The Flaneur Was Here: Mobile Augmented Reality and Urban Cultural Heritage Learning in Lower Manhattan

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"Man as civilized being, as intellectual nomad, is again wholly microcosmic, wholly homeless, as free intellectually as hunter and herdsman were free sensually." (Spengler, vol. 2 p. 125")

Mobile Augmented Reality offers unprecedented educational opportunity for cultural heritage studies, opportunity that is a mix of presence, liminality, and representation. A cultural heritage practitioner mediates the cultural heritage itself, the technology used to experience it, and in turn is mediated by both the heritage and the technology. To fully maximize this mediation towards educational effect requires a recasting of the role of learner in this field of cultural heritage, a learner as mischievous urban flâneur, a learner playfully pursuing affect as a vehicle for learning transformation. This essay will explore this notion of the urban flâneur in cultural heritage studies with mobile augmented reality using select locations in New York City as the environment to be mediated and mediate. The environment of New York City will be cast against the following explorations:

- Augmented Reality and Mobile Technology: Recasting the Body
- Cultural Heritage Studies: the Urban Experience
- The Flaneur as Cultural Heritage Learner: Mischief and Playfulness in Learning

The overriding ontological question for this exploration of cultural heritage studies and mobile augmented reality is what effect does this discipline and this technology have on the role of the learner in this space? In keeping with the ontological shift for the learner afforded by augmented reality in cultural heritage studies, this analysis will present possible representations of knowledge made possible through the combination of augmented reality and the recasting of the learner as flaneur; these representations will be cast in [brackets] and embedded within the analysis itself.

**Augmented Reality and Mobile Technology: Recasting the Body**

Plant argues that ‘the mobile is probably the first piece of digital technology which directly and more or less constantly changes people’s intimate experience of their bodies, their senses of their capacities, the possibilities of the everyday, on the street, the material self’ (Plant, Land, p. 63). The body is, as Biocca argues, the “primordial communication medium” (1997). Mobile devices allow for a continued mediation of the body and the environment, an
expansion of “the possibilities of the everyday” consistent with progressive pedagogy.

Mobile technology and augmented reality allow the individual to orient their bodies in relation to their environments, akin to a blind man with a cane (Biocca, 13). It is a tool for both orientation and sensemaking, an augmentative technology. Augmented reality builds on this augmentative tool by layering over additional facets of reality, whether graphical, instructional, or merely data properties. In augmented reality, individuals “experience the physical environment and others along with mediated virtual objects embedded in the environment” (Tang, Biocca, Lim, 2004). In essence, the virtual and the physical are simultaneously presented. This, as Biocca aptly states, transforms the metaphor of the blind man and the cane to one of a body submerged in a pool, immersed in a mediated reality (Biocca, 15).

[The flaneur as learner in this space can “wade” through the submerged areas of Lower Manhattan from the Hudson to the East Rivers. The flaneur can layer historical imagery over the absence of presence; the World Trade Center as seen from space on 9/11 and today.](image)
(June, 2010) The several augmented views of the World Trade Center as seen through Google Earth.

Pragmatically, this augmented reality is experienced in mobile technology through commercial applications such as Layar and Wikitude. There are other applications specifically geared towards cultural heritage studies such as iTacitus. iTacitus allows for the layering of historical representations of cultural heritage sites on to the physical reality; it basically transposes older versions of the location onto the current manifestation through the mobile device. It acts, as does most augmented reality, as an annotated landscape. Another example of merit for cultural heritage studies is ARCHEOGUIDE, an augmented reality application which attempts to mediate the process of experiencing cultural heritage sites by providing a multimodal layering of representational information and personalized instruction (Vlahakis et al, 2001).

While these are basically designed as types of intelligent tourism applications, a guidebook of sorts, the learning applications are significant for the academic field of cultural heritage studies. These applications immerse the learner in a mediated reality of both the physical and the virtual, augmenting the process of seeing and knowing. Further, they introduce time as a facet of representation in cultural heritage studies, a record of the location at a place and point in time. First, however, we should turn our attention to the field of cultural heritage studies as seen through select cultural heritage structures in Lower Manhattan in
New York City.

**Cultural Heritage Studies: the Urban Experience**

“Sometimes, from beyond the skyscrapers, the cry of a tugboat finds you in your insomnia, and you remember that this desert of iron and cement is an island.” Albert Camus

“Over the great bridge, with sunlight through the girders making a constant flicker upon the moving cars, with the city rising up across the river in white heaps and sugar lumps all built with a wish out of non-olfactory money. The city seen for the first time, in its first wild promise of all the mystery and the beauty in the world.” F. Scott Fitzgerald

Although cultural heritage studies is generally concerned with “the monumental remains of cultures, heritage as a concept has gradually come to include new categories such as the intangible, ethnographic or industrial heritage” (UNESCO, 2010). According to the International Charter for the Conservation and Restoration of Monuments and Sites (aka the Venice Charter) of 1964, cultural heritage studies has broadened from this notion of the physical environment of historic monuments to “groups of buildings, historic urban and rural centres, historic gardens and to non-physical heritage including environments, social factors, and, lately, intangible values” (Ahmad, 293).

![Garbage Strike, New York City (1919)](image)

For the purposes of this paper, cultural heritage will be concerned with “groups of buildings” and physical structures and the “the intangible values” that they project about the culture
in which they are situated. Traditionally, cultural heritage studies has explored the physical structures as stable entities and the intangible values as contextually fluid; augmented reality attacks this traditional structure and demonstrates that the physical structures themselves, along with the values that they accompany, are in states of constant flux. This flux is interpreted, mediated, and reconstructed in the individual learner. To illustrate this flux, this exploration of cultural heritage and augmented reality will be situated in the parameters of Lower Manhattan in New York City, a walkable cross-section of Manhattan’s cultural heritage.

The specific structures examined are
- Brooklyn Bridge
- Washington Square Park
- The World Trade Center
- Castle Clinton

Cultural Heritage Studies, as both an academic discipline and an examination of spatial constructions, is bounded; these boundaries are present for both the participating individual and the tangible and intangible properties of the cultural heritage itself. These boundaries afford the potential for the passage through “conceptual gateways”, boundary crossings that are pedagogically fertile environments for both learning and identity construction as participating cultural heritage practitioners. The conceptual gateway of cultural heritage studies as a discipline and an examination of bounded spatial constructions produces transformative, irreversible, and integrative learning opportunities (Meyer, Land, 373).
Cultural heritage as an urban spatial construct also produces geographically transformative, irreversible, and integrative learning experiences. Using the Manhattan locations as example, the journey from Greenwich Village to the Lower East Side produces bounded spaces with terminal frontiers (by the East River and Hudson River), which border thresholds with new conceptual and physical spaces (the Brooklyn Bridge connecting Manhattan with Brooklyn, for example; Castle Clinton connecting the largely immigrant population of Manhattan in the 19th century with the gentrified populace of the 20th and 21st centuries) (Meyer, Land, 374). The borders between these bounded spaces present learning opportunities for passages through conceptual gateways.

Imagine augmented reality at Castle Clinton, itself the disembarkation point of the majority of immigrants to pass into New York City, predating the modern facilities of Ellis Island. Augmented reality would allow for an interactive layered timeline of the changing architecture, the gentrification of Battery Park, even the construction of the Statue of Liberty from the harbor. Augmented reality and digital annotation would allow the learner the ability to recast images of immigrants on to the Castle walls, to hear the native music. Castle Clinton is recast as the conceptual gateway for the process of American indoctrination.

[Immigrants at Castle Garden, New York City, 1866. Wood engraving in "Frank Leslie's Illustrated Newspaper", 20 January 1866, vol. 21, p. 280-281.]
Rather than merely see this conceptual gateway solely from the perspective of the individual passing into the discipline and the cultural heritage itself, a more robust pedagogy is needed to analyze the relationship of the individual and their urban cultural heritage, the Manhattanite and their Manhattan. As this exploration suggests, this mediation is not a one way street of the cultural heritage affecting the individual; both are mediated by the other. As William Mitchell aptly states:

“The relationships of mobile bodies to sedentary structures have loosened and destabilized...We are becoming less like Saint Jerome, immobilized in his study among his accumulated possessions...and more like cyborg foragers navigating through electronically mediated resource fields” (159).

As augmented reality transforms urban cultural heritage studies into an environment for interaction, modern practitioners will be forced to forage through the fluid environments of representation, these “electronically mediated resource fields” of context. These urban cultural heritage researchers will be forced to transition from the sedentary model of Saint Jerome to that of Saint Christopher, the patron saint of all travel. In short, learning will be an exercise in motion and representation.

As Hayles states, "the smallest unit of analysis is the relation"; this smallest unit of analysis, the relation of the individual and their urban cultural heritage, should be the focus of cultural heritage studies and academic representation (2006). The relation of the individual
and their urban cultural heritage and, more specifically, what affect is stimulated through the mediation of that relationship with augmented reality, forces the recasting of the role of the learner.

Cultural heritage studies is poised to accelerate this mediation as it is already concerned with the relationship of the individual and the society in which they interact; augmented reality merely establishes further mediation of the individual on the urban cultural heritage through a series of contextual representations and sensemaking tools. What is lacking is the positioning of the learner within this discipline of cultural heritage studies to maximize the learning made available through this heady mixture of mediation, boundary crossings, and produced affect. To properly invigorate this learning mediation of individual, urban cultural heritage, and augmented reality, a 19th century literary role imagined by Baudelaire in the bowels of Paris needs to be appropriated: the mischievous, playful, meandering individual known as the flâneur.

**The Flaneur as Cultural Heritage Learner: The Role of Mischief and Playfulness in Learning**

“Taking a walk is a haeccity . . . Haecceity, fog, glare. A haecceity has neither beginning nor end, origin nor destination; it is always in the middle. It is not made of points, only of lines. It is a rhizome”. (Spengler, 1000)

Urban cultural heritage studies is concerned, amongst other aspects, with the relation of the individual and the constructed environment in which they are immersed. The outward activities of these studies have focused on the identification and preservation of cultural heritage in both national and international terms; this definition implicitly reveals the importance of cultural heritage without overtly stating the reasons why preservation is important (Harding, 303). Further, it casts the role of the learner in terms of a spectator, a passive, merely observational presence in relation to the learning environment, the urban cultural heritage itself. Augmented reality eschews this role of spectator as merely passive observer; it oscillates the participation of the spectator from required to uncertain, from a prediction to an anxiety, from a localized presence to an uncertainty of the ability to localize (Ross, 2009).
For our purposes, this focus on preservation and the constructed environment neglects these cultural heritage spaces as learning environments: interactive, playful spaces of cultural and pedagogical significance. Urban cultural heritage mediates spatial relationships, dictates the potential movement of individual learners, and provides a myriad of mysterious, rich environments for exploration. Augmented reality extends this mediation by layering contextual information on the representation of cultural heritage, introducing elements of time, space, and artistic representations.

These contextual layers afforded by mobile augmented reality applications provide ontological disturbance and stimulate threshold learning, a passage from one context to the next, a role encapsulated in the leisurely strolling of the flâneur through the collective urban cultural heritage. Mobile augmented reality transforms spatialized time, “where the nature of the activities was predominantly governed by the structuring logic of the place, to temporalized space, where the nature of the activities of its inhabitants define the place” (Dholakia, Zwick, 11). In short, in this view the learner (the flâneur) begins to define and mediate the space around them.
[Washington Square Park in Greenwich Village offers an excellent example of this mediation of individual and cultural heritage. The park is remarkable for the entrance, an arch modeled after the Arc de Triomphe in Paris and evidence of intent for spatialized time, to have the structure dictate the activities taking place. Being modeled after a “foreign” structure, the arch defies localization and registers on the flâneur/learner a conceptual sense of purpose. It is firmly built into New York City, yet what it celebrates are universal themes of liberty. However, Washington Square Park has migrated to a temporalized space, where the park itself is defined by its proximity to a center of activity, New York University, as well as the activities taking place there: chess matches, music, relaxation, studying, leisure. The park expands on the original intent of offering a reprieve from the city itself to a place defined by recreational activities.]


What is needed is to enact the role of the learner as an entity in exploratory motion, an oscillation between exploration and reflection, a constant boundary crossing. This is all encapsulated in the construct of the flâneur who seeks “the truth of the flux of public space”, “the truth of the metropolis” (Shields, 210). The flâneur embraces the “ambivalence of destination” enacted in augmented reality by not seeing knowledge as linear, by constantly seeking novel ways of seeing and knowing (Ross, C., 2009). This ambivalence of destination is well served by the flâneur in their exploration of urban cultural heritage; this exploration is enhanced by augmented reality as a means of knowing anew, a novel comprehension. This augmented reality affords the flâneur the tools necessary to recast the familiar in a new light, to recast the composition of the urban cultural heritage. A sense of playfulness, a mischievous desire to interact with the urban cultural heritage in novel and oft “destructive” ways, is stimulated through urban cultural heritage viewed through augmented reality. This playfulness itself is not novel, but rather pedagogically fertile.
Ideally, playfulness produces affect, which often might manifest a keen and pedagogically fertile sense of "not-knowing". This secure not-knowing is situated in the exploratory meandering mind of the flâneur (Macleod, Ross, 6). The flâneur acknowledges the elasticity of the urban cultural heritage they encounter and interact with, that the world itself is in a constant state of not-knowing and construction. The flâneur embraces this state of secure not-knowing as it acknowledges the liminality of being between the "abstract and material" (Shields, 2010). Playfulness allows the flâneur learner the vehicle in which to orient themselves secure in their not-knowing and secure in their between state; it is the affect of interactive learning.

[Imagine the Brooklyn Bridge as seen through the lens of the flâneur. A physically bounded structure linking the domestic (Brooklyn) with the workspace (Manhattan), the lower socioeconomic strata (laborers and the pedestrians making the daily commute) with the upper classes of society (Brooklyn Heights as wealthy depot), the economic and engineering construct (a symbol of capitalist expansion, an engineering marvel) with the human capital required to construct it (27 laborers died in the making, many from the "bends", an anomaly discovered and coined during the building of the Brooklyn Bridge). The flâneur would meander through these constructs, interact with them, and reconstruct them using augmented reality for representations of meaning, layering the face of a deceased laborer over the Mercedes crossing the Bridge. A flâneur secure in their not-knowing makes playful representation like this possible.]

The introduction of playfulness in urban location is nothing new, having enjoyed a relatively rich literary tradition in the role of Baudelaire’s flâneur; further permutations include the
Situationist International group opposed to the capitalist order and pacing of modern life (de Souza e Silva, Sutko, 6). Playfulness exchanges capitalist pragmatism for the meandering flâneur, the wanderer, where the destination is a transformation as opposed to a predefined location.

The flâneur in this instance meanders through the constructs of urban cultural heritage and reconstructs the unfamiliar as familiar, the familiar as unfamiliar. The flâneur annotates the space in which they inhabit, leaves markings, ephemeral evidence of knowledge construction. This process is well suited to augmented reality applications that afford the ability to annotate space, such as digital graffiti applications (Carter et al, 2004). Teri Rueb compares the “digital annotation of space with trails left in freshly fallen snow”, fluid representations of knowledge construction (Hemment, 2004). These transient markers of progress and presence are evidence of the playfulness of the learner and their interactive space, a playfulness that produces affect, a disquiet, an ontological strangeness that evades value judgment (Bayne, 2010). This playful interaction “is a fluid space of overlapping fields and frequencies,... it is characterized by connectedness as opposed to the discrete boundaries and territories suggested by physical architecture and visually based constructions of space” (Syncopated space, Receiver #10, 2004:2). In short, it is the mise-en-scène of the meanderings of the flâneur, the canvas on which learning representations are built.

This annotation is a critical element of pedagogical interaction, an essential function of the flâneur in their investigation and recasting of their urban cultural heritage. “We are at home in the world because the world we understand is also the world we make, in both literal and figurative senses” (Hayles, 2006). Why not give this cultural heritage flâneur the tools to recast cultural heritage into worlds they understand? Why not allow the individual to enact the “rhythmic dance of interaction with the world”, to create “little war machines” of representative affect (Hickey-Moody, 2009)? Cultural heritage studies as an academic discipline is well served by the advances in representation allowed for by mobile augmented reality, digital annotation included, as it furthers its purpose of representing both groups of buildings, the urban cultural heritage, as well as the intangible values these represent. Individuals can recast both tangible and intangible representations in their environments with great complexity and comprehensiveness.

A Future of Cultural Heritage Studies and Learning?

What does the future hold for cultural heritage studies and the cultural heritage learner? Augmented reality produces both augmented affect in the individual and augmented effect for the environment. These little war machines of representation, combinations of multimedia and contextualization, evidence of the complexity of relationships in urban environments, are further recast collectively. This aligns the academic discipline of cultural heritage studies with other crowdsourced models of collaboration, a “radical distribution” of contribution that broadens the boundaries of disciplinary professionalism (Barbham, 75). This broadening of boundaries and extensive modes of distributed collaboration links cultural heritage studies with the objectives of more constructive disciplines, such as architecture, engineering, and urban studies, as well as artistic disciplines such as literature,
music, and the visual arts. Cultural heritage studies becomes a discipline of active, even aggressive representation.

Cultural heritage studies, by embracing augmented reality, transitions to a study of motion and fluid representation, a study of the environment in constant, mediated flux. The flaneur as meanderer offers a suitable bridge for disciplinary interaction between cultural heritage studies, architecture, engineering, urban studies, and the arts. The learner is repositioned as both observer and builder of their urban reality, one at home in a world of their own construction. Further disciplinary interaction will magnify the effect of augmented reality in both tangible environments and the intangible values encapsulated in them.

**Bibliography**


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Additional Criteria

- Mobility
Does this work account for mobile augmented reality learning “in terms of its affordance for mobility, its coverage of formal and informal learning, its identification of learning as a constructive and social process, and the role of situated activity mediated by technology” (Sharples, Taylor, Vavoula, 2007, pg. 225)?


- Multimodality

Does this work establish multimodal representation as a construct for demonstrating transliteracy, “the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks” (Thomas et al, 2007)?


- Rhizomic Exploration of Bounded and Smooth Space

Does this work present urban cultural heritage and augmented reality learning as an oscillation between the exploration of smooth and striated space, a perpetual journey between bounded and boundless spaces (Bayne, 2004) both physically (park, bridge, architecture, river) and constructively (troublesome knowledge, boundary crossings, disciplinary passage) (Meyer & Land, 2005)?
