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Urban Fictions: A Critical Reflection on Locative Art and Performative Geographies

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Abstract

This paper critically examines the mapmaking practices of locative art and explores its potential to produce alternative maps that respond to the spatial and social multiplicity of our urban fabric. Starting from a critique of traditional cartographic practice and how locative art shares its Cartesian anchorage and technological lenses, we investigate the conceptual challenges, methodological issues and technological constraints related to entangling geographic locations and social dynamics. We introduce our locative artworks *Urban Fiction (2007)* and *Urban Fiction 2.0 (2011)* that engage participants in corporeal negotiations of urban spaces to generate dynamic, fictional maps. Reflecting on these works allows us to examine the potential of locative media against a backdrop of technological advances and co-evolving social practices. Situated within postcolonial and feminist perspectives, we develop the notion of a 'performative geography' based on a generative mapping approach that understands maps as a dynamic process, rather than a fixed representation.

Keywords: locative art, cartography, politics of mapmaking, performativity, dynamic systems, everyday life, urban fabric, intervention, social networks.

1 Introduction

Urban space is a densely woven fabric, a multi-layered tapestry of real and virtual spaces. Locative media's potential to turn the urban fabric into a canvas promises to open up a playground for probing into the multiplicities and subjectivities that conventional mapmaking practices are blind to. Yet the playground of locative media is inextricably linked to the technologies and politics of spatialisation and the history of cartographic practices. Probing the fluid anatomies of the physical, electronic, and social spaces we inhabit, thus involves a critique of maps and mapmaking practices as social constructions of the world. After all, maps redescribe the world in terms of relations of power and cultural practices, rather than representing nature (Harley 2001).

This paper takes a critical look at the mapmaking practices afforded by locative media and examines the potential for a 'living map' to become the tool of intervention itself. We introduce our locative artworks, *Urban Fiction* (2007) and *Urban Fiction 2.0 (2011)*, which reinterpret the urban landscape as dynamic patterns of collaboratively woven filigree. Looking at the art practice from within the experimental ground of our works, we examine the technological constraints, conceptual challenges and methodological issues related to entangling geographic locations and social dynamics. The discussion of our arts-engineering collaboration is situated in a wider critical discourse involving John Harley's deconstruction of the map, Ubiquitous Computing and everyday life, postcolonial and feminist perspectives, and other voices from the artistic community engaged with locative media.

2 Art is back on the Map

In his influential essay "Deconstructing the Map", John Harley argues that "[m]aps are too important to be left to cartographers alone" (1992). And yet, according to him, art has been continuously edged off the map. In fact, "'scientific' cartography (so it was believed) would be untainted by social factors" (1992). A belief that as of today has not disappeared from what Haraway calls the "agonistic powerfield" of, in this context, cartography: a belief that through science and its technological instruments an "ever more precise representations of reality can be produced" (Harley 1992). Blurring the boundary between the mapped and lived reality probably is cartography's most powerful deceit: Theodore Roszak (1972) writes:

> *The cartographers are talking about their maps and not landscapes. That is why what they say frequently becomes so paradoxical when translated into ordinary language. When they forget the difference between map and landscape — and when they permit or persuade us to forget that difference — all sorts of liabilities ensue.*

Locative media put art back on the map; and conspiring with critical and feminist cartography, it has brought with it the politics of mapping and spatialisation (see Kwan 2002). Mapping, according to Irit Rogoff, is a cultural, political and epistemological activity, and has always been a powerful instrument for masking difference, making borders, and producing coherent identities (2000). Harley puts it succinctly: "Cartographers manufacture power: they create a spatial panopticon" (1992). Taking a critical look at locative media art's short history, it can be argued that its cartographic practices are not immune to the politics already built-into the map. Paradoxically, the challenge is in the tracking capability of the medium, relying on precise and categorical location, in GPS coordinates, and how little these coordinates say about the place they locate. Like our scientific colleagues and everyone who has ever consulted a map's view, "[w]e are prisoners in its spatial matrix" (Harley 1992).

The critical lenses of cultural, experimental and feminist geography distinguish themselves from cartographic science fiction by their desire for the embodied, multiple, the plurivocal. Like locative art, they struggle with the reduced empirical construction of space, as afforded by our measuring and mapping instruments. Critical geographical discourse has provoked an increased interest in discovery and process driven practices to produce knowledge about "a world that is permeated with particularity and intersubjectivity" (Poon, 2005). This marks a shift that changes the process of cartographic production, where the power of ontology is moved from the expert to the user (see Poon, 2005).

3 Mapping and Modulating Everyday Life

The degree to which our technological lenses shape the way in which we understand the world is of course not an issue confined to cartography and locative art. Naturally, this investigation into mapping practices is situated within the discourses of Ubiquitous Computing, everyday life, and mixed reality. Mark Weiser, who coined the phrase 'Ubiquitous Computing', advocated technology as a means for "invisibly enhancing the world that already exists" (1991). The new concept aimed for pushing computing into the background to foreground human interaction. "Ubicomp honors the complexity of human relationships, the fact that we have bodies, are mobile" (Weiser, qtd in Rheingold 1994). Since then, wireless and mobile technologies have radically changed the ways in which we think and manoeuvre space, time and social relationships. These transformations are not simply technological, but, as Paul Dourish argues, "also transformations in social and cultural practice" (2006). With respect to geography, Nigel Thrift sees the impact of ubiquitous technologies in their capability to standardize space; or perhaps, more accurately, in the way in which their "more exact ways of registering space" lead to a standardization of space (2003). It is interesting that a technological concept (and the instruments realizing it) capable of creating "a world of perpetual contact", tracking and tracing "most objects and activities on a continuous basis, constantly adjusting time and space in real time" (Nigel 2003) has resulted in a standardized understanding and operation of space, rather than a more fluid, multiple one.

In a standardized time-space, our everyday life becomes normative; a trace of coordinates and time stamps. Yet, everyday life, with all the little things that perpetuate it, according to Lefebvre (2004), consists of many different rhythms, short, long and alternating, linear and cyclical. What our technologies are good at is capturing and measuring our movements between places; what they miss are the large, cyclic intervals and their social manifestations and the myriad of small interactions interventions that is the "perpetual, made up of chance and encounters" (Lefebvre 2004). Lefebvre's and De Certeau's critique of everyday life and its spatial practices laid open the performative capacity of everyday practices, how they produce space and open up pockets of interaction and creative improvisation. (De

Certeau 1984, Lefebvre 1991, Thrift 2003). This heterogeneous flow of multiplicitous spaces is what makes the urban fabric specific – and human.

It can be argued that many of these social, imaginary, and serendipitous relations are opaque to our ubiquitous technological senses. However, our technologically enabled connectedness drastically increased the number of spaces and time zones we can traverse simultaneously and, with it, practices to socially relate. Apart from tracking objects and people, overcoming spatial and temporal constraints and creating new social networks, they also allow us to infuse our reality with other, past or newly generated 'realities' and inject a sense of mobility and flow. However, rather than amplifying or embellishing the real, they enable different ways of interfacing, embodying spatializing, and temporalizing everyday life. In making tangible the fluid, tapestry-like make-up of what we perceive to be real, ubiquitous technologies affect and modulate the performance of everyday life and the spaces it produces, but they don't *create* the potential for it to perform and produce. Consequently, as Anne Galloway argues, "the 'mixed-reality' enabled by ubiquitous computing may be better understood as shifting intensities or flows of the virtual and the actual, rather than as points on a continuum between the virtual and the real" (2004). The latter refers to the concept of the 'Reality-Virtuality (RV) continuum', according to which the physical and the virtual are positioned at the opposite ends of a continuum (Milgram and Kishino 1994). Instead of being opposed and separated, the boundary between the everyday world and the technologically mediated world blurs or becomes transparent, to revoke Weiser's vision. A technologically mediated practice "supports and conditions the emergence of new cultural practices, not by creating a distinct sphere of practice but by opening up new forms of practice within the everyday world, reflecting and conditioning the emergence of new forms of environmental knowing" (Dourish 2006).

4 Turning the urban fabric into a canvas

Location-aware mobile technologies have certainly opened up new forms and practices of environmental knowing. For locative art, which is often motivated by heightening the subjective and embodied nature of knowing, they established a rather paradoxical ground for an alternative production of knowledge. On the one hand, they may allow us to challenge the epistemological myth, created by traditional cartography, by providing the medium for a corporeal, participatory and subjective investigation. Yet, on the other, one could argue that locative art is marked by the tensions between a political agenda to break out of cartography's epistemological imprisonment and the impossibility to do so by deploying a technology that was originally developed by the U.S. Defense Department and endorses the Cartesian way of seeing the world. This section looks at a number of issues and challenges that have been raised by locative media practitioners with respect to location and its numeric representation.

Drew Hemment argued that locative art rarely critically engages "the reliance on the clinical precision of digital tracking" (2004). Notions of ambiguity or slippage related to this electronic precision are more likely to arise from technical glitches or physical obstructions rather than through deliberate reinterpretations or creative interventions. What is critical about this insight is that location precision is the limit of locative art (Hemment 2004); and it's this glass ceiling that it has to break through in order to break any norms. Coco Fusco stated her concern about "new media culture's fascination with mapping" on the premise that it shares this fascination with military strategists (2004). Now that tracking and positioning technologies have entered our everyday life, a similar confusion to that between map and landscape has emerged; it is tempting to read the qualities and meanings of physical locations into geolocated media.

The MEDEA Collaborative Media Initiative responds to the dissonance between location data and location as a lived, negotiated place by facilitating local, place-centric interactions, which are mediated through mobile technologies. The aim of their Media Places project is to deploy mobile technologies in ways that allow for the inclusion of and engagement with sociocultural specificities that GPS coordinates and city maps are silent about. Rather than focusing on central, shared places the team included backyards, public toilets and isolated streets to explore "how a specific community populates specific places and furnishes them with digital media" (Linde and Messeter, 2010). A more radical way to undermine the politics that locative technology brings with it is to put it into the hands of the 'other side', the one usually tracked and controlled by this technology. The *Transborder Immigrant Tool* (2008) by Ricardo Dominguez and Brett Stalbaum creates an alternative spatiality at the US-Mexico border by "making the border a space traversable by all" (Amoore & Hall 2010). The 'tool' uses a pathfinding algorithm that calculates the best routes and trails at a specific day and time, offering the immigrants the safest passage possible through the hostile terrain. The intriguing aspect is that the immigrants' empowerment stems from the same

technological power that enables border authorities to deem them illegal. Other artists use mobile positioning technology to open up or subvert the limited, normative mapmaking traditions. For Julian Bleecker, objects like signage, directions, streets, etc. are unfixed from their intent and established usage and become available for semantic mutation (2006). In contrast, Alison Sant is concerned that these everyday references hold a set of assumptions that determine how we perceive our physical surrounding (2006). As long as these objects remain embedded in the map, they reaffirm existing norms produced by cartographic convention. Hence what Bleecker calls "'hacking' the traditions of map-making" (2006) to Sant requires that we redefine the basemap by developing a cartographic language for "plotting the temporal qualities of this evolving landscape" (2006).

The Situationist maps with their torn apart and restitched pieces, often serve as the most interventional, radical example of an alternative urban geography or departure from the grid, as referred to by Sant (2006). In fact, the method of the dérive, which underlies these urban remappings, has had a widespread revival since the first arrival of locative art practice (Tanaka and Gemeinboeck 2009). Most artworks using GPS are, according to Holmes' critical view, "premised on the idea that it permits an inscription of the individual, a geodetic tracery of individual difference" (2004). The realizations of the idea and the maps they produce however don't necessarily question the rigid nature of geodetic tracery and the limited, normed sense of individuality they—even so gracefully—may trace. Holmes continues: "The aesthetic form of the dérive is everywhere. But so is the hyper-rationalist grid of imperial infrastructure" (2004).

To become a tool of intervention, the map needs to depart from a notion of location bound to a fixed reference point. Both feminist and postcolonial discourses on spatialization and heterogeneity can inspire alternative cartographies that emerge from the situated, partial and interpreted knowledge of the terrain (see Haraway 1991). What if our maps allowed for ambiguity and multiplicity to provide a sense of the heterogeneity of spaces we co-inhabit?

5 Urban Fictions

The authors' mapmaking experiments using mobile phones and locative technologies have resulted in two artworks, *Urban Fiction (2007)* and *Urban Fiction 2.0 (2011)*. They are an experiment in rendering the map dynamic and performative, with the aim of developing a generative lens into the urban fabric to explore the multiplicity of lived spaces (Gemeinboeck et al 2006). Looked at through this lens, the mapped landscape becomes elastic by making the interplay between the lived and the mapped tangible as an interactive cartographic performance. Conventional representations of the city are blind to our everyday social encounters and the changing spaces and relations they produce. More so, it can be argued that they play an instrumental role in constraining this dynamic play. Conventional maps don't only *display* norms, regulations and statistical data but also *perform* and reinforce them. According to Harley, maps "are still used to control our lives in innumerable ways" (1992). Given the very limited capabilities to capture and portray the complex and subjective spatialities we encounter and produce in our everyday life, it is fair to say that our experiments don't create maps any less blind. They differ with regards to their performativity: rather than marking and creating boundaries they render them elastic and permeable. They are fictional realities; fictions of maps fluidly seaming the unsuturable as if they were senseable to them.

The advancements in mobile technologies that occurred between the development periods of the two works constituted an entirely new environment for conceiving the participants' involvement. One of the biggest challenges we faced in 2007 was allowing people to inhabit the digital fabric in situ, as part of their everyday life. *Urban Fiction* used early 'smartphones' coupled with GPS sensors that had to be provided to participants (Figure 1). *Urban Fiction 2.0* uses multimedia and sensing capabilities of the increasingly common iPhone and Android platforms. Discussing both works below will also open up a view onto the interdependency between the potential for experimenting with multi-authored, situated mapmaking and technological affordances.

Figure 1. *Urban Fiction* (2007), customized mobile phone and gallery projection of the digital fabric.

5.1 *Urban Fiction* (2007)

Urban Fiction, produced in 2006–2007, imagined the city's multi-layered fabric to be constantly rewoven, torn apart and stitched together again. Participants' movements in the city set the fabric's fluid transformations in motion. Yet the fabric's fluidity was restrained by an underlying map derived from demographic data; causing breaks and holes that needed darning. The work used mobile phones as 'lenses' through which to look at the city in ways that afford a reading outside of known and fixed relations. Seen through these lenses, social and data topologies become intertwined and form a tangible heterogeneous landscape, woven and constantly rewoven of hundreds of threads. Conceptually, we were particularly interested in the city's invisible boundaries and zones, which often become more clear and apparent in a map view: there we can find demarcation lines between poor and rich neighborhoods, ethnically diverse and mono-ethnic areas, etc. They become boundary lines once they define zones of different permeability for different groups (classes) of people, including some and excluding others. These boundary lines became potential break lines, where the digital fabric was more brittle and as such more likely to break. Moving across these broken boundary areas allowed participants to re-stitch them; increasingly turning the map into a patchwork.

The digital fabric was composed of three layers to allude to the multi-layered quality of the urban fabric. As participants traversed the city's invisible zones and borders, they acted on simulated force fields. In the first layer, participants' encounters trigger forces that warp a

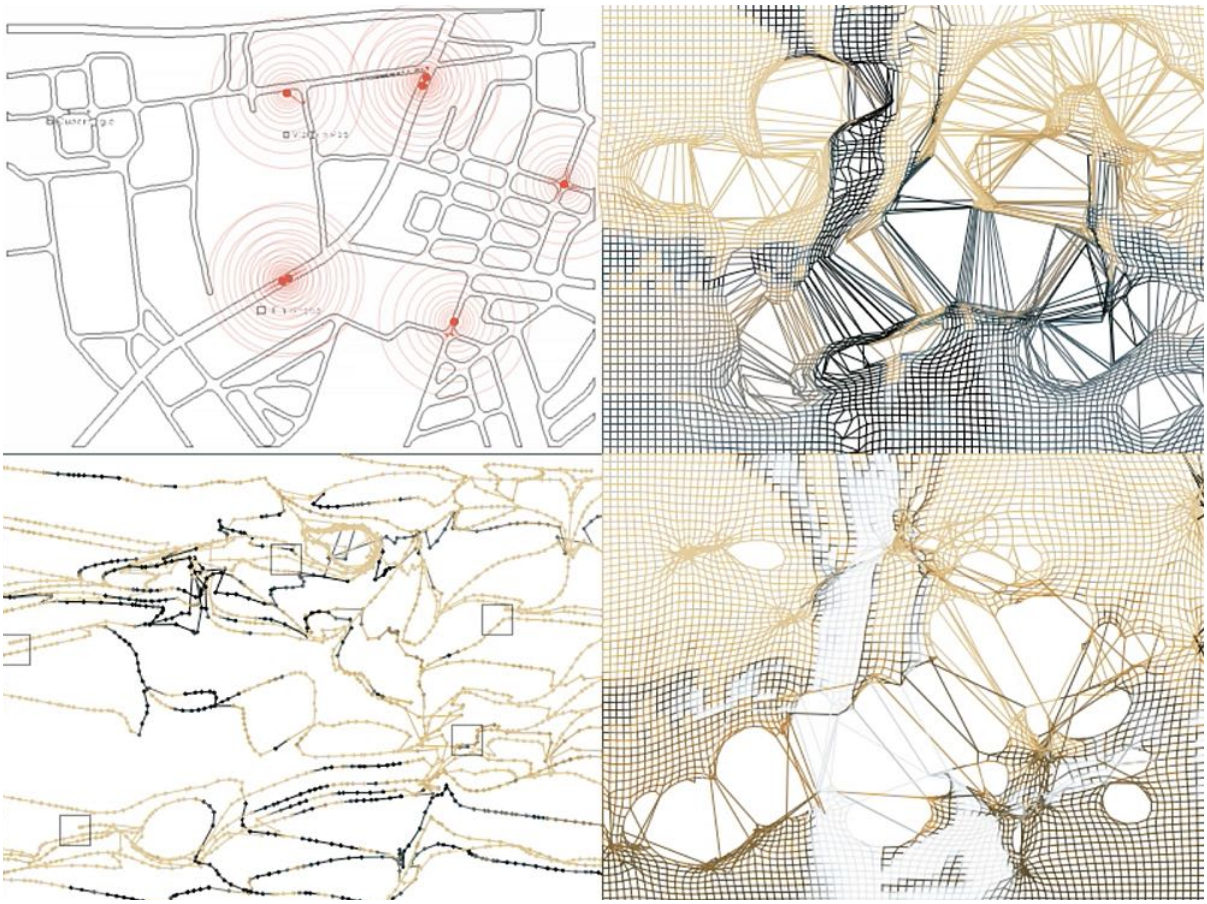

Figure 2. *Urban Fiction*, three layers of the digital fabric; top left: monitor showing participants' movements and encounters; top right: the first layer, showing the grid being transformed in response to participants' encounters; bottom left: the second layer, showing the fabric being woven in real-time and distorted by underlying force fields; bottom right: the third layer, showing the rips and stitches resulting from the interplay between the underlying forces and participant's participants movements.

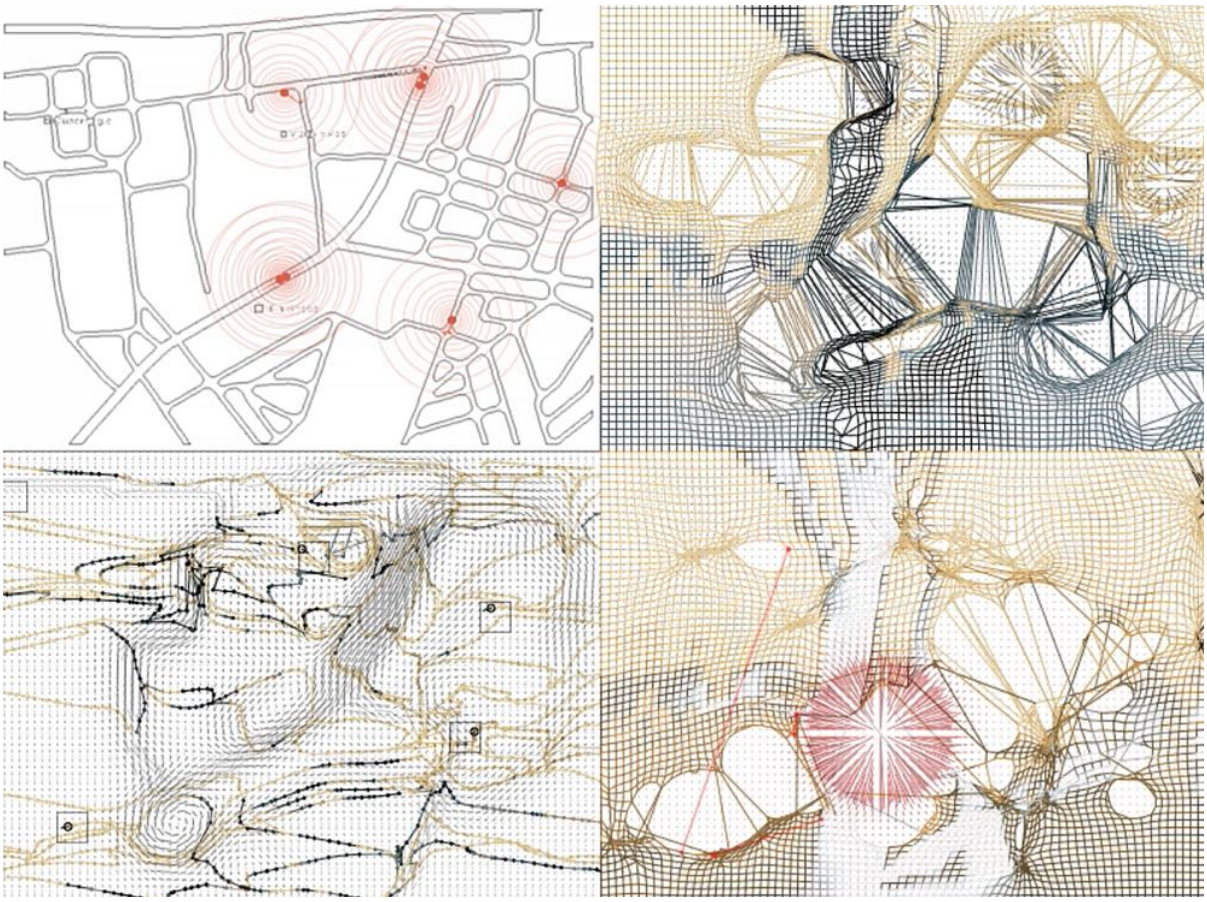

Figure 3. *Urban Fiction*, three layers of the digital fabric, visualising the underlying forces.

grid-like fabric; in the second layer, the participants' paths deflect the weaving of new threads; and in the third, the forces of the first layer created tensions that caused the fabric to rip, while the threads of the second layer became stitches to darn the fabric (Figure 2 and 3). Throughout all layers, mapped demographic data from the 2006 Australian Census[1] defined underlying forces and break lines by following the boundaries produced by the spatially mapped demographics. The demarcation lines between different degrees of cultural diversity and levels of income determined the location and intensity of static force fields that defined the local properties of the virtual fabric, e.g., stiffness or brittleness. They affected the intensity and orientation of the dynamic forces, constituted by participants' movements. In the second layer, for example, incoming GPS coordinates created a force flow that deflected the movement of software agents in the process of weaving this layer's threads. The participants' force flow, however, was always subject to the distorting effect of the static force fields (mapped census data). The interplay between the fabrics' resistant forces and the participants' dynamic counter forces resulted in a map whose plasticity was dependent on the tensions between what is allegedly 'known' and mapped and what is yet unknown and 'lived.'

The three layers of the generated digital fabric were projected in a gallery space, presenting a multi-authored tapestry of continuously interlacing threads and shifting urban zones (Figure 4). The installation consisted of three translucent silicone sheets spanned between scaffolding tubes, which allured to layers of skin, cut from the urban fabric. Upon closer inspection, they revealed that the fabrics were still in the making, and tiny movements produced threads, whorls and stitches, similar to the embroidering pulses of a heart rate monitor.

The main issue with this first work, completed in 2007, was that the mobile technology available enabled participants to gather data about their movements but

[1] Data from the 2006 census data conducted by the Australian Bureau of Statistics is available at: http://www.abs.gov.au/

Figure 4. *Urban Fiction*, gallery installation.

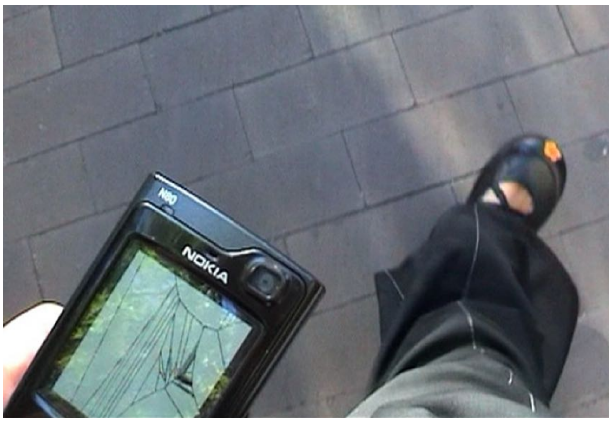

Figure 5. *Urban Fiction*, mobile phone application.

didn't allow them to inhabit the alternate urban fabric in situ. While they were able to induce force fields into the digital fabric via mobile phones, the display of their mobile 'lens' only showed a small extract of a highly reduced, isolated layer of the fabric. Looking at their mobile phone display, walking through the city turned into wading through a thick layer of foam bubbles (Figure 5). The 'bubbles' responded to their movements, e.g., walking faster, the shapes got more irregular and messy. Due to the limited computation capacity and the low resolution of the display we couldn't feed back the complex dynamics of the virtual fabric displayed in the gallery, shaped by a network of participants and rubbed against the underlying census map. We thought of it as a mobile proxy of the virtual urban fabric, an indicator, if anything, able to allude to the multiple, elastic map that could be witnessed inside the gallery. Ultimately, we were not been able to achieve the desired effect of blanketing the urban fabric with an alternate, multi-authored map that is negotiated and constantly re-negotiated by the city's inhabitants. While continuously reconfiguring itself in real-time, the alternate dynamic 'map' was displaced, projected elsewhere; instead of negotiating, the mobile experience was reduced to one of tracking and probing. In addition, we were required to hand our participants customized mobile phones coupled with GPS sensors, so their probing of the urban fabric was limited to short and scheduled, often one-time performances.

5.2 *Urban Fiction 2.0* (2011)

Urban Fiction 2.0, produced in 2010–2011, also aims to renegotiate the static, single-view map with the dynamic spaces that we construct and negotiate in everyday life. However it starts off where we couldn't go with the earlier work, and, focusing on the participants' embodied experience, it sheds some of the politics that *Urban Fiction* aimed to make tangible (resistant forces of the fixed map). In contrast to *Urban Fiction*, the city not only is the data interface but the site of enaction and intervention. Making use of the advanced capabilities of the iPhone and Android platform, the notion of the 'lens' materializes and the participants' movements and electronic connections seem to almost tangibly extend into the fictional terrain. Conceptually, *Urban Fiction 2.0* traces the multiple spatialities produced by the participants' presence, whether communicated bodily or electronically. We see in them a filigree of imaginary spaces spun by our everyday lives; journeys through the city's spaces and messages sent between friends become a performance of lacing—interweaving and twisting the threads of a collective social fiction. The work responds to the multiplicity of spaces that constitutes our urban fabric; a latticework of built, lived, remembered and imagined places. Global flows of migrants weave a net of fragile threads, invisible to native eyes, tracing their belonging to other places. Our everyday migrations through the city constantly cross these threads, even if often unwittingly. Visually, this work weaves an imaginary lace, a dynamic filigree of entangled fibers, over Sydney's urban and social landscape. Initially resembling a map of the city, the lace is transformed by social interactions. Growing, branching out and shifting over time, it is composed of an endless series of movements, twists and re-embroiderings that mirror the lively and manifold spaces patterns of the urban fabric we live in (Figure 6).

Participants are able to interact directly with the imaginary urban lace via a free application for their mobile device. At the time of writing this paper, we have completed the development for the first iOS version, with a version for Android devices to follow. By downloading the custom application, participants transform their iPhones, iPads or iPods into an interactive window onto

Figure 6. *Urban Fiction 2.0* (2011), participants interact with the digital fabric from inside the urban space.

the imaginary fabric. Their movements, captured by device's location and motion sensors, induce new threads and turbulences that extend, disturb and displace the fictional fabric. For example, energetic movements like spinning, jumping, and dancing in the streets have a twirling and rippling effect that can be witnessed by any other participants in their vicinity (Figure 7). The imaginary fabric is shared between all participants allowing them to observe each other and to collaboratively reweave and twist the fictional lace. The participants interact with the fictional map and its evolution directly, without any other force layer interfering with their input, as was the case in the earlier project. The work is mostly concerned with the immersive experience of the participants, that is, their sense of a virtual tapestry that covers their surrounds and responds to their presence, encounters, and even the smallest (inter)actions. In our preliminary tests, the elastic responsiveness and dynamic expressivity of the virtual map has encouraged participants to move differently, e.g., more playfully or forcibly, particularly within groups.

The map also responds to people's electronic encounters without using the application to open up a 'window'. Three years after completing *Urban Fiction*, GPS has become commonplace, increasingly geolocating our everyday life by anchoring our current whereabouts and meeting places onto 'the grid'. The imaginary fabric of *Urban Fiction 2.0* portrays this indiscriminately mingling of physical positions and electronic encounters: using location-aware social networking services including Twitter, Foursquare, and Facebook, participants automatically weave new threads into the lace (Figure 8). This effortless interlacing of the local, physically senseable and disembodied yet globally networked social ties mirrors our everyday lives, oscillating between situated and distributed experiences. While in 2006, it was the tension between local inputs and the "web-borne, purportedly universal resonance" that Sally Norman identified as the social and artistic potential of mobile systems (2006), it may well be that, five years later, the two interface more seamlessly.

6 Performative Geographies

Returning to the question of whether maps can provide a sense of the multiple and heterogeneous spaces we coinhabit, this section will discuss notions of mapping that allow for ambiguity and multiple readings. According to

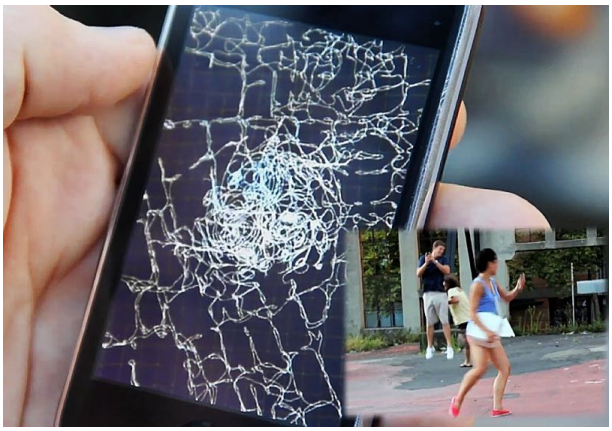

Figure 7. *Urban Fiction 2.0*, spinning and jumping in the streets generates a swirly filigree of patterns.

Figure 8. *Urban Fiction 2.0*, participants using social networking services, producing new threads.

Irit Rogoff's concept of 'multi-inhabitation' (2000), we constantly inhabit multiple co-existing spaces "through bodies, social relations and psychic dynamics" (2000). Often, the memories, histories, and connections to people and other places that make up the layers of these co-inhabited spaces inscribed themselves into the site at different times. In reference to Lefebvre's production of space, Andy Merrifield notes that "space becomes redescribed not as a dead, inert thing or object, but as organic and fluid and alive; ... it flows and collides with other spaces. And these interpenetrations—many with different temporalities—get superimposed upon one another to create a *present* space" (2004). These spatio-temporal imbrications cannot be mapped in homogeneous ways that serve a single perspective. And yet in can be argued that our cartographic maps, in many ways already show multi-inhabited places: maps, Haraway states, "are models of worlds crafted through and for specific practices of intervening and ways of life" (Haraway 2000). While models always are simplified representations, the notion of craft and the intention to intervene point towards a much richer agenda driving the particular representation. Maps map these political, economical or otherwise relations as much as the landscape they pretend to represent. So, the instrument of the map supports multi-inhabitation, even if, traditionally, this doesn't necessarily result in a heterogenic perspective. Yet how can we introduce the heterogeneity of multiple, moving perspectives into the map? Rather, than simply depicting alternative views, we believe that it requires a performative act in which the map—similar to the urban field—continually differentiates itself and produces new knowledges in-between. The map has to become an unstable, slippery ground itself.

Donna Haraway's notion of location opens up a potential for interpreting position that starkly contrasts the clinical precision and high resolution of GPS data. According to Haraway, "location is about vulnerability", resisting the politics of closure but rather 'insatiably curious about webs of differential positioning" (1991). To induce the vulnerable into the map requires challenging the dominant hierarchies of Cartesian cartography and abandoning the uniformity of the grid. A well-known example of such radical mappings are the Situationist maps (e.g. Debord's Naked City), whose rupturings, displacings and stitchings of geographical zones destabilize the geographical order and bring about trauma and loss (of the familiar). Opening up the map, and its grid, and rendering it elastic, twistable and lacerable unfixes the Cartesian coordinate and allows for impossible relations to be read between the (grid)lines.

Locative art opens up a collective playground, where the production of space becomes a performance. Our two *Urban Fictions* implicate participants in the production of imaginary, hybrid spaces. Bodies are 'spaced', notes Shields (2007), and, performing the *Urban Fictions*, bodies also have the capacity to 'space'. Like everyday life itself, these performances always unfold in the present, without the comfort of rehearsal. They cannot be preserved in time, reproduced or '"otherwise participate in the circulation of representations of representations" (Phelan 1993). This defies conventional production of knowledge that separates the subject from the object, distances the process from its context and understands progress as the ability to make something (repeatedly) visible (see Rogoff 1998). Yet, using mobile, location-aware devices that translate the performers into coordinates and change of speed, much of the performance and its interventive act is lost: "Itself visible, it has the effect of making invisible the operation that

made it possible" (de Certeau 1984). Our works complicate the relationship between performance and technological translation by rendering the translation a performative act itself. Any incoming data is negotiated within the context of an evolving set of forces and relations to create a map that has "multiple entryways" (Deleuze and Guattari 1987).

Developing a taxonomy, Tuters and Varnelis have identified two types of locative mapping: annotative and phenomenological. The first, virtually tags the world, while the later traces the actions of people in the world (2006). We would like to extend this taxonomy of mapping through the mode of the performative. In our works we aimed for a performative mapping practice that tracks participants' actions but doesn't trace them in order to fabricate a map. The map is not seen as a neutral, empty canvas to be inscribed but a dynamic process whose next iteration is negotiated by a collective of participants. Their locations become events that trigger the map to perform in certain ways. 'Performative mapping' relies on dynamic processes set in motion by the participants' movements and the spaces that evolve in-between. "Suddenly, what happens between matters most" (Van Loon 2002). For example, *Urban Fiction*'s spacings and webbings emerged from the contact surface along which two spatial ontological positions (the practiced and the mapped) are negotiated and transform the urban map. In future versions of *Urban Fiction 2.0* we plan to reintroduce the powerful interventions of fissures and stitches into the map to allow for it to be broken, displaced and scarred (Figure 9).

The performative, dynamic approach seeks to problematise the authority of the cartographer by unfixing the knower and the known. In this 'performative geography', different actors iteratively and collectively produce a dynamic history of imaginary spaces, for which the social imaginary is, as according to Appadurai (1990), a social reality. The term 'geography' here is concerned with cultural practices and differences in relation to space (Rogoff 2000). Our notion of the performative was inspired by postcolonial discourses and follows Homi Bhabha's use of performativity, designating "not only the inherent instability of the sign (following Derrida) but its immanent becoming (following Bakhtin)" (Pollock 1998). In our practice, this analytic framework becomes destabilizing playground; a 'map' for deterritorializing the map, where the act of mapping is productive and has agency, interrupts the norm, unanchors the fixed, and innovates. What distinguishes our generative practice from other mapmaking practices is that we locate this performative potential and its agency to intervene and produce imaginary spaces not only in the collective performance of the mapmakers but also in the map itself. The map becomes a heterogeneous process, continually reshaping that out which it itself is emergent. The spacings, gaps and fissures produced in this process open up spaces between binary opposites– 'third spaces'–from which other positions can emerge (Bhabba, 1994).

The objective of our *Urban Fictions* was to perform what Bhabha describes as the "turning of boundaries and limits into the in-between spaces" (1990). Analogous to Lefebvre's notion, the importance of hybridity that characterizes such a 'third space' lies in the potential for other positions to emerge (Bhabha 1990). Bhabha's narrative process of displacement, distortion and repetition links notions of space and performativity to disrupt systems of reference. It is "the heterogeneity in space that Bhabha finds so performatively counter-hegemonic" (Sparke 1998). A cartographic representation of 'counterspaces' (Soja 1996), then, needs to include the floating and unanchored to serve, what Rogoff calls a "form of geographical unframing the boundary line", signaling "that there's an outside that is a form not

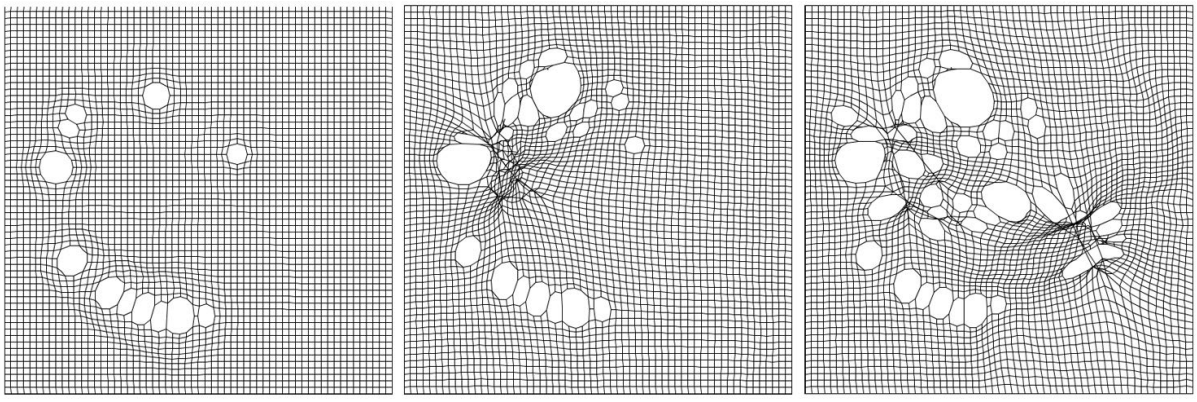

Figure 9. Urban Fiction (2007), prototype of the digital fabric being torn and stitched.

of surveillance but of interference" (2000).

7 Parting Thoughts

The performative practice we introduce in this paper extends the critical discourse of locative art by linking it to the critical, deterritorializing practices of cultural, feminist, and postcolonial geography. It creates an experimental playground on which to negotiate the disparate epistemological positions of these critical discourses and locative technology and traditional cartographic mapping practices. It does so by rendering the map a dynamic, generative process of force play, unhinging fixed positions, turning boundaries into openings and allowing an alternate, 'third' position to emerge. The works *Urban Fiction* and *Urban Fiction 2.0* develop a generative mapping practice that, as participants move through the city, transforms and invents possible relations between the numerical spaces captured by their mobile devices and the cultural and social spaces produced in this performance. The devices become lenses through which to look at the city in ways that unsettle known and fixed relations, firmly locating them and, at the same time, rendering this location other, uncertain. Precise numerical locations are read as events and intensities, turning the map into a field of contingencies and unfolding performances.

Urban Fiction aimed for making the mutual relations between the *practiced* and the *mapped* visible and tangible. Using census data to specify the degree of permeability and elasticity, the map becomes a performative text through which to read the production of spaces and zones. The resulting twisted, torn and stitched map expressed the spatial dynamics between participants (living city), demographic data (fixed city), and how they mutually affect and interact with each other. *Urban Fiction 2.0* is concerned with the embodied experience of the participants and generates a dynamically embroidered fabric in responds to their movements. It introduces an alternate, situated view onto the social and technological production of our urban spaces. The works don't reject the technologies that produce the grid and anchor our lives onto it, but rather extend their normalized representations. In some way, they aim to fill in the spaces between the grid lines, rather than reaffirming them. Naturally, the rich and complex 'fillings' are completely fictional and account for the limited technological sensors we have for Debord's 'lived space' (1977).

The issue is not the technological limits (as they will advance) but their filtered perceptions manifesting themselves in the ways we understand the world, ultimately transforming our lives to fit the grid. It seems as if we had learned to mistake our techno-cultural probings and mappings for the real thing. "The trace left behind is substituted for the practice" (de Certeau 1984). Yet this stenciled construction of reality has not been brought upon us by GPS but by its ancestors, the geometric matrix of the Cartesian coordinate system. In tandem with critical cartography, the challenge for locative art is the concurrence of mapped, spatial representations and the spatial practices that produce them. Our works evoke this constitutive, performative relation by rendering the map an ever-changing process, rather than a fixed representation. They open up the question whether mapmaking that doesn't delude itself to *not* being an instrument for sediments of troping (Haraway 2000), but, on the contrary, embraces the potential of tropes and the ambiguous, slippery and fictional, can produce alternative relations. Performative maps are situated, rather than stripped of any practiced context; a pluralogue, rather than a monologue; subjective, rather than allegedly objective. Their mapmakers have a face, a life, a culture, and a past; not a disembodied authority. While we believe that locative art doesn't escape the Cartesian matrix, it has the capacity to open up a space for inquiry ... and critical fiction.

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