

Expanding Practices in Audiovisual Narrative

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Edited by

Raivo Kelomees and Chris Hales

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P U B L I S H I N G

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INTRODUCTION

RAIVO KELOMEES AND CHRIS HALES

We have arrived at a time when “new media” is no longer new, “interaction” is something we carry out daily in a variety of situations, and audiovisual expression is commonplace in artistic practice. Although it arguably took cinema about seventy years to come up with a truly new format—that of interactive non-linearity in the *Kinoautomat* of 1967—the last twenty or so years have seen a phenomenal expansion in the variety of forms of creative and narrative audiovisual expression. The increasing role of relatively recent developments such as the internet, mobile telephony and computer gaming, which complement the narrative representation of more traditional media, seems to have acted as a catalyst to unfreeze the standard types of story form that had been appearing on our screens for over a hundred years. Storytelling has taken on new forms, in the physical format(s) of the narrative material, the place or device where it is experienced, and the way it is accessed by the viewer—in particular, a viewer who might now also be a creator, modifier, or active participant in the represented audiovisual experience. This, broadly, is the area explored by the collection of texts presented in this book, which offers both historical and contemporary analyses of a variety of these “expanding practices in audiovisual narrative”.

The historical context of interactivity, pushing buttons, and group experiences is described wonderfully in the text by **Erkki Huhtamo** which takes the *Kinoautomat* interactive cinema as a starting point from which to discuss, from a media-archaeological viewpoint, several of the seemingly unique aspects that it brought to screen practice and group entertainment. The major works of the inventor of the *Kinoautomat*, the Czech Radúz Činčera, are discussed by **Chris Hales** in the context of architectural spaces designed for multiple narrative readings. The article presents for the first time significant detail on Činčera’s later projects which included the *Cinelabyrinth* of 1990 in which groups of visitors could choose their own narrative pathways by walking into a choice of screening rooms in a physically constructed labyrinth. Another pioneer of

interactive cinema, the Canadian Luc Courchesne, is discussed by **Ryszard W. Kluszczyński**, with particular emphasis on his videodisc-based interactive installations of the 1990s which explored both portrait and landscape forms of representation and evolved into an exploration of the panoramic presentation format. Adding to the interactive theme, **Raivo Kelomees** offers a study of how the traditional documentary film form is being transformed by the potential of the audience to participate in, or change the form of, a non-fictional narrative, not only online but in a variety of other situations.

Not all current audiovisual practices are traceable as an evolution of an earlier form. **Martin Rieser** offers an excellent overview of what he suggests to be the beginning of a new art form, that of mobile and locative (and hybrid) narrative media—the advent of mobile technologies creating new affordances for artists located in real physical spaces such as cities and natural landscapes rather than the traditional gallery environment. Computer gaming is another practice that has formed uniquely as a result of technological innovation, although it has clear connections to more traditional forms of storytelling and game-playing. **Oliver Laas** examines how narrative is used within computer games, using approaches from the humanities, social science, and game design & engineering, and provides an overview of some of the current debates prevalent in this field of study. Taking a more theoretical approach to narrative, **Mauri Kaipainen, Roberto Pugliese** and **Pia Tikka** examine structural story-form, by analysing how narrative content can be organised and accessed under computational algorithms in order to produce new ways to navigate audiovisual material, based on a model of “cinematic story ontospace”.

Narrative forms will undoubtedly continue their process of expansion and evolution as a result not only of technological innovation but mankind’s ingenuity in finding the most effective and unexpected ways to use it. Given such a dynamic state of affairs, a volume such as this can never truly represent the “state of the art” of current practice in audiovisual digital media. Nevertheless it is our hope that the articles presented here will offer useful source material to inform scholars and practitioners from a variety of related fields about certain historical, cultural and theoretical aspects of the evolution of the narrative form in the digital age.

CHAPTER ONE

MOBILE, LOCATIVE AND HYBRID NARRATIVES

MARTIN RIESER

This chapter will examine and critically align a number of pioneering projects from around the world, using mobile and pervasive technologies, which have challenged the design and delivery of mobile services, as documented on the author's weblog and book *The Mobile Audience* (Rodopi, 2011).

These will be presented together with examples from the Artist's own research and practice, including *Hosts*, a site specific mobile experience with interactive video in Bath Abbey 2006; *Starshed*, 2006 a folksonomic map of the uncanny in Bristol; *Riverains*, 2008-11 an exploration of underground Manchester and London through mobile technology, commissioned by the b.TWEEN Festival and the Illumini Festival; *The Third Woman*, 2008-11, an experiment in multi-linear film narrative and performance for mobiles, reinventing the thematic of *The Third Man* for the 21st Century, as part of the e-mobilArt European artists' workshop initiative; *Songlines*, 2009-12, a mobile wiki map and virtual artworks delivery system for Leicester cyclists and walkers; and *Codes of Disobedience*, 2011, a locative documentary workshop in Athens.

Introduction

Karlis Kalnins coined the phrase "locative media" as the title for a workshop hosted by RIXC, an electronic art and media center in Latvia, during 2002. Whilst locative media is closely related to *augmented reality* (reality overlaid with virtual reality) and to *pervasive computing*; locative media concentrates on social interaction with a specific place through mobile technology. Hence, many locative media projects have a background

in social, critical or personal memory. In this paper I will describe attempts to use location-specific media in narratised contexts, both as a researcher's tool and a way to bring contemporary stories alive for the new technologically-aware public.

Locative Art, by its very nature, trespasses into the realm of Public Art, but by its interaction with the public, transforms our notions of site-specific and ambulant practices, defined over the last three decades by artists such as Richard Long, Robert Smithson, Hamish Fulton, Vito Acconci and Sophie Calle. The history of located and nomadic art is indeed a very long one, stretching back to Aboriginal Songlines and spatialised religious rituals.

I pose here the question whether, by similarly rooting locative practice in profound cultural and psychological structures, locative work can gain greater artistic resonance. The exploration of the syntax of spatial language and its relevance to current practice is the subject of this chapter. Respect for place and space has long gone from our social uses of location-based technologies, but may still perhaps be reclaimed by artists.

Which bring me to a further question relating to the art itself. Much of what is named 'Locative Art' is not really art, but rather games-based work or spatialised documentary or simply advanced toolsets that happen to use this technology. I think the potential is there, but art has a different function to these uses and when it is truly present you can sense it from afar. This brings us back to a central question: what are the pleasures and modes of user experience and how can we distinguish these from other media art forms or genres of work?

If one interrogates the new visual and auditory languages or strategies for narrative in locative and pervasive media, understanding these emergent forms—which may enhance interactive narrative in urban and site-specific environments—seems like a huge challenge. But only through such an understanding of these new and radical forms of experiment can we attempt to both map changes in sociability and communication patterns and to understand new forms of collaborative art.

This extension of interactive technology from fixed installation to real urban geographies is radically altering the modes of audience participation and reception. When the physical space overlaps the space of diegesis, the emergent space for art and performance appears to open new perceptions

of space and place in the audience. We need a redefinition of the concept of physical space (including hybrid environments), since through such technologies a new form of urban space seems to be emerging, which is not primarily visual, but in essence, conceptual.

Much reflection on Locative media art has been premature, for as Drew Hemment observes

It is too early to offer a topology of locative media arts, however, or to tie the field down with strict definitions or borders ... We have not yet reached the point at which the technology disappears—all too often the tendency is to focus on the technology and tools rather than the art or content.¹

The waters have been further muddled by the convenient way in which artist's projects have often aligned with the consumer research interests of the mobile phone companies, where yesterday's locative project becomes tomorrow's "killer app":

Mike Liebhold of the Institute for the Future (IFF) regards "geohackers, locative media artists, and psychogeographers" as key players in developing the "geospatial web," in which the web becomes tagged with geospatial information, a development that he sees as having "enormous unharvested business opportunities." and believes that this context-aware computing will emerge as the "third great wave of modern digital technology."²

In defining the pleasures of the medium, the *Mobile Bristol*³ project made an attempt to identify these through a seminar series in 2005, where for example, it was discovered that the accidental overlapping of ambient environmental sound and augmented sound within a locative work created delicious ambiguity and extra resonance for an audience.⁴ What is needed

¹ See: Drew Hemment, "Locative Arts," August 2004. Accessed June 2014, <http://dm.ncl.ac.uk/courseblog/files/2010/02/locativearts.pdf>.

² Quoted in Marc Tuters and Kazys Varnelis, "Beyond Locative Media". See also Mike Liebhold, "The Geospatial Web: A Call to Action. What We Still Need to Build for an Insanely Cool Open Geospatial Web," accessed June 2014, <http://www.oreillynet.com/pub/a/network/2005/05/10/geospatialweb.html>.

³ A series of locative artwork experiments by Hewlett Packard, Watershed Media Centre and Bristol University 2004-5.

⁴ Josephine Reid, Kirsten Cater, Constance Fleuriot, Richard Hull, "Experience Design Guidelines for Creating Situated Mediascapes," accessed June 2014, www.hpl.hp.com/techreports/2005/HPL-2005-181.pdf.

most I think is to understand both the social context of these new artworks and the pleasures of their reception and use. These are also increasingly dependent on haptic and spatial senses such as *proprioception*, which are little understood by artists, but are within the affordances of the emerging technologies.

The Paradigm

As computing leaves the desktop and spills out onto the sidewalks, streets and public spaces of the city, we increasingly find information-processing capacity embedded within, and distributed throughout the material fabric of everyday urban space. Ubiquitous computing evangelists have heralded a coming age of urban infrastructure capable of sensing and responding to the events and activities transpiring around them. Imbued with the capacity to remember, correlate and anticipate, this near-future “sentient” city is envisioned as being capable of reflexively monitoring its environment and our behavior within it, becoming an active agent in the organisation of everyday life in urban public space. However, beyond such techno-utopianism, even the use of passive, code-based technologies can give agency to the public and create a new type of embedded history, which in the urban projects described in this paper, represents a very different form of “sentience”.

Our mental representations of cities are necessarily complex, and to me it seems problematic for artists to merely map literal representations back onto space using locative technologies, but this appears to have been the predominant practice of many early projects such as the first Locative Media workshop⁵ and *Urban Tapestries*.⁶ Research into spatial representation shows how mental maps create subjective distortion, describing not space, but the objects or nodes in it, and so our inner representations appear to be a direct contradiction to the continuous

⁵ Locative Media Workshop: The international workshop entitled “Locative Media” focusing on GPS, mapping and positioning technologies took place from July 16 - 26, 2003 at the K@2 Culture and Information Centre on an abandoned military installation in Liepaja on the coast of the Baltic Sea. Accessed June 2014, <http://locative.x-i.net/>.

⁶ Proboscis: *Urban Tapestries* (2002-4). Accessed June 2014, <http://urbantapestries.net/>. The *Urban Tapestries* software platform allows people to author their own virtual annotations of the city, enabling a community’s collective memory to grow organically, allowing ordinary citizens to embed social knowledge in the new wireless landscape of the city.

Euclidian “space between” of a (Google) map, which is the dominant trope of the age of GPS.⁷ Many of my projects are an attempt to view the city as a series of social markers, landmarks and human presences, rather than as simply an abstract representation of space.

In 2006 I developed *Hosts* for display in Bath Abbey, in an attempt to create an experimental ubiquitous artwork, sensitive to a specific location, by adapting new technologies to give a fully realised and embodied audio-visual user experience which touched on the universal thematics of art, in both its ancient and modern incarnations. The piece was designed as a reflection on human life and death, presence and absence. Vertical screens were placed at strategic opposite points of the space. A visitor triggered the presence of a variety of unfocused and evanescent video characters through the use of positional detection devices (ultrasound *Chirpers*) and interpretative software. Individual characters appeared at random and smiled, beckoned or otherwise indicated that the visitor should follow them and then passed onwards from screen to screen, keeping pace with the visitor. These “hosts” were of a wide range of ages and of different gender, but always appeared singly to the particular participant wearing a unique ultrasound-emitting device.

The “hosts” could be taken to represent a variety of presences: from the angels of the Jacob’s Ladder, sculpted on the building’s exterior, to the spirit of people who had inhabited the same spaces, or seen as fragments of an individual psyche. The emotional mood was deliberately variable and the encounters changed depending on a randomised selection sequence for the video sprite characters and sounds. A 3D audio landscape of acapella tonal voices accompanied the visitor between the screens accessible on wireless headphones and formed a tangible changing audio landscape. I worked with a group of singers, musicians and sound designers in Bristol/Bath on this aspect of the piece.

⁷ Barbara Tversky, Joseph Kim, Andrew Cohen, “Mental Models of Spatial Relations and Transformations from Language,” (Stanford University/Indiana University, 1999), accessed June, 2014, <http://www-psych.stanford.edu/~bt/space/papers/tverskykimcohen99.doc.pdf>.



Figure 1-1. *Hosts* installed in Bath Abbey, 2006.

If a visitor stood for more than a few seconds in front of a particular screen, the figure turned in the direction of the viewer and returned the visitor's stare. The video sprite looked the visitor up and down, or turned away in distraction and then spoke a series of poetic aphorisms, also seen as animated text on the screen. On a separate screen evanescent figures were continually climbing up and down two ladders mirroring the motif carved on the Abbey. It was out of this initial project that I developed a series of mobile art experiments to answer some of the research questions emerging in this new field.

Simultaneously, I was researching a book on the subject: *The Mobile Audience*. One of the first tasks was to gain an overview of the phenomenon of artworks in this domain of embodied experience, an arena for self-performance.

Hewlett Packard has coined the term for mobile interaction spaces as "mediascapes", and this hybrid media space is an in-between, threshold place, an amalgam of imagination and the physical. De Certeau understood space as something that is produced through social practices (Lefebvre,

1991; De Certeau, 2002)⁸. With new social behaviours emerge new spatial possibilities, but if Locative Media is to move beyond the production of novel experiences for extremely limited (art) audiences, it has to realise its potential by also addressing social and political contexts, and its practices need to be evaluated against the larger social framework of urban public space, critically engaging with the social and political realities of contemporary cities.

A Gendered Form

The political and economic shape of society ultimately forms contemporary modes of narrative. The contradictory pressures of neo-liberal economics, which drive the growth of personalised and peer-to-peer media and the inter-penetration of workspace and private space, also seem to offer a unique opportunity to break Laura Mulvey's determinist "male" control of narrative vision, which dominated narrative in the 19th and 20th centuries and to promote a more de-centered and subtle mapping.⁹

Feminist critics have often raised alternative strategies to break the negatives of a culture of male "control". Not surprisingly, some interesting female locative practice explores precisely this area. Teri Rueb's *Drift*¹⁰, for example, tied a sound landscape to the movements of the tide on a north European beach. The installation covered a 2 km x 2 km region on the Wadden Sea that is filled with areas of interactive sound that moved in and out with the tide. The piece creates a space of flows consisting of sounds and words that travel like particles on simulated air and water currents loosely based on actual oceanographic and meteorological data. The audience had either to give itself up to those primal cycles of nature or risk terminal confusion and data loss.

⁸ "space is composed of intersections of mobile elements. It is in a sense actuated by the ensemble of movements deployed within it ... In short, space is a practiced place", Michel de Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984), 117; Henri Lefebvre, *The Production of Space* (Wiley, 1991).

⁹ Laura Mulvey, *Visual and Other Pleasures* (University of Michigan: Macmillan, 1989).

¹⁰ Rueb, Teri. "Drift," accessed June 2014, <http://www.terirueb.net/drift/index.html>.

Performance or Game-play?

Mobile devices already appear performative in their nature, with public space interpenetrating our private concerns, so that any conversation has its willing or unwilling eavesdroppers. Add to this the potential for social interaction, crudely demonstrated by *Flashmobs* and in more sophisticated ways by mobile gaming, and you have a case of new technology creating adaptive social behaviours, which contain strong performative elements.

Demanding games are already being played using mobile technologies such as *Catchbob!*¹¹ and Blast Theory's *Uncle Roy All Around You*, which combine Internet and mobile technologies, where the city and the Internet were regarded as related stages on which we play, regardless of the specific context. Steve Benford of Nottingham University now talks of "seamful" media where players have learnt to exploit GPS "shadows" (where tall buildings block satellite triangulation) to their own advantage during game play, describing how such unforeseen effects of the technology encouraged new kinds of movement through the city.¹²

The failure of such works is often in terms of misapplied contextual practice: I once tested Valentina Nisi's *Media Portrait of the Liberties* in Dublin before the demise of MIT's EuroLab.¹³ We had gone about a block when the local youths began stoning us. The technology was certainly impressive, but this new form of public art was alien even to the children of the collective contributors to the artwork. When participating in Blast Theory's *Uncle Roy All Around You*, I reflected on how the game's format had reduced the richness of the city to a few textual clues and a dangerous process of frantic searching, with users crossing roads with even less awareness than the average iPod listener.

Spatial Annotation

Spatial annotation has emerged in the last few years as a major Internet phenomenon, particularly with the growth of Google Maps and social photo-sharing sites such as Flickr. In spatial annotation projects like

¹¹ *Catchbob!* Accessed June 2014, <http://craftwww.epfl.ch/research/catchbob/>

¹² Performing Space, Arts and Humanities Research Council Seminar at Nottingham Trent University, February 2008.

¹³ Valentina Nisi "Media Portrait of the Liberties," accessed June 2014, <http://www.valentinanisi.com/liberties.html>

*Yellow Arrow*¹⁴ and *Neighbornode*¹⁵ and in my own *Starshed*¹⁶ for Electric Pavilion, cities are increasingly being treated as surfaces on which individuals can inscribe annotation, and which will ultimately become repositories of collective memory. Such story-telling projects allow for new social and cultural readings of space, allowing private narratives to become public and subject to reinterpretation.

Two more recent projects of mine use the city as both metaphor and as a respectful multi-layered repository of meaning. *Riverains* was developed for the b.TWEEN festival in Manchester and was predicated on the idea of underground presences derived from the city's past, who lingered in the underground spaces which riddle our cities. These can both be detected and unlocked by the public, using mobile devices in the manner of a water douser. It was planned to later add user contributions in the form of avatars to create an ever-growing layer cake of histories and narratives. It was further developed for the Illumini Festival in Shoreditch, where multiple histories were layered along Shoreditch High Street and Old Street.

Both Manchester and London have rich underground worlds of hidden or "lost" rivers, nuclear fallout facilities and command centres and Second World War bunkers, in addition to Victorian sewers and underground railway systems. They also have an archaeology going back through medieval to Roman times. The *Riverains* were drawn from this rich history of poverty, industrial revolution, immigration, political protest, commerce and innovation, gang warfare and crime. Once piloted, the project is planned to map video and photo-stories across central areas of other cities.

Riverains was run in pilot form at the Illumini Festival in September 2010 tracing a portion of Old Street and Shoreditch High Street. *Secret Subterranean London* was the third Illumini event, curated by Jane Webb, and located in the basement of Shoreditch Town Hall. Over 50 artists/artist groups exhibited and performed during the week-long festival, which also included guided underground tours, artist talks and workshops. Over 3300 people attended the opening evening, Thursday 9th September 2010, and 9247 people in total visited Illumini during the whole week's event.

¹⁴ *Yellow Arrow*, accessed June 2014, http://brianhouse.net/works/yellow_arrow/.

¹⁵ *Neighbornode*, accessed June 2014, <http://www.neighbornode.net/>.

¹⁶ *Starshed*, accessed June 2014, <http://www.electricpavilion.org/content/roots/starshed/index.html>.

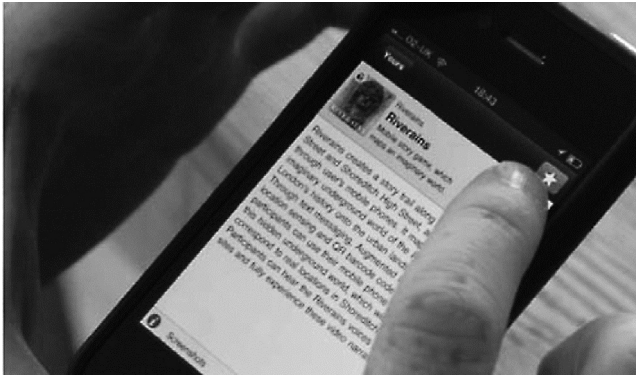


Figure 1-2. *Riverains* screen interaction

Riverains at Illumini was designed to comprise four elements, offering interaction to users with varying levels of technical requirement (users are expected to provide their own mobile phone). The work built on *Riverains* development for Manchester's b'TWEEN festival, extending it through collaboration with artists Ximena Alarcon and Kasia Molga, with technical development by Sean Clark and Phil Sparks (using Empedia by Cuttlefish Multimedia) and Gareth Howell (using Layar). Two "guided walks" followed in which participants were supported in using the QR code-reader version, and Layar (for those with suitable phones), as they followed the trail along Old Street and Shoreditch High Street. Those without appropriate phones were able to share the experience using spare iPhones during the walks. *Riverains* was aimed at the broad spectrum Illumini audience.

The video pieces by Alarcon and myself were triggered by photographing QR codes distributed on stickers along the route, which carried visual clues as to locations associated with the video content. While encouraging audiences to download in advance in areas of free WiFi, the 3G downloads took no more than a minute and in fact began streaming almost instantly. The Layar version was equally successful and it is hoped that the next incarnation will fully develop all the intended game elements and the user software to upload further stories.

As it was, the rich history of Shoreditch was explored with pieces on early Shakespeare using imagined voices of characters or actors from the plays *Henry IV* and *Romeo and Juliet*; verbatim readings from the

coroner's report of the "Ripper" murder of Mary Kelly, held in the Town Hall site of the exhibition, with interjections by the Ripper's imagined persona; immigrant voices from Jewish, Huguenot and contemporary narratives were available, as were reflections on the Plague in London, creating dramatised monologues based on Daniel Defoe's *Journal of the Plague Year*. Suffragette histories became audiovisual sound-image montages echoing their treatment in Holloway Prison. Finally there were reflections on the early history of underground rivers that criss-cross the area and notionally held the historical presences, which are the *Riverains*.

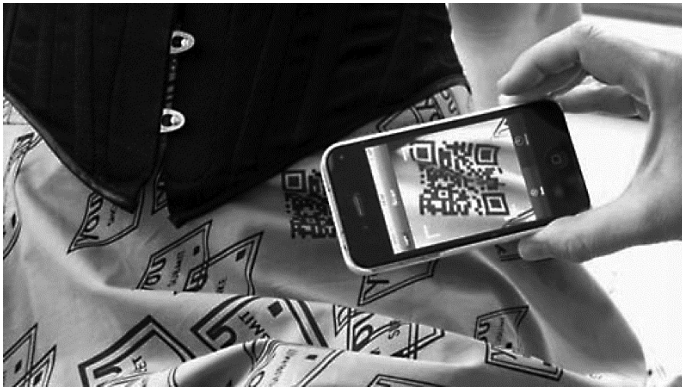


Figure 1-3. *The Third Woman* showing interactive clothing for QR codes, 2011.

The second project *The Third Woman* was an interactive mobile film, part of the European emobilArt initiative, which combined mobile game and performance based on a contemporary Vienna, revisiting the familiar territory of the postwar film *The Third Man* and re-imagining it for the 21st century. The public participated in a guided performance game in the U-Bahn system, using QR codes as triggers for film-noir fragments and text messages, which moved them through a scenario that varied, depending on location or choice, driven by an intelligent film engine derived from Pia Tikka's *Enactive Cinema* research mentioned elsewhere in this publication. The film itself was structured into three parallel dramas where the same scene was available in three different emotional moods.

The work toured internationally and was reworked substantially for each succeeding venue. Latterly, *The Third Woman* film-game explored a theme of pervasive global threats to use bio-engineered terrorism in the 21st century. The film was only one element in a more complex interactive

event. Using smart phone technology, participants could interact with media by responding to questions derived from ethical, moral, and social perspectives embedded in the content of the film.

In New York, performers on stage wore fashion items made of QR images and used their bodies to demonstrate how to scan the codes and link to *The Third Woman* media. Spilling off stage into the audience, they invited people to play the film-game.

Participants playing the game became part of *The Third Woman* interactive performance and could choose routes through the multi-stranded narrative by selecting subtle statements related to character behaviours on their smartphones. Their choices could be examined individually or form a “vote” for the preferred version which would then appear on a larger communal screen.

This project proved invaluable as a crucible for defining hybrid mobile experiences for new audiences, equipped with smartphones, and was instrumental in finding the simplest and most inclusive method for singular and collaborative engagement with mobile-based narratives.

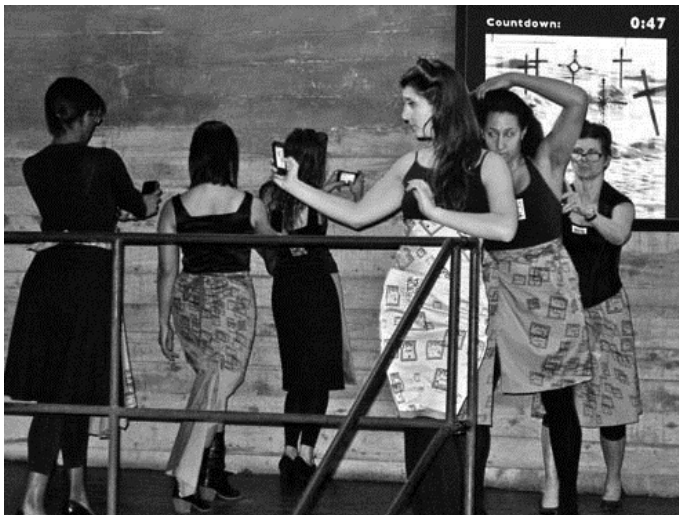


Figure 1-4. The Third Woman Performance in Brooklyn, NY, 2011.

Mapping and History

Sat nav systems tend to reduce our world to roads between A and B. The specific tagging potential of the locative can certainly overlay this reductive idea of space with all the richness of personal experience, but that depends on the framework provided and the context set by the artist, and in many projects this is so loosely drawn that we simply achieve a kind of public palimpsest.

In their project *34n 118w*, Jeffrey Knowlton, Naomi Spellman, and Jeremy Hight had users take tablet PCs with Global Positioning Devices and headphones onto a former railway yard in downtown Los Angeles. As participants walked around the site, they could hear fictional statements recounting the history of the place. To quote Hight:

The story world becomes one of juxtaposition, of overlap, of layers appearing and falling away. Place becomes a multi-tiered and malleable concept.¹⁷

There are other contemporary narratives resonant with the reinforcement of site and story. An early experiment *Riot1831!* from Mobile Bristol depicted the Bristol Riots of 1831.¹⁸ This first GPS-enabled locative drama was an immersive and powerful experience, engaging with the immediate spaces of history, mapped onto a Georgian square where the original events took place.

At first sight it seems contradictory that such engaging locative works tend to deal with an historical past rather than the lived present. After all Paul Virilio identified new media as promoting the change from considered diegesis to continuous and automatic present, the user creating the narratives both as subject and object; the visual subject becoming transferred to a technical effect, which forms a sort of “pan-cinema”, turning our most ordinary acts into movie action. However where these locative works succeed, they seem to overlap the user’s enactment of a continuous present with the user’s immediate perception of a contiguous past.

¹⁷ *34 North 118 West*, accessed June 2014, <http://34n118w.net/>.

¹⁸ See: Josephine Reid, Richard Hull, Kirsten Cater, Ben Clayton, “Riot! 1831: The design of a location based audio drama,” accessed June 2014, <http://www.cs.bris.ac.uk/Publications/Papers/2000261.pdf>.

The ever increasing technologising and enclosure of urban and public spaces is a phenomenon associated with the growth of “Hertzian” Space and what Mark Augé¹⁹ has termed the growth of “no place” (The anonymous motorway or mall). Stephen Graham points to how:

places [are] becoming increasingly constructed through consumer decisions which, in turn, are influenced through the ... surveillance, and sorting, of cities.²⁰

Such cities, increasingly “sorted” through the software and networking, point up a related political question about the embedding of previous relations of power, class and ownership in the new infrastructures and whether this perpetuates ancient divisions or raises further questions related to the potential for community and individual empowerment.

Mapping as Critique

Apart from the arguments that the technology is intrusive and very commercial and is being “sold” to us via arts projects, there are those about the role of Situationist ideology in locative media (something about which I am personally deeply sceptical, mainly because so few artworks succeed in the “Détournement” of the original movement). The GPS mapping practice of modern psychogeographers,²¹ are seemingly related to the writings of Guy Debord and his practice of the “Dérive”²², but in

¹⁹ Marc Augé, *Non-Places: Introduction to an anthropology of supermodernity*, (Verso, 1995).

²⁰ S. Graham, “The Software-Sorted City: Rethinking the ‘Digital Divide’”, in S. Graham (ed.), *The Cybercities Reader* (London: Routledge, 2004), 324-331.

²¹ see: GPS Drawing, accessed June 2014, <http://www.gpsdrawing.com>.

²² “The Dérive (with its flow of acts, its gestures, its strolls, its encounters) was to the totality exactly what psychoanalysis (in the best sense) is to language. Let yourself go with the flow of words, says the psychoanalyst. He listens, until the moment when he rejects or modifies (one could say detours) a word, an expression or a definition. The dérive is certainly a technique, almost a therapeutic one. But just as analysis unaccompanied with anything else is almost always contraindicated, so continual dérivage is dangerous to the extent that the individual, having gone too far (not without bases, but...) without defenses, is threatened with explosion, dissolution, dissociation, disintegration. And thence the relapse into what is termed ‘ordinary life,’ that is to say, in reality, into ‘petrified life.’ In this regard I now repudiate my Formulary’s propaganda for a continuous dérive. It could be continuous like the poker game in Las Vegas, but only for a certain period, limited to a weekend for some people, to a week as a good average; a

reality seldom appear to achieve anything identifiably subversive. To quote one cultural critic:

Locative media is: Psychogeography without the critique. Algorithmic psychogeography, the term used by <http://socialfiction.org> to describe their rule-based dérives through the city, is not just a development, but actually a fundamental reversal of the critical use of this Situationist tool.²³

The “Dérive” or “drift” was a method for subversion, of remapping the world with “uncontrolled” clarity, for identifying the secret flows of money and power below the surface of the city. However, one strategy Debord does cite, “the introduction of alterations such as more or less arbitrarily transposing maps of two different regions”, has been successfully adapted in several locative works. Jen Southern and Jen Hamilton in *Distance Made Good*,²⁴ used parallel mirrored journeys on two continents; in *Shadows from Another Place*,²⁵ Paula Levine creates a hybrid space between Baghdad and San Francisco composed of the superimposition of their city centres. A mapping of the initial US attack on Baghdad is superimposed upon downtown San Francisco. The longitude and latitude of each bombsite is marked in San Francisco using a GPS device. C5 in *The Other Path*²⁶ set out on a monthlong Great Wall trek, starting in the northwest desert of China and following the Wall eastward to where it runs to the edge of the Yellow Sea. GPS data collected during this trek was used to develop a pattern matching search procedure for locating the most similar data model in the most similar terrain in California.

Mark Tuters has perceptively identified how such annotation and tracing fits into the legacy of Situationism, which Locative Media has claimed as a philosophical base from its inception.

month is really pushing it. In 1953-1954 we dérivé for three or four months straight. That's the extreme limit. It's a miracle it didn't kill us” (Ivan Chtcheglov, excerpt from a 1963 letter to Michèle Bernstein and Guy Debord, reprinted in *Internationale Situationniste* #9, 38).

²³ Saul Albert, www.twentiethcentury.com (message dated Tue Apr 27, 2004).

²⁴ Jen Southern and Jen Hamilton “Unfeasible Symmetry,” *Artists Newsletter Magazine* (October 2003) article on *Distance Made Good* shown at The Gallery, Stratford-upon-Avon, UK. July 2002.

²⁵ Paula Levine, *Shadows from Another Place* (2003).

²⁶ C5: *The Other Path* (April 2004), accessed June 2014, <http://www.c5corp.com/projects/otherpath/index.shtml>.

Roughly, these two types of locative media, Annotative and Tracing, correspond to two archetypal poles winding their way through late 20th century art, critical art and phenomenology, perhaps otherwise figured as the twin Situationist practices of *détournement* and the *dérive*.²⁷

Situationism in Locative Media resists easy definition but may best be represented, says Tuters, by one of Deleuze and Guattari's maps which distinguish between annotation and tracing:

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.²⁸

Blast Theory, a locative media group composed of several London-based avant-garde theatre artists have gained renown for projects such as *Can You See Me Now* (2001), *Uncle Roy All Around You* (2003), and *I Like Frank* (2004), in which they used location-aware mobile mapping devices to coordinate interactions of audience and performers in both real and virtual space. *Uncle Roy All Around You* is one of the most lauded recent locative works, yet it appears an uneasy mix of performance and game, its full narrative only accessible to those who successfully complete their quest. The real and virtual sit in an uncomfortable relationship with the environment, which is only valued as a source of directional clues—and any casual bystander remains largely mystified and excluded. The charge levelled at Blast Theory at a conference was that of complacently and uncritically adapting new practice for the games industry, thus unwittingly acting as fashionable agents for intrusive and suspect technologies. Since the flip side of ubiquitous communication and augmented location is the ability to track the audience, so a whiff of the totalitarian always haunts the liberating potential of the technologies. Matt Adams has rebutted this critique in interview, pointing to the collaborative co-dependency explored by the work.²⁹

²⁷ Marc Tuters and Kazys Varnelis, "Beyond Locative Media". *Leonardo*, Volume 39, Number 4, August 2006.

²⁸ G. Deleuze and F. Guattari, *On the Line* (New York: Semiotext(e), 1983) 25-26.

²⁹ See Martin Rieser, *The Mobile Audience* (Rodopi 2011).

Their performances and installations were supported through corporate sponsorship, public arts funding, and through a six-year collaboration with the Mixed Reality Laboratory at the University of Nottingham. The group's own web site claims:

Blast Theory has a history of working with corporate clients to deliver innovative marketing strategies," thereby creating "commercial projects that draw global audiences to compelling, high adrenaline interactive experiences. The team of artists and scientists has worked with blue chip clients in the television, apparel and telecoms sectors to launch products, build profile, inspire staff and engage customers.³⁰

An early locative project, which epitomised its emergent qualities was *MILK*, winner of a Golden Nica at Ars Electronica. With *MILK*, the artists Esther Polak and Ieva Auzina used GPS to trace routes to create a form of landscape art for a network society. *MILK* was based in part on a project by Polak and the Waag Society, *Real Time Amsterdam*, in which GPS transponders mapped cyclists in Amsterdam onto their traffic routes by the aggregation of their travel measured over a period of weeks. *MILK* suggested a god-like vision of locative technologies that allowed the tracking of freighted foodstuffs—in this case with heavy irony, since the dairy-rich Netherlands import their milk from Latvia, making visible the contradictions and excess of a networked society.

The increasing importance of maps in defining space within these projects should not blind us to the fact that mapping is not a neutral process, but always has been a highly selective and subjective one, in which can be embedded various (invisible) ideological assumptions. Many GPS mapping projects tend to forget this and even revel in the act of remapping without context. Media artist Coco Fusco also launched a headlong attack on new media practices associated with networks and mapping, declaring:

It is as if more than four decades of postmodern critique of the Cartesian subject had suddenly evaporated ... In the name of a politics of global connectedness, artists and activists too often substitute an abstract 'connectedness' for any real engagement with people in other places or even in their own locale.³¹

³⁰ see: Blast Theory, accessed June 2014, www.blasttheory.co.uk.

³¹ Coco Fusco, "Questioning the Frame: Thoughts about maps and spatial logic in the global present," accessed June 2014, <http://www.inthesetimes.com/article/1750/>.

The aim of my 2011 Athens-based workshop was to study elements of the urban environment, and to form new locative trails in the form of a structured collaborative narrative, enriching the city through interactive content, which reflected its contemporary transformations. *Codes of Disobedience & Dysfunctionality*³² was part of the Hybrid City Conference initiative, sponsored by Global Gateway. Inspired by the numerous posters and the dense graffiti encountered in the city centre, the workshop connected the urban surroundings of Athens to opinions and statements of its inhabitants towards the challenges imposed by current social, political, and financial circumstances, namely: anger, disobedience, opposition, dysfunctionality.

The features of the contemporary metropolis in the midst of a period of crisis were the main focus of the project, posing at the same time questions about the role of and scale of mediation by technology in urban everyday life. The work formed after the completion of the workshop was presented at the premises of the National Museum of Contemporary Art in Athens, on the internet and in the center of the city (on the streets Skoufa - Navarinou - Tzavela). QR coded stickers, carrying imagery from the immediate environment, were placed in selected locations and by scanning them with a mobile phone, access to the audiovisual material, created during the workshop, was accessible to the public. Combining elements of installation art, urban intervention, gaming and performance, *Codes of Disobedience & Dysfunctionality* reflected my long-term practice using art and technology.

A couple of months later, *Urban Digital Narratives*³³ looked at the crisis of immigration and gentrification in the Gazi area and the impacts of neo-liberal economic processes on the locally diverse social and ethnic groups. Funded by the British Council, the project explored the new

³² Curator Daphne Dragona and participating organizer Dimitris Charitos (University of Athens), technical support from Phil Sparks (Cuttlefish Multimedia) and Jackie Calderwood (PhD Candidate De Montfort University), additional technical support Haris Rizopoulos, Aris Tsakoumis (University of Athens). "Codes of Disobedience & Dysfunctionality," accessed June 2014, empedia.info/maps/41 and <http://globalgatewayproject.eu/codes-of-disobedience-dysfunctionality/>

³³ Curation, organisation and research: Eva Kekou (Freelance). Organisation: Athens Information Technology College (AIT). Technical support: Jackie Calderwood (PhD candidate, De Montfort University). Financial support: The British Council, Intalot and HTC. Accessed June 2014, http://empedia.info/organisations/digital_urban_narratives/maps.

possibilities offered by technology and attempted to ask whether one could really capture the social needs and attitudes of a city like Athens, and whether the patterns and characteristics of urban life could be identified by adapting the uses of these communication systems.

Codes of Disobedience & Disfunctionality

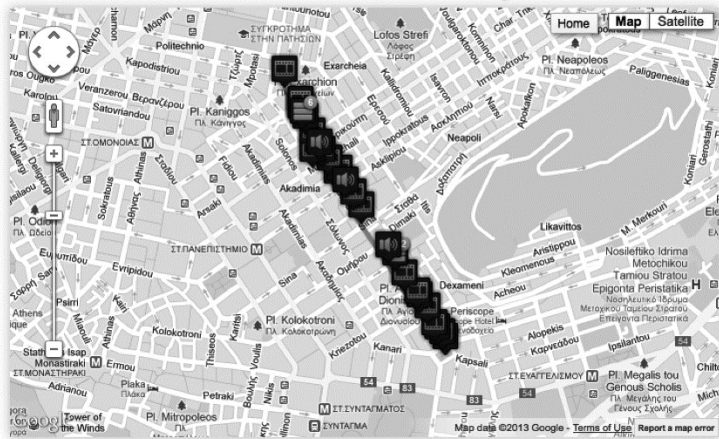


Figure 1-5. *Codes of Disobedience*, Empedia Map.



Figure 1-6. A *Songlines* postcard advertising the project.

One of my recent projects *Songlines* is a collaborative proposal between the University of Bath, De Montfort University's Institute of Creative Technologies, Sustrans and two media design companies. The project is an exemplar of subjective mapping, and will work by upgrading current internet wiki-mapping technologies, combined with public databases to create mobile cyclist/walkers maps, responsive to changes in the road environment using updates from end-user and public knowledge bases. A combination of innovative mobile phone-based sensing software will encourage and enhance the experience of cycling or walking in urban environments through the use of reliable location-specific mobile info-services (updateable maps and audio and rich-media stream services) giving convenient infield access to better customised traveller information and to provide intelligent support with context-awareness to individual travellers.

On the basis of this investigation, Sustrans will commission virtual located artworks for the city for walkers and cyclists, which will be delivered by the location-sensing test infrastructure as rich-media audiovisuals. These artworks/information layers will all be relevant to specific landmarks and locations on proposed routes. The mobile phone-based location-detection features will be used to update the user's positional information. Automated audiovisual casts of route directions and art/information would be uploaded in advance of the journey and be tagged to correlate with positions along the route and be triggered by positional data. Thus it is envisaged that both directional instructions and the rich media streams could be delivered to mobile devices according to route progress.

Exploration of Tangible Objects

We are entering a society based on ubiquitous networked objects or Bruce Sterling's *Spimes*.³⁴ Soon, objects will be the most frequent users of the Internet, as fridge talks to oven and RFID tags note the progress of stock to central computers. But what the ITU has termed the "Internet of Things" means far more than just tracked objects, as Tuters observes:

³⁴ Bruce Sterling, *Ascendancies: The Best of Bruce Sterling*, ed. Jonathan Strahan (Subterranean Press, 2007) and also "Spime," accessed June 2014, <http://www.wordspy.com/words/spime.asp>.

‘Things’ are controversial assemblages of entangled issues, and not simply objects sitting apart from our political passions. The entanglements of things and politics engage activists, artists, politicians, and intellectuals. To assemble this parliament, rhetoric is not enough and nor is eloquence; it requires the use of all the technologies, especially information technology, and the possibility for the arts to re-present anew what are the common stakes.³⁵

The pervasive and context aware object will partner a far more physical engagement with mobile devices. The Wii has fomented a revolution in indoor gaming. Devices such as that of the US firm Gesturetek, which has developed software to use a phone's camera to interpret how the phone is being moved, translating gestures into action. This will promote the use of body actions in street level mobile gaming, but as:

Vincent John Vincent, president and founder of the firm, said: “Being able to do natural movements, not just hand but also full body movement is the way forward ... The technology is embedded in phones released by NTT Docomo in Japan and allows gamers to move the phone, forward and backward, shake it, and roll the device to control action on the screen.”³⁶

Surveillance and Sousveillance³⁷

In a C-Theory article entitled “Operational Media”³⁸, Jordan Crandall spoke of the “resurgence of temporal and locational specificity witnessed in new surveillance and location-aware navigational technologies” and Stephen Graham has warned of the invisibility of such tools and the embedding of discriminatory and selective processes in such things as network server logic. Steve Mann caught on to this process very early in 1998 and labelled its subversion as “Souveillance” or “Surveilling the Surveillers”. Specifically he refers to Reflectionism as being especially related to “détournement”: the tactic of appropriating tools of social

³⁵ Marc Tuters and Kazys Varnelis, “Beyond Locative Media: Giving Shape to the Internet of Things” in *Leonardo*, Vol 39, August 2011, 357-363.

³⁶ Darren Waters, “How mobile got its game” BBC News website, San Francisco, accessed June 2014, <http://news.bbc.co.uk/2/hi/technology/7254123.stm>.

³⁷ Steve Mann, Jason Nolan and Barry Wellman, “Sousveillance: Inventing and Using Wearable Computing Devices for Data Collection in Surveillance Environments” in *Surveillance & Society* 1(3): 331-355, accessed June 2014, <http://www.surveillance-and-society.org>.

³⁸ Jordan Crandall, “Operational Media”. C-Theory Articles: a148. Date Published: 1/6/2005, accessed June 2014, <http://www.ctheory.net/articles.aspx?id=441>.

controllers and resituating these tools in a disorienting manner.

Fears of surveillance are undoubtedly real and relate to the imperative of the State in an age of counter-terrorism, to quote Manovich “to make the map equal the territory”.³⁹ Of course this technology is a double-edged sword, but then it is also made democratic by its distributive nature and is now in many hands. Artists who have questioned the vulnerability of the individual to tracking include Drew Hemment through his *Loca* project,⁴⁰ and Jonah Brucker-Cohen with his *WiFi Hog*⁴¹ has challenged the enclosure of Hertzian space.

In the face of new enclosures of public electronic space, through surveillance and border control, biometrics and consumer tracking technologies, as Crandall puts it:

The challenge is not only to endeavor to understand this operational construct, but to understand the forms of opposition to it that are emerging in the globalized world. For the operational is only one “window” onto reality. There are other orientations that counter it, and for which, by its very nature, it is unable to account. It is powerless to envision terms of engagement that do not operate according to its logics. It can only assign them to the realm of the barbaric or irrational: that which lies outside of its license on reason.⁴²

The compromised publics can choose to respond through collective action, violence or through the “reflective” intelligence of these new forms of media art.

³⁹ See: Lev Manovich, “The Poetics of Augmented Space” in *Mediatecture: The Design of Medially Augmented Space*. Christoph Kronhagel (Ed.), Springer Wien New York, 2010, 304-318.

⁴⁰ John Evans, Drew Hemment, Theo Humphries and Mika Raento, “LOCA: Location Oriented Critical Arts,” accessed June 2014, <http://leoalmanac.org/gallery/locative/loca/index.htm>.

⁴¹ Brucker-Cohen, Jonah, *WiFi-Hog*, accessed June 2014, <http://www.coin-operated.com/coinop29/2010/05/10/wifi-hog-2003/>.

⁴² Jordan Crandall, “Operational Media”. C-Theory Articles: a148. Date Published: 1/6/2005, accessed June 2014, <http://www.ctheory.net/articles.aspx?id=441>.