

Networks of Performance: Sound, Intermediality and the Unhousing of Knowledge

The ordinary practitioners of the city live ‘down below,’ below the thresholds at which visibility begins. [T]hey are walkers, *Wanders-männer*, whose bodies follow the thicks and thins of an urban ‘text’ they write without being able to read it. [...] The networks of these moving, intersecting writings compose a manifold story that has neither author nor spectator, shaped out of fragments of trajectories and alterations of spaces [...]. [1]

Cities serve as vibrant sites of performance, not only in terms of traditional, venue-based performance, but also in terms of the multifold routines, rituals, and practices that occur within the space of the city on a daily basis. And while these varied forms of performance do become routinized and captured within an equally varied range of culturally-, socially-, and statistically-based media forms, there are aspects of them that resist this need to be captured or archived. [2] Michel de Certeau, whose thoughts about the city and spatial experience begin this piece, likens aspects of urban experience to that of a network. Where a media theorist like Friedrich Kittler locates network performance within the city along abstract avenues composed of informational lines, economic flows, and energy supplies, de Certeau instead looks to the multitude of physical bodies that perambulate the space of the city as the site where performative meanings take shape. [3] If we read de Certeau’s practices of everyday life and the role of walking in terms of performance, then we also gain from his ideas an understanding for how other modalities, such as sound and the audible, function similarly within performance-based artistic work. In this respect, Brandon LaBelle’s recent study of sound art understands sound as always relational, as always mediating material and immaterial forms, distance and proximity, spaciousness and location. He writes:

Sound thus *performs* with and through space: it navigates geographically, reverberates acoustically, and structures socially, for sound amplifies and silences, contorts, distorts, and pushes against architecture; it escapes rooms, vibrates walls, disrupts conversations; it expands and contracts space by accumulating reverberation, relocating place beyond itself, carrying it in its wave, and inhabiting always more than one place; it misplaces and displaces; ...sound overflows borders. [4]

LaBelle's insights about the spatial dimensions of sound illustrate the complexity with which sound operates and with which it needs to be approached. To the extent that the textual, linguistic, spatial, and affective are always connected to the realm of sound in their conceptualization, sound also inhabits, shapes and propels them outward, modulating them and broadcasting them forward to a host of potential listeners. The on site, on air, and online performative work of the Austrian-based artist team, *alien productions*, engages with a similar set of practices as those implemented by de Certeau's multitude of anonymous city walkers.[5] Through their focus on the creation, transmission, and reception of sound, *alien productions* engages a type of palimpsestic rendering of the material layers of live performance into simultaneous on-air broadcasts and online representations, in much the same way as the city as medium, in de Certeau's engagement, casts urban space as a multilayered and multifunctional network of performance. What is at stake in exploring a handful of their performance pieces is to understand how the intermediality inherent to sound works across the varying layers and sites of performance to simultaneously archive knowledge within the gestural repertoire of the physical body performing, and unhouse it altogether along the multichannel

aurality that arises as performance traverses the spatial divide between the materiality of form and the ephemerality of transmission.

alien productions' contribution to the project *Sound Drifting* (September 1999), their piece *GATEways* (March 2000), and their *Autoregulative Spaces* series of installations involving biofeedback technologies (1993-onwards) engage conceptually with the ways in which the modality of sound allows culturally-bounded and site-specific material to transcend the geopolitical, biological, and cognitive boundaries set up to house it. As pieces that integrate multiple spatial and durational relays for the creation and reception of each performance, each of these sound-based artworks upend traditional notions of live performance through their reliance on radio broadcast, online network components, and biofeedback inputs. All of these serve as extensions of the site-specific performances and as producers of sound-based data that is then fed back into the overall system of performance. *Sound Drifting* debuted as part of the 1999 *Ars Electronica* festival held in Linz, Austria. This particular rendition of the festival focused on the theme "Life Science" and sought to elaborate on the hybrid interfaces and porous boundaries increasingly apparent between biological and digital organisms, where fields like bioinformatics and genomics relied more and more on digital representations of biological organisms to produce virtual models like the human genome project. [6] In this context, *Sound Drifting* was conceived "as an experimental non-biological organism: A network or community of generative algorithms constituting a virtual autonomous organism living, interacting, breeding and ultimately dying in the matrix of the internet." [7] The sound-based performance piece combined the transitory spaces of the live and electronic-based performances from the sixteen sub-projects and their fourteen physical

and two virtual locations, as well as the five festival-based installation spaces and the opportunities for radio broadcast. The multidimensionality of the performance spaces, however, is not to be interpreted in terms of silos of performance, but rather seen as sources, extensions, and adaptations of each other. While each of the sixteen physical/virtual locations may have produced sounds and images as origin points of performance, once released into the generative realm of the network, the notion of origin fell away, and the data that comprised the individual audiovisual components took on a life of their own, living, interacting, breeding, and existing until the network infrastructure itself was no longer being maintained.

Key to combining the whole realm of transitory spaces made possible by the live, virtual, and broadcast performances was a software system called Sound Drifter located at the heart of the project in Linz. Sound Drifter “conceived of sounds as living beings in a dynamic system,” and was programmed as a series of three virtual chambers. Within this series of computerized chambers the live streaming audio from the remote performance spaces circulated and were randomly sampled before being allowed to constantly move and interact with each other while being fed out via loudspeaker into the festival installation spaces, and randomly recorded and encoded as an MP3 live stream for simultaneous transmission and broadcast via the internet and radio, and fed back into the software system. [8] The multidimensionality of the performance spaces, however, are not to be interpreted as silos of performance, but rather seen as sources, extensions, and adaptations of each other. While each of the sixteen locations may have produced sounds and images (via webcams) as origin points of performance, once released into the generative realm of the network, the notion of origin falls away, and the data that

comprises the individual audiovisual components takes on a life of their own, living, interacting, breeding, and existing until the network infrastructure itself is unplugged, or individual elements endure limited capture on compact disc or become decontextualized via the confines of textual description, such as this one.

In connecting the six spatiotemporally distinct locations of Melbourne, Weimar, Erfurt, Vancouver, Belgrade, and Vienna via live, broadcast, and networked sound, *GATEways* functions by opening multiple channels of transmission where transcultural interaction and transformational knowledge are permitted to thrive. At the heart of the piece rest two intertwining concepts and philosophies regarding the signifying practices bound up within place and the physical manifestations of these within the notion of location:

GATEways was a topographical project dealing with space in which various cultures go through a change of location. Dislocation, assimilation and cultural diversity are the main topics. Actual local sites, which (can) act as intercultural passages (“GATEways”) become intersections of a global acoustic network, which in itself is a gateway. Locally bound soundscapes enter data pathways, travelling to other spaces. The idea of boundaries based on the stability of the locations collapses, wiping away the borders between them. [9]

This unhousing of location-specific soundscapes from the six geographical spaces comprising the acoustic network of the piece speaks to Brandon LaBelle’s ideas about the intermedial dimensions of sound, and its ability to capture and articulate remotely the spatial, affective, linguistic, and cognitive elements that reside vocally and aurally within any given space. The *GATEways* infrastructure utilized an innovative layering of

connective pathways to join the soundscapes and artistic performances of the five distant cities to a series of seven acoustic islands located in the newly renovated non-traffic zone surrounding the Siebenbrunnenplatz in Vienna. In this fashion, the network infrastructure extended the ephemeral experience of live performance away from the materiality of physical presence and toward the immateriality of broadcast and ambient sound. Sounds and sound loops originating from any of these other nodal points in the network move across and within the spatiotemporal divides that separate them, and take up passing residence within the experiential networks of the passersby on the public square, or visitors to the installation spaces, creating ambient mixes of intertwined soundscapes that then become replaced as the body continues its movement across the cityscape.

The biological, emotional, and cognitive networks of the performer's body become closely linked through the series of sound-based installations involving biofeedback sensor technologies, which the *alien productions* team has undertaken since May 1993. Known collectively as *Autoregulative Spaces*, the eight (and now nine) instances of installation/performance involves the use of wearable technologies that connect the artists' bodies with a set of computerized biofeedback systems. [10] For the uninitiated, biofeedback systems are used within the field of medicine to help envision the bodies' internal processes to support the mind's ability to influence relaxation and concentration. Using multiple sensors, biofeedback technologies track a multiplicity of physiological functions like skin conductance, temperature, pulse and breathing frequency, muscle tone, and brainwave activity, and turn this into visual data available for therapeutic use. Supplied with this type of data opens a wealth of opportunities for artistic experimentation, wherein the artist's own physical body emerges as both the site

of performance, and the interface between computer generated data and the environment in which the performed material becomes projected (in the case of visual material) and amplified (in the case of sonic material). In email correspondence to the author on 27. February 2017, Martin Breindl describes this in terms of a transference and transformation of the physical body into a virtually-based, mirrored image of the body:

Es handelt sich hier auch um die Projektion eines virtuellen Körpers. Jeder Teilnehmer geht quasi durch sich selbst hindurch, indem er seinen eigenen Körper nach aussen stülpt und diesen gewissermassen über den realen Ort legt. So wird im Grunde der eigene Körper zum Ort der Performance und Computerinterface und bild- und klangerzeugende Geräte zu Mitteln, diesem Körper eine andere Gestalt zu geben. Für mich persönlich hat das immer ein bisschen mit der utopischen Vorstellung einer Reise in den Körper zu tun [...].

In effect, the feedback loop generated through the combination of the biofeedback connections, and the artists' individual engagement with their own physical body's complex network of cognitive, emotional, and perceptive systems allows the space in which the performance occurs to be extended and played like an instrument through means of relaxation and concentration. This multiplication of the performing body as a type of virtual rendition of that body in many respects engages the site/space of performance in ways similar to de Certeau's understanding of the city as an always mutable, never static space of experience.

Such network- and broadcast-based artistic performances provide opportunities to rethink the nature of site-based physical performances, while also assisting in extending the conceptual focus of the performance beyond the spatial and temporal boundaries that

frame it. The intricate relationships that exist between the creation and production of a live performance and the elements of knowledge production which arise from it, are ones that are as equally elusive as they are spatially and temporally specific. The value of performance is often connected to the physical body enacting a set of inputs (a textual script, a range of emotions, a series of commands) within a set of specific spatiotemporal constraints. Yet the same characteristics that make live performance time-delimited and site-specific also allow the performing body to transcend those constraints, calling forth elements of spontaneity and improvisation that transform the controlled variables of time, space, and script into mere guideposts. The perceived spontaneity and ephemerality caught up within live performance make it inherently resistant to archivization, no matter how physically rehearsed and technically choreographed the conceptual and performative frameworks are that house the performance. Diana Taylor's consideration of the repertoire in her 2003 study *The Archive and the Repertoire* complicates this resistance, by showing the ways in which the various ephemeral actions of live performance do become captured within an interstitial continuum between performative "liveness," and transmitted knowledge:

The repertoire [...] enacts embodied memory: performances, gestures, orality, movement, dance, singing—in short, all those acts usually thought of as ephemeral, nonreproducible knowledge. [...] The repertoire requires presence: people participate in the production and reproduction of knowledge by “being there,” being a part of the transmission. As opposed to the supposedly stable objects in the archive, the actions that are the repertoire do not remain the same. The repertoire both keeps and transforms choreographies of meaning. [11]

Yet this is an imperfect capture. Crucial to Taylor's concept of the repertoire and its role in the transmission of knowledge is the iterative relationship between the recurrent embodiment of actions and the performance of these within the mediated guise of protocols that set the performance into place. In stating that "multiple forms of embodied acts are always present, though in a constant state of againness," Taylor points to a transitory web of experience that underlies the connection between the immaterial aspects of memory and the ways in which these become embodied as actions within the immediacy of live performance. Through repertoire, performative memory becomes inscribed within the musculature and motor capabilities of the human body, and the "body memory" which helps recall for the body in the act of performance the ephemeral features of prior performance.

This process of transmission via repertoire requires presence in order for the signifying practices caught up within each iteration of live performance to be passed on as elements of knowledge to those in attendance. If we follow Siegfried Kracauer's 1927 discussion of photography as an imperfect representation of the memory image that lies behind the photographic image, then we must understand the importance of unmediated memory as a form of memory that is removed neither from the spatial nor the temporal frames that imbue it with meaning. The authenticity of the photograph thus requires the spatiotemporal proximity to the events and experiences that compose the memory image:

An individual retains memories because they are personally significant. Thus, they are organized according to a principle which is essentially different from the organizing principle of photography. Photography grasps what is given as a spatial (or temporal) continuum; memory images retain what is given only insofar

as it has significance. Since what is significant is not reducible to either merely spatial or merely temporal terms, memory image are at odds with photographic representation. From the latter's perspective, memory images appear to be fragments—but only because photography does not encompass the meaning to which they refer and in relation to which they cease to be fragments. [12]

Seen in this context, repertoire will only maintain its value as a mode of representation the closer it resides in proximity to the experience of the performance. When the spatiotemporal limits of live performance are surpassed, when the performance expands beyond the visual, cognitive, emotional and site-specific parameters bound up within an audiences' physical experience of that performance, then the gap that always exists between the representation and the thing represented (e.g. the repertoire and the performance, the photograph or recording and its source) becomes ever larger to the point that meaning and knowledge begin to disappear.

In extending the sites of cultural performance bound up within the durational frameworks of *Sound Drifting*, *GATEways*, and the installation series *Autoregulative Spaces* via sound-based performance along broadcast channels, internet pathways, and biofeedback loops, *alien productions* implements a type of experiential network akin to Michel de Certeau's wanderers, which provokes active engagement with their live performances among the multiple types of listener and user audiences produced by them. De Certeau's musings on the city as a performative medium provide some interesting ways to think critically about the intricate relationships between spatiality, cognitive perception, and the processes of legibility involved in making the otherwise ephemeral substance of knowledge (thoughts, emotions, reflective experience) tangible as mediated

and described objects. In speaking about thresholds, and ordinary practitioners who live below the lines of sight that form the systems of control inherent in city planning, de Certeau highlights the ways in which network functionality has the ability to destabilize these very hierarchical structures of power. It is with his network of *Wandersmänner* that we find a resonant iterative process that seems capable of subverting these invariable systems of control. Within this iterative process, the wanderers' spatial experience of the city is filtered via thought, emotion, physical sensation and sense perception and either moves cognitively into the immaterial realm of knowledge or is rendered materially as an object for consumption, such as de Certeau's authorless narrative, which itself becomes untethered from its producers at the very point of production. In other words, de Certeau reads daily life in phenomenological terms, where human actors map their encounters with the city as a type of experiential network. This points to the importance of the physical body as a site where experience is either intuitively shaped as knowledge, or empirically shaped as information.

Performativity and the modality of sound are uniquely situated elements within the on site – on air – and online performance work of *alien productions*. The interactive play between each of these sites of performance points to the foundational interdependence they share via the element of sound. The group's innovations in designing interactive telecommunications infrastructures allow performance to occur along differentiated media channels by folding its performative layers through radio frequencies, across data networks, and through the physicality and provocative atmosphere of live performance. Their work produces synchronized live performances in the terrestrial presence of all of the cities implicated in the projects, and versions of these

performances specific to audience reception—radio listeners, visitors to the public performance and installation spaces, and users of the web-based interactive content tied directly to the performances. In the performative layering that occurs within both the creative and adaptive processes, a type of noöspheric co-production takes place between the corporeal bodies performing and the temporary listeners/users/observers engaged with the piece, as well as between the spatial realm of physical performance and its adaptation into broadcast-, network-, and biofeedback-based forms. And what gets created from this co-production is a reiterative and interactive exchange that demonstrates the complex relationship between knowledge and experience. At the core of each of *alien productions* performative art pieces is their use of sound to engage and position their listeners within a cognitively situated realm of ideas, emotions, and sensations. The relationships that they explore between language, sound, and spatiality focus on the ways in which the spatial is informed by the nature of sound as a perceptual mode, and as a carrier of knowledge. Sound's ability to modulate the material elements of live performance, to break them down into their constituent components that house them within language and communication and to distill out the emotional, spatial, and ideational elements that reside within them, suggests an ontological capacity that reveals it as a perceptual mode that carries forward those sonic markers we use to identify the origins of a particular sound, as well as tonal sensations indicating movement, depth, and positionality, sound modulates these specific strands of information into aurally-mediated knowledge, a knowledge unhoused from its original position within the frame of live performance.

Notes

- [1] Michel de Certeau, *The Practice of Everyday Life* (Berkeley: U of California Press, 1984): 93.
- [2] For a clear and productive discussion about the varying theoretical and conceptual approaches to the notion of performance, see Diana Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas* (Durham: Duke UP, 2003).
- [3] See, for example, Friedrich A. Kittler, “The City is a Medium,” in *New Literary History* 27 (1996): 717-729.
- [4] Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2006), xi.
- [5] For background information about the group, see their website alien productions, alien.mur.at (accessed December 8, 2010).
- [6] Heidi Grundmann, ed. *Sound Drifting: I Silenzi Parlando Tra Loro*, compact disc and booklet, (Vienna: ORF Kunstradio/Triton Verlag, 2000). For in-depth information about the 16 sub-projects involved in the main installation, see ORF Kunstradio, “Sound Drifting: I Silenzi Parlando Tra Loro,” www.kunstradio.at/SD/squares.html (accessed December 11, 2010). For further information about the 1999 *Ars Electronica* festival, see Ars Electronica, “Life Science,” www.aec.at/archiv_project_en.php?id=8316 (accessed December 11, 2010).
- [7] Grundmann, *Sound Drifting: I Silenzi Parlando Tra Loro*, booklet, 3.
- [8] Detailed information related to the Sound Drifter and its three virtual chambers (Stream Drifter, Room Drifter, and Radio Drifter) can be found in Winfried Ritsch, “Sound Drifter,” in *Sound Drifting: I Silenzi Parlando Tra Loro*, ed. Heidi Grundmann, booklet, (Vienna: ORF Kunstradio/Triton Verlag, 2000), 42.
- [9] Alien Productions, “GATEways: Konzepte und Reflexionen,” alien.mur.at/gateways/doku/concepts-ger.html, (accessed December 11, 2010).
- [10] The installation series, *Autoregulative Räume*, began in May 1993 with the piece *Public Diary* in Graz, and continued for another seven instantiations—*thetaPHASE* (Vienna, 1994), *Channel 9* (Graz, 1995), *Body Augmentation* (Berlin, 1996), *Autoregulative Spaces* (Los Angeles, 1998), *Wortstaub Partikelwelt* (with Petra Ganglbauer and Peter Pessl, Graz, 1998), *Autoregulative Räume* (Alpbach, 1999), and *Reflexion* (with the ensemble die reihe, Vienna, 2000). The series continues with this iteration at the festival *liquid music* (Judenburg, 2017).
- [11] Diana Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas* (Durham: Duke UP, 2003), 20.

[12] Siegfried Kracauer, “Photography” in *The Mass Ornament: Weimar Essays*, ed. Thomas Y. Levin, (Cambridge, MA: Harvard UP, 1995): 47-63, here 50.