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Labours of location

Acting in the pervasive media space

A lot of thought and action has been dedicated to the ‘pervasive’ media environment recently by artists, cultural producers and theorists. Ubiquitous computing, broadband media, wireless and wearable applications, collaborative online platforms and social software form a socio-technical assemblage that transforms our spatial experience and opens up new potentialities both for regimes of power and for social inventiveness. This article visits some articulations of “locative media”, with the aim of drafting a critical context to this emerging artistic and technical practice.

We are already familiar with the re-invention of spatiotemporal practices with mobile phones. To these street-level user cultures, the spatial technologies of GIS databases, GPS positioning, RFID tracing and CCTV networks¹ add a totalizing grid and mesh of surveillance. Further, ubiquitous or pervasive computing involves the idea of ‘invisible computers’ embedded in objects and spaces, ‘smart’ devices that can exchange information with each other over continuous networks and act together in a ‘seamless’ manner. The vision is to make technology calm and non-intrusive, to create “environments saturated with computing and wireless communication, yet gracefully integrated with human users”.²

The emerging landscape of *ubicomp* is thus an environment of translation, where aspects of agency and ‘awareness’ of context are delegated from humans to machines, computational processes and databases. Especially in cities, software is omnipresent as a kind of ‘local intelligence’, infused into every fabric of urban life. Nigel Thrift and Shaun French describe in detail the ways how software, through a series of performative ‘writing acts’, contributes to an automatic production of space which conditions our existence by a continuous rewriting, standardisation and modulation of urban situations and rhythms.³

However, instead of hegemonic or conspiracy theories of machines taking over, Thrift and French stress the contingent, distributed, ad hoc, and patched-up nature of this computing environment – a ‘technological unconscious’ rooted in the software cultures of programmers.⁴ This perspective prompts us to look closer at *practices*: it is through the mundane and minor – through everyday activities of programmers, designers and developers – that new forms of the social are being thought up and put into action⁵. With the focus on practices, account is taken of the tools and discourses of the work process – but also of the various kinds of invisible work and immaterial labour that are involved in the activity of production.

¹ GIS: Geographic Information Systems, GPS: Global Positioning System, RFID: Radio Frequency Identification, CCTV: Closed Circuit Television systems.

² IEEE Pervasive computing <http://www.computer.org/pervasive/faq.htm>

³ Thrift and French 2002.

⁴ Ibid.

⁵ This is the approach of the history of the present as proposed by Rose (1999).

Of special interest here is the artistic and activist practice of the ubicomp environment, recently subsumed under the banner of ‘locative media’. It is crucially important that cultural producers intervene in this space whose parameters are set by the military and ICT industries: not only as ‘early adopters’ to develop cultural and social applications to new technologies,⁶ but importantly, through their capacity to create new ‘pervasive imaginaries’ and to resist the totalizing tendencies and closures of ubicomp spaces. In addressing these labours of location, the key questions relate to how practices are positioned and negotiated within networks of culture, technology and society. What are the tactics and strategies and how effective are they? How is the minor and mundane linked to grand narratives of progress in science and society? What kinds of potentialities, for thinking and acting, are performed into being?

Space, place, case (or race)?

One camp is comprised of wild eyed zealots who are fervently convinced that we need to have freely available, machine readable, open licensed geodata, and will do anything to make that happen. The people in the other camp ... stare into your (wildly flashing) eyes, their pupils dilate slightly and in a cracked bass exorcist monotone they say 'We have a very good relationship with the Ordnance Survey'.

– University of Openness/Faculty of Cartography, *Why London Free Map?* 2004

‘Locative media’ is a loose common nominator for artists, developers and activists who explore the possibilities of mobile, location-based and other pervasive technologies. Their practice has presented a rich variety of projects ranging from mobile imaging, sound and performance to platforms for *moblogging* or *biomapping*, from exercises in *psychogeography* and *collaborative cartography* to experiments in *public authoring* and *participatory annotation of space*. The projects conceptualize and interweave the wireless frequencies of ‘Hertzian space’ with places and bodies on the move in the physical environment. Most often they use mobile devices or other components which through location and wireless technologies enable the production, transmission and reception of media.

The writing that accompanies locative media projects involves utopian and dystopian reflections, playful and poetic manifestos as well as programmes for design and policy action.⁷ As is typical of any media still in the making, there is a lot of ‘weak rhetoric’: a heterogeneous mixture of concepts, tools and genres that are not yet aligned.⁸ There is also the familiar romance with the ‘new’ in media; a passionate fumbling where a temporary loss of historical sense is combined with an archival impulse to search for antecedents and originators. In the case of locative media, the most often cited forefathers are Guy Debord and the Situationists, Gordon Matta-Clark, Michel de Certeau, Kevin Lynch and Archigram. From this list we can infer that locative media is about urbanism; perhaps the artistic counterpart to the emerging discipline of urban ICT studies proposed by Stephen Graham⁹?

⁶ Galloway (2003) reminds us about ubicomp originator Marc Weiser’s vision to frame the research field in cultural and social terms; an orientation which was later more or less effectively dropped from the agenda.

⁷ See, for example, Russel 1999, Tutters and Smite 2004.

⁸ Cf. Latour 1987.

⁹ Graham 2004a.

Not too many critical debates have taken place within the geographically dispersed locative community, connected by mailing lists and a chain of workshops and seminars.¹⁰ Instead of a *problematization* of locative practices, the discussion has mostly been in the *problem-solving* mode, tackling with technicalities, proposing projects and collaborations, exchanging useful information. To work towards an analytic of the field and to decipher what problems locative media professes to solve, one perhaps has to locate some ruptures, breakdowns of consensus in the pioneering community.

Terms for such an initial debate span from different understandings of space and place – a classical topic as such¹¹ – and revealed some *us-them* positionings, camps within the locative community. In the exchange, Giles Lane of Proboscis opposes locative media's inherent reliance on the abstract Cartesian idea of space, a “desire to simply lock digital content to the most banal definition of place – i.e. the longitude and latitude coordinates that specify a location.” Instead of locations, he proposes to talk about *places*, seen as spaces of lived experience, social and cultural constructions.¹² Marc Tuters, a key spokesperson of the Locative media network, responds by referring to network *topology* – the media should be distributed in a peer-to-peer mode and not stored on a central server, as is the case of Proboscis. This ‘walled garden’ approach is to be made obsolete by semantic web, an esperanto for the internet, and the creation of open source architectures, Tuters predicts.¹³

So there seem to be two versions of ICT urbanism here, the one more *ethnographic*, the other more *cartographic* in orientation, connected with different approaches to openness of structure and ownership of tools. But the discussion doesn't stop here. “Locative is a case not a place,” Karlis Karlins reminds the list readers about the linguistic origins of the term, which was inspired by languages such as Latvian and Finnish with their several locative cases – corresponding roughly to the preposition ‘in’, ‘at’, or ‘by’, and indicating a final location of action or a time of the action.¹⁴ In his posting, Karlins, who first coined the term, seems to be proposing a purification of locative media in almost structuralist fashion.

The emphasis on linguistics is justified by the fact that a lot of locative development deals with semantics and formalisms needed for the description of space, the storage and retrieval of media and the creation of algorithms. Here artists complement and contradict the evolving ‘universal’ standards for geography (OpenGIS) or navigation (W3C) markup languages by proposing more particular metadata schemes: semantics to describe mental maps, neighbourhoods or psychogeography¹⁵, thus translating the

¹⁰ [Locative] <http://base.x-i.net/mailman/listinfo/locative>, [New-Media Curating] <http://www.jiscmail.ac.uk/lists/new-media-curating.html>. In 2004, dozens of workshops on locative media were organised and the issue was foregrounded in most international media art festivals.

¹¹ For earlier discussions on the dynamics of space and place, see for example Lefebvre (1991), de Certeau (1984), Augé (1995).

¹² Lane 2004.

¹³ Tuters 2004. The exchanges between Lane and Tuters took place in various fora during early 2004, inaugurating ‘hot summer’ of locative media. Us-versus-them positions – internal struggles over distinctions as indicated in the quote that opens this section – are common even within small fan and avant-garde subcultures. See Hills 2002.

¹⁴ Karlis Karlins, posting to the [Locative] list, May 10, 2004.

¹⁵ For metadata schemes proposed see, for example, Jo Walsh's mudlondon <http://space.frot.org/>; NML, Neighbourhood Markup Language by David Rokeby <http://proboscis.org.uk/prps/artists/rokeby/nml5.html>; and Socialfiction's PML, Psychogeographic Markup Language, <http://www.socialfiction.org/psychogeography/PML.html>

social and cultural into machine-readable form, to the languages of software architectures.

Should we, then, approach locative media with geographic (*space*), social (*place*) or, linguistic (*case*) terms? All, I would say, and more. The interesting point about the locative cases is that they transform the nouns by *inflicting* or inhabiting them; they have a performative force. For example the six Finnish locative cases can, besides location and movement, also indicate time, causes and means, and even qualities, sensations or relations of possession.¹⁶ This already allows a more *relational* understanding of location, one that is not treating locations simply as containers, ‘in’ ‘at’ or ‘by’ which ‘content’ can be placed. Locations also create asymmetries and ‘localise’ others, as Michel Callon and John Law point out from the relational approach of science and technology studies. “The local is never local. A site is a place where something happens and actions unfold because it mobilises distant actants that are both absent and present.”¹⁷

The question of *localisation* brings us to some absences in locative discourse. Another debate thread was initiated on the Locative list by Coco Fusco’s critique of the contemporary mapping-and-hacking enthusiasm which “evades categories of embodied difference such as race, gender and class, and in doing so prevents us from understanding how the historical development of those differences has shaped our contemporary worldview.”¹⁸ Locative media, as a new technology of localisation, has been largely silent about issues of globalisation, ethnicity and gender, and about locative media’s potentially colonizing effects on neighbourhoods.¹⁹

Promises of participation

Understanding the crucial relationships between people, places and things will increase our ability as designers and policy-leaders to suggest more open and people-centric uses of such technologies. We aim to create compelling scenarios and experiments demonstrating the benefits of authoring platforms that treat people as co-creative and not just consumers.

– Giles Lane, *Social Tapestries*, 2004.

In working towards a critical contextualisation of locative media, it may be useful to revisit the history of *site-specific* art. Miwon Kwon has pointed out how the label ‘site-specific’ became an uncritically accepted signifier of a critical and democratic art practice. By uncovering a genealogy of site-specific arts, she records the various uses – formal, functional, political – the concept has been put to, while she surveys the movement from a more sculptural site-orientation to forms of institutional critique, community arts and collaboration with local groups.²⁰

The focus on locations as locality, and the conjoined positioning of the artist as

¹⁶ Dictionary of world languages

http://www.explore-language.com/languages/F/Finnish_language_noun_cases.html

¹⁷ Callon and Law 2002.

¹⁸ Fusco 2004. Discussants on the locative list in December 2004 and January 2005 included Pall Thayer, Brian Holmes, Saul Albert, Armin Medosch, Karlis Karlins and Drew Hemment, among others. The discussion mostly revolved around locative media’s unproblematic relation to military industry, while it also revealed some generational differences in new media art discourse.

¹⁹ Production of neighbourhoods: see Appadurai 1996.

²⁰ Kwon 2002.

‘ethnographer’, is a key element also in locative media practice. Moreover, the practice is seen to be that of *collaborative* and *participatory* media. This turn, in new media, from ‘interactive’ to collaborative and participatory forms runs in parallel with a reconfiguration of social space, where the ‘ubicomputing’ delegation of human agency to automated forms coincides with new regimes of governance and freedom. In the current model of ‘good governance’, social responsibilities are increasingly delegated from the public sector and the government to communities and corporations. The weakening of the ‘social’ in society is supported by technologies for empowerment and self-management of communities – and in the end, for the responsabilizing of individuals.²¹

The ethos – often expressed as a morality – that underpins the emphasis on participatory media is that people should be liberated from being mere consumers and aided to become producers of their own content. But the sharp opposition between producers and consumers has already dissolved in the contemporary cultural economy. The work of linking and chatting performed in social software environments, the annotation of places in collaborative mapping and public authoring are further examples of *immaterial labour* – the cultural, affective and technical production that characterizes the contemporary ‘social factory’. Simultaneously voluntarily given and unwaged, enjoyed and exploited, free cultural and technical labour is not exclusive to the so-called ‘knowledge workers’ – but is a pervasive feature of society.²² The ‘anytime, anywhere’ of mobile communications is thus also the new quality of work, realised in collaboration with ‘anybody/everybody’. Perhaps fittingly, the usual metaphor in geolocated messaging concepts is that of ‘post-it’ notes: the fetish of teamwork and brainstorming – of digital labour now made ubiquitous.

For Paolo Virno, immaterial labour is best exemplified as *servile* labour, a work-without-end-product where communication and cooperation are the main productive forces.²³ This is exactly the situation in participatory media, where artists increasingly operate as *service providers*: their work becomes that of building platforms for user participation and collaboration, and of *maintaining* and *moderating* communicative situations. The continuous logic of collaborative value production also introduces challenging questions of accountability for the artist. If Kwon reminds us that communities are not only invented, but can also be exploited for the purposes of artistic and institutional career building, the creation of ‘user’ content in public authoring projects introduces new dilemmas of ownership. Should the virtuosity and ‘linguistic performances’ (Virno) by users be considered as intellectual properties, gifts to the artist-provider, or voluntary services to ‘community’?

There are several approaches to these questions, which entail different theories of values and politics of collaboration and different models for public organisation. A ‘street’ version of the internet, locative media often subscribes to the discourse of early visionaries of the net and their contemporary legacy, the weblog theorists. Here the promise is of a participatory, open and democratic media space, a space of creativity and freedom of expression. Once again, allegories for networked, collective intelligence and its alleged emergent result – an augmented, better version of participatory democracy – are fetched from the world of evolution. In a conjunction of biological and technological determinism, the flocking behaviour of animals is

²¹ See Rose (1999) for a discussion on government through community.

²² Terranova 2000.

²³ Virno 2004.

compared to self-organising political movements and flash mobs. Attached to these metaphors are a selfish theory of action, ‘power laws’ to explain link economies, and microlicences to enclose a ‘creative’ commons. There is a deep fascination with ant colonies, which display collective intelligence through emergent organisation and pheromone trails.²⁴

The uses of visibility

I globally positioned the shadow of a cherry tree in blossom [N 56 56 648/E 024 06 646], chalking the coordinates on the floor inside the tree shadow, and writing the time from my GPS clock beside it. Then I wrote a haiku poem about it. – Pete Gomes, [Locative] list, May 14, 2004.

Curiously, but perhaps not coincidentally, many locative art projects, especially those using GPS tracing, also evoke patterns of ant paths. Esther Polak’s *Amsterdam Realtime*²⁵ presents trajectories of gps-devised people moving about in the city, and Christian Nold’s *Biomapping*²⁶ adds an ‘affective’ dimension by visualizing galvanic skin responses – indicators of ease or stress – along the mapped trajectories. Despite their determinist appearance, both projects however aim to encourage the users’ reflexivity towards their relationship with urban space, by recording and exposing its patterns of use.

As already noted, a key feature of ‘ubicomputing’ space is that its workings are largely invisible. The conditions of experience are being subtly changed from ‘below’ – through algorithmic instructions, program runs, database searches – and constrained by the immaterial spatialities of bandwidth and frequency. It is therefore understandable that *making things visible* is a desire shared by a variety of agents who seek to control, describe, develop or resist the goings-on in this new space.

If surveillance classically was about the visibility of disciplined objects to the panoptic gaze, through technologies such as GPS, RFID, CCTV and algorithms for face, gesture and movement recognition, it has extended beyond the panoptic spaces of enclosure and become pervasive and *vectoral*. This is the society of control described by Deleuze, a system of variable controls which act to *modulate* behaviours, like a sieve whose mesh transmutes from point to point. Through the logic of code, “individuals become ‘dividuals’ and masses, samples, data, markets or ‘banks’”²⁷

This technical administration of difference adds an important perspective to the issue of visibility: the question of information infrastructures. The ‘invisible work’ of categories, classifications and data structures has very material consequences. When embedded in software, standards, archives and infrastructures, they turn invisible and disappear into the uncontested background of practices, from where they are not easily brought back for assessment of adjustment.²⁸ From this hidden background they in turn operate on exclusion and inclusion, performing audits which again render some things visible and possible, keeping others out of sight and reach. The coming

²⁴ Ito (2005) summarizes the current version of emergent democracy, see <http://www.socialfiction.org>, Russel (2002) and Tuters (2004) for similar comments in the locative media context.

²⁵ <http://www.waag.org/realtime/>

²⁶ <http://www.biomapping.net/>

²⁷ Deleuze 1992, see also Rose 1999.

²⁸ Bowker and Star 1999.

together of geospatial data with other types of metadata and statistics adds a totalizing dimension to this archive of behaviours, which enables pervasive techniques of social sorting and increasingly acts towards closures and commodification of the public space²⁹. This is why the work of activist developers to free information infrastructures and open GIS databases is extremely valuable for ‘us all data subjects’³⁰. Locative media connects agendas of public space with those of a digital public domain and in this zone, the urge to make things visible is connected to the urgency of access, of *making things public*.

From the design perspective, the urge to make things visible relates to the immateriality of the phenomena – the ‘beacons’ that beam urls, the geolocated messages suspended in ‘mid-air’, the coverage of wifi nodes. The clear visibility of elements to be acted upon, and the provision of immediate feedback are cornerstones of usability design, but how to make these happen off-screen, on the move? An example of wireless usability design is Matt Jones’ *Warchalking*³¹, a sign language to mark wifi hotspots on the street which became a short-lived urban tech trend in 2002. Similarly, Pete Gomes’ *Location, location, location*³² aims at creating future signage for the invisible via a conceptual architecture on the street. The use of chalk to mark streets is a low-tech version of a general visibility method, that of the *overlay*, where co-existing physical and virtual worlds are represented in relations of transparency, background and foreground. The method stems from *mixed* or *augmented reality* applications which use data visualisation or sonification techniques for layered representations of the virtual and the physical. Locative media artists employ the overlay to stage narratives, performances and games in actual surroundings to produce embodied, (mobile-aided) experiences which put virtual reality in your pocket, to be played back on the streets.³³

In addition to these functional and expressive concerns of art and design we of course have the repertoire of counter-practices employed by many new media artists, who in the traditions of *détournement*, appropriation and irony expose representational practices and politics by change of context, rearrangement of elements or literalisation of function. In fact the many uses of visibility – functional, surveillant, descriptive, resistive – in the pervasive media space suggest the need to establish an interdisciplinary research field, a new visibility studies, to complement and revitalise the perceptually oriented agendas of visualization and usability research. In this field of study, also some critical questions of the effects and effectivities of visibility techniques, and of the links between the invisible and the affective, could be posed.³⁴

The tactical/strategic overlay

*A walk /each day /in different shoes.
A walk /along a fold in a map.*

²⁹ Graham 2004b.

³⁰ Walsh, in Tuters and Smite 2004. See also the ‘backend information politics’ of the web discussed by Rogers (2004).

³¹ <http://www.blackbeltjones.com/warchalking/index2.html>

³² <http://www.eventnetwork.org.uk/petegomes/>

³³ For example, Teri Rueb’s *Itinerant*, <http://www.turbulence.org/Works/itinerant/index.htm>; Uncle Roy All Around You by Blast Theory, <http://www.uncleroyallaroundyou.co.uk>; *Sonic City* by Interactive Institute www.tii.se/sonic-city/. See Galloway (2004a) for a discussion of playful mobilities and 2004b for an extended discussion into embodied performances.

³⁴ To question the transparency dictum in pervasive media, more fine-grained visibility techniques have been conceptualized in proposals to create “seamful” interactions which mark the boundaries of ubiquitous transactions. See Chalmers, MacColl and Bell 2003. More questions remain to be posed.

A walk /without landmarks.
A walk /to the horizon beyond this page.
A walk / along an imagined line across your city
 – Simon Pope, *Walking Texts*, 2005

What, then, are the visual practices involved in location based arts? The ‘locative’ gaze conflates a god’s eye view – the frozen military ‘view from nowhere’ of satellite vision and atomic clocks – with the situated, embodied ‘pedestrian’ perspective, the fleeting glance of the flâneur and the tourist, in search of consumable places and experiences. The two types of gazes coincide with Michel de Certeau’s distinction between strategy and tactic. If *strategy* is about assuming a place isolated from its environment, acting on the objects and targets from a distance, *tactic* is a non-localised, temporal and processual activity “which insinuates itself into the other’s place, fragmentarily, without taking it over in its entirety, without being able to keep it at a distance.”³⁵ Besides overlays of physical and virtual worlds, ‘locative’ representations thus perform overlays of various power geometries. And of epistemic frameworks: Simon Pope discerns two modes of knowledge at play in locative media – a *sedentary*, static mode of maps and archives and an *ambulant*, mobile, in-between mode; that of walking art practices.³⁶

Most often the overlay of these perspectives is represented through maps, on which the geospatial hotspots are dotted and the users’ mobile trajectories plotted. This type of conflation was presented in the *Cartographic Command Centre*³⁷, a collaboration of the Locative media lab, Project Atol and others, where maps of different scales – from satellite images to biomapped pedestrian paths and bicycled location video stream – were brought together in a stereoscopic 3D projection.

Military conversion, staging a ‘centre of calculation’ in an art context may be a tactical act in itself³⁸, but in this project the overlay of geometries and perspectives did not add up to a oppositional message. Somehow the user experience was that of determinism, what was on being staged was a spectacle and not a subversion of the all-powerful visibility techniques. The project exhibits a general problematic of the *tactical media* movement: its targeted micro-inventions often display an affinity with that which they seek to oppose.³⁹ Maps remain strategic tools: technologies for governing at a distance, and their use for oppositional or creative purposes may just end in a reproduction of their spatio-temporal dynamics and structural logics, in a benign form of irony. It thus is all the more important to deconstruct existing mapping techniques, to question their ontologies and epistemologies and to develop new formats for cartographic representation.⁴⁰ Moving in this direction are projects in collaborative cartography such as *London Free Map*⁴¹, where open-standard maps are

³⁵ De Certeau 1984.

³⁶ Pope 2005. Kwon (2002) makes a similar distinction between sedentary and nomadic approach to site-specific arts. For Pope’s walking art projects, see <http://www.ambulantscience.org/>

³⁷ <http://www.deaf04.nl/deaf04/program/events/item.shtml?uri=urn:v2:deaf04:rss:projects.rss:040929104400-ccc>

³⁸ Also Coco Fusco (2004) wondered about the politics of these representations, when she realised there were “more men (without uniforms) playing with maps” in galleries.

³⁹ This is the critical assessment of tactical media by one of its key theorists Geert Lovink (2005).

⁴⁰ Cf. Latour 1987; Haraway 1998, and for a discussion in the locative context, Rogers 2004, Sant 2004 and Albert (2004) who sees artist maps as “attempts to destabilise the deterministic function of map making, opening up maps to the desires and needs of those who communicate through them.”

⁴¹ <http://uo.space.frot.org/?LondonFreeMap> London is perhaps one of the most mapped cities in the world, especially as it comes to ‘pedestrian versions’. The most famous cartographer is Phyllis Pearsall who trod the streets to produce the *London A-Z* atlas. *Consume.net* has mapped the diy wifi nodes,

redrawn from bottom-up by gps-equipped walkers, cyclists and skateboarders, projecting the tactical on the strategic.

A further dynamic, an interplay between determinism and chance, between *locating* and *stumbling* seems to run parallel with the sedentary and ambulant modes. This is also where the inspiration of situationism, and the *dérive*, enters the game. Debord stressed that psychogeographic drifts are not random, they have a method of operating in the city and a political programme of urban experience⁴², but locative practitioners have mostly used them as inspiration for ‘disorienting’ expeditions. Thus Socialfiction’s *.walk*⁴³ takes ‘method’ to its extreme by presenting a human-executable algorithm for walking in, or stumbling on, the city. The algorithm (in its simplest form: “1 st street left / 2 nd street right / 2 nd street left”) should be able to produce a walk without navigational friction, but repeatedly produces more confusion than certainty. “Technology will find uses for the street on its own” reads the project statement in a cyborg-ironic reversal of Gibson’s slogan of street-level innovation.

Another locative genre combines the cartographic/sedentary and ambulant approaches in the creation of location-based public repositories. *Urban tapestries*⁴⁴ and *murmur*⁴⁵, among other projects of public authoring and urban annotation, invite users to participate by locating their own messages and stories in urban space, and audiences to follow the trails and threads signposted by these messages. In many ways, these projects are a further development of rhetorics, the art of public speaking and writing. They have a strong resemblance with the ancient art of memory, where places (*loci*) such as streets or squares were memorized and used in the manner of wax tablet, by orators who would place mental images on them in order to bring the speech topics back to mind during delivery.⁴⁶ Whereas classical mnemonics was used in one-to-many situations – deliveries of political speeches or poems by orators – its locative many-to-many version promises an archive of lived experience, a community memory, or even a new type of ‘commons’.

The participatory annotation of urban space fits well into Certeau’s description of tactical practice – for what else is annotation than a writing in the margins, a commentary which is never taking the space over in its entirety? Thus also: “It has at its disposal no base where it can capitalize on its advantages, prepare its expansions” (de Certeau). The room offered for maneuver is not an empty container or wax tablet, but a space already configured by architecture, urban planning and the telecommunication industry. Users operate within parameters created by these infrastructures – and those of the platform-providing artists. In this context it may be necessary to question also whether this work advances the specificity of sites, or the proliferation of *commonplaces*?⁴⁷ The “authenticity” that artists help communities to express is easily infused into programmes of urban regeneration and branding, as has

Proboscis weaves *Urban Tapestries* in Bloomsbury while the *London Free Map* extends its streetnet from East End on.

⁴² Debord 1958.

⁴³ <http://www.socialfiction.org/dotwalk/>

⁴⁴ <http://urbantapestries.net/>

⁴⁵ <http://murmure.ca/>

⁴⁶ Yates (1966) traces the art’s origins from ancient Greece and points out its continuity with evolving scientific methods in the 17th century. The analogy between new media and the art of memory was first applied to the navigable spaces of virtual reality and hypermedia in early 1990’s.

⁴⁷ Virno’s (2004) discussion of commonplaces, generic forms of language resonate with Augé’s concept of non-anthropological non-places: spaces of transport and commerce.

been the case in previous local memory projects.⁴⁸

Location economies, location-work

... they will be confronted with an image of their week, as well as the paths of the other participants. We register their reactions, ask questions, focus on landscape, politics, on their experiences and attitudes towards their surroundings, their perceptions of the potentials of the landscape, economic circumstances, myths about space, local songs, family relationships to the land, etc. – Ieva Auzina, [Locative] list, July 4, 2003.

Urban locations, with their ‘creative’ demographics and ‘authentic’ experiences are a prime source of value for contemporary capitalism, and since the great spectrum auctions at the turn of the 21st century, location based services have been cast as a key ‘value-added’ in mobile telecommunications.⁴⁹ Services for routing and tracking, fleet management, pervasive games, and user-profiled target markets figure strongly in the industrial imagination. The demise of the ‘commons’ gets a new turn in this ‘dividualised’ landscape of push and pull services. Besides the already raised questions of spectrum allocation and ownership, we now have to ask whether we will still have rights to our own location in space and time, or the trajectory we perform through movement? After all, also other immaterial phenomena, such as oral traditions and genes, have already been brought under patent regimes. The colonisation of new spaces, as before, takes place through translation, formalisation and mapping.

We can also already decipher new fetishisms forming around the production and consumption of place, and locative media participates in their production. Fetishes are made of immaterial social and spatial processes when their tropes – eg. links and maps – are taken literally, for the thing itself. Donna Haraway talks about genetic maps as “ways of enclosing the commons of the body – of *corporealizing* – in specific ways, which, among other things, often write commodity fetishism into the program of biology.” Could we, in a similar vein, interrogate the ‘localizing’ effects of current locative practices which, as Haraway’s gene maps, seem to defend “the subject from the too-scary sight of the relentless material-semiotic articulations of [...] reality”?⁵⁰ Scanning through the emerging canon of ‘locativity’, it is surprising to see how the very *context* (awareness of which is claimed as key element of the practice) is often bracketed out in a reductive move from spaces to maps, places to dots and sociality to links. The locative ‘cartographers’ shun away from the dirt and materiality of everyday life and prefer a resistance-at-a-distance.

If there is a certain degree of romanticism in these gestures of cartographic and psychogeographic subversion, the same can be said about the locative ‘ethnographers’, whose engagement with and empowerment of local communities run the risk of becoming functional reforms for governance-through-community or nostalgic evocations of authenticity.⁵¹ Meanwhile, anthropologists and ethnographers

⁴⁸ See Kwon (2002) for community arts examples.

⁴⁹ An indication of the connection, the adage “location, location, location” was immediately appropriated from real-estate usage to location-based services in conferences such as the 3GSM World <http://www.3gsmworldcongress.com/>.

⁵⁰ Haraway 1999.

⁵¹ Cf. Kwon 2002.

themselves have for some time problematized their spatial practices, especially of the authority towards studied communities, which goes hand in hand with the discipline's foundational concepts of *field* and *site*. In this view, sites are not primarily spatially determined, the ethnographer's practice is multi-sited, a 'location-work' that puts attention on the practitioners' social and cultural location, and creates epistemological and political links with other locations. These situated, partial perspectives have also been applied to a feminist re-imagining of technology production in terms of *located accountability*, which stresses the careful negotiation between users, producers and heterogenous contexts.⁵²

Some examples of such multi-sited practice can be found in the locative arts as well. In *Situations and Imaginary journeys*⁵³, Heidi Tikka exposes the relative immobilities of families with small children. Through temporally arranged sequences of mobile images, her projects bring to view the rhythms and repetitions of families' spatial practices and explore ways to reimagine private geographies in collaboration with distant actors. Esther Polak's and Ieva Auzina's *Milk*⁵⁴ follows the routes of dairy production from rural Latvia to Netherlands: what is traced is not only the gps paths leading from the milk farms to the cheese gourmand, but also the changing networks of food production in the European Union. By employing simple documentary means of narrative and photography, these projects manage to connect mundane aspects of everyday life with the wider 'cosmopolitical' contexts of the global economy. In their minor and partial ways, they also describe hybrid economies of space, time and location, negotiated across sites of the material, the social and the technological.

This article has made a brief overview of the cultural and technical practice of Locative media. Partially, often tactically, connected to the art world, academia and industry, the development mostly takes place across translocal networks, mailing lists and workshops. Most of the work is immaterial and processual, and its results are so far visible for a relatively small artists and developers, but it is symptomatic of a wide-reaching reconfiguration of social space and of a new sensibility towards the urban media space.

Locative media's passion for maps and their ontologies, networks and their topologies; the urban drifts to trace human geographies and the capture of media to record the murmur of the multitude – these are not only symptoms of a "Red dot Fever"⁵⁵, of novel spectacles of "you are here". By building do-it-yourself transmitters, devices for mobile sensing/acting in a mesh of wireless nodes and networks; by inviting public participation in the production of media and infrastructures, this practice of "next little things" also challenges the more monumental forms of computational ubiquity.⁵⁶ Locative media participates in the current problematization of place dominated by agendas of ubiquitous computing, wireless telecommunications and economies of creative regions. Its speculative, empirical and inventive practices contribute not only to an ICT urbanism but to an

⁵² Location-work: Gupta and Ferguson 1997, multi-sited ethnography: Marcus 1998. Suchman (2000) builds her located accountability on Haraway's perspective of situated knowledges.

⁵³ See <http://www.mlab.uiah.fi/~htikka/> and Tikka (2005) for a reflection of the negotiations in carrying out participatory mobile projects.

⁵⁴ <http://milkproject.net/>

⁵⁵ A skeptical response to the proliferation of urban annotation projects as quoted by Albert (2004).

⁵⁶ With "the next little thing" Patrick Lichty (2004) describes what he calls small systems initiatives, which utilize small, inexpensive, or transparent technologies to communicate cultural or aesthetic experiences.

affective politics of the urban.⁵⁷

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⁵⁷ To Graham's (2004) call for urban ICT studies, Thrift (2004) adds an initial programme to counter the "criminal neglect of affect" in urban studies.

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