Multi-sensory navigation in a heritage city: walking atmospheres of community well-being in Canterbury

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ABSTRACT
Understanding and communicating the sensory experience of walking in the urban cityscape requires active participation and engagement. Through engaging diverse community groups in Canterbury, this paper re-defines the quality of the city's walking environment through the experience of the multi-sensory realm. The analysis is based on sensory narratives, collected from the Sensory Walks Project that took place in 2016 (funded by the Arts Humanities Research Council, UK).
The project explores the dynamics of community engagement for the promotion of social well-being, with the input of mapping and visualisation of individual sensory narratives from over 50 Sensory Walks participants on their experience of everyday space.
The project sets the framework for a wider study on the sustainable exploration of the temporality of Canterbury sensescapes, using self-guided sensewalking and mapping, and will culminate in a series of sensory experiences and walking narratives for individual and community re-invention of the city centre..

***Keywords*:** sensory walks, mapping, sensory heritage, social well-being, heritage city

INTRODUCTION

"What are you doing out?"
"Walking," said Leonard Mead.
"Walking!"
"Just walking," he said simply, but his face felt cold.
"Walking, just walking, walking?"
"Yes, sir."
"Walking where? For what?"
"Walking for air. Walking to see."

Ray Bradbury, " The Pedestrian" (1951)

Sensory movement can be taken in a literal sense. Setting one foot in front of the other and walking is an indispensable function in the movement of atmospheres in the public realm of the senses; the displacement of a cultural, embodied, sensory experience from one urban space to another. The physical and atmospheric conditions of movement at the level of the street – the laid-out path; the urban frontage; the obstacles; the 'otherness' of people; the signs; the shop fronts; the colours; the sounds; the smells; the temperature; the speed; the proximities – are all interconnected objects of analysis in the mapping of a heritage city. When sensory conditions related directly to urban walking are firmly grasped it becomes possible to fully understand the temporal and metaphorical movements of atmospheres in the public realm: between high street and secondary paths of movement; the sites of heritage and common dwellings; order and irregularity; remembered and experienced space. In an effort to define the role of mutlisensory navigation in the formation of atmospheres, almost all these intangible movements will be understood to involve physical, spatial and temporal displacement.

Walking as a series of conspicuous sensory movements is governed by the physical expression of expectations, sense of belonging and discovery. Here again it would be well to begin with the literal sense: the moment when urban sites come into sight, are then concealed by change of position, but also by the envelope of the everyday, the familiar, the commonly visited and re-visited that is disguised by subtle adjustments of light and form, sound and smell, temperature and colour. We could also investigate the cultural mechanisms through which architectural features, arrangements and sites of heritage are rendered virtually and sensorially invisible; untouchable; inaudible; neutral.

Through a series of sensory walks (Vasilikou, 2016) and walking interviews (Evans & Jones, 2011), we aim to apprehend the sensory experience of local culture; the localness and create an understanding of heritage through the definition of sensory assets. And the fact that these local cultures may in fact be recent formations in an old urban shell of a heritge city, constructed out of elements that an earlier generation struggles to recognise, makes very little difference. Engaging the community to walk in the city and capture its atmosphere in mental mapping exercises and walking interviews is used as an enabling condition in the interpretation of a heritage site as a conceptual model of urban space and collective interpretation of its multisensory realm.

CANTERBURY AND THE HERITAGE CITY: A BRIEF HISTORIOGRAPHY

The mention of Canterbury to a stranger is inevitably followed by the words Canterbury Cathedral and pilgrim routes. This small market city carries a load of expectation and disproportionate resonance in terms of its size and function in the East part of Kent. Dotted by a long history and literary praise from Medieval times, the city of pilgrims, like a living organism, has adapted to recurrent disasters – from the Roman period to the Second World War. Periods of prosperity created an array of historic landmarks, which were preserved relatively intact through the centuries.

Canterbury was recognised as world heritage site in 1998, with the inscription of three landmarks, the Canterbury Cathedral, St Augustine's Abbey and St Martin's Church. The Cathedral is located at the heart of the city, the two other monuments being in an ancient extra-mural suburb (Canterbury World Heritage Site Management Plan, 2002). Canterbury retains a high quality historic environment in the city centre. Residents mingle with the 7 million visitors who visit each year, mostly for the day. Visitors are a substantial contributor to the local economy, attracted primarily by the heritage and cultural environment that the city offers. The heritage experience of Canterbury is confined to within the city walls, curtailed by a dual-carriageway ring road around three-quarters of the city, which presents a significant disincentive of exploring beyond. The Cathedral and St Augustine's Abbey are close together, for example, but separated by the ring road, so that visitor numbers to the latter are low (English Heritage Report, 2015). The ring road has eliminated though-traffic within the walls, where some pedestrianisation has enhanced the experience, but the road is itself host to either congestion or fast-moving traffic and to poor air quality.

Current policies (based on the Canterbury Local Plan 2006 and the Corporate Plan 2011-2016) emphasise economic growth as a priority, but include an environmental theme which would 'conserve and enhance our beautiful towns' and ensure that 'plans and activities give sufficient protection to heritage sites and the built […] environment, promoting the city as 'a […] cultural and heritage place to live, work, learn'. Plans for future housing (up to 4,000 units) in the next years call for particular attention to the quality of public realm that is preserved and designed anew. In this policy context, the study of multisensory navigation takes a critical role in identifying the collective interpretation of the public realm and how high quality public space for pedestrians can become the driver of economic, social and environmental value (CABE Space Report, Woolley et al., 2004).

NAVIGATION AND SENSING THE PLACE: SENSORY WALKS

Designing urban spaces seems to be almost purely visually oriented (Cross, 1982; Lepori et al., 2007) for architects and planners. However, research related to the sensescape of outdoor urban spaces has shifted its focus from the visual quality of the designed environment, to studies concerning sound (Axelsson, 2011; Bruce et al. 2014), olfactory experience (Henshaw et al. 2009) and haptic perception (Herssens, 2007; (Lenzholzer, 2010; Vasilikou 2015). Urban space is a place for many senses: sight, sound, touch and the uncountable things that happen in between. The actual experience of urban spaces while navigating in the city is based on the overlapping of sensory experience for all moving bodies (Degen, 2012). This overlap in sensory perceptions has presented an array of methodological problems in its assessment and evaluation. There are many ways of investigating walking atmospheres and

sensory assets and although this project experimented with many approaches, here it focuses on the sensory mappings of participants in the streets of Canterbury city centre.

The starting point for the project of Canterbury sensory walks was a challenge and opportunity related to environmental quality of the built environment and community engagement. The first sensory walk was commissioned for the Canterbury Society, an amenities group and designed specifically for its members in November 2015. After the success of the pilot walk another commission by the Chartered Association of Building Engineers in January 2015 led to a grant proposal for a larger community engagement project. Funded by the Arts and Humanities Research Council (UK) a series of 12 two-hour sensory walks workshops, with over 50 participants were carried out in collaboration with the Canterbury Cathedral, as cultural partner.

I designed three different trails that engaged the participants with the landmarks of the historic core as a place of experiential observation, based on sensory perception of atmospheres (visual, acoustic, olfactory, thermal and haptic). Participants of the sensory walks were invited to cross spatial thresholds and engage with different qualities of the public realm in the quest for 'hunted' sensory observations (smells, sounds, visual cues, thermal sensations etc). The sensory walk activities were based on a structured route followed by a group of 5-10 participants, based on an observation notebook that engaged the participant with focused observations about the walking trail they followed. Participants were asked to focus on the sensory interpretation of the urban space around them as they walked and to note down the intensity and quality of different visual, acoustic, olfactory and haptic sensory cues that were identified along the way. Following the walks, participants were provided with workshop space at the Beaney Museum were they created mental maps of the multisensory experience of the public realm of Canterbury historic core. The work presented here focuses on the analysis of the mental mapping, presenting the dynamics of walking in the creation of mobile atmospheres and collective perceptual paths in a heritage city.

MENTAL MAPPING OF WALKING ATMOSPHERES

The process of forming urban images is a cognitive process based on perception, through which we gather knowledge about our environment. This mechanism can lead us to conclusions about evaluating the environment around us, narrating the experience, representing it based on multi-sensory cues. The result of this constant sensorial perception and evaluation of the environment is the reference to meaning in space. It creates spatial expectations and sensory empathy towards the image of the city. The city is a symbol that is unraveled thanks to the perceived multi-sensory image of its narration. In this context, we define these intangible spatial expectations as sensory assets.

One of the methods to overcome any sensory dominance (with the visual prevailing) is to conduct a survey that evaluates the individual senses, in order to understand how each sense affects the participants' perception of a given space. At the same time, we acknowledge the multisensory effect of overlapping sensory experiences, through different intensities and qualities that reflect the quality of spatial environment. If an urban square or a city street can be perceived as a spatial enclosure, then the intangible visual, aural, olfactory, haptic and thermal elements that define the experience of being in space can be perceived as the sensory assets of these enclosures. The heritage character of the city centre of Canterbury presented a

potential in testing the multisensory experience due to its variation in urban layout, use of materials and social activities to stimulate the senses and interpret the atmosphere of place.

The analysis here is based on the mental mapping workshops of the sensory walks that form an analytical tool to understand the interchange between multisensory navigation and atmospheres and provide a collective interpretation of environmental quality through the sensory channels of bodily movement in urban spaces. The mental mapping was complemented by a hybrid methodology that aims to capture the multi-sensory experience of walking: in exploring how participants experience urban spaces along a chosen route, a range of methods was used:

- group survey during organised sensory walks
- mapping of overlapping uni-modal sensory experience
- questionnaire for multi-sensorial perception during self-guided walks
- multisensory Notation
- photographic documentation by participants
- environmental monitoring of microclimatic conditions (air temperature, relative humidity and light levels).

From the above methods, engagement with members of community was creatively enhanced during the mapping activities and the use of questionnaire during self-guided walks. Photo elicitation contributed in providing representative features in environmental and architectural conditions of the space.

Here the first findings of the mental mapping workshop are presented (fig.1). Participants used different techniques to create a mental map, resulting in a wide taxonomy of mapping representation of sensory assets, including:

a) Typology A: notations based on separate sensory cues,
b) Typology B: word-based narratives, and paths of memory,
c) Typology C: treating sensory experience as landmarks of atmospheres and
d) Typology D: diagrammatic depiction of sensory trails (adding information about everyday experience and showing purely sensorial qualities of paths).

Using the map during walking, provided a series of challenges. Some used the map to textually and spatially depict their own knowledge of the history of the place or the memories from other people's narratives. Others focused on the actual conditions with a particularly practical approach, analysing each sense in its components and bringing to the forefront the poetics of space. Overall, the content from mental mapping provided a collection of sensory experiences in the city centre of Canterbury, presenting the diversity of perceptual awareness between participants. For example, Figure 1 below shows the interpretative sensory maps based on participants' perception, where the overlap of sensory assets is depicted with an improvised notation.

Figure 1. Typology A of Sensory Mappings: using improvised sensory notation to represent perceived experience and quality of environment. (Image by author).

The mapping exercise also revealed the potential for narrative and story building around the experience of space through the senses. This understanding of the quality of space through storytelling can become a powerful design tool in creating a collective place identity.
Typology B of sensory mapping reveals sensory assets that are site-specific and at the same

time reflect the wider image of the city, in identifying qualities of ‘Canterbury’ as a place. Emotional attachment to place, historic references and environmental qualities were included as seen in Figure 2.

Figure 2. Typology B of Sensory Mappings: sensory assets include narratives of experiences in place that build the collective imagery of a place. (Image by author).

The combination of mapping notation and narrative revealed a more dynamic understanding of the overlap of the sensorial realm that captures the reality of walking and the passing of perceptions and interpretations of the space. Qualities and assets are therefore directly site-specific, analyzing the micro-level of sensory assets, focusing on the architectural detail, the intensity of a specific smell, the functional aspect of using a trail for cycling and the change of perception related to the change of speed in movement. This dynamic set of sensory assets presents an opportunity for a more active engagement with city space, where linear spaces of movement (streets, canals, blue and green ways and cycling paths) are brought to the forefront (Figure 3).

Figure 3. Typology C of Sensory Mappings: the dynamic qualities of sensory assets that present a different image of the city, one that is based on linear spaces of navigation as main descriptor. (Image by author).

Finally, Figure 4, shows the understanding and representation of the sensory experience as a continuous flow of interchanging intensities. Surfaces and places take on a specific prevailing quality that defines them. The moving body seems to be able to perceive sensory cues in specific rhythms, continuous, focused, syncopated, overflowing and contained.

Figure 4. Typology D of Sensory Mappings: rhythm and flow of sensory cues while walking. (Image by author).

THE MULTI-SENSO-REALITY OF WALKING

The narrative of the maps (visual, textual, hybrid or graphic) focus on the overlapping of uni-modal perception of walking atmospheres. It is critical to note the continuity between lived experience and perceptual trails that shows how the intangible realm of the sensory assets can influence directly decisions about selecting a trail over another in navigation.

Through the textual analysis of the material collected, it is shown that participants focused on the visual experience at street level, referring to the presence of people, materials, shop frontage and signage. They commented on the ‘stark contrasts between materials’, the difference between the homogeneity and harmony of building and facades that was lost in the colours of the shopfronts and the shop signs, creating a sense of disparity. Some participants found the ground floor conditions discordant with the upper floors, pointing out that looking at the architecture of the street was ‘difficult’. The crowdedness and level of pedestrian traffic seemed to provide opportunities for different ways of engaging with the space, both positive and negative.

Text-based descriptions of mobile atmospheres based on visual perception included ‘totally mixed’, ‘clustered’ and ‘mustered’, ‘baffled’, ‘busy’ and retail focused characteristics. Prompted to recommend a change on the street environment, the majority of respondents

identified the shop fronts and shop signage as obtrusive to the overall visual perception of the street.

It was pointed out that the urban layout of the streets allowed for a pleasant sky view and presented opportunities to discover buildings that could go unnoticed, such as the Cooper Gallery, the Methodist's church, views towards St Peter's church, the new Marlowe Theatre and Canterbury Cathedral. View cones of the latter were identified as places of sedentary activity, or places of lingering. The mixture of contrasting textures, colours and materials provided a level of diversity that was welcome for a public space.

Atmospheres of sound and noise were characterised by the proximity to the crowded High Street and the mixed street use by vehicles and pedestrians. Participants focused on the sounds that differentiate these two experience. Side streets were described as 'suddenly quiet' space, sounds of 'murmuring, tree leaves, laughter, wind breeze, birds and ducks' and the 'silence of the flood water in the river'. The walking activity seemed to enhance a mobile sound experience. Distant noises were mingled with close one, such as sounds of car horns, sirens, cars approaching, car door closing, passing individual conversations, building doors opening and closing, footsteps and high heels approaching, Crossroads were identified as busy hubs of the city centre, the majority of participants pointing out the 'background chatter', 'people going by', 'loud conversations' and the ringing of the cathedral bell.

According to their expectation of the place, participants noticed the dominance of people-generated noises over the presence of cars. The sounds that were found most invasive included vehicle-related sounds and sirens. Reference to childhood and past memory of the place included the location of a monument that was removed ('Kitty Marlowe playing the lyre') and the historic use of the space as the reed market. The most pleasant sounds were natural ones, including the trees and leaves in the wind. The experience of the place in terms of acoustic perception was overall comfortable and 'safe' for the majority of participants. The boundaries of the city centre were perceived as impermeable and noisy, showing a distinct fragmentation of the heritage site.

Tactile and thermal experiences while walking identified 'sunny' and 'warm' whereas as the majority of them found that the height of the buildings and use of brick fences contributed to that effect. The width of streets was commented in a positive way, as 'sun-catcher'. Although the openness of squares 'made it more windy' the thermal sensation was found still 'pleasant' because participants could 'stand in the sun'. This aspect was accentuated by the building materials, in particular that of crack timber in historic buildings and secret gardens in the Cathedral precincts that were found by the majority of participants to evoke a 'feeling of warmth'.

Olfactory experiences were divided in two distinct categories: one category acknowledged no significant ability to discern a specific smell during the walk whereas the other category experienced an array of smell qualities. Where the former found the smell along the route as neutral, the latter noted the 'smell of food', 'wet hair', 'havana cigars' [next to a tobacco shop], 'bread making', 'people smoking' and 'fragrance'. Negative smells included 'disinfectant', 'plastic', 'car exhaust' and 'dampness'. However, the majority of them identified experiences of more pleasant sweet smells and floral odours in the Cathedral precincts. The wetness of one of the walks had a direct influence of participants' olfactory experience, whereas the sunny conditions intensified the pleasantness of smells.

All the above sensory atmospheres were attributes to the urban everyday use and memory of the spaces intertwined with the expectations of participants. The depiction of favourite paths and biking trails reveals the creation of multisensory atmospheric landmarks in the heritage city (figure 5) and creates the need for a discussion around the sensory assets of a place. This generates a body of narratives of sensory heritage where the destination is an embodied experience, a path, a point of sensory interest in the traditional townscape. The network of collective interpretation of multisensory experiences can contribute to the understanding of quality of place in its everyday use, disembodying the heritage city from its normative touristic and consuming function. The design of urban spaces and the practices of placemaking would benefit from a design tool that takes into consideration sensory assets that have been revealed through common community engagement practices. The rich and multi-faceted set of findings can steer future projects seeking to use sensory navigation in the context of urban redevelopment towards the well-being of community places, where everyday experiences are empowered as a tool for controlling the qulity of public space.

Figure 5. Sensory Map of Canterbury city centre, based on the mental mapping content of 10 participants during a sensory walk, showing sensory experiences, perceptual trails, relationship between place and memory and landmarks. (Image by author).

CONCLUSIONS: NOTES FOR A PEOPLE'S SENSORY MAP OF CANTERBURY

In the quest for social well-being at the level of the community in a heritage city, public participation becomes paramount. This project aimed to take a more holistic view of places and their sensory identity and to draw on users' experience in evaluating environmental and spatial quality of place, using sensory walks and mental mapping as an empowering tool of community engagement in the maintenance and redesign of city spaces. Within this context, the project had the objective to engage city users in research and help create a community-designed map of the city centre of Canterbury.

A sensescape map of a city area describes the common everyday qualities of walking as an indicator of health and well-being and experiencing an open space, green, grey, public or private. While people navigate in the cityscape apparently based on their visual perception, the actual experience of wayfinding is multisensory. Sensory assets may be attributed to uses of space, climatic conditions, people interaction and characterise uniquely a particular node, street or neighbourhood. There are many opportunities to explore by applying the tool of mapping of sensory assets for place making and local governance. This approach imbeds the engagemnet of the community in a direct dialogue with urban change and development.

The new sensory map of Canterbury, with Canterbury Cathedral as the main cultural landmark (figure 5), provides the opportunity to inform cultural debates on urban exploration and engagement, navigation and route planning as well as build a network of knowledge transfer between the Cathedral and a diverse range of community groups. Finally, its sets the foundations for further exploring how responses to sensescapes can enrich a shared vision of walking atmospheres and interpretation of sensory assets in a heritage city.

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