

Chris Eaket

**The Performativity of Language in Real and Imagined Spaces:
Locative Media and the Production of Meaning**

Harold Innis' dialectic of time and space-based media—where time-based media is fixed and material and space-based media is dynamic and mobile—finds a particular synthesis in various forms of spatial annotation whereby messages, notes, stories and histories can be digitally associated with various places. In this paper I examine how two locative projects, Toronto's *[murmur]* and London's *Urban Tapestries*, accrete stories over time that performatively define places, their use, and their affective associations. This process of creating a spatial ontology is both iterative and emergent; users add and edit content at different stages to create multiple linguistic, descriptive maps of a place which contribute to its overall social meaning. The annotation projects I examine are *simultaneously* time and space based media, depending as they do on material sites and digital, narrative descriptions. As a hybrid media, they have a great deal to tell us how we describe meaning to places and objects over time, as well as providing parallel insights into the structural processes of meaning-production itself.

For Herald Innis, time-biased media are those media which are durable and heavy, resisting the ravages of time. They *endure* over the centuries and symbolize a triumph over temporal existence, as was the case with the pyramids and stone tablets of the ancient Egypt (Innis 34). These media were (and are) typically deployed as physical embodiments of the power of a ruling class, religion or sector of society. Indeed, if we want to know where power lies in a particular time period, we need only look for the tallest buildings—pyramids, churches,

banks, finance buildings or hotels, for example—and their geographical location on the planet. Time-biased media have typically represented traditional customs, religious rituals and oral culture; in our own time, it is perhaps more fitting to say that a time-bias implies a media involved in the structuration, or cultural and material reproduction of society over several generations (Carey 18).

Conversely, space-biased media are portable and often ephemeral. They have a relatively short life span and can travel great distances. For this reason, a space bias also enables or encourages territorial expansion; it is the media of empire. Space-biased media is concerned with the subjugation of space in the same way that its opposite is concerned with the subjugation or conquest of time (Innis ix). In our own time, the dominant space-biased media have been information and communication technologies (ICT), which promise to overcome the constraints of real space through greater mobility, connectivity and virtuality. However, while despatializing technologies may have collapsed *geographic* barriers to communication, they have not necessarily decreased *social distance*; in fact, the opposite is more often the case. “Economic communications and financial empires tell us that place is less important for communication, [but place] is becoming more important to people” (Hunter 144-5).

Innis believed civilizations were and are largely shaped by the dominant media in the culture; he also believed that stable societies were achieved through a balance of space and time based media. When either one becomes more dominant “life and flexibility will become exceedingly difficult to maintain and that the advantages of a new medium will become such as to lead to the emergence of a new civilization” (Innis 33). Innis's vision of history is obviously dialectical and he was concerned in his own time that “inventions in commercialism have destroyed a sense of time” (Innis 86). This is doubly true of our own era, where ICT,

postmodernism and globalization have often worked in tandem to abolish a sense of time and history, as well as the heterogeneity of places entirely (Harvey 1989; Jameson 1991)

Contrary to the dominance of ICT which seeks to dominate and abolish space, I will argue that various locative media projects and site-specific works represent a synthesis of time and space-biased media through their integration of both physical architecture and ubiquitous digital media. Instead of digital technologies enabling some sort of incorporeal virtuality, a “sense of place” and situated knowledges are gradually reasserting themselves in technological discourse (Haraway 1988). As Marie-Laure Ryan remarks, the “seemingly straight trajectory leading out of the constraints of real space into the freedom of virtual space is now beginning to curve back upon itself, as the text rediscovers its roots in real world geography” (Ryan 2004). By “grounding” digital media to the particularities of location, we avoid the excesses of spatial territorialisation and are forced to reflexively consider the temporal and social processes involved in the creation of the built environment. Similarly, one avoids the trap of the universalization of knowledge and perspective; these practices encourage a consideration of multiple, embodied perspectives that contribute to meaning at a particular time in a particular place.

Locative Media: Problems and Practices

Locative media is a catchall term for a set of new media practices that explore the interaction between data networks and physical space of the urban environment. According to Drew Hemment, AHRB Research Fellow in Creative Technologies at the University of Salford, “locative media uses portable, networked, location-aware computing devices for user-led mapping and artistic interventions in which geographical space becomes its canvas” (Hemment 2004). The field itself is still developing but already includes a broad range of activities:

collaborative mapping, surveillance critiques, urban games, subjective storytelling, geospatial experimentation and spatial annotation. Its narrowest definition, a locative work is an “artwork that utilizes media that can express an index of spatial relationships”—that is, a work that attempts to reconcile the geospatial positioning of the user with pervasive data networks and information (Albert 2004). When we consider what each of us actually knows about the environment we move through every day, relative to the amount of information we routinely access on the Internet, that ratio is often exceedingly (and embarrassingly) small. In an era where we are able to know almost anything at the touch of a return key, we know virtually nothing about our immediate environment—an environment that constructs us as human subjects, is an expression of our shared material culture, contains valuable historical information and is in a continuous process of structural reproduction. What locative media and site-specific practices allow us to do is ascribe meanings to places in innovative ways, so that the streets, neighbourhoods and buildings we move through are not just decontextualized objects, but rather sets of meanings, patterns in time, nodes in social/material networks and places suffused with personal experiences and affect.

However, geospatial positioning and its usage in locative media is not unproblematic. Andreas Broeckmann (director of the Transmediale Festival), has accused locative media of being the “avant-garde of the ‘society of control’” and media artist Coco Fusco has remarked that, “It is as if more than four decades of postmodern critique of the Cartesian subject had suddenly evaporated” (Tuters & Varnelis 360). Locative media has been attacked for reinscribing a reductivist understanding of space, as well as uncritically using technologies developed for the military sector. These projects risk radically simplifying spatial dynamics and the subject into mere points on a grid, as well as reducing the complex interplay of mind, body

and the social environment to sets of descriptive web pages delivered from a server. Such reductionism runs counter to recent trends in social geography, where space is understood as something which resists scientific measurement and mathematical objectivity, and cannot be reduced to numerical analysis or statistical tables (McDowell 153). Other postmodern geographers have imparted that humans do not live in the midst of geometrics, but in the midst of meanings (Adams et al. xx-xxi). While static and objective information about a place may be easier for computers to deal with, such content provides little in the way of meaning, and is a relatively poor reflection of the sensory richness of “being there”; indeed, such data adds little that could not be gleaned from a traditional tourist guide, and provides few affordances for the reflexive engagement with a place. When locative media projects become too reliant on data-driven representations and spatial coordinates, they fall back into a space-bias, providing content without context and information in lieu of meaning.

The two projects I will be looking at here, [*murmur*] and *Urban Tapestries*, tend to avoid these pitfalls by incorporating performativity and social practices into their designs. Both systems focus on providing a *particular kind of experience* to the user, and therefore introduce elements of history, narrative, performance and embodiment that tend to prevent spatial reductionism. Both systems are part of a branch of locative media known as spatial (or geo) annotation, which makes data geographically specific or links multimedia objects with spaces. Like graffiti culture, spatial annotation re-territorializes the city through the placement of signs and markers of place-identity. “To the extent that the annotations in such a system become spatial, it makes the authors of those annotations the co-creators of a new virtual vernacular that will more and more shape the shared experience of the city ... The challenge is to find ways to embed cultural intelligence within the built environment – or, more precisely, alongside and

within the pathways that we traverse from day to day” (West 4). This process of de-alienating the metropolis—making the city familiar, social and meaningful—is important if we are to reinvigorate the urban public sphere, replacing media discourses of social contamination with discourses that are productive, collaborative and collective.

[murmur] & The Performativity of Spatial Textures

The *[murmur]* system allows people to author and access stories about a particular place via a mobile phone. The system relies on signs posted outside designated sites—each with a phone number and place code—rather than GPS positioning. As opposed to systems of systems of spatial annotation that exist only in virtual space, *[murmur]*'s green signs encourage “visibility and visual clues that will lead to interactions with information situated in space,” by creating the “potential for embodied interaction beyond the screen of a mobile device” (Arnall 2005).

Receiving subjective and personal recollections that affectively connect us to places is part of what the project is all about. *[murmur]*'s Shawn Micallef explains: “You may not have anything to do with the story but once these narratives are layered on a different patch of the city people feel more invested in the place they live, and also those strangers that you pass don't seem so strange anymore. It's just a sense of knowing the stories of your community” (Rossi 2005). Even places that no longer exist can be reconstituted in the collective memory of a community through storytelling. In one example from *[murmur]*'s cell phone narratives, a storyteller remembers a bar that once existed at 169 Augusta:

So, 169 Augusta...the Lobster Island Seafood Company—a wonderful place to acquire lobster—but you know it wasn't always Lobster Island it was this place called the Sibony

Club, which was sort of an after-hours dive bar kind of thing. [...] The good thing was there would be all sorts of different things, like one night there'd be a band, another night there'd be some sort of avant-garde theatre thing, one night some lesbian poets and Frisbee throwing—so it housed a really nice variance ... It was a great little place and I don't know what happened to it... (#214618: Timber Masterson)

In this case the listener is forced to reconcile the material referent of Lobster Island with the description and signs of a remembered Sibony Club. Such an approach implicates the listener as a co-creator of meaning by having them reconcile real and remembered versions of the same place. The aim is to have the audience “work over” these overlapping historical moments until they resolve into a new synthesis: an appreciation of place that is both material and historical, as well as deeply textual and social.

In 2003, the collective launched a version in the Kensington market of Toronto with 29 signs and associated stories. The group then developed city-specific [*murmur*] projects for Vancouver and Montreal, and with funding from municipal and provincial arts councils, expanded to several other areas of Downtown Toronto, including the interiors of the historic Drake Hotel and Hart House on the U of T campus (Ryan 2006). The collective has also set up [*murmur*] sites in San Jose, California; San Paolo, Brazil; Dublin and Galway, Ireland and Edinburgh, Scotland. More recently, the [*murmur*] collective has been involved in *Uth Ink*, a project designed for emerging young playwrights, which uses the [*murmur*] system to post “micro-plays” at specific locations within the artists’ communities.

Part of the widespread success of the [*murmur*] project is its inherent theatricality; it relies on embodied engagements with places, storytelling techniques akin to radio drama, and the

performative practices of the production of space. With regards to embodiment, *[murmur]* actively encourages people to take walking tours of the neighbourhoods, using cell phones to explore stories. The stories are told to pedestrians specifically since one of the aims of the project is to get people to relate to their city and community members at street level (Bowness 2004). Co-founder Gabe Sawhney remarks, “we wanted (the project) to be engaging, to encourage people to get away from the [computer] screen and go physically experience these places” while listening to the stories (Alderman 2004). In some cases, urbanites literally stumble into *[murmur]* during the course of their pedestrian activities; a reporter who came across the project by accident remarked that, “after listening to a couple [of stories], we found ourselves wandering around the market with our phones searching for little green signs” (*Eye Weekly* 2003).

The performance of these oral histories over cell phone means that, “the user is free to wander throughout the space, touching the objects and structures described in the story” (O'Donovan 2003). In this, the project exemplifies what Nick Kaye sees as one of the defining features of site-specific works: “a working over [...], a restlessness arising in an upsetting of the opposition between ‘ideal’ and ‘real’ space”—that is, a problematization of the relationship between the socio-cultural sign and material referent. “Furthermore,” Kaye continues, “in upsetting or deconstructing these oppositions, site-specificity is intimately tied to notions of event and performance” (Kaye 46).

The use of cell phone was a pragmatic choice, despite its limitations: “Telling location-based stories using cell phones seemed to be the best way to get all these stories out to the most people in the spot that they happened. Not everybody has a cell phone, but it was the delivery device that could reach the most amount of people” (Rossi 2005). It allows the listener the

freedom to wander about the space while at the same time allowing the visual gaze to follow their own perceptions. “By using a mobile phone,” remark the [*murmur*] collaborators, “users are able to listen to the story of that place while engaging in the physical experience of being there” (Micallef et al. 2003).

The use of the telephone and the voice is significant since the technology arguably comes the closest to conveying a sense of presence than any other technology: the voice, combined with synchronous communication and the spontaneous nature of telephone use, make it a suitable substitute for face-to-face interaction (Corino 23-27). Roussel remarks that, “what makes it dramatic is that it’s not some voice actor. To hear someone actually kinda stutter and be real, that’s how people actually talk. There’s an accessibility there” (Toman 2003). Further, [*murmur*]’s Gabe Sawhney notes that, “We really want to hear accents. Accents are one of our favourite things, because they help differentiate perspectives and experiences” (Whyte B06). The situated knowledges (Haraway 188) embodied in accents and discourses produce something which is paradoxically more Other, but also more realistic, personal and engaging due to its specificity. The multi-perspectival viewpoint of street-level pedestrian culture is represented through the many voices of the storytellers, in all their verbal distinctiveness.

The performance of the disembodied storyteller on the phone is akin to the auditory mimesis of radio drama, whereby aural descriptions construct an imaginary *mise-en-scène* and its characters. This form demands the active participation of the listener to fill in the gaps or concretize the scene in terms of reception; the audience member draws upon previous experiences and images in order to conjure an imaginary scene that is relatively complete (Beck 1). For our listener, the slippage between the site-as-referent and the audible signs that constitute the *mise-en-scène* demands active participation on the part of the audience member, as an

interpreter of (and participant in) the production of signs. The audience member is free to fill in gaps, disagree, or reinterpret the auditory claims, while at the same time exploring, observing or reading the signs of the material space. Going beyond the participatory “filling in the gaps” of radio drama, here the audience member is actually spatially interpellated into the narrative as a kind of interactive critic.

Taken as a whole, the combination of material site, listener, cell phone and acoustic narrative form a system interactive co-production based on embodied interaction. The ability of the body to perceive, process and act on information in its environment allows us to form dynamic feedback loops with tools and environments. This coupling with objects and systems forms the basis for interactivity, where we act and adapt to changing stimuli whether as a jazz musician, improv actor or computer gamer (Kim & Seifert 234). This focus on embodied interactions shifts us away from ontological notions of ‘liveness’ pervasive in traditional performance models towards a situational model of embodiment which emphasizes the generative processes of interactive performativity, based on our ongoing transactions with the immediate environment and other agents.

However, we should not take performativity to only mean “that which is able to be performed”; although this is part of its definition a naively theatrical sense, it also denotes an important concept from speech act theory. Performativity, in the sense that Austin or Butler use it, is an utterance which ‘does what it says’—a productive act of signification that materializes the effects of discourse (Austin 1962; Butler 1993). The speech act gains its *authoritative* power through citationality, but it gains its *productivity* through its ability to iteratively shift meanings and interpretations over time. The meanings derived by performative discursive acts, whether through spatial annotation, case law, or the collective edits that comprise Wikipedia, are

determined by small acts over time that are inscribed, corrected, discussed and edited in a system of regulatory feedback and distributed agency. Since performativity depends on the citationality of a norm—even when attempting to transform or break that norm—it forces us to rethink the situation in the present, as well as reading 'backwards' our prior schema of specific acts, words or meanings in order to reassess prior interpretations.

The performativity of space can be understood as the “acting-out” of a place through social practices, specifically actions and utterances, which contextually and through repetition determine its functional meaning within a meshwork of social habitus (Bourdieu 23). Performativity in/of the built environment means the interrogation, reworking, and iterative deployment of signs and practices; this viewpoint implies that the city is not so much a normative set of objects, but rather a system which is discursively produced and materializes over time via iterative processes and actions. Our traditional conception of the city as an artifact, rather than an ongoing process of performative iteration and the materialization of discourse and meaning, is part of a much larger cultural norm that accepts the artefacts of society as merely objects, rather than the effects of performative ‘practices, arrangements and ensembles ... which permit certain objects to materialize or solidify and not others’ (Mackenzie 3).

The reified materiality of the built environment tends to blind us the fact that it is a “pattern in time” resulting from multiple acts of human agency, discourse, decision making and action (Johnson 76). Likewise, the performative model of the construction of meaning stands counter to standard representation, which we use synchronically (within a period in time) but rarely think about diachronically (across periods in time). If we want to know the meaning of a word, we usually look it up in a dictionary or Wikipedia, and assume a one-to-one correspondence between word and meaning. However, a word or an utterance is determined by

its function or use (Wittgenstein §43), which can vary widely across social groups and time periods. In this sense, we might say that the performative, in its ritual, temporal and discursive aspects is a form of meaning production that is time-biased, relying as it does on localized speech acts over a relatively long duration. Conversely, the standard view of static representation which allows us to manipulate symbols readily, without having to consider localized variations or past usage, tends to exert a spatial bias since standardization allows for faster and wider communicability.

When we try to define what a place “is”—that is, to determine its meaning—we automatically run into problem of choosing between static representations which risk reductionism and embodied performativity, which is much less easily codified. The sites defined by projects such as *[murmur]* and *Urban Tapestries* are obviously extraordinarily complex, enmeshed as they are in the multiple cultural, social, economic and infrastructural networks in the urban environment. Saying everything about them would seem an impossible task, especially if one were to attempt to programmatically define every possible experience a user could have there. Instead we should begin to think of these sites (metaphorically) as ‘state spaces’ whereby the data set defines not all the possible states of a complex system (as the term is commonly used), but rather everything that has been said about a particular place. In this way, we build up a portrait of the social, historical and embodied experiences of a place, or what Lefebvre refers to as a site’s “texture”:

A spatial work (monument or architectural project) attains a complexity fundamentally different from the complexity of a text, whether prose or poetry. As I pointed out earlier, what we are concerned with here is not texts but texture. We already know that a texture is made up of a usually rather large space covered by networks or webs; monuments

constitute the strong points, nexuses or anchors of such webs. The actions of social practice are expressible but not explicable through discourse: they are, precisely, *acted* - and not *read*. A monumental work, like a musical one, does not have a 'signified' (or 'signifieds'); rather, it has a *horizon of meaning*: a specific or indefinite multiplicity of meanings, a shifting hierarchy in which now one, now another meaning comes momentarily to the fore, by means of - and for the sake of - a particular action.

(Lefebvre 222)

Note that for Lefebvre, what is important at any given time is determined by the affordances, or the “action possibilities” latent (and sequentially recognized) in the space; it is a model of understanding space that denies the representational model in favour of the performative act (or act of perception). What narrative spatial annotation projects do is map places linguistically in multiple dimensions at once, contributing to an overall understanding of the texture of a space. This texture, I would argue, *constitutes a kind of state space that iteratively and aggregately serves to define its meaning in practice.*

Urban Tapestries & Social Practices

Urban Tapestries (UT), designed by the Proboscis group, takes a somewhat different approach to affixing data to places both in its use of technology and—to a certain degree—its emphasis. The system uses wi-fi enabled PDA's and cell phones to author and receive information about places, and aims to explore “how multiple layers or threads of meaning may be woven or inserted within the environment in a form of collaborative authoring characterized by multiplication, as well as localization, of perspective” (Hemment 351). Unlike [*murmur*]'s system which only allows the user to hear one story at a time, the *UT* system allows users to see

multiple strands of stories, authored by multiple users simultaneously. This ability to readily change the scope of the data and directly interact with the database is not possible with many other systems. The system is much less theatrical than [*murmur*] and more technologically mediated, however at the same time it also tends to give a better idea of spatial textures, produced by multiple users over time. “As the name suggests, [*Urban Tapestries*] aims to knit together many layers of narrative and discourse over the topography of the city” (Jungnickel 3).

The system was based on an 802.11b mesh network in the Bloomsbury district of London, using a GPS-enabled HP iPAQ 5459 PDA's to deliver content; subsequent iterations used Symbian-based SonyEricsson P800 phones running on the GPRS network in a 3km² of Central London (Lane 8). The *UT* client uses a metaphor of “pockets” and “threads” to indicate sites of interest and the connections between them as indicated by the author. The client provides a map view, active pocket view and a directory view of authors and pockets. One is able to pan and zoom on the map, viewing multiple threads simultaneously; in this way, the user can select whether he/she wants to follow a particular author's thread, or merely find the nearest available pocket of data. The system allows for the inclusion of multimedia content such as text, drawings, images, film or sound, with photographs and text being predominant. Over time, *UT* has added RSS feeds for the system, “allowing people to subscribe to content created by individual authors, threads, as well as to create their own custom feed within a radius (100m, 500m, 1km or 5km) or a geographic place of their choosing” (Proboscis 2005). More recently, a Flash version of the system was made available in order to make it more hardware agnostic, and the project has been rebranded *Social Tapestries* to account for new technological and research concerns.

The stated purposes of the system are “first, to provide a system meant to bring out the

richness of local histories and personal experiences into the street. Second, to establish a public resource for local information similar to the geographic equivalent of the internet” (Silverstone & Sujon 8). In reaction to the use of ICT and Location Based Services as marketing tools, Proboscis set out to emphasize the multi-faceted nature of social life in the city, beyond a one-dimensional consumerism: “Actual daily life is richer and more complex than this, relying as much on social networks, personal experiences and chance interactions and connections. We believe that pervasive wireless and mobile platforms should attempt to reflect this richness and complexity, rather than re-purposing solutions designed for a different age” (Lane & Thelwall 9). Similarly, they critique the reductionism of point-based models of location in favour of a place-based model characterized by relationships, since the fact-location model “tells us nothing of the context or the situation, let alone the person responsible. Public authoring proposes the building of relationships to geographic places, and extending these relationships further by linking them to other places, people and things. It is associative – building up connections and making meaning through accretion and emergent patterns” (Lane & Thelwall 11). The importance placed on context, relationships and connections is exemplary, since it demonstrates a full understanding of the complexity of spatial textures—an appreciation that is often neglected in many locative media works.

Nick West notes that, “In the process of our research, we realised that we were attempting to define the common ground between two strands of urban behaviour: the spatial and the social (West 3). This emphasis on the social is the main concept that distinguishes *Urban Tapestries* from other spatial annotation projects. For its creators, “social knowledge” as an important part of what they are trying to cultivate through the public authoring system: “Social knowledge is a deliberately flexible term used by Proboscis to talk about the ephemeral communications that are

the glue of society and communities: the everyday and essential sharing of information, stories, knowledge, memories and stories with friends, family, neighbours and strangers. Social knowledge posits communication as story-telling, a social and cultural practice that is not just informational or practical” (Lane & Thelwall 9). *Urban Tapestries* attempts to get away from conceiving of communication as merely fact-based and objective, by underscoring the multiplicity of communicative practices and styles that human beings actually engage in, and contrasting them with the instrumental, hierarchical and factual modes of communication that broadcast media typically prioritizes.

The decentralized nature of public authoring also means a subversion of the hierarchical structures that normally typify time-biased ritual or oral practices like storytelling. As is the case with *[murmur]*, the “view from above” extolled by museums, city planners or expert historians is replaced by a “view from the street”, changing the way information is produced and authorized. This democratization of knowledge production also affects our relationship social space since “[t]echnologies and practices like public authoring allow us to construct our own modes of inhabitation, to occupy and communicate the beyond physical limits of places, to treat the city as a kind of conversation where community and communal life begin to collapse physical boundaries and become structured by different paths, be they emotional, cultural, spiritual or linguistic” (Lane & Thelwall 12). Sites of individual, personal significance can be exchanged and shared across the system, providing sites with a place identity; conversely, the “claiming” of a site on the part of an author is also an act of public identity formation: places are important to a person because of who they are and what they find significant in the world. The claiming of a place through public authoring also “promotes a sense of control not only over users’ territories, but also over their boundaries and their own role in those territories” (Silverstone & Sujon 34).

This implies a negotiation of boundaries with others, and an acknowledgement of the varying roles the individual plays in public space.

In Joe's thread on *UT* (Silverstone & Sujon 60), three different pockets have widely varying roles associated with them. At Victoria House, he observes that "[o]utside are some parking spaces allocated for motorcycles. A few weeks ago, the searing London heat melted the tarmac under my friend's bike, causing it to fall over and break the handle bar." It is a memory or a curiosity piece that frames Joe as the concerned friend. A second entry about The Book Warehouse describes it as a "Small but lovely looking bookstore. Good for value and has a wide variety of arty/cultural books that are hard to find elsewhere. May pop in to look for a book for my girlfriend!" This entry situates Joe as both a consumer and boyfriend, while at the same time providing useful information to the user about what one might find in the bookstore. A final entry about the Russell Street Garden informs us that it is a "Grade II listed landscape under current restoration to return it to its 1800's origins. Nice and chilled, with a small cafe to relax in. However its close proximity to the busy Southampton Row means that it never has that feeling of total seclusion." This entry puts Joe in the role of historian and connoisseur of coffee shops, while giving us both interesting factual information about the site as well as the kind of experience we can expect there. Though differing widely in their content, each of these pocket positions Joe in a role in relation to a given space and provides a basic sensory or aesthetic impression. Despite their brevity (perhaps a result of cell phone text capabilities) each entry provides us with a useful bit of information, even it is where not to park your motorbike. Given hundreds of such impressions about a place, one would have a very good approximation of its overall spatial texture, in the same way that multiple brush strokes on a canvas contribute to form an impressionist painting. The scalability of *UT's* public authoring system makes it highly

additive, in the sense that more users and content give a more detailed and comprehensive sampling of a site's overall spatial texture.

It is important to recognize, however, that the production of content is always *for* someone—an implied or imagined audience. This works both at the level of production and reception; we might have someone “in mind” when we write a spatial annotation or seek out sites specifically to write about them, but we also are more aware as audience members that there could be content out there waiting for us. One user notes that, “Knowing that there was content around me made me think and behave differently in otherwise familiar streets and squares. I looked around more, and thought more about information I could usefully offer to others” (Posted by david at December 13, 2003 04:09 PM). The user (david) “thinks and behaves differently” because of the practice of reception—he is attuned to content and his environment has become defamiliarized. As a producer, he seeks out content and information he “could usefully offer to others”; engagement with his surroundings changes as he tries to imagine another subject position. Another user comments that, “I'd like to go out on different days in different moods and sometimes write biographical stuff, sometimes complete fantasy” (Posted by Jemima at December 14, 2003 07:39 PM). There is an appreciation here of the role of mood and perception in the act of production, and the fact that this user is writing creatively indicates a specific type of ideal reader.

These users are involved in the production of a collective memory for a particular community, through the use of public authoring. “*UT* offers a way to challenge the forgetfulness of place, the disappearance of ‘customs, traditions and folkways’ into familiarity – and aims to translate the invisibility of these things for those using the system. In this sense, *UT* facilitates memory, association and connotation – all of which are experiences that theoretically, would

enrich one's relationships to and with local places" (Silverstone & Sujon 30). As M Christine Boyer notes in her book *The City of Collective Memory* (1994), the modern notion of a teleological history "banished subjective storytelling, eliminated the dangers otherness, and eradicated lived traditions so that it could substitute instead a fictional order of time progressing toward the future, ever improving upon the past" (Boyer 21). History in the Eighteenth and Nineteenth-Centuries was told as a monolithic story of civilization, and dispensed with micro-histories and historiography. In our own era, micro-histories have undergone a resurgence as we rediscover those subjects left out of official history. However, where collective memory was once primarily an oral affair (if you wanted to know something about a place, you asked an elder about it) new technologies such as *Urban Tapestries* allow these stories to be distributed digitally, preserving the folklore of a place by new means. Furthermore, it allows a community's collective memory to grow organically through performative, social interactions over time.

"Space is less the already existing setting for such stories, than the production of space through that taking place, through the act of narration" (Donald 183). Space is continually being produced through social interaction, stories and acts of collective memory; it emerges through a sustained process of phenomenological engagement and discursive negotiation. Space resists absolute definition, since static representations can only provide a single, synchronic snapshot of the identity of a space. This is what Thrift means when he says that the "world is not a reflection but a continuous composition" (Thrift 2021). We must take into account time-based, performative engagements with a space, lest we fall into the trap of providing instrumental representations devoid of context, relationships and subjectivity. Any description of a space is necessarily provisional, multiple, and temporally specific, rather than static, unitary and permanent.

Towards Spatial Hypertexts & Emergent Meaning

As locative media projects like *[murmur]* and *Urban Tapestries* have matured and expanded, they become less like spatial annotation and more like place-oriented spatial hypertexts (cf. Shipman & Marshall 1999). In the case of *[murmur]*, the hypertext pages or lexia are tied together through proximity and the act of walking; for *UT*, the threads of connection between pockets act as links between annotated sites. The important point is to avoid having a Muybridge-like set of point disconnected from each other in space and meaning. Conceiving of these projects as hypertexts risks falling into the same navigational metaphors that plague the Web and some databases more generally; such metaphors can lock us into the same space-biased framework that *[murmur]* and *UT* attempt to critique: static representations that ignore relational patterns, iterative changes and the social construction of meaning. While search engines, Web 2.0 applications and the Semantic Web attempt to overcome some of these difficulties, the problem is in many ways tied to our governing model of synchronic representation.

Instead of links and lexia, edges and nodes, perhaps we should begin to think of links as a shared set between two state spaces (pages or lexia) that are performatively produced linguistically and temporally emergent in terms of aggregate meaning. One can see this process at work on the edit pages of Wikipedia (www.wikipedia.org) for example, where through a process of discursive negotiation and iterative editing, a temporary consensus is reached as to the social meaning of a term. Links to other terms and entries indicate literally a “shared set” of meanings and overlapping state spaces within the larger linguistic system. Like the spatial textures collaboratively constructed by locative projects, meaning is defined through an iterative process of performative, time-based ontology. Similarly, projects like the Wayback Machine

(<http://www.archive.org/web/web.php>) provide a deep archive of the web, mapping shifts in meaning and relationships over time.

What might a database of meanings based on iterative performativity and socially emergent meaning (as opposed to static representations) look like? That question remains largely an open one, although I believe that metaphors like state spaces and spatial textures can help us think this question through. Locative projects like *[murmur]* and *Urban Tapestries* provide interesting case histories in the social production of meaning: meaning that spans both the real world and the imaginary spaces of digital media. Such projects are simultaneously time and space-based media, depending as they do on material sites and digital, narrative descriptions. As hybrid media, I feel they still have a great deal to tell us about how we ascribe meaning to places and objects over time, as well as providing parallel insights into the structural processes of meaning-production itself.

Chris Eaket
Hypertext and Hypermedia Lab
Carleton University

References

- Adams, Paul C., Steven Hoelscher and Karen E. Till. "Place in Context." in *Textures of Place: Exploring Humanist Geographies*. Ed. Paul C. Adams, Steven Hoelscher and Karen E. Till. Minneapolis: University of Minnesota Press, 2001. pp. xiii-xxxiii.
- Albert, Saul. "Locative Literacy." *Mute Magazine*. Vol #29 (12 July 2004). 9 Aug 2004
<<http://www.metamute.org/en/Locative-Literacy>>
- Alderman, Nathan. "Using Cell Phones as Neighborhood Tour Guides." *New Voices*. (27 Dec 2004). 20 Sept 2005
<http://www.j-newvoices.org/site/story/using_cell_phones_as_neighborhood_tour_guides/>

- Arnall, T. "Marking in Public Space." Proceedings of Engaging the City Workshop, CHI 2005. Portland, OR. 2-7 April 2005.
- Austin, J.L. *How to Do Things with Words*. Oxford: Clarendon Press, 1962.
- Beck, Alan. "Cognitive Mapping and Radio Drama." *Consciousness, Literature and the Arts* 1:2 (July 2000). 20 May 2006
<<http://blackboard.lincoln.ac.uk/bbcswebdav/users/dmeyerdinkgrafe/archive/cog.html>>
- Butler, Judith. *Bodies That Matter: On the Discursive Limits of Sex*. New York, NY: Routledge, 1993.
- Bourdieu, Pierre. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press, 1977.
- Bowness, Anna. "Tales of Toronto." *Utne Reader – Online* (01 Nov 2004). 03 Dec 2005
<http://www.utne.com/2004-11-01/TalesofToronto.aspx>
- Carey, James W. *Communication as Culture: Essays on Media and Society*. New York: Routledge, 1989.
- Corino, Gianni. "Spatial issues and performative media in digital mobility: a network perspective." (10 Jan 2006). 11 Mar 2007 <http://x.i-dat.org/~gc2/digital_mobility.pdf>
- Donald, J. "This, Here, Now: Imagining the Modern City." in *Imagining Cities: Scripts, Signs, Memory*. Ed. S. Westwood and J. Williams. London: Routledge, 1997. pp. 179-200.
- Eye Weekly* (Unattributed). "Walk Softly, Carry a Tiny Phone." Wandering Eye Section. (25 Sept 2003). 16 Jun 2006 <http://www.eye.net/eye/issue/issue_09.25.03/city/wandering.html>
- Haraway, Donna J. *Simians, Cyborgs, and Women: the Reinvention of Nature*. New York: Routledge, 1991.
- Harvey, David. *The Condition of Postmodernity*. Oxford: Blackwell, 1989.
- Hemment, Drew. "Locative Arts." *Leonardo* 39:4 (2006): pp. 348–355.
- Hunter, Mike. "McLuhan's Pendulum: Reading Dialectics of Technological Distance." in *The Sarai Reader 03: Shaping Technologies*. Ed. Jeebesh Bagchi. Faridabad, India: Thomson Press, 2003. Pp. 144-156.
- Innis, Harold A. *The Bias of Communication*. Toronto: Toronto University Press, 1964.
- Johnson, Steven. *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. New York: Penguin, 2001.
- Jungnickel, K. "Urban Tapestries, Sensing the City and Other Stories." (9 June 2004). 9 July

2004 <http://proboscis.org.uk/publications/SNAPSHOTS_sensingthecity.pdf>

Kaye, Nick. *Site Specific Art: Performance, Place and Documentation*. New York: Routledge, 2000.

Kim, Jin Hyun and Uwe Seifert. "Embodiment and agency: Towards an aesthetics of interactive performativity." *Proceedings from SMC '07: The Fourth Sound and Music Computing Conference*, Athens, Greece: National and Kapodistrian University of Athens, 2007: pp 230-237.

Lane, G. "Social Tapestries: Public Authoring and Civil Society." (1 Feb 2005). 16 June 2006 <http://proboscis.org.uk/publications/SNAPSHOTS_socialtapestries.pdf>

Lane, Giles & Sarah Thelwall. "Urban Tapestries: Public Authoring, Place and Mobility." (23 Oct 2006) 1 Jun 2008 <http://socialtapestries.net/outcomes/reports/UT_Report_2006.pdf>

Lefebvre, Henri. *The Production of Space*. Oxford: Blackwell, 1991.

Mackenzie, A. "Transduction: invention, innovation and collective life." (20 Mar 2003). 29 Oct 2006 <<http://www.lancs.ac.uk/staff/mackenza/papers/transduction.pdf>>

McDowell, Linda. "The Transformation of Cultural Geography." in *Human Geography: Society, Space, and Social Science*. Ed. Derek Gregory, Ron Martin, and Graham Smith. Minneapolis: University of Minnesota Press, 1994. pp. 146-173.

Micallef, Shawn, Gabe Sawhney and James Roussel. "[Murmur] Toronto Homepage." (7 Aug 2003). 20 Sept 2005 <<http://murmurtoronto.ca/about.php>>

O'Donovan, Caitlin. "Murmurings: An Interview with Members of the [Murmur] Collective." *Year Zero One Forum* Vol. 12 (Summer 2003). 20 Sept 2005 <<http://www.year01.com/forum/issue12/caitlin.html>>

Proboscis. "Urban Tapestries: Public Authoring in the Wireless City." (24 Feb 2005). 13 Oct 2005 <<http://research.urbantapestries.net>>

Rossi, Cheryl. "Green Ears Reveal Chinatown's Secrets." *The Vancouver Courier Online*. News section. (10 Aug 2005). 24 Oct 2006. <<http://www.vancourier.com/issues05/082105/news/082105nn6.html>>

Ryan, Carol-Ann. "Listen to the [Murmur]." *Surface & Symbol* 18:5 (June 2006). 6 Aug 2006 <http://web.archive.org/web/20060806051832/http://www.scarborougharts.com/sac/surface_symbol/july06/july06_murmur.htm>

Ryan, Marie-Laure. "Cyberspace, Cybertexts, Cybermaps." *Dichtung-Digital* 5:31 (1/2004) 19 Oct 2004 <<http://www.dichtung-digital.org/2004/1-Ryan.htm>>

Toman, Sam. "[Murmur] Whispers Sweet Something in Your Ear." *Sceneandheard.ca* 5:6 (30

Sept 2003). 20 Sept 2005 <<http://www.sceneandheard.ca/article.php?id=260&morgue=1>>

Tuters, Marc and Kazys Varnelis. "Beyond Locative Media." *Leonardo* 39:4 (2006): pp. 357–363.

Shipman, Frank M. & Catherine C. Marshall. "Spatial Hypertext: An Alternative to Navigational and Semantic Links." *ACM Computing Surveys* 31:4es (Dec 1999).

Silverstone, Roger and Zoetanya Sujon. "Urban Tapestries: Experimental Ethnography, Technological Identities and Place." *LSE Electronic Working Paper No. 7*. (11 Feb 2005) 1 Jun 2008 <<http://www.lse.ac.uk/collections/media@lse/pdf/EWP7.pdf>>

Thrift, N. "Performance and ..." *Environment and Planning A* Vol 35 (2003): pp. 2019-2024.

West, Nick.. "Urban Tapestries: the spatial and social on your mobile." (27 Jan 2005). 16 Jun 2006 <http://proboscis.org.uk/publications/SNAPSHOTS_spatialandsocial.pdf>

Whyte, Murray. "Telling Signs of Our Heritage." *The Toronto Star* 29 Aug 2004: B06.

Wittgenstein, Ludwig. *Philosophical Investigations.*, Ed. G.E.M. Anscombe and R. Rhees. Trans. G.E.M. Anscombe. Oxford: Blackwell, 1953.