

A Typology for Listening in Place

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ABSTRACT

Sound technologies, particularly mobile and locative media technologies, can provide unique listening experiences within situations that are not themselves exclusive zones for sonic projection, meditation or exploration. This paper seeks to contribute to the understanding of locative sound design by presenting a framework consisting of three spatial archetypes: the Theatre, the Museum and the City. These serve as metaphors through which we can articulate different types of relations between listener, sound and place. The Mobile Music Player has been chosen as an example of a listening condition that both characterises and traverses the Theatre, the Museum and the City listening archetypes.

Keywords

Locative media, contextual media, listening in place, mobile music player.

1. INTRODUCTION

The proliferation of new social conditions in which complex modes of listening are called upon suggests an investigation of the interplay between new technologies, spatial archetypes and the interpretation of sound. We address modes of listening in the context of locative media and suggest three characteristic scenarios that address the relationship between a listener, sound and place. While it is beyond the scope of this paper to pursue a formal typology, we feel it is important to identify conditions of listening in place in order to better understand mobile music design and its experiential implications.

Sound in locative media applications typically depends on the spatial and temporal environment as well as the wider context (environmental and personal condition, social context, etc.) of the listener.¹ This suggests that the exper-

¹The characteristics of these contexts go beyond the definition of cartesian space, and hence we refer to locative media also as 'contextual media' throughout this paper.

iences which they help to create are deeply personal, but at the same time often have a focus on social interaction. They are networked, mobile and interwoven with everyday routines. The locative media experience is by definition technologically mediated; this is the result of an increasing awareness of the importance of place and people in the development of mobile technologies [12]. Because this mediation can dramatically alter the way in which we engage with content, it is worth investigating how metaphors are developed to address new technologies and how these influence our listening experience.

2. LISTENING TO TECHNOLOGY

Beyond mere tool development, technology can serve as a mirror that reflects our understanding of the world, which is evident for example in the work of the Critical Art Ensemble [6]. This process, which usually takes more time than the technological achievement itself, can reveal multi-faceted difficulties in the application of newly developed tools. These can either be due to problems implicit to the technology itself, or pinpoint a lack of understanding on our own behalf, with the line between the two often being hard to draw. Identifying these difficulties and their sources can provide us with a valuable insight into the relation between technology and culture. In this process, metaphors developed through earlier experiences can be useful as a starting point, but at the same time should not prevent us from developing refined and more suitable models for approaching new technologies.

Numerous examples of this practice can be found in music technology: even today, many synthesizers are still structured around the imitation of non-electronic traditional musical instruments. This is perhaps due to the lack of symbolic categories for the rich sonic universe opened up by electronic music. It is hard to talk about things for which we have not yet developed a language. However, if electronic instruments are not being understood as instruments in their own right but as a miraculous and convenient replacement for entire orchestras, they inevitably fall short of our expectations. The early loudspeaker concerts of the 1950s [13] are another example of how an existing context can dominate a technology's pioneering era. Instead of radically questioning our idea of music in the face of the developments of electronic music, the replacement of musicians on stage with loudspeakers maintains recognisable models for music experience. The difficulties which this created for the audience in the reception of this music instigated clichés of electronic music being impersonal and detached from hu-

mans which partly remain until the present day. Eventually, however, they have also led to the development of new listening strategies and art forms (e.g. acousmatic listening, the sound installation, etc.).

Today, locative media and pervasive technologies challenge our concepts of music and its performance on every imaginable level. Music moves out of the safe environment of the concert hall into the open, unpredictable space of the city. Through portable devices, music has long become interwoven with and overlaid on the routines of our everyday lives. By extending these technologies with low-cost sensors, GPS receivers and network capabilities, these devices now become aware of their own environment [1, 2, 9]. The performance of music in the age of contextual media questions the notion of music as object with clearly delineated temporal, spatial and social boundaries. As adaptation to the unpredictability of real-world environments replaces the projection space of a dedicated performance environment, one must re-address the roles of producer and listener. After the gradual individualisation and abstraction of the listening experience, which has been initiated by recording technology and found its peak with the introduction of personal mobile devices [10], locative media offer the chance for a re-integration of the everyday environment into listening.

However, emerging approaches to locative media are often based on metaphors which do not support this re-integration of the everyday; a phenomenon which we will address in more detail in section 4.2. New approaches are required to address the challenges presented by contextual media. While in the first period after the introduction of a new technology, it is inevitable to talk about new means through old language, the development of new suitable metaphors can contribute to an understanding of the complex interface between technology and culture (see Coyne [5] for a discussion on metaphors in technology). We argue that by addressing listening strategies that characterise the relationship between listening and place, we can better comprehend the implications that locative media have for music and sound design.

3. LISTENING IN PLACE

Most research that addresses the culture of listening delineates relationships between subject and object. The object (a sound) remains relatively unaffected by the subject (the listener), the interaction between the two being normally described according to intention. The three listening modes proposed by Michael Chion in the context of audio-vision [4] reflect methods for decoding sound which he describes as reduced (Schaeffer [13]), causal and semantic. The tradition of acoustic ecology [14] treats the soundscape as a musical composition in which the listener has an active part, perhaps to the extent that the listener is involved in the composition process. More recently, in ‘Spaces Speak: Are you Listening?’ [3], Blesser and Salter address the issue of sound and space by systematically juxtaposing acoustics, psychoacoustics and musical discourses. Mobility inevitable challenges how we address sound and space. Within this framework, it is worth investigating different types of conditions that identify how one listens in place.

The listening conditions exposed by recent locative and mo-

bile media are arguably more complex, as the listening context shifts from a situation based on intention to one in which the complexity of everyday life permeates the subject-object relationship. As listening becomes increasingly modulated by space, it is necessary to address the role of the listener and associated context. With view to better understand these conditions, we propose a framework which identifies three scenarios with distinct relationships between listener/participant and place. This framework provides not only a method for the analysis of everyday listening situations, but advances a strategy for addressing design issues in the context of sound and locative media. By using the Theatre, the Museum and the City as both archetypal places and metaphors for addressing a social condition, we formalise three distinct types of listening-in-place relationships.

3.1 The Theatre of Listening

The archetypal theatre clearly defines the position of the audience and stage according to the notion of projection. As those on stage embody the role of producers and those in the audience agree to the role of spectators, the listening contract is articulated as one enters the theatre. The threshold is suggested spatially by the doors to the hall and temporally by the curtain call. This mode of listening is characterized by the emphasis on communicating an experience that is notionally equal to all members of the audience and therefore treated as an object that can be projected. This paradigm has been influential in the development of sound projection techniques, instrumental forces (from chamber to orchestral) and architectural acoustics.

3.2 The Museum of Listening

The museum shares with the theatre the clear threshold condition that identifies entrance and engagement. As one enters through its doors, one agrees to inhabit a curator’s world within the safety of the museum walls. The Museum of Listening is distinct from the Theatre because the sense of projection is replaced by the labyrinth of routes that emerge from the overlay of the museum’s own architecture, the exhibition layout and one’s own intentions. Unlike the Theatre, the Museum experience is likely to be fragmented, articulated not by the event, but by the spatial boundaries that differentiate one collection from another. In opposition to the Theatre, the listener in the Museum is mobile. He co-defines the spatial and temporal frame: the Museum is a building/area with clear spatial boundaries and limited opening hours, but the listener decides when to visit and what to explore.

3.3 The City of Listening

The city’s fragmented, dispersed, multiform and migrational characteristics are advanced by de Certeau as an alternative to the readable and planned city [7, p.93]. To listen in the city is to be immersed by all that is not anticipated by the city planner and his ‘visual’ city. The god-like view of the urbanist provides no help in understanding what it is to be in a constant complexity of sound and to be called to articulate a multitude of events. In contrast to the well defined threshold of the theatre and the museum, the city offers no safe boundaries. The listening contract conveniently articulated by doorways and curtain calls is here replaced by a condition of potentially permanent engagement. As in the Museum,

the listener is mobile and free to define her temporal and spatial frame, but there is still an important difference: the boundaries of the city are not clearly defined. The City typically accommodates a variety of simultaneous experiences and temporal conditions.

4. THE MOBILE MUSIC PLAYER

The three scenarios presented above are arguably articulated through a variety of media and situations, often in combination with one another. For the purposes of this discussion we will apply the three archetypes of listening in place to the ubiquitous condition of the Mobile Music Player.

Initially, we shall treat the Mobile Music Player as it is most widely known: the Walkman or iPod. We shall then continue by describing how recent developments in locative and context-aware media can be seen to have incited an evolution of the music player and through doing so have further strengthened the notion that the Theatre and Museum – as well as the City – are ever present and ever referenced metaphors within situated music technologies.

4.1 The Mobile Music Player and the Theatre

The Mobile Music Player (e.g. the iPod) can be seen to make clear reference to the Theatre. The development of this metaphor can easily be tracked: mobile music players have been designed as portable home stereo systems, which in turn follow the idea of the public address system. Public address systems by definition lend themselves to the projection metaphor of the stage in the auditorium [10].

However, if the music player were nothing more than a mere transposition of the Theatre into the city, we would have nothing more than the Ghetto Blaster. The Mobile Music Player demonstrates that consideration has been given to the listener as individual, however superficial this may be. Our desires for mobility, privacy and control within the turbulence of the everyday have been sympathised with. A revision of the theatrical contract has taken place. However, the modification is minimal and the presence of the Theatre is still very much evident.

For some time prior to the distribution of the Mobile Music Player, stereo recordings had removed any great need for the Theatre's projecting distance: A record can retain and recreate the spatial dynamics of a performance space. Hence, the Mobile Music Player was able to create a private listening experience by reducing the required interval to mere millimetres. However, there still remains a separation of stage (the earplug) and audience (the ear). Furthermore, a temporal contract similar to that of the Theatre is still in operation: The music track played by a personal device is of a predetermined length, set by the creator within the studio, it has a definitive start, middle and end. We agree to this contract when we press the play button. However, one may exit this contract at any time: a more immediate and less socially observed stop button has replaced the theatre door.

4.2 The Mobile Music Player and the Museum

Locative media technologies have propagated, and with them a new form of Mobile Music Player has developed. One of the most publicised and well-documented methods for creating such presentations is Hewlett-Packard's 'MediaScape'

software package. An example of its use is 'Riot! 1831' [11]: Within the work, the events of the Bristol riots of 1831 are conveyed through an interactive aural dramatisation. A participant can navigate through the historic scenes by investigation of the actual location of these riots, Queen's square. This is achieved through the use of a GPS positioning unit and a PDA; the sound is projected through headphones.

While environments like the above use the city rather than the white walls of a gallery as a projection surface, we suggest that they still have a great deal in common with the Museum: The spatial boundaries of the experience are still clearly defined by the designer; they choose the dimensions of the work and the location of activity. As one adorns the headphones and enters the mapped space, we agree to inhabit an artificial city, a city of the designer's choosing.

Furthermore, it would not be possible for designers to articulate all that the host city represents. Hence, they must first filter the environment; they must remove the noise. Only the prevalent and steadfast get selected. What remains is a collection of distinct structures adjoined by a channel of sleek pathways: a museum.

4.3 The Mobile Music Player and the City

The theatrical contract, as we have discussed, was adjusted by the designer for use within the urban locale; the Mobile Music Player was thus created. However, it was the consumer who fully appreciated the constitution of the City and fully integrated the music player into a vocabulary of everyday life. Hence, such devices have obtained a greater significance and unique role within urban environments. For instance, beyond its intended function, the Mobile Music Player provides the individual with the means to affect their sense and meaning of an everyday situation. Tia de Nora comments on music used in this manner: "[M]usic is a device or resource to which people turn in order to regulate themselves as aesthetic agents, as feeling, thinking and acting beings in their day-to-day lives." [8, p.45].

The Mobile Music Player is not merely a method for the presentation and contemplation of a musical work, nor is it a mere means to disassociate oneself from the present place in an attempt to escape the tribulations of the city. The musical choice exercised within the everyday, actively chosen to accompany the everyday action, operates as a tool for appropriating our experiences. Through user studies, Williams [16] has identified 11 functions of portable music, most of which probably had not been anticipated by the designers of early mobile music players. They range from aestheticisation (of one's own environment) to boundary demarcation, time management and learning.

In the previous section we introduced a new form of music player that incorporates a sense of location. We suggest that, at present, only the designer has attempted to incorporate this into the City discourse. As we have commented, the success of the iPod/Walkman is as much about how the consumer has positioned the device as the designer. Hence, for location-specific presentations to propagate, they must bear more input from the situated consumer, from the individuals who constitute the audience.

Perhaps an everyday value could arise in a similar manner to that of the musical track. If the consumer becomes the designer of locative media projects or can at least exercise more choice and control, then hopefully a more illustrative reflection upon the residing place can be ascertained. The rigid model of Museum within the city, as described in section 4.2, almost dictates the meaning of locations to the individual; it does not allow the individual to formulate their own understanding of a situation, explore their own sense of place.

5. CONCLUSION

We have presented three spatial archetypes through which we address listening in place as a framework for a better understanding of locative media applications. The Theatre, the Museum and the City serve as metaphors through which we can evaluate the relationship of the individual, sound and place. These categories are not to be understood in a dogmatic way; many applications will feel equally comfortable in more than one of these environments, and none of these archetypes should be regarded as superior to any other. However, while mobile media applications are in many ways 'native' to the City, they are often addressed through the metaphors of the Museum and the Theatre. We believe that the framework presented in this paper can raise the awareness towards idiosyncrasies of locative media (such as suggested by Tanaka [15]) and therefore make a contribution towards a better understanding of their use. We hope to open a discussion on strategies for musical applications of contextual media, which should ultimately lead to the development of suitable design strategies for specific environments.

In order to address the City and its associated modes of listening, we argue that design strategies for locative media environments need to move beyond cartesian models which support a god-like view of the city [7], but fail to address the on-the-ground complexities that characterise urban environments. To move away from absolute, coordinate-driven, event-based strategies such as those suggested by environments like HP Mediascapes requires a new focus on the creation of conditions rather than events, of behaviours rather than sequences.

When using the city as an environment for listening, the absence of physical boundaries means that context types (e.g. 'street', 'shopping centre', 'sports event') are of greater significance than their particular instances (e.g. 'Champs-Élysées', 'Harrods', '2006 World Cup Final'). With the increasing availability of locative media, it is reasonable to expect further developments in this mode of listening and interaction. With the multiplicity suggested by the City, context awareness rooted in an understanding of aurality can provide listening platforms significantly different from those described in relation to the Theatre and Museum. The absence of boundaries in the City should be understood as an integral part of the design process. By replacing absolute control for multiple conditions that reflect the nature of the City itself, one can begin to address the implications for designing not only the locative and the pervasive, but ultimately the lived.

6. ACKNOWLEDGMENTS

We would like to acknowledge the contribution of Hewlett-Packard to this research project, parts of which have also been funded by a SPUR studentship.

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