LEONARDO on-line

Leonardo | Leonardo Music Journal | Leonardo Electronic Almanac | Book Series | Leonardo Reviews | OLATS | Activities and Projects | About Us

2006

-- online since 1993

ISSN NO : 1071 - 4391   The MIT Press

Home > Journal > Essays

QUICK LINKS : Please select...

Locative Viscosity: Traces Of Social Histories In Public Space

vol 14 issue 03

SEARCH LEA

GO

Advanced Search

Locative Viscosity: Traces Of Social Histories In Public Space

by Lily Shirvanee
Department of Media Arts and Sciences
Massachusetts Institute of Technology
Department of Architecture, Cambridge University
Darwin College, Silver Street
Cambridge, CB3 9EU
United Kingdom
lilys [@] media [dot] mit [dot] edu

KEYWORDS

locative media, public space, 'underground public art', collective intelligence, viscosity, social networks, mobile artifacts.

ABSTRACT

This essay is an exploration into the social issues that emerge when mobile technologies that have become increasingly locative begin to exist in public spaces. A constant thread throughout this paper is the concept of °viscosity°, where physical deformations of a locative media can also lead to social deformations of a space. In this article, I describe the antecedents to locative media along with several recent locative media projects. I will assert that the social networks and collective attention created by location-based media are also an attempt to respond to, in Walter Benjamin's terms, a state of distraction and disconnectedness that is thought to exist in the contemporary urban life. This essay examines a thickness in space - linkages between people using external artefacts through which strangers and non-strangers alike may leave traces of themselves and communicate their desires, anxieties and histories in the shared places that they inhabit.

_____

LOCATIVE MEDIA

As locative media is a phrase that can have broad meanings, from a metaphorical expression representing a set of connections, to a descriptive term for information and devices that are associated with a physical location and/or with one another, it is important to identify how it is connoted here. It is defined in this essay as media that actively create and sense a reciprocal awareness between people and their environment, thereby, merging various types of information and media within the limits of specific geographic landscapes; these limits may vary in dimension from a specific point in a landscape to large areas of space such as nodes and pathways. Here, locative media is both the mediating technology and the datastreams being exposed and exchanged.

SOCIAL VISCOSITY

According to Newton's theory, viscosity is the character of any flow with layers that move at different velocities; the 'denser' the fluid, the greater its resistance to opposing forces and the more rapidly it becomes balanced. Emergent collective activity in social groups creates a condition that I call a 'social viscosity', where high connectivity and a velocity of flow create a resistance to bring about a trend of movement. Here, viscosity is defined as a dynamic force of flow between social groups that can form depending on levels of communication, ranging from the private to one that is very public.

In his celebrated work, *The Work of Art in the Age of Mechanical Reproduction*," Walter Benjamin discusses the contemporary alienation of the urban dweller inundated to distraction by the stimulus of modern twentieth century cities [1]. Within this

urban perspective, I want to look at the space that location-based media generates and the nature of viscosities of flow that are projected from and implied by collective activities there. When information can actively find you on the street, there is a viscosity of space that forms between strangers with locative media, creating landscapes charged with traces of others that have inhabited the same space. In this early stage of location-based media, a greater connectivity and interaction between people who share a common interest, is thought to hold the promise of invigorating the public sphere to create an awareness and, therefore, a vitality of activity and public dialogue in spaces that might otherwise remain stagnant. I will try to show that this optimism endeavors to create an awareness among people that stems from an interpretation of disorientation and distractedness in contemporary urbanity.

CONCEPTIONS OF PUBLIC SPACE
Public space is leaving home.
- Vito Acconci

In *The Production of Space*, Henri Lefebvre describes space as a social phenomenon where history accounts for the "interrelationships of spaces and their links with social practice". He argues that the production of space is grounded in inherent conditions, where traces of social existence are forever creating our histories and our perception of space [2].

Our notions of public space typically stem from ancient civilizations, where public space was often defined by grand central plazas, market places, and heroic monuments. As industrial technologies, such as the trains and automobiles of the late nineteenth century and the early twentieth century, brought about an ease of motion to everyday lives, the private motorcar not only shifted definitions of what was considered 'public' and 'private', but it also shifted notions of public and private space. The open space around the mass of office towers in cities came to serve as pass-through areas, and public space has come to be a place of movement. As notions of 'public' space have been shifting from that of centralized grand spaces to moving thoroughfares, activities within these spaces have changed as well.

As a city planner in the 1950s, Kevin Lynch looked at elements of movement and the subsequent possibility for disorientation in the urban landscape. In his seminal work, *The Image of the City*, he studies three different American cities, moving west from Boston, Massachusetts and Jersey City, New Jersey to Los Angeles, California to look at urban identities and to understand how people imagine themselves in their cities. In his explorations, he notes that "moving elements in a city, and in particular the people and their activities, are as important as the stationary physical parts"[3]. He considers the urban dweller to be a part of the spectacle that is "on stage with the other participants". Lynch also suggests that we perceive our own cities as a sort of fragmentary composite of spaces that we have had long associations and have, therefore, created memories and meanings in those spaces. Within the "chaos of the modern city", Lynch hypothesizes that 'image development' can be strengthened by a dialectical process between the observer and his or her surroundings; as an attachment forms wherever the perceiver reshapes her or his surroundings and becomes a participant.

SOCIAL HISTORIES AND PUBLIC SPACE
The graffitists themselves come from the territorial order. They territorialize decoded urban spaces – a particular street, wall or district comes to life through them, becoming a collective territory again.
- Jean Baudrillard

If we look to our recent history, we might see traces and stories woven through underground sticker and graffiti art movements; tracing from the early 1930s hobo signatures on freight trains, numerous schools of graffiti art have emerged to make political and/or territorial statements [5]. The origins of graffiti date back to early civilizations, where graffiti has been found on the walls of Pompeii, on ancient Egyptian monuments, and the cave of Lascaux. More recently, in the "New York School" graffiti movement of the 1970s, individual underground artists wrote on subways with their own particular style that grew a sub-culture of symbolic messages with political assertions to be seen in the public realm. Hip-hop graffiti was part of a vibrant street culture in New York City in the 1970s that grew into the downtown Manhattan art scene by the 1980s. Because signs and symbols play a significant role in graffiti culture, information can spread across various social networks and along many countries via symbolic imagery and writing. In diverse cities such as Barcelona and Tokyo, today we see the influence of those earlier movements in the symbols and the style of graffiti that continue to proliferate.

In the 1980s, another type of symbol began to spread in the tagging of sticker-graffiti by a burgeoning skate-boarder culture. Stickers such as Andre the Giant have moved from a small subculture of skaters in Providence, Rhode Island, to a larger, global culture of sticker artists. In 1999, *Sticker Shock: Artists' Stickers* displayed this 'underground sub-culture' of sticker art that had previously been posted and read solely in public urban areas [6]. Since then, a number of other sticker art websites, such as *StickerNation.net*, have grown to a global audience of participants who create and broadcast sticker art as messages to each other in urban environments [7]. Today, finding a sticker with the text "OBEY" in a public space reveals a significant meaning to those sub-cultures involved and resonates out to the general public as a universal mark of this movement. Shepard Fairey, the artist who created the *Andre the Giant* sticker, continues to create new forms of this sticker, evolving it as he reacts to other people's reaction of the image. The significance of the underground sticker phenomenon is not as much about the messages that they reveal but, rather, in the vitality of sticker campaigns; it is in the pervasiveness with which they continue to grow, evolve, and disseminate in public spaces around the world.

COLLECTIVE INTELLIGENCE

Over the past decade, the emergence of greater numbers of people using mobile devices in urban cities has created a culture of mobile communities that has begun to resemble some of what technology and cultural critic Kevin Kelly describes as the key characteristics of so-called 'swarm systems'. Some of the characteristics of 'swarm systems' include the absence of imposed centralized control along with autonomy and high connectivity among the smaller groups and individuals [8]. In human social groups, because these 'swarm systems' have the ability to connect in transitory space, large-scale populations of people begin to exhibit a "collective intelligence", where the actions of one has a greater consequence on the whole. An example of this behavior with new technologies was seen in the Philippines in 2001, where an ad-hoc group of people demonstrating against their government began texting on mobile phones from one phone to another with political jokes that later spread to information about the location of demonstrations. This spontaneous activity ultimately led to the resignation of President Joseph Estrada.

A compelling consequence that emerges from location awareness is the nature of unplanned connections between people and their environment, where an additional layer of meaning that might otherwise go unnoticed becomes visible. Location-aware media are also thought to become social communication artefacts, where tools that enable authorship and that link social information can create a connective viscosity of space to be overlapped and shared between the local and the newcomer While current locative media begin to touch upon the coincidence of improvised acts within a locational context, as greater numbers of media artefacts encode shared spaces and engage a public dialogue, there is a potential for the space between individuals and their environment to become the site of spontaneous formations of collective activity in our common places. This viscosity of space is perceived as a bond that may exist not only between people with established relationships who can find each other 'on the street' in a mobile context, but also between strangers, thereby inspiring a new community and, possibly, creating the potential for a more democratized public space.

As with any democratized or freely accessible space, the most vociferous may, at times, reign. It would be somewhat naïve to propose a singularly idealistic scenario where all of the media in the environment is desired. Along with the potential for an emerging social discourse among individuals is the unwanted surveillance and solicitation emanating from advertisers, spammers, and agencies of control. It will be significant to find how locative viscosities of social discourse and social spam collide and how groups of people may collectively detect and deflect the intrusion from unwanted spammers. In this nascent stage of locational media there is a hope that collective dissent will overpower the gimmicks of conventional advertising - but could this newfound connectedness also generate other types of alienation where our concerns of being observed may contribute to a mood of active ignorance as we pass through our public space?

AUTONOMOUS IDENTITIES

Digital media art installations that have attempted to engage a social dialogue with an aim towards individual autonomy and a democratized space have been based around urban narratives. In works such as such as those by artist Krzysztof Wodiczko, he proposes a design practice that confronts historical space with what he terms the "memory of the nameless" [9]. One of these artifices for social engagement is Wodiczko's *Alien Staff*, which is both a symbolic form (resembling a Shepard's rod) and a storytelling device. A small video display at the top of the rod is meant to provoke observers to become engaged with their curiosity in moving closer to the

screen, and closer to the presence of the 'immigrant'-alien. Wodiczko focuses on creating a space for the "nameless' where a city may engage in a consciousness and democracy through the sharing and understanding of people's experiences that might otherwise remain unknown. An ongoing theme that is woven through Wodiczko's work is the concept of maintaining democracy through "autonomous identities". In one example, he proposes an "interruption of the victors [of history] by the nameless...through the design and implementation of a new psycho-cultural artifice, ...which on the one hand will encourage the stranger to open up and on the other hand will encourage others to bring themselves closer to the stranger's experience and presence" [9].

MOBILE STREET CULTURE

As paths of social activity are made possible by the augmentation of geographic space with locative information, an invisible layer of association emerges. One prevalent activity of the mobile street culture is to engage in locative games. Botfighters is an example of a game that is notorious for being one of the first location-based games using text messaging [10]. Botfighters are opponents who track each other down in urban neighborhoods and streets. Players' mobile phones provide them with information on where other opponents are, and the phone acts as a medium for battles and chats. Mobile positioning is used to determine the distance between players and indicate when another is at close enough to tag or be hit.

While the interface is merely a mobile phone with text messaging capabilities, the spatial context of the urban street and being 'tracked down' in such a territory adds significantly to the emotional aspects of the game. One player describes his experience here:

"When you get a reaction from another player, the rush is...tremendous, [and] I know that that person gets the same sort of rush that I get."

In the complexity of the urban context, this game becomes a tool for mediation – a tactical device that not only enables strangers within a locative range to communicate with each other, but it also has the potential to create a sort of empathic reaction between individuals and may, on a larger scale, create ripples of familiarity across a society of gamers.

Another precedent for locative activities of improvised communication along an urban landscape was *Sound Mapping* (1997). *Sound Mapping* used geographical location with DGPS (a combination of radio and GPS) to create an interactive urban environment where participants could generate sounds using mobile sound-sources/transmitters along predefined paths to produce a collaborative composition that was broadcast to the public [11]. Today, as social software for mobile devices allow for more complex interactions and communication, *Sound Mapping's* interaction may seem simplistic, yet with this simplicity it succinctly addressed the idea of attaching oneself to a localized space and leaving a story, a sound along a path.

A more recent project that touches upon the idea of 'social viscosities', in that it attempts to create boundaries between social communication artefacts and the urban landscape, is the *Familiar Stranger* project (2003). The *Familiar Stranger* is psychologist Stanley Milgrim's concept of strangers that are repeatedly observed by each other without interaction; where "both parties agree to mutually ignore each other without any implications of hostility" [12]. Rather than being locational within a specific geographical region, the *Familiar Stranger* project is an example of a locative beacon between wearers of the project's device, where a clip-on device displays degrees of familiarity (via red, green, or blue light) among people passing each other. The authors' declaration that they are not interested in creating "a friend finder, matchmaking device, or system that explicitly attempts to convert our strangers into our friends" [12], is an example of a concern with boundaries between the individual and the urban community and the ways in which we can orient ourselves, yet not to the point of distraction. It is interesting in that it is an attempt to connect with the environment (where strangers are a part of the milieu) and, simultaneously, to maintain a distance from it. However, in the act of engaging each other with these devices, there is an implicit shift in the boundaries that maintain distinct levels of distance.

In a related approach, *Umbrella.net* (2004) engages networks within the public landscape by looking to coincidental encounters and ad-hoc associations that form from "haphazard patterns of weather and crowd formation". Instead of finding familiar strangers defined by a path or route, here strangers and non-strangers are found in "haphazard and unpredictable" circumstances. Umbrellas are seen as "a set of

connected nodes that can spontaneously form based on weather conditions" to share localized information [13]. The level of information shared is contained within a locational boundary, but it is of a greater complexity than basic familiarity. The authors' aim is to enable participants to engage with each other and for the general public to visualize the formation of these networks that might otherwise remain invisible.

Based around Lefebvre's notion of the production of space through traces of social histories, the *Viscous Display* (2002) similarly attempts to reveal traces of activity and enable social engagement in the dissemination of iconic graphic messages throughout urban environments. In an ad-hoc system, distributive networks of flexible graphic displays have an adaptive, transient quality, whereby, they can be moved and can recall information specific to changing locations. Similar to stickers that are left in public spaces, people can leave messages by picking up the displays, interacting with them, and then replacing them in various locations [14]. Whereas, the previous projects enable communication through personal devices or along a centralized network, here, the displays are thought of as interpersonal 'sticky' artefacts to be left in public spaces, and they act both as locative beacons in the context of how they relate to passers-by and as location-aware media in terms of their relationship with information they circulate. In this work, the level of information shared is localized and ranges from the private to very public, depending on the degree of familiarity in the icons being displayed.

Proboscis' *Urban Tapestries Project* (2004) also engages both the physical and the virtual realm by allowing users to annotate their own virtual city and proposes to enable wireless access to 'threads' that link locative information with social threads to be viewed within a centralized system. Participants are given mobile phones that have been adapted to constantly keep track of their locations and enable them to leave notes at specific locations for other people to read [15]. Here, the interaction is not as public, it is not broadcast through sound or light, but is left to the participants to decide to engage within their chosen environment. Socially, it allows for much broader and less localized interactions than projects such as *Sound Mapping*, *Umbrella.net* and *Viscous Display*, where participants may not observe each other, yet they may communicate along larger landscapes. One of the aims of the work expressed by the authors is to "facilitate the negotiation of boundaries" and within their ethnographic research their assertion is that they have found "that it does augment notions of connectivity to place and to those within that place. However, [their] research also revealed that some do not interpret this connectivity positively".

Within many of these locative media works, there is a desire to mark a territory, weave a story, acknowledge an association, and to create connections and attachments in the seemingly disoriented and distracted scattering of the contemporary urban landscape. The expectation is that these voices of community will be able to converge in order to deflect and disrupt agencies of political and commercial control that are also vying for the same space. Among the social, locative viscosities of the mobile street culture, which groups will have the greater density? As these mobile social artefacts grow, it will be important to discover if the optimism and the efforts of connecting society can override banal social spam and surveillance.

———————————————————————

REFERENCES
1. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction", in *Illuminations*, Hannah Arendt (ed.), Harry Zohn (trans.) (New York: Schocken Books, 1968).

2. Henri Lefebvre, *The Production of Space*, Donald Nicholson-Smith (trans.) (Oxford: Blackwell, 1991).

3. Kevin Lynch, *The Image of the City* (Cambridge: MIT Press, 1960).

4. Jean Baudrillard, "Symbolic Exchange and Death", in *Theory, Culture, and Society series* Vol. 25, (London: Sage Publications, 1993).

5. Graffiti History @ 149 St, http://www.at149st.com/.

6. Sticker Shock: Artists' Stickers; Exhibition at Institute for Contemporary Art, University of Pennsylvania, 15 January – 7 March 1999.

7. Sticker Nation, http://www.stickernation.net.

8. Kevin Kelly, *Out of Control: The New Biology of Machines, Social Systems and the Economic World* (New York: Perseus Publishing, 1995).

9. Kryzysztof Wodiczko, *Critical Vehicles: Writings, Projects, Interviews* (Cambridge: MIT Press, 1999).

10. Botfighters.com, http://www.botfighters.com/.

11. Iain Mott and Jim Sosnin, "Sound Mapping: An Assertion of Place", in the *Proceedings of Interface 1997*, http://www.reverberant.com/SM/, 1997.

12. Eric Paulos and Elizabeth Goodman, *Familiar Stranger Project: Anxiety, Comfort, and Play in Public Places*, http://berkeley.intel-research.net, 2003.

13. Jonah Brucker-Cohen and Katherine Moriwaki, *Umbrella.net*, http://www.undertheumbrella.net, 2004.

14. Lily Shirvanee and Glorianna Davenport, "The Viscous Display: A Transient Adaptive Interface for Collective Activity in Public Space", in the *Proceedings of Graphite 2003*, June 2003.

15. Roger Silverstone and Zoetanya Sujon, *Urban Tapestries: Experimental Ethnography, Technological Identities and Place*, http://www.proboscis.org.uk /urbantapestries, 2004

AUTHOR BIOGRAPHY

Lily Shirvanee is an architect and artist currently studying for a Ph.D at the University of Cambridge, U.K. Prior to studying at Cambridge University, she received a Masters in Media Arts and Sciences at Massachusetts Institute of Technology (MIT). She also holds a Bachelors and Masters in Architecture and has practiced architecture in California and Japan.

Her work focuses on the visual, corporeal and social expression between mediating technologies and architectural space. Her research areas are in the intersection of artificial intelligence, haptics, social networks, and conceptualizations of space.

Shirvanee's work has been presented in Canada, the U.S., Mexico, Europe, and Japan. Her previous work has included *The Living Book of the Senses*, presented at the Banff New Media Institute in 2002, *The Virtual Excavation: Treasures from a Lost Civilization*, exhibited at the Seattle Art Museum in the summer of 2001, *The Magic Book*, exhibited at SIGGRAPH 2000, and *Subjectivity and Directed Gaze; Cinematic Perception in Virtual Environments*, was part of a Monbusho Fellowship conducted at Kobe University in 1998. Her most recent work, *The Viscous Display*, was presented at SIGGRAPH 2003 and Graphite 2004 and continues to be supported through a National Science Foundation Fellowship.