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Soundly Planning – Listening Practically to (Belfast) Sound Spaces

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ABSTRACT: This paper stems from PhD research in urban sound studies which explores how applied listening practices can help usher in a consideration of sound into urban planning. The paper describes how ideas and methods from sound studies and sound art practices might be applied in site-based fieldwork, in particular uses of soundwalking, surveys and in-situ interviews. I describe the iterative development of these approaches in my project and further reflect on the process of re-situating the project according to the specific physical, social and sonic characteristics of an unfamiliar city, Belfast; reframing the project from one of translating strategies to one of guided listening and dialogue.

KEYWORDS: listening practices, sound art, urban planning, hearing perspective.

1. Foundation

In my PhD, *Listening Practices for Urban Sound Space*, I investigate how cities can be critically heard and how sound might be considered in qualitative and personal ways in city development. The project is based in Queen's University Belfast, as part of the *Recomposing the City* research group¹, which draws on expertise from the Sonic Arts Research Centre (Music) and Architecture/Planning departments. Critical influences on the project include my experience of the Sound Studies (MA) Berlin with sound art classes under Sam Auinger, auditory culture under Sabine Sanio, and prevalent discussion in the Berlin network around sound arts and urban planning² all of which helped inspire and inform this research.

In a sense this paper starts where my contribution to the previous *Invisible Places* leaves off (Flügge 2014). In that paper I considered how sound arts practice might be valuable for developing an awareness of city sound space, aid in developing concepts for future city sound environments, and suggested that many artists were already developing *audile techniques* (Sterne 2003) for addressing city sound space. Such techniques could support a constructive attitude toward sound quality and encourage sonic thinking for sound planning. Here, I understand sound planning not in a sense of directly designing or producing sound, so much as influencing the physical, social and infrastructural elements that lead to the possibility of particular sonic situations or sonic ambiances arising. Thus, sound planning might include built structures that condition acoustics as well as explicit or implicit rules guiding audible behavior.

My current PhD research focuses on how applied listening, informed by sound art practices, might offer a multilayered understanding of sound spaces. It is using site-based auditory research strategies to investigate this network of conditions influencing urban sound environments. Fieldwork is based in public and shared spaces and streets, which are vital arenas for urban life (e.g. Whyte 1980; Gehl 2013) but also complex as they are outside the bounds of conventional architectural acoustics. The fieldwork approaches, which were devised with reference to practices and concepts of sound arts and sound studies, are now adapting in response to a re-situation in the urban specifics of Belfast. This paper reflects on those processes and thus is not meant to deliver final results of analysis, but rather report on its current state and some developing aspects of the project.

1. This research group is co-directed by Dr. Gascia Ouzounian and Dr. Sarah Lappin, and "brings together artists and researchers in exploring the relationship of sound to urban spaces" <http://recomposingthecity.org/>.

2. These include influences within Sound Studies e.g. workshops in *Sound Urban Planning* (Yukio King) and *Auditory Architecture* (Alex Arteaga and Thomas Kusitzky) as well as e.g. the symposia of *Berlin Sonic Places* 2012 (Peter Cusack) and events such as *Bonn Hoeren* festival in 2013. For an overview of these discussions see e.g. "Stadt, Kartographie, Klang" *Positionen* 94 2013; Lappin and Ouzounian 2015.

2. Sonic practices and sonic thinking

I began the research by analyzing a number of urban sound artworks, considering their processes of conception, production and reception – for example, how works were acoustically and socially embedded in city spaces. They included numerous uses of soundwalking, sound mapping, notation or phonography, translocation (transmission and re-situation of sound spaces), filtering (e.g. as a form of ‘tuning’ urban sound), sonification, improvisation, as well as strategies of navigational composing (i.e. guiding listening in urban locations through the use of maps, scores and instructions).³

Alongside such sonic practices, I also drew on extant ideas for framing sound space. From sonic arts, sound and ambiance studies and related fields, these included paradigms such as *sonic effect* (Augoyard and Torgue 2006), and concepts such as *sonic commons* (O+A 2007), *acoustic Atmosphere* (Böhme 2007), and *ambiance* (Thibaud 2011) etc. Many are concepts parsing sound space in terms of its shared, experienced, social and or personal facets. I considered such sonic practices and sonic thinking as potential components for fieldwork strategies addressing concrete sites. The question was, how could I investigate sound space and sonic experience on the ground, drawing on those approaches and ideas, and how could this lead to practical approaches for comprehending sound space in more qualitative, aesthetic and personal ways.

3. Tuning to Belfast: autos and accents

When I moved to Belfast to begin my PhD, the urban site of my research changed. With the fieldwork so linked to immediate urban context, being in a different place meant I had to adjust methods and rethink my position as researcher. My notions of urbanism and expectations of the function of city planning were heavily informed by my experience of living in other cities, such as Berlin. Both conceptual and practical aspects of the project had to change to address a physically, socially, politically and sonically different context.

3.1. Solo soundwalks and routes

I began with soundwalks⁴ as a primary sonic practice. Needing to recalibrate to Belfast sound space, these walks simultaneously helped for orientation and exploration of an unfamiliar city and its sonic topography, as well as identifying areas and aspects for closer study.⁵

3. This is not to suggest that these are categorical or exclusive to music or sound arts. Some of these practices, e.g. soundwalking in particular, are established as part of research methodologies (e.g. Adams et al. 2008; Drever 2013).

4. Or listening walks, to distinguish them from walks which use apps and multimedia, See e.g. Belfast Sound Walks <http://www.socasites.qub.ac.uk/belfastsoundwalks/>

5. Walking and an experience of urban spaces in progression is an important element of the project. While beyond the scope of this paper, it refers back both to navigational sound art works but also to research in the ambulatory perception of urban space (e.g. Southworth 1969; Wunderlich 2008; Careri 2009 among others).

Among aspects that struck my unfamiliar ears was the particular hum of car traffic that seemed to permeate the area of North Belfast where I first moved. There, the drone of an unseen motorway was prominently audible in an otherwise relatively quiet area. It sounded different than the tidal ebb and flow of vehicles from the busy boulevard outside my living room in Berlin: that was a varied fluctuation of distinct autos, buses and trucks, passing directionally down and up the nearby avenue, and joined by voices of pedestrians, whirrs and clatters of bicycles – even a rare sound of a horse carriage. Compared to this, in Belfast, traffic from my window was a removed, monotonous and non-directional shhhhhhh.

The first route I used frequently – an hour long stretch, from a new residence in North Belfast to university in the South – traced a line through the center, along main arterial routes, past City Hall, and intersecting the city East and West. Even these early walks indicated broad sonic contours of the city, and a few rhythmic tendencies. For example, there was a shift of ambiance overall over three main segments: in the North the necessity of walking along heavily trafficked roads in order to get to the center was characteristic. The sonic atmosphere was dominated by the sharp noise of autos on a large-granulated tarmac. There was little opportunity to drift into side streets which might provide alternatively sounding paths to the center. There were also few shops or cafes and scant street life – no snatches of chatter – that would interrupt the persistent car noise, aside from a series of beeping pedestrian crossings. Instead, the route necessitated passing a busy traffic circle – which became more sonically tranquil at rush hour when traffic was near standstill – and then just after that, an overpass of a large motorway from which emanated a dense mass of tire-noise and engine-sound, emphasized by the sunken u-shaped concrete of the half tunnel. This six-lane highway, known as the Westlink, constituted a significant punctuation of my walk, just before arriving at what I considered the edge of the center. In fact it has been framed as a spatial as well as sonic boundary in the city (see e.g. previous work by Ouzounian and Lappin in *Recomposing the City*).⁶ For me, it also served as an orientation mark on recordings, easily spotted by a stretch of increased waveform height.

The center offered more sonic diversity than this initial acoustically full but aurally dull approach. However, the density and diversity of sound depended greatly on the time of day. During shopping hours it might be well-populated, with main streets sounding of people walking and conversing, occasional radio coming out of open shop doors. I often passed the strains of a particular street violinist or other musicians playing over a foundational layer of cars, buses and, as the afternoon wore on, growling drone and swishing of street cleaning vehicles. But in late evenings almost the whole central area emptied by dusk into an uncanny

6. Belfast motorways are urban structures that significantly colour Belfast ambiance, and their nature as a sonic boundary has been explored by *Recomposing the City* (Ouzounian and Lappin) e.g. in *Sound Mapping Sailor Town* in cooperation with *StreetSociety 2014* <http://streetsociety14.blogspot.co.uk/2014/03/final-product.html>. The Westlink has been more widely acknowledged as a significant demarcation of city space (see e.g. Gaffikin et al. 2016, and various work by the former *Forum for Alternative Belfast* (FAB)).

quietness. Streets like Royal Avenue, full of traffic and people a couple hours before, were nearly abandoned, maybe a couple seagulls would be gurgling over some strewn bread, and the few people around were curled up in doorways. I didn't hear sounds of people's activity, walking, talking, interacting, or any of the sounds that might seep out of people's apartments – occasionally cars would zoom by, or ventilation systems would hiss from various buildings. On a few occasions I heard music being played from a loudspeaker set up on mostly empty central streets – eventually I learned this was a form of pop-up station where food was given out to homeless. But this sporadic island of dislocated music made the rest of the center echo all the more emptily after dark. Being used to cities with active late street life, this seemed odd to me. Or rather, it was odd until I realized I was assuming people live in city centers, i.e. in floors above shops. While this would be common in other cities I knew, it was not true of Belfast – these buildings were not even available as residential space. It sounded empty because it was.

Saying that I could walk the length of the city in an hour gives a sense of scale – and yet the intimate size of Belfast did not seem to translate into the dense communal sound spaces I initially expected. Even such broad-stroke first impressions of Belfast showed a few sonic elements, such as ubiquitous tones of traffic that seemed disproportionate to its size, and tendencies, such as the stark nightly stillness of center, that hinted how systemic elements – such as road structure, bus system design, and lack of available central residential space – and use patterns – such as a large number of workday commuters – audibly contour this particular city.

In describing their notion of *sonic commons*, artists O+A point out how what we hear in urban space is both a given sonic event and the way it is shaped by the built environment. Thus, city spaces can be heard as various layers of past that resound in the present. Since their built environment has resulted from past and present expressions of cultural, social and economic power, in listening to cities we can interpret what we're hearing as a layering of those underlying interests and power mechanisms (O+A, 2009). This includes for example, building motorways, prioritizing one form of mobility, or deprioritizing inner city living in favor of suburban areas. Such decisions, not made with listening in mind, have physical, infrastructural, social, and also sonic consequences. As a listening pedestrian in Belfast, those effects are palpable. In some sense, what is striking is what is not audible: sites of dense public social activity I expect from a city are harder to find, unless you look in specific spots or at specific times, such as the retail corridor during shopping hours and good weather, or inside spaces, such as pubs or the covered marketplace. I could walk through the center without hearing noise from a playground, trams, or an echoing underground system – entire sonic microcosms I strongly associate with urban sound spaces seemed missing.

3.2. Accents and voices

On the other hand, my ears were piqued by a new variety of speaking accents, and the many voices that are a distinct sound of this city. Besides unfamiliar local expressions, there were also nuances to words I thought were familiar, including ones relating to city space; words like “community” and “shared space” have a particular local tenor. While public space is a site of complex social relations anywhere, in Belfast it is further accented by lingering sectarian dynamics parceling the city in “ethnic” or “neutral” territories, for example, authors Gaffikin, McEldowney, and Sterrett contrast the “ethnic” residential areas and so-called “peace walls”, to a “neutral” space of the commercial city center (Gaffikin et al. 2010). While my PhD research is not focusing on such politics or divisions, a growing awareness of these power dynamics and how they are spatially and infrastructurally embedded, offers another local filter for what I am hearing (or not hearing).⁷

Like getting used to a dialect, getting a sense of Belfast’s particular architectural, industrial, economic, as well as social character all offer clues for how to critically hear the city, i.e. understand how sound quality might be shaped by those conditions. It also helps me relate to how other people might hear places. This is crucial because, more than any of the other ways of listening so far, listening to more voices in and of Belfast – residents, artists, architects etc. – has been shaping how I hear spaces in this city.

3.3. Site surveys and walking dialogues

Focusing on shared and publicly accessible spaces in the center I began identifying sites of interest, or *nodes* (Lynch 1960) where besides recordings, I began measurements and observation in the form of site surveys. The first structure of these site surveys was determined by my main research questions, sonic concepts, and influenced by the ‘auditory protocols’ of Auditory Architecture Research Unit, UdK, as well as urban public life study, (e.g. Gehl and Svarre 2013).

Besides listing the category of urban site, and main recording or measurement methods employed, they also initially contained questions around:

- what could be heard
- where it sounded like one was
- who or what was creating sound in that environment and why.

It went on to ask about notable sonic effects and thresholds, and included a section to make notes about the structure of the built environment, prevalent materials, setting etc.

7. Notable work has been done considering the spatial planning consequences of Belfast’s recent social history by (above mentioned) FAB. The amount of central city space devoted to car parks, highways and left derelict, as well as reasons, have been outlined in their map “The Missing City”. <https://www.forumbelfast.org/projects/The-Missing-City.php>. For more specific links between Belfast’s contested politics and acoustic space see Ouzounian’s account of explorations by sound artists in Belfast (2013) as well as the ongoing research project *Hearing Trouble*, led by Ouzounian and Lappin (2015-) which investigates sound art in post-conflict cities: <http://gtr.rcuk.ac.uk/project/CDE0BAE1-6F4B-4C9B-8F24-3227ED7C2998>.

that might have a role of shaping sound space. These forms were revised as I used them, and now integrate more free form writing, and fewer narrow questions.

Building on this, I began to do site visits with participants, to get a sense of their sonic experience. Beginning as a form of the survey which other people could fill out, these participant site visits went through several iterations. First, these accompanied visits used parts of the survey as the basis of a semi-structured interview conducted in the context of a guided soundwalk. Besides the survey questions, I considered a number of tasks relating to various sonic practices, aimed at exploring different aspects of sound environment. These tasks were intended to be modular i.e. tasks one could insert and remove during an accompanied site visit.⁸ While these yielded interesting interactions, the structured interview and tasks constrained the site visit, which was problematic in that it was too prescriptive of what sonic aspects were being focused on – it was dictating listening rather than guiding.

This led me to open up the in-situ interviews and also extend them along walking routes, rather than having them based around a single site. For these routes, I focused on paths that would pass through specific nodes but also offer a variety of urban morphologies and social spaces. Rather than just survey questions on sound, I asked about impressions and familiarity with places; how people might use a particular space, and explored other associations of the area; such as people's memories, especially if they were local. Some memories were more directly auditory, others influenced the way a person might describe or reflect on a current sound environment. This allowed information about sites to surface, which placed them in a richer local and personal context, and also provided other sensory information about behavior in particular spaces. The less narrow interviews allow me to learn more about use of the city center and people's personal relationship to it, such as whether they thought of it as a center at all.⁹ In a sense, I could hear more of the Belfast I was missing.

One recurrent topic, for example, has been transportation and how that changes access and use of the center. A number of times, participants made distinctions between their engagement with the city as a driver, cyclist or pedestrian. While as a pedestrian walking through the center it can seem fragmented by empty car parks, as a driver, the lack of easy parking might be cause for comment. The reason that this is a sonic question as well as a transportation issue, is that sound space is influenced by how and why people occupy a space. Preliminary fieldwork conducted in central surface car parks, for example, so far indicates

8. These included e.g. drawing or mapping the sound space on paper, or navigating or interacting with the site in another way. For example, in one task, I asked participants to walk around a site and listen for transitions of sound space. Wherever they thought there was a threshold they placed a marker, and then we discussed why they chose the spot and what they noticed.

9. For example, one of the routes passes through the site of former gated barriers of the "ring of steel" – a security border around the central city core that stood for years during The Troubles. This was not something I was initially attending to in my walks until one participant noted that (having the barrier still in their memory) they did not associate a particular street as going into the center.

that they neither provide many activities or events that are interesting to hear, inviting to listen to, nor are they restful enough to warrant staying around, even if there were any option to sit (which there generally is not). There are few conversational encounters – not yet have I heard kids at play, instruments, bicycles, or lingering passersby activating those spaces. There are rarely people socializing; there are people walking/driving in, turning their cars off/on and walking/driving off. The sonic variety that a surface car park affords, while very open-ended in theory, is proving quite limited in practice.¹⁰

Clearly, factors like memory and mobility influence how people access, inhabit, affect and perceive city space – but the narrower structured interviews and tasks, would have missed such contextual information on personal urban experience. This indicated the need to allow a sense of the overall qualities of urban spaces, not necessarily just sound qualities, to emerge through more open dialogue with participants in situ. It also led to a sense of the interviews as offering a many-voiced understanding of a site – rather than simply a description of their sonic experience – which could be mapped alongside personal and mechanical listening in a layering of hearing perspectives.

3.4. Nodes and mapping

Layering these hearings – i.e. mapping the sound spaces – is facilitated by having routes pass through particular nodes, which I might use as primary spots for interview portions, first person observation, or other measures such as sound pressure level readings or material documentation. Even if respective walks diverge in length or path, by documenting route and sequence taken, it is possible to trace where various parts of an interview took place, under what weather conditions etc. Different walks and interviews, along with other relevant data, such as materials of sites, historical information, or future development plans can be linked in relation to nodes. Juxtaposing such information may suggest how given sound spaces relate to local perception and uses of place, design intentions etc. This way, sites remain in the context of a route, but can also be positioned in relation to other aspects of city ecology (in the sense of urban context e.g. its immediate surroundings, or its functional, social and political network).

For example, adjacent nodes of Victoria Square, Cornmarket and the Entries connect in a pedestrianized area of the center. Victoria Square is a multi-level mall, finished in 2008, encompassing an entire block and accessible in the manner of a shopping street, except that it is covered by a large, curved glass roof and a dome. Being expansive, with significant height in the central atrium, and primarily using hard and reflective materials gives it a tendency of being highly reverberant and aurally cavernous. It is sonically coloured by a fountain feature

¹⁰. Thus, giving spatial privilege to driving means there are numerous plots in the Center where not much happens that is interesting to hear, or invited to happen to change that.

in its center, beside the entrance to an underground car park from which seems to emanate low bass tones. This, combined with continuously droning motors of multiple escalators and the bits of store radio that seep in from individual shops dissolve into a high baseline noise floor muffling additional sound events. Voices of shoppers get swallowed in a sonic mesh.

It connects on one side to Cornmarket, an open pedestrianized area where five lanes meet, featuring a good amount of foot traffic and a rotating set of street performers. In the middle it is possible to hear farther down the numerous streets and distinct individual voices of passersby, but it is also often dominated by amplified sound, both from live musicians or playbacks by (mostly) religious groups. The other side leads to a number of 'Entries', small alleyways which claim to be among the oldest remaining parts of Belfast. Their elongated and constricted built structure, paved with stones, attenuates much external city ambiance, concentrating sounds emitted in them and giving distinction to footfalls and voices of few passersby. Some, like *Crown Entry*, are most characterized by a distinct rattling of a series of vents, and frequent wing flaps as you are apt to disturb pigeons. Other Entries open into somewhat larger square areas, e.g. back areas of pubs where you can hear people talking or screens playing rugby or football.

These adjacent sites already afford very different sound experiences in terms of the acoustic properties of their built structure (e.g. large, enclosed from above; large, semi enclosed on sides but open above; elongated, constricted, enclosed on two sides but open above), prevalent materials, and activations such as voices, infrastructural systems, water features, singing performers, and air conditioners, along with contrasts of function, micro-climate, state of maintenance, etc. Moving from one to the other and back again emphasizes, for example, the influence of physical structure on shaping sound, varying levels of conversation audibility, and so on. Considering the sound and atmosphere of a particular site in its immediate geographic context as well as 'translocated' (to refer back to the sonic practices) into e.g. social, functional, contextual networks can emphasize different aspects of its sound space and how it fits – or not – in those networks.

4. Reflections on Guided Listening

The function of the accompanied site visits shifted from a focus on assessing how other people hear city spaces by explicitly guiding their listening, to more of an on-site dialogue, with those people also guiding me through their city, changing what I heard and how I listened. In some ways, I see the interviews as coming to resemble other sonic and sensory ethnographic practices, and also drawing closer to approaches used in ambiance studies, and

acoustic ecology.¹¹ At the same time they also refer back to elements of sound arts and the sonic concepts with which I originally started. The notion of guided listening, which features in urban sound art works that are composed by marking out interesting listening points, or which direct the listener through a variety of sound spaces has a particular importance.¹² In traversing routes, I draw on this as a reason to utilize available differences of urban morphology to indirectly guide listening during the walk, and find routes through public spaces which also form thresholds, constrictions, variations in social function, development, dereliction and use. Weaving through interior as well as exterior spaces, helps offer contrasts of ambiance allowing a clearer sense of acoustic atmosphere to emerge (Böhme 2007).

The in-situ interviews also function as an assisted soundwalk for me, sharpening my awareness of certain conditions of the place, such as where conversational spaces can be found. Recording our dialogue becomes a test of where it is possible to make an audible recording. In a sense, the interviews extend my hearing perspective. The interactions and voice of one walk inevitably echoes into the next one. The impressions that people provide, imbued with personal narrative, allow me to layer that description onto others, to form multiple hearings of a site.

Lastly, the project changed in its approach from thinking in terms of translation, to thinking in terms of dialogue. It seems that a shared understanding and relevant approach to listening critically to urban spaces needs to emerge co-productively, rather than come from transplanting tools or concepts – i.e. from “sound arts” to “urban planning”. This is important because there is not only one single function or agent of urban planning which developed listening practice might address. Furthermore, regulations, developers’ concerns, economic considerations, political ideologies, individual habitations, and more, all play a role in the design, development and determination of urban space. Thus the project is opening attention to a wider range of agents of city transformation, offering multiple auditors and interlocutors through which to develop potential listening practices for urban space.

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11. See, e.g. the commented city walks of Thibaud (2013) or walk methods described by Helmi Järviuoma and Nora Vikman (2016).

12. Here I would refer to, among others, the *Listening Points* work of Akio Suzuki as well as the *Path of Awareness* works by artist katrinem which can be characterized as art that arranges its listener (see e.g. Flüggé 2016).

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Online Resources

- RTC.** *Recomposing the City* website <http://recomposingthecity.org/>
- Belfast Sound Walks** <http://www.socasites.qub.ac.uk/belfastsoundwalks/>
- RTC Sound Mapping Sailor Town** in cooperation with *StreetSociety 2014* <http://streetsociety14.blogspot.co.uk/2014/03/final-product.html>.
- Ouzounian and Lappin 2015,** Research Council site, *Hearing Trouble Project* (<http://gtr.rcuk.ac.uk/project/CDE0BAE1-6F4B-4C9B-8F24-3227ED7C2998>)
- FAB Forum for Alternative Belfast** site <https://www.forumbelfast.org/projects/shared-space-2011.php>
- FAB Forum for Alternative Belfast** map of "The Missing City" <https://www.forumbelfast.org/projects/The-Missing-City.php>

