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# Mobile Sound and (Re)Making Place

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## Abstract

Since the invention of the transistor radio, people have used mobile technologies to create privacy within the public spaces of urban environments. Devices such as iPods and mobile phones enable us to control social interactions in shared spaces – ear buds signal to others that we are listening to music, even when nothing is playing, and moments of social awkwardness can be alleviated by text messages, games and social networks. While it is easy to blame our devices for disconnecting us from the sights and sounds of everyday life, the connections and interactions made possible through pervasive computing enable us to transform our experience of urban life by creating new modes of engagement in, with and through the places where we live, work and play. As we increasingly use our mobile devices to filter, augment and curate everyday interactions, our understanding of “place” has moved from geographic specificity to spatial indeterminacy. Through a discussion of my own practice and other related artworks, I will examine how mobile sound artworks that rely on the body for context can shift the parameters of spatial practice from the body’s position within physical space to the liminal space articulated by the moving body, how broadcasting sound through the body can facilitate new modes of sociality in public spaces, and how these temporary conditions and connections may be explored through networked performance.

In the modern city, mobile technologies work as social filters. In any lobby or coffee shop, we see people communicating next to one another, but not to each other. In many situations our devices are used to avoid interacting with others – by appearing busy or unavailable, we are not obligated to interact with strangers. Since we can now connect to others from wherever we find a network, our sense of place, home and territory has become less dependent on physical location and more dependent on our connections

and affinities. Home is no longer where we are from or where we live, it is wherever we are now.

My practice investigates spatial and social conditions within urban environments through interactive artworks situated at the intersection of sound, performance, and mobile technologies. My approach to both sound and media is greatly informed by my experience of walking in urban environments, which I consider to be a form of personal and spatial encoding. I began working with sound and technology simultaneously out of a desire to articulate the immediacy of walking while carving out a sense of place within the acoustic ecology of the city. Over the past decade, I have navigated these spaces through a gradual progression from headphone-based artworks to interactive pieces that integrate, through embodied interaction, the affordances of objects with the expressive potential of the body.

Through a discussion of my own practice and other related artworks, I will examine how mobile sound artworks that rely on the body for context can shift the parameters of spatial practice from the body's position within physical space to the liminal, temporary spaces articulated by the moving body; how broadcasting sound through the body can facilitate new modes of sociality in public spaces, and how these temporary conditions and connections may be explored through networked performance.

## The Body as Site

Mobile technologies affect our understanding of place by positioning the body of the user as the primary site of reception. By positioning the “body as site”, mobile and wearable sound pieces shift the parameters of site-specificity beyond the realm of locative practice.

Over the past three decades, site-specific practice has expanded from conceptual artworks that rely on a specific location for context to artworks that conceive of “site” through a set of parameters *that sit beyond physical location*. In *One Place after Another: Site-Specific Art and Locational Identity*, Miwon Kwon argues that *as increasing numbers of artworks address “site” through economic, political, or social conditions, our understanding of place has shifted from geographic specificity to spatial indeterminacy*:

Dispersed across much broader cultural, social and discursive fields, and organized intertextually through the nomadic movement of the artist – operating more like an itinerary than a map – the site can now be as various as a billboard, an artistic genre, a disenfranchised community, and institutional framework, a magazine page, a social cause, or a political debate. It can be literal, like a street corner, or virtual, like a theoretical concept (Kwon 2002, 3).

By broadening our understanding of site from a specific physical location to a set of shifting parameters, “location” can exist as a set of temporary confluences that can engage audiences through a cognitive, as well as a physical encounter with an artwork.

By encountering “site” through the body, gestures such as explorative walking become a form of cognitive mapping where the residual effects of the encounter represent a form of notation.

### **The Body As Context**

In *The Functional Site; or, The Transformation of Site-Specificity*, James Meyer defines this space as a “functional site” which sits opposite the geographically-specific “literal site.” According to Meyer, the *functional site*:

may or may not incorporate a physical place. [...] Instead, it is a process, an operation occurring between sites, a mapping of institutional and textual filiations and the bodies that move between them [...] the functional work refuses the intransigence of literal site specificity. It is a temporary thing, a movement, a chain of meanings and imbricated histories: a place marked and swiftly abandoned (Meyer 2000, 25).

Because functional sites do not “privilege” place, *location need not function as a precondition*, and the moving body takes on new significance and authority. Movement through space engages the user in a series of shifting spatial parameters and through *cognitive*, as well as physical processes. In *Getting Back into Place: Toward a Renewed Understanding of the Place-World*, Edward Casey argues that “if place is where we inscribe personal meaning, [...] then we are still ‘in place’ when we walk down the street listening to head phones or talking on a mobile phone. It becomes, however a different place with different inscribed meanings” (Casey 2010, 6).

Soundwalking draws from this authority through the practice of listening equally to all sounds within the acoustic environment. Hildegard Westerkamp describes soundwalking as “any excursion whose main purpose is listening to the environment [...] exposing our ears to every sound around us no matter where we are” (Westerkamp 1974, 1). While all sounds originate from something, somewhere, the act of listening, without recording, positions the body as a temporary interface, where signals recombine and where *site, sound, and motion* coalesce, transforming exploratory walking into a form of personal, cultural and spatial encoding.



Fig. 1. Lalya Gaye, Ramia Mazé, Daniel Skoglund and Margot Jacobs, *Sonic City*, 2002.

*Sonic City* (2002, Fig. 1) by Lalya Gaye, Ramia Mazé, Daniel Skoglund and Margot Jacobs is a mobile artwork that re-imagines the urban environment as an interface for

musical expression. The piece consists of sensors and a software interface that enables a user to “create a real-time personal soundscape of electronic music by walking through and interacting with urban environments” (Gaye et al, 2003). Sound is generated through a process of mapping “discrete input factors” (incidental events, such as a car passing, or a sudden change in route) and “continuous input factors” (ambient events, such as heart rate and light level) to patterns of MIDI notes. The artists consider mobility as a form of interaction that combines *gestural interaction and contextual awareness*, creating a sonic dialogue between the user and the various stimuli within the environment.



Fig. 2: Jessica Thompson, *walking machine*, 2003.

*walking machine* (2003, Fig. 2) is a wearable sound piece of mine that enables users to move through the city hearing the amplified sound of their own footsteps in real time.

The piece evolved out of a desire to articulate the immediacy of walking while carving out a sense of place within the acoustic ecology of the city. While wearing the piece, users often explore the city as if in a playground, stomping on sewer grates, gliding through grass, splashing in puddles and jumping on garbage cans. The effect is that of a private game in public space, where the simple act of walking becomes a form of embodied listening<sup>1</sup>, gestural interaction becomes a means of articulating presence, and play becomes both legitimized and liberated through technology.

Unlike locative sound pieces such as Janet Cardiff's *Her Long Black Hair* (2004)<sup>2</sup> or Teri Rueb's *Core Sample* (2007)<sup>3</sup>, works such as *Sonic City*, Christina Kubisch's *Electrical Walks* (2003)<sup>4</sup>, and *walking machine* can be performed *almost anywhere*.

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1 In *Where the Action Is: The Foundations of Embodied Interaction*, Paul Dourish defines embodied interaction as “the creation, manipulation, and sharing of meaning through engaged interaction with artifacts” (2001, 126). Drawing from Heidegger's concept of *Dasein*, or “being-in-the-world,” Dourish argues that embodied action is based on cognitive processes where meaning is derived through the process of doing. Embodied interaction within my practice refers to the cognitive shift that enables users to perform through devices, and the process of eventually “forgetting” that they are there.

2 In Janet Cardiff and George Bures Miller's *Her Long Black Hair*, users are invited to borrow an iPod and to navigate the 19<sup>th</sup> century pathways in Central Park, New York, following the trail of a mysterious dark haired woman. Aided by photographs, the narrative shifts between past and present through empirical observation, stream of consciousness, and local history.

3 Teri Rueb's *Core Sample* is a locative sound piece created for Spectacle Island, a former dump and reclaimed landfill park in the Boston Harbour. The piece re-imagines the island, which at various times has been a home to casinos, hotels, a city dump and a horse rendering plant, through sound. The piece takes users through a series of audio “core samples” that explore the subterranean layers of the island through fictionalized narratives, music and local oral histories.

4 Christina Kubisch's *Electrical Walks* are a series of augmented soundwalks that take place in various locations around the world. Audience members are invited to borrow a set of headphones, which generate sound in response to electromagnetic fields, WiFi networks, cell phone towers and underground power cables. According to the artist, “the basic idea of these sound spaces is to provide the viewer/listener access to his own individual spaces of time

While geography is implied by the body's position at any given moment, that *position is always changing. The only constant is the body.*

In the same way that mobile devices expand our understanding of site to include the body, we can also *expand our understanding of the body to include those devices.* The following section will examine how sound generated through the moving body heightens our experience of the acoustic ecology<sup>5</sup> of cities by extending the edges of the body not only into the site but also into the space of others.

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and motion. The musical sequences are experiential in ever-new variations through the listener's motion. The visitor becomes a 'mixer' who can put his piece together individually and determine the time frame for himself" (Kubisch 2006, 2).

5 Acoustic ecology refers to acoustic environment and its effects on the behavior and physical well being of individuals.

## **Noisemakers**

In *Noise*, Jacques Attali historicizes economic development through sound, arguing that noise serves as a precursor to social and economic change (Attali 1985). Conditions within cities are often *revealed through sound*, indicating *territory*, demographics or functionality, and politicizing urban space through its ability to invade the acoustic space of others and to affect behavior. As we continue to experience space through the private modes of listening, we become increasingly uncomfortable with the everyday noise and noisemaking of cities. While mobile devices enable us to connect to others, by silencing the social, we lose out on some of the eclectic experiences of urban life.

One of the most significant encounters that informed how I think about broadcast occurred on the Queen streetcar in downtown Toronto in the summer of 2004. It was rush hour. I was on my way to work and sitting towards the back of the streetcar. A few minutes later, a boy of about fifteen sat across the aisle from me and began to blast hip hop from his headphones as loud as he could. As we approached the downtown core, it became more crowded. Instead of moving to the back of the streetcar, however, most passengers who were standing stayed towards the front. The soundtrack was distorted but not ear shattering, there were plenty of seats around us, the youth looked more or less like a middle class kid from the suburbs, but nonetheless, full grown adults preferred to crowd together than to sit down near us. This seemed to please the teenager immensely, and he started to move around to the music and freestyle along to different passages under his breath.

Broadcasting sound through the moving body, whether through the act of walking or through gestural interaction with and through artifacts, can transform public spaces into social spaces through nonverbal modes of communication. Other artworks of mine, such as *Freestyle SoundKit*, *SOUNDBIKE*, and *Swinging Suitcase* have formal and conceptual affinities with both private modes of listening, where mobile devices such as iPods infuse the space outside the body with personal significance, and broadcast sound, which can instantly activate and politicize the social spaces of urban environments.



Fig. 3: Jessica Thompson, *Freestyle SoundKit*, 2006.

*Freestyle SoundKits* (2006, Fig. 3) are wearable sound pieces that generate and broadcast electronic dance beats as users move through urban environments, creating percussive soundscapes activated through collaboration, improvisation, and one-

upmanship.<sup>6</sup> Drawing from the language of boom boxes and low riders<sup>7</sup>, the piece articulates the presence of the user giving voice to the body and blurring the lines between body, artwork and site.



Fig. 4: Jessica Thompson, *SOUNDBIKE*, 2005.

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6 When the piece was shown at the *Conflux Festival* in Brooklyn in 2006, a spontaneous interaction occurred between a student wearing a SoundKit and a passing car. As the student played on the sidewalk, a pickup truck slowed down beside him. After circling the block several times because of traffic, the driver stopped the truck in the middle of the street, turned up his radio and leaned out of his window to jam with him.

7 A lowrider is car that has been modified, either through hydraulics or lowering the suspension to sit very close to the ground. Lowriders became popular in the 1930s and 1940s, among Mexican Americans living in Los Angeles. California is a driving state, and it wasn't unusual for several members of a community to co-own and maintain a single car. Modifying your car became a method of cultural expression, and tricked out lowriders have cruised down the streets of LA for decades. Because the purpose of cruising is to show off, these cars are driven very slowly blasting music to announce their presence.

In *SOUNDBIKE* (2005, Fig. 4) and *Swinging Suitcase* (2010, Fig. 5), anthropomorphized sound and gestural interaction combine to reflect and then confound the relationship between user and artwork. *SOUNDBIKE* is a mobile piece that generates and broadcasts laughter as it is pedaled through urban environments. The laughter starts when the bike reaches a cruising speed, and then responds to velocity, enabling the rider to compose sound with his or her body. The speaker, which works as signifier, is housed on the back of the bike within a bright yellow case, separating the user from other riders and immediately drawing attention. When the piece is engaged, the rider creates a roving broadcast and human counterpoint to the urban soundscape.



Fig. 5: Jessica Thompson, *Swinging Suitcase*, 2010.

*Swinging Suitcase* generates and broadcasts the sound of a flock of small birds in response to movement. Vocalizations are constructed from source clips of house sparrows, which are arranged into responses that range from single chirps to social chatter to scolding. When the piece is swung, the “birds” begin to make noise, which calibrates to reflect the rate of swinging – accelerating and multiplying in response to the gesture of the user, and then confounding the interaction when they become “bored.” As the user continually relearns the piece, the gestural interaction becomes more complex, shifting exploratory gesture into the realm of performance, and using the cognitive process of the user as a compositional tool. *As you “play” the birds, the birds “play” you.*

### **Networked Performance**

In *Mobile Interfaces in Public Spaces: Locational Privacy, Control and Urban Sociability*, Adriana de Souza e Silva and Jordan Frith examine “how mobile technologies can be viewed as *interfaces to public* spaces, that is systems that enable people to filter, control and manage their relationships with the spaces and people around them” (2012, 5). Through a genealogy of mobile media starting with the pocket book, they argue that, rather than disconnecting us from physical spaces, mobile technologies work as social interfaces to public spaces, enabling us to frame our experience through content of our own choosing: “While some critics argue that mobile technologies lead to a disconnection from physical space, there is an equally strong counter argument by which we consider mobile technologies as an intrinsic *part of*

people's experience of space [...]” (2012, 45). By generating media and sharing it with others, we situate ourselves within the spaces we occupy, transforming public to private through social interaction. In *Re-Place-ing Space: The Roles of Place and Space in Collaborative Systems*, Steve Harrison and Paul Dourish define place as a space infused with meaning:

Physically, a place is a space, which is *invested with understandings* of behavioral appropriateness, cultural expectations, and so forth. We are *located* in “space”, but we *act* in “place”. Furthermore, “places” are spaces that are valued. The distinction is rather like that between a “house” and a “home”; a house might keep out the wind and the rain, but a home is where we live (Dourish 2006, 69).

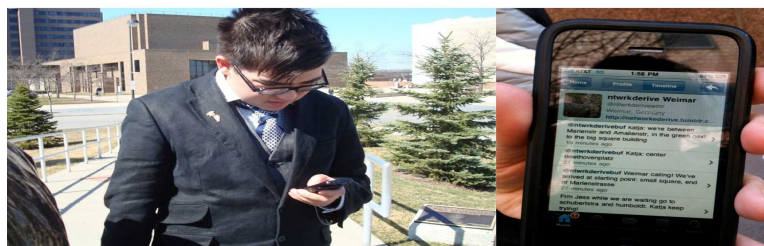


Fig. 6: Jessica Thompson, *Networked Derive*, 2010.

My recent projects investigate, through networked performance, the ways that mobile technologies both situate and displace the body, complicating our relationship to place, territory and community in both physical and virtual spaces. *Networked Derive* (2010,

Fig. 6) is a collaborative performance that takes place simultaneously between two geographically separate locations. Using mobile phones, twitter streams and a simple mapping system, performers in both locations engage in a series of occupations that coincide with the movements through the other city. The piece draws from the strategy described by Guy Debord in his *Introduction to a Critique of Urban Geography* from 1955, where he describes a friend using a map of London to navigate the mountainous Harz region of Germany. *Networked Derive* follows a similar strategy, using paper maps containing one city per side, and positioning them slightly askew. As each city reports its location to the other, the city receiving the coordinates locates the spot on the map and using a pushpin, makes a hole to the other side, turns the map over, and goes to that location. The new location is then reported to the first city and the process continues. As users move from one location to another, each in their corresponding city, they form identical paths.



Fig. 7: Jessica Thompson, *Triangulation Device*, 2013.

*Triangulation Device* (2013, Fig. 7) is a participatory sound piece that generates improvised soundscapes using the movement of the body as a compositional device. The piece is performed simultaneously between two participants. Each participant is paired with a device, which transcodes its location to the other in real-time, generating sound through the body and creating atmospheric soundscapes that unfold and change in response to their movement and proximity. In the same way that performing through objects merges the affordances of those objects through the expressive potential of the body, as seen in works such as *Swinging Suitcase*, the *Triangulation Device* extends the edges of the body to the other user. By generating sound through the moving body, users are able to articulate social interactions through direction, speed and proximity, creating new modes of connection through improvisation and collaboration.

Mobile technologies enable us to filter, augment and construct our experience of the world around us, transforming “space” into “place” by replacing the acts of listening and speaking with sharing content and connecting with friends, family and contacts. As social networks facilitate more of our connections to the world, an increasing number of our everyday interactions are with “people like us” – those with who we share common interests, backgrounds and affiliations. So, while mobile technologies enable us to experience a sense of connection within urban environments, increasingly, those connections leave out the variety of events, experiences, and communities that drew many of us to cities to begin with. Sound, then, through its physicality, itinerancy and

invasiveness, enables us to re-make place by un-silencing the social and returning us, in meaningful and tangible ways, to the many places we call home.

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## **Biography**

Jessica Thompson is a Canadian media artist and an Assistant Professor in Hybrid Practice in the Department of Fine Arts at the University of Waterloo. Her practice investigates spatial and social conditions within urban environments through interactive artworks situated at the intersection of sound, performance and mobile technologies. Her projects range from headphone-based artworks that generate sound through the moving body to interactive pieces that integrate the affordances of objects with the expressive potential of the body. Drawing from everyday experience and influences such as body art, locative media, phenomenology and the politics of broadcast, her artworks use sound to create reciprocal dialogues between body, artwork and site through exploratory gesture, embodied interaction, improvised choreography, and play. Thompson's current research investigates the ways that sound reveals spatial and social conditions within cities and how these conditions may be articulated through networked performance. She is particularly interested in the ways that mobile technologies both situate and displace the body, complicating our relationship to place, territory and community in both physical and virtual spaces. Her work has shown in exhibitions and festivals such as ISEA (San Jose), the Conflux Festival (New York), Thinking Metropolis (Copenhagen), (in) visible Cities (Winnipeg), Beyond/In Western New York (Buffalo), the Deep Wireless Festival (Toronto), NIME (Oslo), Audible Edifices (Hong Kong) and The Persistence of Peripateticism: Artists' Walks (New York). Her projects have appeared in publications such as Canadian Art, c Magazine, Acoustic Territories (Continuum Books) the Leonardo Music Journal, and in numerous art, design and technology blogs. She is represented by p|m Gallery in Toronto.

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