

## VISUALISING HERITAGE-MEMORY

### *The paradigm of Chambers Street*

NIKOLIA KARTALOU

*Edinburgh School of Architecture and Landscape Architecture*

*N.Kartalou@ed.ac.uk*

**Abstract.** Aristotle in his treatise, *On the Soul*, defined memory as knowledge of the past, obtained through seeing, sensing, observing, listening and learning. Memory can be envisaged as the mental imprint of an image that can be recalled through the experience of existing objects and places. How is cultural heritage related to the experience and knowledge called memory? Why do memories appear to have a strong influence in unconscious spatial perception? How can visualisation techniques activate heritage-memory? Buildings, as tangible elements of the historic city, disclose the memories of the past into the present, and direct us to an experience of time through matter. Buildings serve as a link bridging the past with the present, and eventually, the future sites of memory. Their fabric is constantly altered with engraved layers of historical change, a sequence of past events which emerge from the remnants of their structure. The past, imprinted on the city's artefacts, manifests its tangible form, and through a new reading of heritage, as 'heritage-memory', immaterial qualities of previous eras can perhaps be revealed. This paper, part of an ongoing research situated in between theory and practice, argues that the immaterial elements of cultural heritage emerging from historic urban spaces, can be critically explored in a new way through the use of digital technology, as a tool to revisualise the memory of a locus. Taking Chambers Street in the Old Town of Edinburgh as a site of focus, this presentation demonstrates several steps towards visualising the heritage-memory of the site. The paper poses the question of how the site might serve as a memorial itself, revealing to the observer the knowledge of past events engraved on its locus. Chambers Street serves as a paradigm of constructing a virtual narrative of heritage-memory, examining the site in parts and whole.

“Memory takes root in the concrete, in spaces, gestures, images, and objects; history binds itself strictly to temporal continuities, to progressions and to relations between things. Memory is absolute, while history can only conceive the relative.” (Nora, 1989: p. 9)

### 1. Ways of *parāstasis*<sup>1</sup>

While this research aims to explore the embodiment of memory in space, both the relations between the observing subject and ways of *parāstasis* have to be examined. Assuming that imagination requires the insertion of “mental pictures” (Yates, 1992: p. 33) from sense perceptions into the continuum of memory, the conceptual apparatus of heritage-memory that will be presented in the following section of this paper, can serve both as an analytical tool, and as a matrix towards shaping practical criteria for digital representation of ‘non-tangible’ heritage. The aim is to activate the notion of heritage-memory through analogue and digital objects that could allow one to appreciate a more complete image of cultural heritage. On that account, the following sections of this paper will illustrate approaches towards analysing a site of focus (Edinburgh’s Chambers Street), by employing the visual competence that digital means provide with the support of the “mimetic capacities of analogue media” (Crary, 1992: p. 1).

Since this paper proposes ways that digital technology can be utilised in order to expose ‘non-tangible’ heritage, it is important to outline the distinction from other digital heritage approaches. While digital heritage is usually applied to visually reconstruct an artefact in order to document, detect or diagnose its hidden vulnerabilities (such as the examples of Scottish Ten, UK Thermography Authority, and Visualising Venice’ works), here the interest lies on the intermediate interplay between the real and the virtual in an existing urban environment where the past is not always detectable on the present fabric. The examination also concerns settlements with layers annihilated or even buried under or within the present artefacts. This enquiry demands the use of appropriate means of representation, with the aid of technological tools with unrestricted utilities (Allen, 2009: p. 81), in order to expose the invisible notion of heritage-memory that emerges from a *locus*.

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<sup>1</sup> Ways of presentation. The term *presentation*, (Aristotle, transl. by J. I. Beare), was originally used from Aristotle as *parāstasis* (Greek: παράστασις < παρίστημι < παρά + ἵστημι – ‘bring a form into existence’) which means ‘to manifest something in front of someone’. It was used by the ancient philosopher in order to state that human cognition is impossible without (mental)images.

## 2. Heritage-memory

### 2.1. ARCHITECTURE AS THE *TÉCHNĒ* OF CULTURAL HERITAGE

Architecture (Greek: *αρχιτεκτονική* < *αρχή* – ‘principle’ + *τέχνη* – ‘art’ or *τεκτονική* – ‘construction / creation’) can be understood both as the *téchnē* (Greek: *τέχνη*), or else, the craft knowledge of construction, and also, as the *epistémē* (Greek: *επιστήμη* – science) of creating physical structures that serve human needs (see Heidegger, 1969). On that account, monuments and historic buildings, as material elements originating from the *téchnē* of architecture and falling into the category “of outstanding universal value from the point of view of history, art or science” (UNESCO, 1972), signify an essential aspect of what is called ‘tangible cultural heritage’. The latter, and in consequence of the valued artefacts it encompasses, discloses an ethical view on the field of architectural conservation. In this sense, ‘tangible cultural heritage’ is narrated through history, which according to Pierre Nora is the indicator of knowledge acquired by investigating the past (1989), and thus it is highly associated with ‘intangible cultural heritage’; the complex notion that includes knowledge related to human development, social principles and oral traditions (UNESCO, 2003). That said, heritage, referring to ‘valued objects and qualities that have been passed down from previous generations’ (Oxford English Dictionary), carries the notion of time, and manifests bonds with the past by material and immaterial means.

Yet, architecture, as the *téchnē* addressing human needs, presupposes a direct interaction of humans and space through its function, with the latter being articulated while users experience a space. The correlations between experience and architecture can be expressed through the tangible objects that shape the space – the buildings – whose value can be assessed in time. Their enduring architectural/urban fabric<sup>2</sup>, implies a commitment to history while, from an anthropological and ethnographical perspective, human generations intertwine with the artefacts. This interrelation of humans with material artefacts perhaps echoes Aristotle’s description of *the present* and *the past*, with the former understood as a *sense-perception*, and with the latter relating to *memory*, i.e. “neither perception nor conception, but a state or affection of one of these, conditioned by lapse of time” (Aristotle, transl. by J. I. Beare).

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<sup>2</sup> The term *fabric* refers to “[...] all the physical material of the place including components, fixtures, contents and objects.” (Burra Charter; 1999, P. 2)

## 2.2. 'NON-TANGIBLE' HERITAGE; AN APPROACH

In Plato's passage *Theaetetus*, Socrates describes *memory* as a block of wax in humans' souls symbolising the gift of knowledge they received from Mnemosyne, the daughter of Uranus and Earth and mother of the Muses (Yates, 1992: p. 36). Mnemosyne, also known as *Mnēmē* (Memory), was one of the three precedent inspirational goddesses of arts in ancient Greek mythology, and a figure encompassing both nature and ether, giving birth to both material and immaterial forms of expression. A similar mouldable surface relating to *memory* is also described in Aristotle's treatise *On Memory and Reminiscence*. The point of interest, and following Frances Yates' analysis, is that Aristotle relates the imprint of *memory* with that of *imagination* by suggesting that both "belong to the same part of the soul", since both are associated with experience and knowledge (Yates, 1992: pp. 32–34).

Drawing from Aristotle's writings on memory and in conjunction with a wider context of a theoretical framework stated in short below, this paper aims to introduce a new reading of heritage of the historic city<sup>3</sup> as heritage-memory. The conceptual apparatus shaped for the purpose of a wider research on 'non-tangible' heritage, borrows the concepts of *heterotopia* (Foucault & Miskowiec, 1986), *emergence* (Serres, 1995) and *meshwork* (Ingold, 2007). Epigrammatically, the framework suggests the examination of the historic city as a heterotopic constitution where the tangible elements of heritage juxtapose in space as representations of estrangement. The half-real/half-fictional space that heterotopia (Foucault & Miskowiec, 1986: p. 24) indicates, is loaded with immaterial qualities that every artefact brings in the city, and provides the *soundscape* of a city's timeless repetition. This 'murmur', in Michel Serres' words (1995, p. 13), assumes a virtual condition, where all possibilities are present and ready to emerge from the fabric, as the 'multiple' reveals itself, through the amplification of events and moments. These occurrences presuppose humans' entanglement with the city while experiencing it. The interconnections of people with artefacts, indicate a *kind-of* experience, where all individuals observing and experiencing the urban fabric constitute lines of a 'breathing' meshwork (Ingold, 2007: p. 72–84), equally shaping the emergent immaterial qualities of a historic city; or else, the 'non-tangible' elements of heritage.

Ostensibly, this association with memory requires objects, and by extension, images, in order to identify and reveal what is yet-to-be

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<sup>3</sup> The term *historic city* refers to a city that has maintained its heritage values, through a significant number of protected architectural artefacts of previous eras, within a socio-political and economical framework, while being important from a historical, scientific, aesthetic and technological point of view.

uncovered; especially when only the tangible has the privilege of being seen, sensed, observed and listened to. Buildings have the potential to reveal memories of the past, since the space they form is part of the reality we experience in present time. By exploring heritage city through the theoretical framework and its connection with the concept of memory, the following section of this paper will discuss ways to revisualise a locus through digital and analogue means, in order to explore, identify and reveal, ‘non-tangible’ heritage.

### 3. The Paradigm of Chambers Street

#### 3.1. LOCUS

“*Locus* is the relationship between a certain specific location and the buildings that are in it. It is at once singular and universal” (Rossi, 1982: p. 103). The significance of the locus not only lies on its identity, as a place<sup>4</sup> that reflects the social, morphological and historical values that has established its uniqueness, but also on its capacity of being the *starting point* of the process of recollecting the contents of memory (Yates, 1992: p. 34–35). Echoing Aristotle, memory requires knowledge, while knowledge premises presentation (*parāstasis*). As memory needs a stimulus to be recalled, in a similar manner, heritage-memory involves objects to expose and unveil past events. In the interest of examining the complex interconnection of memory and locus, Chambers Street was selected as a site to explore, while responding to criteria associated with its location and also character. The area illustrates an old side of a larger period of time with established layers of history in the urban fabric during the city’s transformation and expansion. It contains architectural characteristics of different eras engraved on the locus, while the majority of buildings that occupy the street represent significant values, usage and ethos (i.e. Old College–University of Edinburgh, National Museum of Scotland, Crown Office–Sheriff Court, Minto House–Edinburgh School of Architecture and Landscape Architecture, etc.).

#### 3.2. PARTS AND WHOLE

The history of Chambers Street was examined from the period of 12<sup>th</sup> century onwards, comprising a range of tangible and intangible

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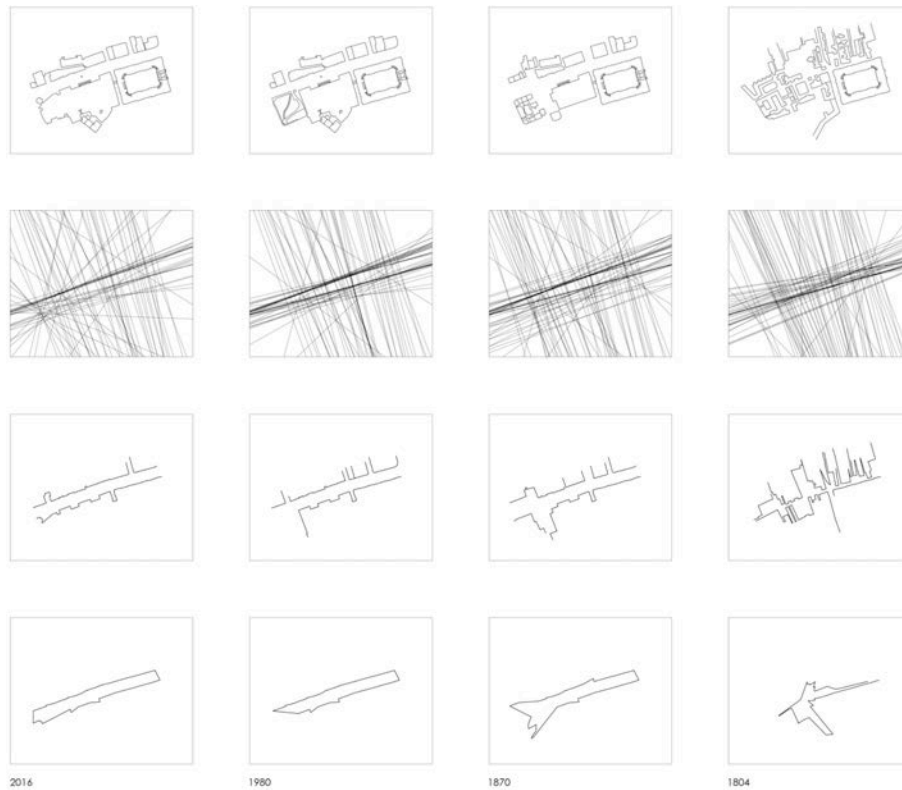
<sup>4</sup> The term *place* is used here following Burra Charter’s (1999) definition: “Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.”

interdependent parts. It is separated in relation to the condition of interdependence of the (two scales) buildings as tangible parts of the urban whole, and the site in its totality. Architectural parts and urban whole are inextricably intertwined, since the amount of information gathered for buildings as entities cannot be interpreted separately from their location, and the location itself cannot be investigated without the artefacts composing it. Therefore, the buildings' tangible connection with the locus manipulates to a certain extent the investigation, the experimentation and also the analysis of findings.

The collected data, concerning mostly the history of the site and its previous condition(s), illustrate information gathered from various sources, such as archives and online databases; while they vary in nature (analogue and digital) and also in type: texts, diagrams, oral, audio-visual records, maps and drawings. As far as the current condition of Chambers Street is concerned, the site was examined independently through the lens of architectural and urban scale, and conjointly, through in situ visits, corresponding to static or moving point of observation. The fieldwork involves mostly visual and photographic surveys, in conjunction with archival sources regarding the listing of the buildings, planning applications received and usages. Preliminary analogue means, such as sketches, have been used at the first stages of analysis, for the comprehension of the urban tissue and its morphological transformation in time. Even though the analogue techniques used concern mostly the first steps of analysis, digital means were preferred for the following stages, since "elements and details are continuously added, stored and filed, all in perfect transparency" (Allen, 2008: p. 76) with the aid of computer technology. The examples shown briefly below concern exclusively the tangible components of Chambers Street, due to the primary interest on the instrumentality of the site's architecture.

The urban-tangible scale outlines the evaluation of findings and serves as the starting point of the site's analysis. Historic maps have been collected, from 1765 until today, thirty-five in total; yet, only twelve have been selected and interpreted, as verified to illustrate accurately, to the greatest degree possible, the geometry of the site, and by extension, of the surrounding area. The selected maps were displayed in a chronological order, following a timeline with distances between them in proportion to the eras illustrated. This allowed a further examination of the historical changes which had occurred on site over time, allowing a rigorous experimentation of the urban tissue through established but also empirical design techniques. The results of the transformation of the urban morphology of Chambers Street during the years examined is shown analytically in Figure 1, where an

overall perspective of key dates illustrates the total change and expansion of the original settlement, revealing values such as integrity and authenticity.



*Figure 1.* Chambers Street transformation. The maps illustrated here as selected parts of an 'urban timeline' reflecting the transformation of Chambers Street from 1804 until nowadays. Only a few key dates are presented here, in a chronological order from right to the left. The drawings from top to bottom illustrate the following: (i) plans, (ii) coordinates of the urban fabric, (iii) urban space between the artefacts, (iv) visual field from the view point of William Chamber's statue (before its relocation on August 2016).

The architectural-tangible scale concerns the buildings as entities, where their morphological and typological characteristics were surveyed and collected in categories within indexes. Indicatively, the details documented involve dates of construction/alterations/demolitions, usages in different periods, decorative details (such as panels, coat of arms, carved inscriptions, incised letters, carvings, statues and busts, name of the buildings, architects and sculptors, and also archaeological findings subsisting on the fabric). The different typologies, surveyed and observed, have been translated to drawings with the aid of QGIS, where different categories were illustrated in

one drawing (Figure 2). Every structure presents information about the past condition of its fabric.

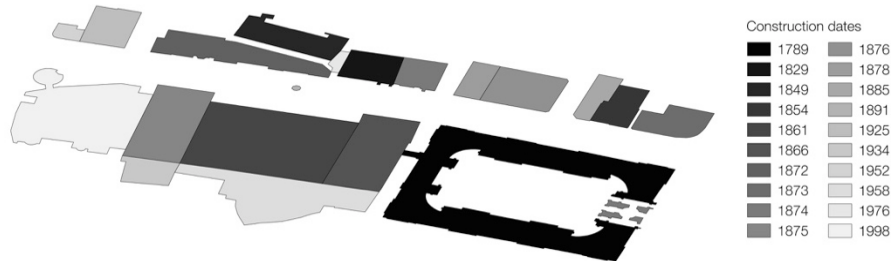


Figure 2. The drawing illustrates the different dates of construction of the buildings in Chambers street. Each building was surveyed separately and the results of the information found concerning their structure are displayed here as an ensemble.

#### 4. Epilogue

Citing Foucault: “The problem is to let knowledge of the past work on the experience of the present. It is not at all a matter of coating the present in a form that is recognized in the past but still reckoned to be valid in the present.” (2008, p. 130–131) The analysis above reflects in its majority the artefacts of the site and their tangible characteristics, illustrating Chambers Street’s transformation in time. The data gathered from archival sources, in conjunction with site observations, introduce a comprehensive reading of the site and they also reveal multifarious information concerning past conditions of the urban fabric. At the moment, the embodiment of memory is investigated in regards to the morphological alterations of Chambers Street as a tangible historic city site. This investigation provides a step towards the ‘non-tangible’ dimension of social conditions during the period examined, relating to usages, movements and prominence of the area in connection with the city.

Echoing Aristotle, the *knowledge* of the past can be acquired through the *experience* of the present. Therefore, the immaterial qualities of space, related to the experience of the site by observers, need to be examined further, in order to develop a complete and more coherent view of heritage-memory. These intangible elements, such as melodies, smells, sounds and oral stories, can be revealed with the aid of digital means through a notational strategy, producing a kind of “directed indeterminacy” (Allen, 2008: p. 64), in combination with QGIS based assessment methodologies. The aim is to allow, a step closer, the *knowledge* acquired for the visualisation of the imaginable heritage-memory.



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