

## **LOCATIVE MEDIA AS SOCIALISING AND SPATIALISING PRACTICES: LEARNING FROM ARCHAEOLOGY (DRAFT)**

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### **Abstract**

Pervasive computing and locative media are emerging as technologies and processes that promise to reconfigure our understandings and experiences of space and culture. With the critical hand of material and cultural studies, we start to shape questions about locative media representations of urban mobilities, and begin to unearth some of the struggles and tensions that exist within these fields of operation. By looking at archaeology's constitutive processes of collection, ordering and display we highlight some of the problems found in mapping people and objects in space and time, and ask what kinds of social/spatial relations are made possible in particular locative media projects. Ultimately, we take archaeology's critical focus on authorship and ownership, explain its relevance to locative media, and suggest questions to consider in the future research and design of locative media.

### **Keywords**

everyday life, context, locative, technology, design, hybridity, mapping, curation

### **INTRODUCING ARCHAEOLOGY**

In archaeology--as with locative media--nothing is considered more important than context [1]. When all we have are the fragmented remains of lived experience, how people, places, objects, events, and activities relate in space and time becomes the primary means by which cultural knowledge and experience are (re)produced. Archaeology is tasked with making sense of material artefacts using words and images, the processes of archaeological mapping, classifying, collecting and curating can be understood as primarily socialising and spatialising practices. Enacting present interests and values, as well as producing histories of change, they shape and reshape worlds. For example, Stevenson [2] summons archaeology as "the design history of the everyday" where histories are shaped by cultural (political, economic, environmental, etc.) forces, but in which "many have assumed that material goods are socially inert artefacts that simply reflect human taste or fashion". He suggests instead that, following Latour [3], we understand the everyday in terms of hybridity, where objects are active participants in social and spatial relations. Along these lines, Michael Shanks also draws out an intimacy between people, places and objects:

"The archaeological experience of ruin, decay and site formation processes reveals something vital about social reality, but something which is usually disavowed. Decay and ruin reveal the symmetry of people and things. They dissolve the absolute distinction between people and the object world. This is why we can so cherish the ruined and fragmented past" [4].

And as Hodder [5] explains,

"Certainly, there is a widespread interest in many disciplines in materiality, in the ways that the social is constructed in the material... in the ways in which materiality is active and constitutive... [and through archaeology] the social present can be seen as the long term product of slow moves in daily, nondiscursive practices."

Pearson and Shanks [6] also shed some light on the socialising and spatialising practices of archaeology by reminding us that the material past is not merely *reconstructed* in the present--it is more profoundly *recontextualised*. No artefact can have a singular or essential meaning if it is understood to have been in flux since its moment of conception. Throughout their use, artefacts continue to change depending on their field of reception; even after they have been discarded and covered by dirt, they are re-shaped again when rediscovered by a grave robber, a scholar or a weekend gardener.

Taking inspiration from archaeology's approaches to understanding and representing what may very well be ineffable social/spatial experiences, the remainder of our paper looks more closely at socialising and spatialising practices in archaeology and locative media. Finally, we take archaeology's critical focus on authorship and ownership and explain its relevance to locative media.

## **A SHORT HISTORY OF CABINETS AND OTHER CURIOSITIES**

In the 16<sup>th</sup> and 17<sup>th</sup> centuries, wealthy Europeans and less affluent scholars assembled material collections that became known as cabinets of curiosities. Titillated by wondrous artefacts acquired from the colonies and a contemporary intellectual culture interested in the accidental and the anomalous, these collections brought together unusual representatives of the 'natural' realm of animal, vegetable, mineral and, less frequently, the 'artificial' or cultural realm. With these collections organised and displayed in specially designed pieces of furniture, often filling entire rooms and overflowing onto ceiling and floor, they effectively constructed and presented microcosms of the known or projected universe. The cabinets themselves remind us of the importance of design in framing subjects, objects and desires, and by focusing specifically on the curious, the collections have also been described as attempts to seize or capture the most spectacular elements of nature and human creation, a want in keeping with European expansionist and colonial values of the time [7].

By the 18<sup>th</sup> and 19<sup>th</sup> centuries cabinets of curiosities began to give way to scientific collections based on natural law. One-of-a-kinds were replaced by the serial, and the mysterious by the ravenously rational:

"I demand, I insist, that everything around me shall henceforth be measured, tested, certified, mathematical, and rational. One of my tasks must be to make a full survey of the island, its distances and its contours, and

incorporate all these details in an accurate surveyor's map. I should like every plant to be labeled, every bird to be ringed, every animal to be branded. I shall not be content until this opaque and impenetrable place, filled with secret ferments and malignant stirrings, has been transformed into a calculated design, visible and intelligible to its very depths!" [8]

The collections moved from private dwellings accessible only by personal invitation to public museum or fair settings. During this era, World Fairs and museums played a variety of pivotal roles in shaping public histories and values, personal identities, political and economic interests around the world [9]. Despite differences over time, curiosity and control remain constant undercurrents. Our desire to experience and make sense of the world around us by removing people, objects, practices and ideas from their 'original' contexts and reconfiguring them in 'new' places and according to different principles is integral to cultural (re)production [10].

In recent decades, the critical and reflexive eye of anthropology and archaeology has been turned to the collection and representation of cultural 'property' in all forms. Museums, both public and private, are understood to produce and engage a variety of "histories, discourses and spectacles" and collections are seen to convey as much about collector values as the cultures they ostensibly represent [11]. Moreover, the ethics of collecting and curating cultural artefacts have emerged front and centre in recent years [12] and practitioners continue to question their roles in the writing and production of culture through research, collection and curation choices. An increase in community-based, local and non-professional research and museum management, as well as the repatriation of cultural artefacts to their places of origin, is further shifting some of the historical power relations involved in global archaeological and cultural production and consumption [13].

## **INTRODUCING LOCATIVE MEDIA**

Lacking the disciplinary boundaries of archaeology--a diverse project in its own right--locative media resist easy definition and may be best represented by one of Deleuze and Guattari's maps:

"The map is open, connectable in all its dimensions, and capable of being dismantled; it is reversible, and susceptible to constant modification. It can be torn, reversed, adapted to montages of every kind, taken in hand by an individual, a group or a social formation. It can be drawn on a wall, conceived of as a work of art, constructed as a political action or as a meditation... Contrary to a tracing, which always returns to the 'same', a map has multiple entrances" [14].

In its broadest sense, we understand pervasive and ubiquitous computing to comprise any number of mobile, wearable, distributed, networked and context-aware computing devices, applications and services. The term 'locative media' was coined by Karlis Kalnins as a "test-category" for processes and products coming from the Locative Media Lab [15], an international network of people working with some of the technologies above. Although place-based arts have long and rich histories, Pope suggests that "the novelty of [locative] projects seem to be in the way they extend the human community to include an array of agents, arranged in space which includes antennae, rooftops, trees, buildings, masts and the like" [16]. Albert further explains locative media as "artwork that utilises media that can express an index of spatial relationships" and claims that locative media practitioners "are

keeping the technologies close to the ground, available for hacking, re-wiring and re-deploying in non-authoritarian ways" [17].

Various online lists of pervasive computing and locative media projects [18] draw out the breadth of current classification schema: everything from mobile games, place-based storytelling, spatial annotation and networked performances to device-specific applications. In any case, locative media practices are inextricably connected to the research, development and availability of particular material devices, applications and services, as well as to the private and public policies and laws regulating their use. All locative media projects rely on some sort of (not necessarily equitable) financial, intellectual, political, material, etc. collaboration between government, university, industry and 'independent' artists, designers or researchers. And so, just as in archaeology, the spaces and cultures of locative media represent and perpetuate particular interests and values; the choice of what tools to use, what to map or how to classify, as well as how to collect and curate cultural objects, are also of central concern to both fields of practice.

### **A SHORT HISTORY OF PROTOCOLS AND OTHER CURIOSITIES**

For any technological device to be 'aware' of its context--physical or otherwise--it has to be able to locate, classify, collect, store and use 'relevant' information, as well as to identify and discard or ignore 'irrelevant' information. If we imagine these devices and data as cultural artefacts, and servers and databases as cabinets and museums, then locative media begin to share many of the same interests and concerns as archaeology and anthropology.

Alexander Galloway [19] argues that Internet protocols are architectures of control--ones that have, from the very beginning, been implicated in various power struggles between military, government, university, industry and citizen interests. Closer to the topics at hand, we can acknowledge how the NAVSTAR Global Positioning System (GPS) is inextricably connected to military complexes and its increasing commercial ubiquity—including availability to locative media practitioners--can be understood as part of the broader 'civilianisation' of technology. At the same time, access to maps and cartographic data is not universal and GPS use is constrained by technological, political and even commercial 'protocols'.

Galloway cites hackers, viruses and Internet art as forms of resistance to, and subversion of, network protocols, and locative media practice seems ready-and-willing to take these critical politics to the wireless world. Locative projects like *Wireless London* [20] support open systems, free networks and public sector wireless media in their ongoing engagement with how emerging wireless "spaces are to be characterised by enforcement, interference, piracy, participation, inclusion, or social enterprise". Locative media also tackle social and political contexts of production by focusing on social networking [21], access [22] and participatory media content including story-telling and spatial annotation [23].

Inherent in creating and maintaining these protocols, databases and networks--just as in the maps, taxonomies and artefact collections of archaeology--are socialising and spatialising practices. By focusing the remainder of our essay on the ways in which individual locative media projects collect and classify--how they make maps and curate culture--we shine some light on the types of social and cultural, political and ethical, issues that arise in the process.

## LOCATIVE MEDIA, SPACE AND CULTURE

As we dig a bit deeper into how particular locative media projects negotiate local and global spaces, we see the increasing 'technologisation' and commodification of urban and public spaces. Graham points to how "places [are] becoming increasingly constructed through consumer decisions which, in turn, are influenced through the... surveillance, and sorting, of cities" [24]. And these "software-sorted cities" point to a related and politically-charged question posed succinctly by Borden: "How can differential space be sought in the land and epoch of the commodified, the abstract, the homogenized, the reductive and the powerful?" [25] In other words, what relations of difference--of production and consumption, of public and private--are possible in the worlds shaped through pervasive computing and locative media?

It has also been much discussed that the urban experience is increasingly mediated through lens and screens, thereby rendering invisible the city's processes of becoming. Representational technologies (the map, the photograph, the GPS trace) capture and expose moments within the city's history. But in the moment of capture the viewer's gaze is projected onto the city as a *happened place* or totalising system of meanings and relations. This freezing of relations--however temporary--can be limiting when we consider the desire of locative media to effect cultural change. A map without multiple entrances--a map that denies multiple interpretations--is a map that discourages change, that presents the world as a *fait accompli* or worse, a world without *hope* [26].

Complementary cultural theories and critiques of everyday life, as well as social studies of science and technology [27], continue to bring together all of these concerns and offer other ways to explore the promises and potentials of locative media. By shifting the focus of our attention away from functions, structures and subjective experiences of technology--away from totalising explanations of the everyday--we move towards decentralised performativities [28] and the kind of open mapping described by Deleuze and Guattari that we cited above. Instead of approaching the physical, the social and the digital as oppositional or complementary qualities, we are interested in how each emerges through the actual practices of locative media. In other words, what kinds of social/spatial relations are possible in particular locative media projects?

In *Fiasco/Digital Street Game* [29] and *Uncle Roy All Around You* [30], players are presented with the urban as game-play, where they are confronted by the strangeness of other people, objects, spaces and times. Combining Internet and mobile technologies, both create territories characterised by indeterminacy and ambivalence, demonstrating that sociality and spatiality belong to more than one category. In each case, both the city and the Internet are positioned as 'open' boards or stages on which we play, despite only being able to play in these worlds in clearly circumscribed ways. Researchers in the *Uncle Roy All Around You* project reported that players use 'glitches' like GPS shadows to their advantage during game play [31], and so social resistance plays out entirely within existing structures. In other words, while game-play encourages new kinds of movement through the city, players do not seem to have--or claim--the necessary means to change the playing fields or the rules. In *Digital Street Game*, players 'broke' the rules by playing from cities other than New York [32], insinuating that there can be a fine line between the colonisation and liberation of space.

Projects like *Amsterdam Real Time* [33] and *The Daily Practice of Map Making* [34] record the movements of individuals and groups of people through urban areas, and render them as static maps. By abstracting and stabilising our movements in spacetime, GPS tracings can become de-contextualising practices, and ultimately shift focus *away* from our (constantly changing) 'on the ground' potential. Furthermore, by reducing our spatial experiences to latitude and longitude coordinates, social/spatial interaction can take on a totality, precision and predictability that it lacks. While the city may indeed emerge as the collective movement of her people, these maps and curatorial projects are not particularly amenable to such (re)interpretation, and risk only ever being intelligible to, and actionable by, the people who created them.

On the other hand, projects like *34 north 118 west* [35] fix narrative fragments in physical space while also allowing for multiple readings. Effectively creating an open curation, actually activated by movement through space, the project conjures a world of flow and fixity. Projects like *Milk* [36] use GPS to track the people involved in the production of cheese, and map a world in which cheese is considered the first project participant or subject. The project transforms the political boundaries of transnational commerce into micro-level personal interactions, both humanising individual workers and redrawing national identities. Some projects, like *Shadows From Another Place* [37], use GPS to create "hypothetical mappings". These maps exist specifically to offer glimpses of other possibilities and potentials, and despite having fixed parameters, they are easily undone and re-imagined. In spatial-annotation projects like *Yellow Arrow* [38] and *Neighbornode* [39], cities are positioned as surfaces on which we can inscribe meaning, and which ultimately perform as collective memory. These story-telling projects allow for social and cultural (re)readings of space, allowing private narratives to become public and subject to reinterpretation.

## **INTO THE FUTURE: LEARNING FROM ARCHAEOLOGY**

In addition to learning from its world-building potential, archaeology offers two major contributions to the understanding and practice of locative media arts. First, the question of authorship compels us to look not just at who is currently able to create and use locative media, but at who will be able to re-create and re-use locative media in the future. Second, the question of ownership requires us to be aware that most locative media projects require large databases and these data are subject to the same curatorial issues as any cultural collection.

When it comes to creating and using locative media, we can evaluate the relations of production and consumption: Where does the technology originate? How is the project funded? Who gets to use these technologies to create cultural 'content' or artefacts? Who gets to set the rules of engagement? What are the power relations at play? What shape can resistance take?

We can also evaluate the archiving of locative media data: Who owns the data? To whom do they belong? Are they for sale? Who has the access to view them? Who has the ability to change them? What are the short- and long-term exhibition, storage and preservation needs?

The matters of authorship and ownership are also critical to the definition of locative media: Is it defined by itself or its Other(s)? What are its antecedents and living relatives? Authorship and ownership are central to the classification of new media

artefacts or data: What makes a bottom-up classification scheme more authentic or valid than one constructed top-down? What makes a locative media project less politically and ethically charged than a cabinet of curiosity?

At stake in all these questions are relations between artists and corporate researchers, designers and users, subjects and objects, pasts and futures, material and immaterial, commodities and values. If locative media are ultimately understood as collections of cultural artefacts, what roles do they take in shaping personal identities, collective histories and values, political and economic interests around the world? And finally, what roles *should* they take?

## REFERENCES

- [1] Contextual information is valued so highly in archaeological interpretation that excavation of a site is never total because it is understood that excavation is a destructive process and care must be taken to preserve some parts "intact" for future study (and other methods).
- [2] G. Stevenson, "Archaeology as the design history of the everyday", in V. Buchli and G. Lucas (eds.) *Archaeology of the Contemporary Past*, London: Routledge (2001), p. 53.
- [3] B. Latour, *We Have Never Been Modern*, Cambridge: Harvard University Press (1993) and B. Latour, *Pandora's Hope: Essays on the reality of science studies*, Cambridge: Harvard University Press (1999)
- [4] M. Shanks, *The Life of an Artifact*, May 1998. Available online at: <http://traumwerk.stanford.edu/~mshanks/traumwerk/index.php/The%20life%20of%20an%20artifact>
- [5] I. Hodder, *Archaeology Beyond Dialogue*, Salt Lake City: University of Utah Press (2003), p. 82.
- [6] M. Person and M. Shanks, *Theatre/Archaeology*, London: Routledge (2001).\
- [7] See for example, O. Impey and A. MacGregor (eds.), *The Origins of Museums: The Cabinet of Curiosities in Sixteenth- and Seventeenth-Century Europe*, Oxford, Clarendon Press (1985) and P. Mauriès, *Cabinets of curiosities*, New York : Thames & Hudson (2002)
- [8] Tournier as cited in D. Gregory, *Geographical Imaginations*, London: Blackwell (1994) p. 15.
- [9] See for example, T. Bennet, *Birth of Museum: History, Theory, Politics*, London: Routledge (1995) and G.W. Stocking (ed.), *Objects and others: essays on museums and material culture*, Madison: University of Wisconsin Press (1985)
- [10] See S. M. Pearce (ed.), *Interpreting objects and collections*, London: Routledge (1994) and S. M. Pearce, *On collecting : an investigation into collecting in the European tradition*, London: Routledge (1995)
- [11] D. J. Sherman and I. Rogoff (eds.), *Museum culture: histories, discourses, spectacles*, Minneapolis: University of Minnesota Press (1994)

[12] See for example, P. M. Messenger (ed.), *The ethics of collecting cultural property : whose culture? whose property?*, Albuquerque: University of New Mexico Press (1999) and L. J. Zimmerman, K. D. Vitelli, J. Hollowell-Zimmer (eds.), *Ethical issues in archaeology*, Walnut Creek: Altamira Press (2003)

[13] See for example, A. James, J. Hockey and A. Dawson (eds.), *After writing culture : epistemology and praxis in contemporary anthropology*, New York : Routledge (1997) and L. Peers and A. K. Brown (eds.), *Museums and source communities: a Routledge reader*, London: Routledge (2003)

[14] G. Deleuze and F. Guattari, *On the Line*, New York: Semiotext(e), (1983) pp. 25-26.

[15] <http://www.locative.net>

[16] S. Pope, "The Shape of Locative Media", *Mute Magazine* Issue 29, February 9, 2005. Available online at:  
<http://www.metamute.com/look/article.tpl?IdLanguage=1&IdPublication=1&NrIssue=29&NrSection=10&NrArticle=1477>

[17] S. Albert, "locative literacy - four locative micro-rants - preview from upcoming [sic] mute magazine #29", *Locative* email list, April 27, 2004. Available online at: <http://db.x-i.net/locative/2004/000368.html>

[18] For example, see Dr. Reinhold Grether's directory to mobile art and locative media available online at: <http://www.netzwissenschaft.de/mob.htm>

[19] Alexander Galloway, *Protocol: How Control Exists After Decentralization*, Cambridge: MIT Press (2004).

[20] <http://wirelesslondon.info/>

[21] See for example, <http://flickr.com/>, <http://www.dodgeball.com/>, <http://www.plazes.de/>

[22] See for example, <http://www.magicbike.net/>, <http://www.ambriente.com/wifi/>

[23] See for example, <http://www.yellowarrow.org/>, <http://murmurtoronto.ca/>, <http://www.grafedia.net/>, <http://rabble.com/>, <http://www.kakirine.com/passing>

[24] S. Graham, "The Software-Sorted City: Rethinking the 'Digital Divide'", in S. Graham (ed.), *The Cybercities Reader*, London: Routledge (2004), pp. 324-331.

[25] I. Borden, *Skateboarding, Space and the City: Architecture and the Body*, London: Berg (2001), p. 267.

[26] M. Zournazi, *Hope: New Philosophies for Change*, London: Routledge (2002).

[27] These everyday spaces are the theoretical domains of the likes of Augé (1995), Bakhtin (1984), Benjamin (1969), Debord (1995), Lefebvre (2003) and de Certeau (1984) – and they allow us to explore the mobilities, shadows and resonances of everyday life (cf. Van Loon 2004). They are also the spaces of inquiry for Callon

(1986), Latour (1993), Mackenzie (2002), Serres (1997), Stengers (2000) and other scholars of science, technology and society, where human and non-human come together and pull apart in multiple ways.

[28] A. Galloway, "Intimations of Everyday Life: Ubiquitous Computing and the City", *Cultural Studies* 18(2/3), 2004, pp. 383-407.

[29] <http://www.asphalt-games.net/>

[30] [http://www.blasttheory.co.uk/bt/work\\_uncleroy.html](http://www.blasttheory.co.uk/bt/work_uncleroy.html)

[31] Steve Benford et al., "Uncle Roy All Around You: Implicating the City in a Location-Based Performance", *Proceedings of ACM Advanced Computer Entertainment (ACE 2004)*, Singapore, July 2004, ACM Press.

[32] Elizabeth Goodman, personal communication

[33] <http://www.waag.org/realtime/>

[34] <http://www.planbperformance.net/dan/mapping.htm>

[35] <http://34n118w.net/34N/>

[36] <http://www.milkproject.net/>

[37] <http://paullevine.banff.org/>

[38] <http://www.yellowarrow.org/>

[39] <http://www.neighbornode.net/>

Socialization helps people learn to function successfully in their social worlds. Social Group Agents. Social groups often provide the first experiences of socialization. Families, and later peer groups, communicate expectations and reinforce norms. People first learn to use the tangible objects of material culture in these settings, as well as being introduced to the beliefs and values of society. Family. Family is the first agent of socialization. Supporting the consumption and co-authoring of locative media experiences for a rural village community: Design and field trial evaluation of the SHARC2.0 framework. 2016. Multimedia Tools and Applications, 1-32. Google Scholar. Do, T. V., Cheverst, K., & Taylor, N. (2015). Locative media as socialising and spatialising practices: Learning from archaeology. Leonardo Electronic Almanac, 14, 3. Google Scholar. Harrison, S., & Dourish, P. (1996). Locative media work [2] draws from a rich background of Dadaist, Situationist, and post '68 philosophy and media theory. The focus lies on the creation of situations of social interaction where the intention is to bridge the gap between the virtual, online and Internet based media and the physical world, be it through mapping, tagging and/or representing one domain in the other. Locative Media as Socialising and Spatialising Practices: Learning from Archaeology Leonardo Electronic Almanac, Vol. 14, Issue 3/4. [3] <http://library.nothingness.org/articles/all/all/display/314>. [4] Gilles Deleuze, Félix Guattari, Mille Plateaux, Minuit, coll.