June 2019). Others wanted to limit the map categories and focus only on spaces that are publicly accessible and free. We made the choice to navigate in between these extremes: the map includes spaces that charge entrance fees, such as music venues and some museums, and it leaves out certain categories, such as nail salons and tattoo parlours, which have a commercial purpose and were not widely advocated for;[7] the map also only includes pubs that allow performance, such as open-mics.

Secondly, participants identified the theme of communities whose residents respond with hostility to a sense of elitism and commodification of culture by prominent 'high arts' organisations. Some participants work in low-income communities whose residents feel that cultural events happening in the city centre, which also concentrates most of festivals, are not relevant to their lives. This feeling is exacerbated by a lack of resources to travel, cost of access and social barriers, such as feelings of not belonging. Participants also mentioned organisations that have made efforts to reach these citizens, such as the Fringe Festival Society, which offers transportation to families or groups, since 'some kids had never seen the castle before' (Participant C, June 2019). The Scottish Chamber Orchestra and the Science Festival also offered examples of successful interventions to address financial and transport barriers. Participants expressed, however, that the problem is not that communities that are hard to reach – rather, many institutions make themselves hard to access. Participants felt that communities, particularly in more low-income areas, should be empowered as active participants in the city's cultural life.

Gentrification was another related theme. Participants discussed challenges to the cultural sector, including accessing funding, real estate pressure, and high prices of rent; they identified affordability as an increasing obstacle. At the Creative Circles event, participants identified George Street, a commercial street in the centre, as an unaffordable area of the city where paying rent is a challenge for many cultural producers. Gentrification has resulted as

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[7] We did include commercial galleries and other private spaces that display culture. Not showing nail salons and tattoo parlours was one of our harder decisions. If more participants, beyond the one who recommended these spaces, ask for them, we would include them in future versions.

only commercial ventures can afford renting in the city centre, leaving small and grassroots initiatives outside that well-trafficked area. Participants also pointed out that Festivals exacerbate these problems, especially when they buy spaces that remain unused all year except festival season.

A final theme focused on the uses and affordances of the map once we publish it online. Many participants thought the map could be helpful for networking – for creating 'human connections' through geographic cultural communities – and for finding contacts, offices, and rehearsal space. Many felt that the map should continue to be participatory in its online form, particularly out of concern that the data could go stale; people suggested like and dislike buttons and the ability to add photos and videos. Some participants suggested that the map allow users to generate reports on particular categories, layers or geographic areas reflecting their interests.

In the next section, we revisit the theoretical literature discussed above and analyse what our mapping project reveals about the different epistemological modes found in the cultural mapping process.

Discussion: Epistemologies of the Culture & Communities Mapping Project
One of the main results of the Culture and Communities Mapping Project is a website that hosts an Esri ArcGIS map of the spaces identified in our workshops, along with spaces added to fill out the suggested categories. In total the cultural asset dataset displayed on the map contains 1312 spaces as of this writing**. The map gives all spaces listed equal relevance, rather than basing their visibility according to metrics of international renown, ticket sales or number of visits – offering a counter-narrative, of sorts, to depictions of Edinburgh's more world-famous cultural offerings.**

We also navigated various methods and epistemological approaches possible in the cultural mapping process. We close by reflecting on these choices.

First, we made decisions about the types of data collected: as discussed, cultural mapping can capture tangible or intangible, quantitative or qualitative data. Our project collected a variety of data types: tangible cultural assets and their location, by asking people where places were missing on the map; as well as intangible quantitative data on how such assets are valued or perceived; and qualitative data. Duxbury, Garrett-Petts, & MacLennan (2015) propose that intangible data is also always qualitative, but we find this is not always the case – intangible information on feelings and emotions about place and culture can also be captured in a quantitative fashion, as when participants voted on how much they value certain cultural spaces. Our project shows that there is not always a rigid dualism between the intangible and the quantitative, **even though codifying this subjective information simultaneously strips**

it of the richer narratives participants told about places. The map below (Figure 7) shows places according to value by increasing the icon size in relation to participants' votes.

Figure 7. Most valued spaces

Representing all of these data types, however, has been a challenge. In our case, the digital GIS map very easily represents the tangible, quantitative data we collected. Due to issues of representativeness, the online map only displays one category that captures intangible sentiment data from our participants: the 'hub' category. Furthermore, moving to a digital format has constrained the project's dynamism to a degree – we used a tactile, participatory process to produce the map, but the online version lets users interact with it only indirectly, through an online 'request for edits' form. Because of a lack of funding, we have not designed a more participatory interface that could continue to collect data on the spaces people value. Future versions may allow us to collect sentiment - both quantitative and qualitative - if we create a more interactive interface that allows users to specify likes and add reviews. The map's pop-up boxes offer an opportunity to display this intangible data, and future iterations of the map could make better use of this feature.

Our second finding relates to how the cultural assets map is not representative of some absolute reality, of a stable one-to-one representation of Edinburgh's cultural spaces, but of a process capturing the interactions among participants and their contributions at a specific moment in time, as shaped by our methods. Lack of cultural spaces in one area, for instance, does not imply the absence of culture; it speaks only to the absence of our reporting on culture. The map reflects a set of interpretations and selections; currently it leaves out temporal dimensions, personal stories, and connections between spaces. Furthermore, the map will continue to change in its digital form as new places are suggested and incorporated, others close and so on. No map can capture the dynamically changing cultural life of the city nor all that culture and art entails, as many of our participants pointed out. We prefer to understand the map as an ongoing, interpretive process, rather than a fixed, finalised product. Any application of the map should take its limitations – both epistemological and technical – into account.

Finally, we reflect on how our attempts to comprehend cultural geography also have the force to shape it. Given the map's limitations, as just described, it is not intended or designed as a planning tool, nor to determine what interventions may be suitable for a location. Rather than using the map to find conclusive evidence about the cultural landscape, the map serves us best by prompting questions and discussions around inclusivity and access – such as differences across neighbourhood or the relation between cultural spaces and waterways, public transit, and bike paths, or where, over time, spaces have opened or closed. The map raises questions that underpins further research: how might we understand and trace the

effects of gentrification on the cultural sector? How might we more equitably distribute the City's cultural resources? The map also helps instigate conversations, artistic projects, and research around cultural equity in Edinburgh.[8] **Since its publication, for instance, the map has become a scaffold for community partnerships. Over the summer of 2020, we worked with the community organisation LeithLate to design software for a virtual tour of the Leith neighbourhood's murals and artist studios. We are also currently collaborating with Edinburgh Festivals on community outreach and cultural regeneration in certain Edinburgh neighbourhoods. The next iteration of this project will draw on the map to facilitate community mapping workshops, led in collaboration with cultural hubs, to consult with residents about what kinds of festival activities they envision in their areas.**

To conclude, this paper has made two kinds of contribution. First, it has introduced a way of reflecting theoretically on cultural mapping, through a discussion regarding types of data collected and the boundaries between tangible and intangible as well as qualitative and quantitative. We apply these reflections to a rich case study of cultural mapping methods – the design of flexible research tools, such as the itinerant version of the map; the process of capturing intangible assets that can be represented as quantitative data; and the iterative development of the map in light of participant feedback – that we hope will be illustrative of the cultural mapping process for others. The second contribution of this paper is a reflection on the epistemologies of cultural maps. Our own map is a limited tool for feeding into policies. Rather, our project reveals the benefits of using cultural maps to facilitate interactions with local communities and to serve as catalysts for telling stories about people and places, in constant motion and change.

References

Bartie, A. (2013). *The Edinburgh Festivals : culture and society in post-war Britain*. Edinburgh: Edinburgh : Edinburgh University Press.

Bennet, T., & Mercer, C. (1998). Improving Research and International Co-operation for Cultural Policy. from Commissioned by UNESCO as a preparatory paper for the Intergovernmental Conference on Cultural Policies for Development, Stockholm

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[8] We have also conducted interviews with administrators of cultural hubs about their reaction to the Covid-19 pandemic and its impact on their local communities; the resulting report describes how essential cultural institutions were to their communities and how they are adapting in the face of overwhelming challenges.

Bingham-Hall, J., & Kaasa, A. (2017). Making Cultural Infrastructure report. doi:http://eprints.lse.ac.uk/85683/1/Bingham-Hall_Kaasa_Making%20cultural%20infrastructure.pdf

Cosgrove, D. (2008a). Cultural cartography: Maps and mapping in cultural geography. *Annales de géographie, 117*(660-661), 159-178.

Cosgrove, D. (2008b). Cultural cartography : maps and mapping in cultural geography. *Annales de géographie*(2), 159.

Crang, M., & Thrift, N. (2000). *Thinking Space*. London: London: Routledge.

Crawhall, N. (2007). The Role of participatory cultural mapping in promoting intercultural dialogue: We are not hyenas; a reflection paper. doi:http://www.iapad.org/wp-content/uploads/2015/07/nigel.crawhall.190753e.pdf

Currie, M., & Hsu, U. (2019). Performative Data: Cultures of Government Data Practice. *Journal of Cultural Analytics*. doi:10.22148/16.045

DesireLines. (2015). A call to action from Edinburgh's cultural community. from City of Edinburgh Council http://desirelines.scot

Duxbury, N., Garrett-Petts, W. F., & MacLennan, D. (2015). *Cultural Mapping as Cultural Inquiry*. New York: Routledge

Freitas, R. (2016). Cultural mapping as a development tool. *City, Culture and Society, 7*(1), 9-16. doi:10.1016/j.ccs.2015.10.002

Harley, J. B. (1988). Maps, Knowledge, and Power. In D. C. Daniels (Ed.), *The Iconography of Landscape* (pp. 277–312). Cambridge: Cambridge University Press.

Harley, J. B. (1989). Deconstructing the map. *Cartographica: The International Journal for Geographic Information and Geovisualization, 2*, 1-22. doi:10.3138/E635-7827-1757-9T53

Harley, J. B. (1992). Rereading the Maps of the Columbian Encounter. *Annals of the Association of American Geographers, 82*(3), 522-542. doi:10.1111/j.1467-8306.1992.tb01973.x

Huggan, G. (1989). Decolonizing the Map: Post-Colonialism, Post-Structuralism and the Cartographic Connection. *Ariel, 20*(4), 115.

Kumar, S. (2002). *Methods for community participation : a complete guide for practitioners*. London: London : ITDG.

Lee, D., & Gilmore, A. (2012). Mapping cultural assets and evaluating significance: theory, methodology and practice. *Cultural Trends, 21*(1), 3-28. doi:10.1080/09548963.2012.641757

Lee Peluso, N. (1995). Whose Woods are These? Counter-Mapping Forest Territories in Kalimantan, Indonesia. *Antipode, 27*(4), 383-406.

Longley, A., & Duxbury, N. (2016). Introduction: Mapping cultural intangibles. *City, Culture and Society, 7*(1), 1-7. doi:https://doi.org/10.1016/j.ccs.2015.12.006

Rambaldi, G. (2010). Participatory three-dimensional modelling: Guiding Principles and application. In: ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA).

Segalo, P., Manoff, E., & Fine, M. (2015). Working With Embroideries and Counter-Maps: Engaging Memory and Imagination Within Decolonizing Frameworks. *Journal of Social and Political Psychology, 3*(1), 342-364. doi:10.5964/jspp.v3i1.145

Shruti, M., Sitikantha, M., & Sasmita, M. (2019). Cultural Mapping - A Developmental Tool for Enhancing the Destination's Image. Case Study of Cuttack. *Journal of Environmental Management & Tourism, 10*(1(33)), 39-52. doi:10.14505/jemt.v10.1(33).05

Solnit, R., & Snedeker, R. (2013). *Unfathomable City. A New Orleans Atlas* University of California Press.

Stewart, S. (2010). Cultural Mapping Toolkit. from Legacies Now and Creative City Network of Canada

Wood, D. (2006). Map art. *Cartographic perspectives*(53), 5-14. doi:10.14714/CP53.358

Tables

Basic information and categories	Itinerant map	Workshops (one column per table)	Frequencies
Name	Performance pop up_valuable	W1_T1_valuable	Total
Category	Performance pop up_risk	W1_T1_risk	Valuable
Area	Performance pop up_community	W1_T1_community	Risk
Organisation	Creative edin pop up_valuable	W2_T1_valuable	Community
Temporal event	Creative edin pop up_risk	W2_T1_risk	
Sub category (Space)	Creative edin pop up_community	W2_T1_community	
Summary	Sculpture workshop pop up_valuable	W3_valuable	
Address	Sculpture workshop pop up_risk	W3_risk	
y	Sculpture workshop pop up_community	W3_community	
x	Pop up_NEA_value		
Website	Pop uo_NEA_risk		
	Pop uo_NEA_community		

Table 4 List of fields collected through the participatory process.
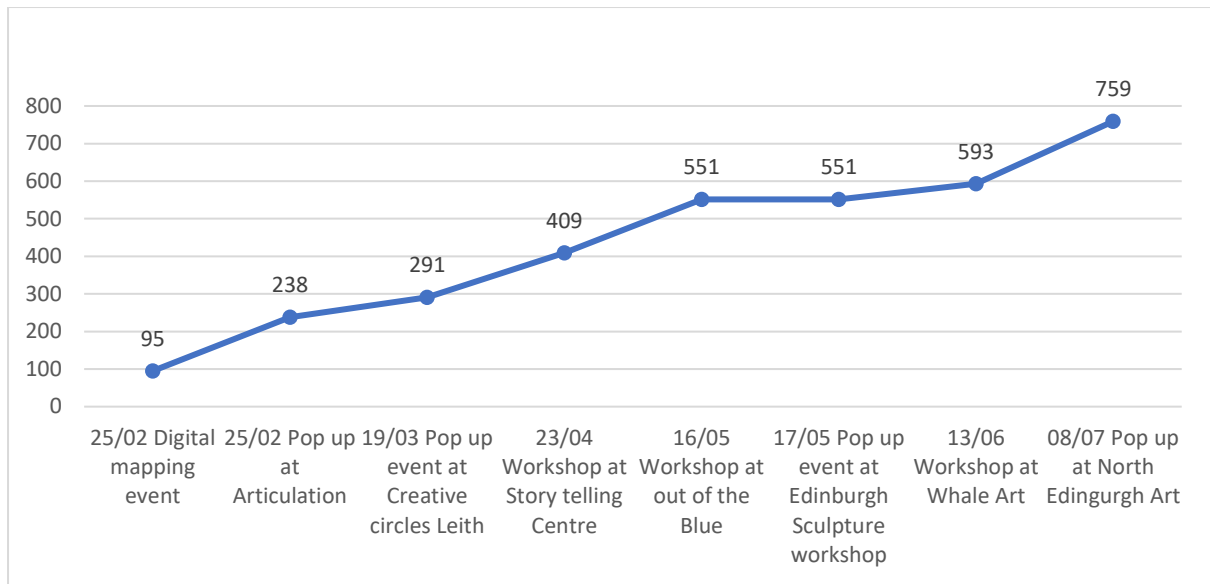
Table 5 Categories & cultural assets. This table shows how data increased from the first to last event in July 2019.
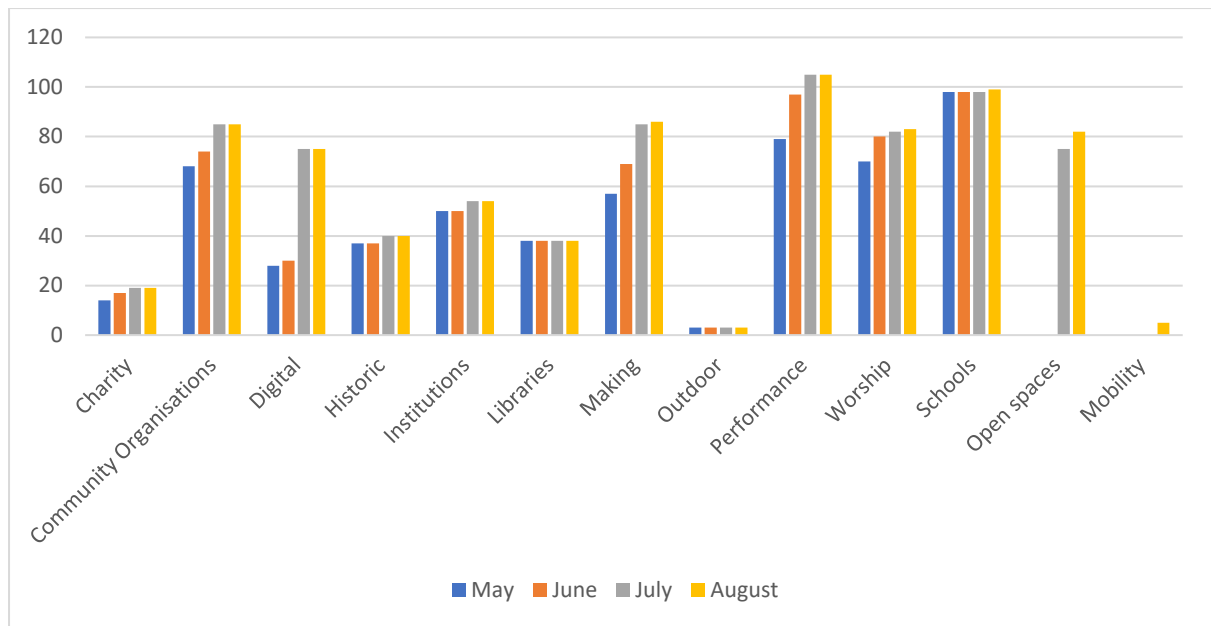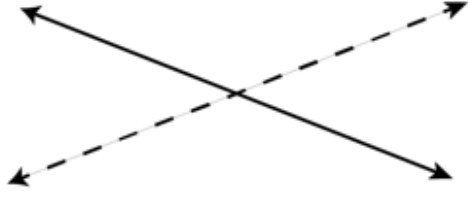
Table 6 Categories used for the participatory process

Figures

Tangible
'Where I go"

Intangible
'How do I feel about this place"

Quantitative
Address
GPS location

Qualitative
Handmade map
Story

4 BASE MAP FOR ACTIVITY
WHAT IS THIS MAP SHOWING?

The map gives orientation within the city. It depicts the most relevant city landmarks, and contains the most relevant streets on a scale 1:15.000. It also highlights the cultural infrastructures available as free data for museums, libraries, council funded cultural organisations and community centres. It also includes cultural infrastructure that can be found on google maps by looking for galleries, workshop, art (on the legend as spaces for making); theatre, music, dance, circus (as performative spaces); design, illustration, filmmakers (documentaries and art filmmakers) and coworking space (as spaces for digital production).

5 INSTRUCTIONS FOR ACTIVITY

1. Place yourself on the map. Use a black pin for home and a white pin for the place where you spend most time rehearsing and/or working for your cultural sector.
2. Can you identify important places for performance/making/digital production missing on the map with yellow pin.
3. Which are the most significant and/or indispensable organisations/places/infrastructures for your cultural sector? Please locate them using a blue sticker?
4. Can you identify with a red pin where past cultural infrastructure no longer exists in the city?
5. Can you identify in orange places at risk?
6. Are the current examples of cultural spaces that work with deprived and/or unrepresented communities? If so, could you please locate them with a green sticker.
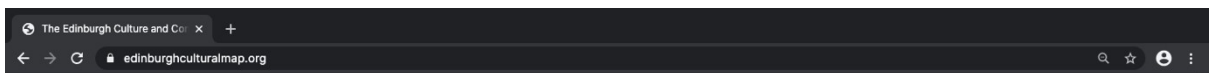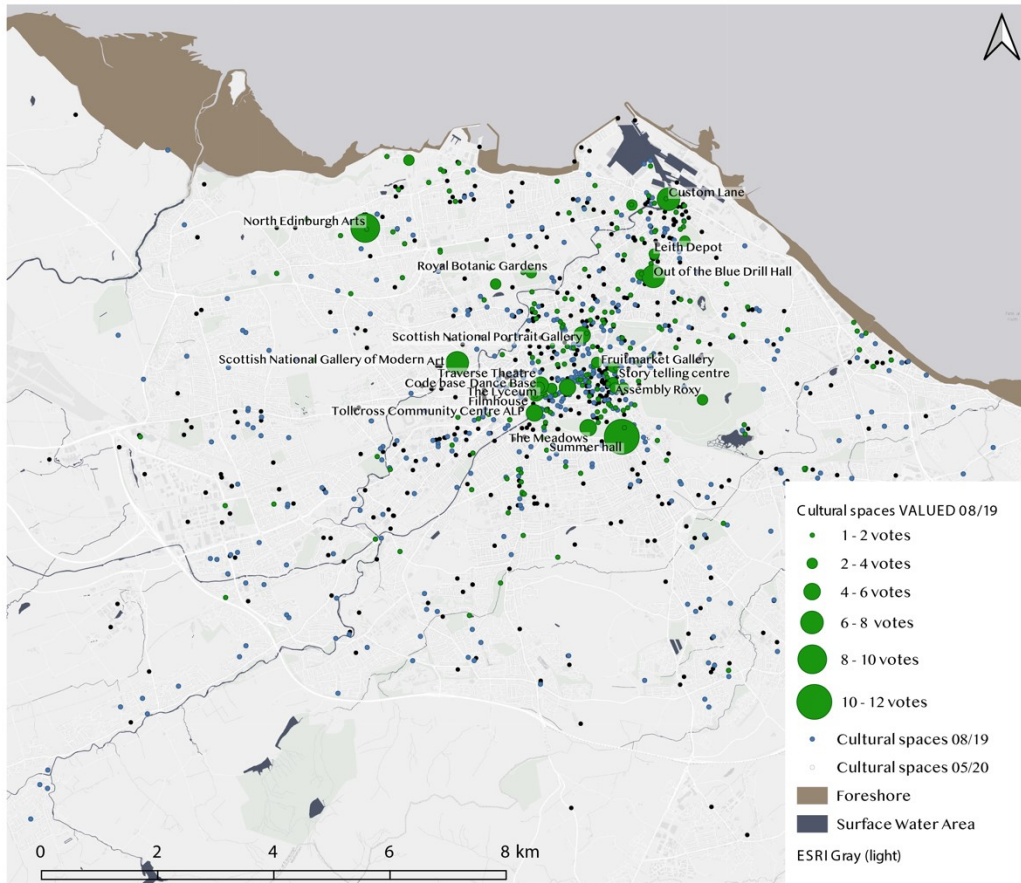
Figure Captions

Figure 1. Matrix of cultural mapping practices

Figure 2. Mapping activity. Workshop at Storytelling centre on May, 2019.

Figure 3. sheet handed to participants containing a description of the map

Figure 4. sheet handed to participants containing instructions for the mapping activity

Figure 5. Mapping process. At Summer Hall during Articulation annual Meeting. February 2019

Figure 6. Homepage of the Culture and Communities Mapping Project.

Figure 7. Most valued spaces