Hits and Misses

Music and the sonic construction of place

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Abstract

This paper deals with ontological and epistemological questions about how music, listening and public spaces are intertwined. It introduces selected studies on environmental sounds including Soundscape Studies initiated in Vancouver and its relation to the Bauhaus art movement. Other research traditions presented here are based on the concept of how sound sensations, experiences and memories construct a place. They also state that when examining the relationship between urban sounds and spaces, a researcher should pay attention to the fact that no sound event can be isolated from the spatial and temporal conditions out of which the physical signal is propagated.

Furthermore, the paper introduces the concept of transphonia, which refers to the mechanical, electro-acoustic and digital storage, moulding, reproduction and transmission of sound, and how this phenomenon constructs shared urban environments. When applied in public soundscapes, the sound-producing equipment, its applications and its musical content become political, and therefore negotiable. Thus, centripetal and centrifugal sounds which have been selected to attract certain consumer segments whilst repelling others are increasingly becoming the subject of scholarly interest because of their highly political nature. Such sounds are not only musical, but encompass other liked and disliked sounds.

A case study on commercial radio and urban public spaces is used to shed light on different aspects of transphonia. It shows that radio music in urban public spaces is largely a side-issue for any the radio stations' music policy, as their music is not selected with these spaces in mind. Nevertheless, it is evident that radio stations are relatively influential in constructing the sonic environments of shared spaces. This construction is in the hands of a few radio professionals, although it should be noted that these individuals' positions are far from being monolithic, as they are subject to constantly changing economic, legislative and cultural circumstances. This suggests that a space composed of electro-acoustic sounds would be in constant transformation, too, and it would be a target of constant negotiation and struggle regarding its nature, e.g. in relation to the gender, class, age and socioeconomic status of its users.

Keywords: acoustic design, environment, music, radio, soundscape.

Introduction

Thank you for giving me the opportunity to come and present this keynote speech. It has been a pleasure listening to your papers, so I'm happy to contribute to this discussion by giving you a music scholar's view of the topic.

We will begin by visiting Halberstadt, a small town in Germany, approximately two hours' train-ride from Berlin. In Halberstadt we find the Burhardi church where composer John Cage's work Organ²/ASLSP (As SLow aS Possible) is currently being performed.

What makes this composition a bit special is that it lasts for 639 years. The performance began in 2001, so after some elementary mathematics we can conclude that it will end in 2640. The composition started on September 5th, which was Cage's 89th birthday, with a pause that lasted seventeen months. The first chord marked in the score of the composition lasted five months. In the actual organ, there are two massive bellows, operated by electric power, which deliver the air pressure required to operate the organ. In case of a power cut, the instrument can also be operated manually.

All music is historically, culturally, technologically and spatially defined.

Halberstadt is a memorable experience in a number of ways. It is thought-provoking, solemn and yet peculiarly humorous – a quality, which is often present in Cage's compositions. It might remind you of mortality, when you realize than far in the future, when yet another chord from the same work is being played, you may have already joined the 'choir invisible', as the Monty Python's sketch-writers Cleese and Chapman would have so elegantly phrased it (YouTube 2016).

Halberstadt raises quite a few ontological and epistemological questions about music and listening. What do we understand by these activities? How do they relate to different spaces? Is a three-minute song heard on a radio in a public space identical to the same song listened to in a concert hall? Is a symphony heard on the car radio the same piece of music when it is listened to attentively through your top-notch speakers at home?

According to Cage, the answer is no. His composition seems to remind us that all music is historically, culturally, technologically and spatially defined. This means that we also need to know how different spaces are constructed, who constructed the space, and what were their motives in doing so? Perhaps most importantly, how can we approach the problem of music and space through scholarly research?

Although such intriguing questions cannot all be answered within the length of one speech, I hope to shed some light on them by dividing this talk into four parts. First, I am going to provide some background information by introducing assorted research traditions on environmental sound that you architects might find interesting in your work. This will be followed by a short description of the theoretical concept of transphonia and how it relates to music in public spaces. After this historical and theoretical introduction, I am going to present a fairly detailed case study which will give you an example of how contemporary urban spaces are constructed and what different interests are at play in the environmental and musical sounds we hear or listen to in our everyday lives. Finally, I will present my own conclusions about what this study can tell us[1].

Selected studies on environmental sounds

Soundscape Studies were initiated in the latter half of the 1960s by the Canadian composer and professor of communication studies, R. Murray Schafer. Schafer was influenced by the Bauhaus school of art, which flourished in Weimar Germany from 1919 to 1932. The initial idea was that the Bauhaus concept of Industrial Design (Industrielle Gestaltung) should be applied to the acoustic environment. Multidisciplinary *Acoustic Design* was

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[1] Section Commercial Radio and Urban Public Spaces is taken from the article "Transphonic sounds. Commercial radio music in a shared urban environment" published in *Etnomusikologian vuosikirja 2015.*

intended to bring together various scholars such as musicologists, acousticians, psychologists and sociologists who would form a school for studying sound in all its different forms. (Schafer 1977, 4; Uimonen 2005.)

The teaching philosophy in Bauhaus was founded by the German architect Walter Gropius, and was heavily influenced by different art forms including painting and sculpture. The paradigms of Gropius, which were based on paintings, were transformed into musical compositions by Schafer. As Schafer himself put it, "is the soundscape of the world an indeterminate composition over which we have no control, or are *we* its composers and performers, responsible for giving it form and beauty?" (Schafer 1977, 4–5).

In her article *Bauhaus and Soundscape Studies,* Schafer's co-researcher, the composer and soundscape scholar Hildegard Westerkamp, states that her colleague was intrigued by the multidisciplinarity of Bauhaus and how professionalism, artistic production, functionalism and creativity were bound together. This was evident in the *World Soundscape Project* (*WSP*) launched in the early 1970s. According to Westerkamp "Rather than staying marginalized by producing inaccessible and abstract art music for small exclusive audiences, we thought of the composer as a valuable contributor towards dealing with issues of soundscape. Composers could become the socially conscious, 'sonic-architects' or 'acoustic designers' of our cities, buildings, and villages." (Westerkamp 2002, 1–2.) Drawing on this, it is not difficult to understand that the sonic environment was also evaluated qualitatively, with analytical listening as one of the research methods.

Like Bauhaus, the World Soundscape Project's actions consisted of the application of a number of different research and pedagogical methods. Research projects combined quantitative and qualitative research methodologies, including decibel measurements, traffic counts, interviews and archive work dealing with the soundscape history of a given area (Schafer 1977). The WSP also documented soundscapes, edited radio programmes, published academic research and educational booklets, and organised workshops on sound education.

Schafer pulled his ideas together in his seminal book *Tuning of the World* (1977). This book is a highly ambitious presentation of a wide variety of sound-related topics, such as historical, rural and urban soundscapes, changes caused by the industrial and electronic revolutions, auditory perception, soundscape compositions, and documenting and researching soundscapes. Although *The Tuning of the World* is indeed inspiring, it lacked a sufficiently analytical and consistent theory and methodology to analyse sonic phenomena in a truly scholarly fashion. Despite that – or maybe because of that – it led Barry Truax to further refine the methodology for soundscape research and to develop it into a recognised academic discipline, now known as *Acoustic Communication*. There are currently a number of active research and artistic communities operating in Finland and other Nordic Countries, Central Europe, and Japan. These researchers are developing the discipline's methodology through a variety of research projects. (See e.g. Augoyard & Torgue 2008; Hedfors 2003; Hiramatsu 2013; Järviluoma et al 2009.)

It has been pointed out that in the context of environmental sounds, politicians and urban planners tend to concentrate on the bad qualities – *diagnostiquer le mal* – and to combat these negative perceptions of sound by building barriers that insulate people from unwanted noise. However, urban planners should also try to diagnose the good qualities of sound – *diagnostiquer le bien* – in order to investigate and promote favourable urban sound space conditions (Hellström 2003, 11). Strategic and operative actions for the policy makers should also be included in this process. This maxim echoes the views

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of the WSP on how the sonic environment could be improved with more appropriate and competent acoustic design.

Quantitative sonic measurements were first taken in the 1920s (Thompson 2002, 148) to provide data for the analysis of acoustic environments. However, the qualitative perception of sound is as old as humanity, and thus qualifies for inclusion in any such research. Although some everyday sounds go unnoticed, they always mean something to their listeners. Sound studies therefore concentrate not only on the physical and acoustical properties of environmental sounds but also on their social and cultural contexts, including the "tacit knowledge that people have about the structure of environmental sounds", which Truax has referred to as 'soundscape competence' (Truax, 2001, 57–8).

Soundscape competence resonates with notions of the relationship between sound, place and listening. The term 'acoustemology' (Feld 1996, 97) is used to refer to an exploration of sonic sensibilities, i.e. how sound sensations, experiences and memories construct place. As soundscape competence includes both communal and the individual's relationships with environmental sounds, an acoustemological viewpoint stresses that experience and memories are inextricably related to sounds and places (Uimonen 2011).

When examining the relationship between urban sounds and spaces, one should pay attention to the fact that no sound event can be isolated from the spatial and temporal conditions surrounding the propagation of its physical signal. It has also been asserted that sound is shaped subjectively by the auditory capacity, attitude, psychology and culture of the listener. There is no such thing as a universal approach to listening; every individual, every group and every culture listens in its own way (Augoyard & Torgue 2008, 4).

Another parallel concept is that of ambiance. This can be characterized as something related to how people sense and feel a place. Every ambiance has its own specific mood expressed in the material presence of things and embodied in the everyday life of city dwellers. Thus, ambiance is both subjective and objective: it involves the lived experience of people as well as the built environment of a particular place. (Thibaud 2003.)

This necessarily brief introduction to Soundscape Studies, Acoustic Communication, Acoustemology and Ambiance has been included to give you some rudimentary information about their scholarly legacy, and to demonstrate the background to current research into how an individual or a community interprets, constructs and gives cultural meanings to their sonic environment. Researchers on the topic of sound come from a wide variety of scholarly and artistic backgrounds ranging from composing, communication research, anthropology and architecture. Finally, the term originally invented in the early 1960s in Canada was given an ISO-standardised definition in Europe, too (Kang 2013).

Transphonia

Rene Magritte painted a picture of a pipe and named it "*Ceci n'est pas une pipe*" ("This is not a pipe"). This somewhat simplified example underlines the difference between a *picture* of a pipe and the actual device meant for smoking tobacco. The same point can be said to be true of the difference between a sound and a *recorded* sound. Recorded sounds are now taken for granted, but they have changed not only our perception of music, but also how we describe music linguistically. In reality, different mechanical and electroacoustic music platforms do not actually play the Beatles, or any other recording artist. All they can do is

reproduce musical and non-musical sounds. This phenomenon is called Transphonia.

Transphonia refers to the mechanical, electroacoustic and digital storing, moulding, reproducing and transmitting of sounds.

Transphonia refers to the mechanical, electroacoustic and digital storage, moulding, reproduction and transmission of sounds. Most importantly, it pays scholarly attention to past and current music performance practices in the light of multiple individual and social meanings compared to the original contexts of the sounds. Thus, compared to the pre-phonographic era, music today can have multiple meanings, depending on where one listens to it. Transphonia underlines the processual nature of restated sounds, particularly when the reception of music is being studied. (Uimonen 2005, 63.)

The use of transphonic equipment permits different kinds of listening than were possible in the pre-phonographic era. Phonographs, gramophones, radios, compact cassette players, transistor radios, and more recently digital recordings and playback devices have all enabled music to be listened to in an increasingly wide variety of spaces. As a result, whereas listening to music was once confined by technological limitations, nowadays, both background and foreground music have become part of the contemporary urban and rural sonic environment, which includes commercial environments.

This has not gone unnoticed by scholars, who have presented a number of studies on the effects of music on consumer behaviour. The topics of these studies range from the influence of in-store music on wine selections to the effects music can have on a consumer's choice between two competing foods or even between competing brands of petrol. There has also been a study of the effect background music can have on the taste of wine, and another one on the congruence between background music and the goods in a florist's shop, appropriately titled "Love is in the Air". (North, Hargreaves & McKendrick 1999; Yeoh & North 2011; North 2012; Jacob *et al* 2009.)

However, when operating in public soundscapes, sound-producing equipment and its applications includes the content of the music, which means that it is political and negotiable. Centripetal and centrifugal sounds are selected, respectively, to attract given consumer segments and to keep other groups of people away. Centrifugal sounds are of particular interest to scholars because of their highly political nature. The use of these sounds begs the question, who has the right to define what segments of the population are undesirable and how should sound be used to keep them away? In my home town of Tampere, a few years ago the local police advised a shopping mall to air classical music and install bright lights to calm down the area around the back entrance to the mall (Uimonen 2004).

A device called Mosquito has been utilised for the same purpose. This small electronic device produces a very annoying high-pitched noise, which is mostly only audible to young people because of their non-deteriorated hearing. According to the manufacturer's website, "Moving Sound Technologies has been marketing and selling the Mosquito throughout North America. Many cities, municipalities, school districts, and parks boards use the Mosquito to combat vandalism. The patented Mosquito is a small speaker that produces a high frequency sound much like the buzzing of the insect it is named after. This high frequency can be heard by young people 13 to 25 years old". (MST 2016.)

In the UK, the use of such devices led to a national campaign arguing that "even if the devices cause no damage to hearing they are an unfair attack on people's human rights" (Campbell 2008). The company's response was to introduce the Mark 4, which allows the user to lower the frequency, so people of any age can hear the sound. Furthermore, the company claims that a hotel chain in Canada has reported the successful use of the device to keep homeless people out of

their hotels' car parks. It has also been reported in the Canadian press that Vancouver schools "fight vandalism with teen-repelling sound device" (Campbell 2008; Hopper 2012). Moving Sound Technologies also produces royalty-free classical music or 'chill-out' music for the same purpose.

Commercial radio and urban public spaces

Some of the most novel ways of consuming musical sounds are closely related to the concept of ubiquitous listening, and how music is connected to genre-normative ways of listening. Modes of listening, listening situations and music styles have a reciprocal effect on each other. Most of the music that we hear in our daily lives is intended to be listened to inattentively, in addition to which, it is often selected by someone other than ourselves. This poses a challenge to music research: if contemplative listening has created a canon of Western classical music, are there other canons and repertoires created by other modes of listening? (Kassabian 2002, 131–135.)

One answer to this question can be found in the detailed study of the music policies of commercial radio stations. The everyday music content of the station is not supposed to annoy radio listeners, but at the same time, it must be interesting enough to create a comforting background for the performance of daily household chores or repetitive work tasks. If a station does not succeed in meeting these expectations, it is assumed that the audience will switch to another station. So, when they are creating their music canons, radio stations first test out their musical offerings before broadcasting it to make sure it conforms to the taste and expectations of their target audience. This fact has to be taken into consideration when studying radio music culture, which has been defined as all the practices that have an effect on the music broadcast on the radio, including the process of acquiring the music, compiling a playlist, and anything else which governs the playing of music on the radio. (Uimonen 2011, 18–19, 23.)

To some extent, the cultural conventions and ideas about how classical music, or any music, is supposed to be appreciated (do you listen to it, do you dance to it, do you sing along?) have lost their significance in the context of ubiquitous music. Although almost any music genre can be classified as ubiquitous music, that is not to say that ubiquitous music can be any kind of music, or that its selection would be an indifferent act. On the contrary, switching the background music of a gym with that of a fine-dining restaurant would most likely lead to undesired results for both locations (see also Boschi, Kassabian & Quinones 2013).

In addition, consuming ubiquitous music requires contextual listening skills and the competence to act in various acoustic environments. A musical work can be listened to attentively in a concert hall, but it is understood that the same contemplative attention given to a piece of music on the car radio or through headphones might pose a safety risk for the listeners and their fellow road-users.

Commercial radio stations construct playlists in accordance with their musical culture, and then make these playlists available to anyone who wants to take advantage of this ready-made product, be they at home, in the workplace or in any other acoustic environment. Commercial radio has had a profound effect on moulding diverse public environments, both in Finland and around the world. The Finnish Composers' Copyright Society, Teosto, has carried out studies on to what extent background music is now being used, in what environments and under what circumstances. The diversity of such spaces is impressive, and includes accommodation facilities, buses, coaches, customer premises, outdoor spaces, restaurants, cafes, sports halls and tracks, staff premises, taxis, gyms, exercise classes, telephones (holding music) and so on. In 2012, Teosto identified nearly

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30 000 customers who were consistently using background music (Uimonen 2009, 61; Teosto 2013).

Annual surveys have provided us with detailed data about the music used, including listener preferences. According to a survey conducted in 2016, over 72 per cent of enterprises were using the radio for background music, and almost nine out of ten used commercial radio stations. Radio is usually preferred by hairdressers, barbers, shops and taxis, whereas restaurants preferred other sources of music. In addition, 50 per cent of the respondents considered background music to be important. It covered the uneasy silences and the hums of the machinery and enabled confidential discussions. (Uimonen 2009; Teosto 2012; Teosto 2016.)

However, it should be noted that it is not only radio music that is used in different public spaces. Some enterprises have specifically tailored background music compilations. This alternative is often chosen when companies want their customers to stay at their premises for a relatively long time, such as in a luxury car showroom. Another reason for choosing this option is that companies may not want to expose their customers to radio advertisements from competing businesses. In addition, music is found to be more desirable than radio talk. (Uimonen 2009, 69.) It is interesting to note that the feedback on people's reactions to background music might well include a wish for the repetition of one particular song – a wish that is clearly encouraged by commercial radio stations' music policies, which broadcast current hit tunes repeatedly and have changed the norms regarding how contemporary foreground music should sound.

As the urban environment becomes increasingly composed of electroacoustic musical sounds, this raises questions about what are the criteria for music to be regarded as ubiquitous and, more precisely, who is responsible for defining these criteria and in the end making the actual music selection. Contemporary radio music selection is carried out according to established standards and procedures, which involve the completion of several discrete tasks before the music is actually broadcast. The result of this automated process is a playlist, which is targeted at the radio station's listeners.

Unlike in Europe, where there are many well-supported public service radio stations, in the USA commercial radio is predominantly built on advertising and music. Nevertheless, it is not the advertised consumables or services that are being sold to listeners, rather, it is the listeners who are sold to advertisers as prospective audiences, quantified in the form of audience ratings. Most format radios use selected music genres to attract their audience and maintain them as loyal listeners of the station. The success or failure of a station is measured by its ability to fulfil the genre expectations of a given type of radio listener.

To meet the listener's expectations and to select the right kind of music, commercial radio consultants launched the concept of auditorium music testing in the 1990s. Later, these tests have been supported by data supplied through Internet questionnaires. During auditorium music testing, less that ten-second samples of familiar music are played to an audience consisting of 200 listeners, who belong to the target demographic of the station. Up to 600 individual samples can be evaluated in this way in one session. After these tests, music programming software is used to select, classify and place the individual songs on a radio playlist. The locations and the time of day are considered crucial when selecting the songs to be played; the listening rates are highest in passenger cars during the rush hours, and at the work place in the morning and in the afternoons (Uimonen 2011; ARH 2015).

The transformation of the soundscape is also influenced by changes in a radio station's ownership, for example when a station is merged with a larger unit, or

perhaps a small, independent station is swallowed up in a corporate acquisition. Naturally, these changes in ownership also affect the station's music policies. As a result, the individual music selection process carried out in a specific place for a limited number of listeners may be extended to cover several towns and cities. A radio station founded in Tampere serves as an interesting illustration of this process.

This station was founded as Radio 957 by students at Tampere university in 1981. Later, it was taken over by a major media company and was eventually renamed Radio City. In 2005, Radio 957 was targeting its content at males between 30 and 45 years old. The target group was personified by an imaginary listener, "Masa kolkytkuus vee" (36-year old Masa), whose family, personal history, hobbies, line of work and musical taste were carefully constructed with the help of market research. Another radio channel owned by the same conglomerate is Voice radio, which is targeted at Anne, a twenty-three-year-old single woman living in Lauttasaari (a suburb of Helsinki). Another station, Iskelmä, is aimed at forty-seven year-old Maija and her husband Matti, while Radio Nova is for Noora and Valtteri, who are 35-year-old suburbanites with two kids and two cars (Yol 2009). Such 'model' virtual listeners have also been used also by public service radio stations, such as the BBC's "Dave & Sue". Nevertheless, this practice has received quite a lot of criticism because the same songs end up being played by many different stations, all of whom are targeting the same demographic group (see Uimonen 2010, 11).

So, what was 36-year old Masa listening to, in January, 1985? On Tuesday, 18th January 2005, Radio 957 was broadcasting mostly rock, adult contemporary/pop and suomirock (Finnish rock-schlager), followed by blues, soul, rhythm & blues, country, iskelmä (Finnish schlager) and dance (hip hop, electronic dance music). The overall sound of Radio 957 was characterised by rock, adult contemporary/pop and suomirock as these genres comprised 80 per cent of their musical content. Classical music, religious music, folk and jazz were not aired.

Random sampling shows that the music targeted at Masa has changed remarkably little over the years. On Tuesday, 13th September 2005, the artists who dominated the soundwaves were much the same as they had been five years earlier, on 10th January, 2000. Go back five years before that, to 13th January, 1995, and Radio 957 was still broadcasting mainly the same well-known artists and their hits (Uimonen 2009, 77–80). Over a period of 15 years, the records (excuse the pun) show that the rock music of the 1960s and 1970s was mainly represented by the hits of the Beatles, Dire Straits, Creedence Clearwater Revival, The Rolling Stones, Marvin Gaye and Sam Cooke; that of the 1980s and 1990s was represented by Bon Jovi, Guns 'n' Roses, Queen, Red Hot Chili Peppers, Bruce Springsteen and Toto; while adult contemporary and pop were represented by Abba, Madonna, The Rubettes and Bonnie Tyler. In addition, about a third of the station's music content was performed in Finnish by Finnish artists recorded in Finland.

It will probably come as no surprise to learn that the playlist of Radio 957 (now Radio City) on 13 January, 2015 (20 years later) still consisted largely of familiar songs from familiar artists, such as The Beatles, Dire Straits, Creedence Clearwater Revival and The Rolling Stones, etc. (Uimonen 2009, 77–80). However, it seems that Radio City's music policy had finally changed. On Tuesday 25 October 2016 their prime time music content was not composed of recurring artists or songs, although according to their website's somewhat adolescent advertisement, their target group has stayed the same.

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Transphonic sounds in general and radio music in particular are constructing shared urban environments.

Concluding remarks

The radio music encountered in urban public spaces is a largely unplanned consequence of various radio stations' music policies, as their playlists are not compiled with these places in mind. A bus driver might belong to a radio station's target group, but it is unlikely that all the passengers will do. Although it is pretty obvious that radio stations are a major influence on the sonic environments of shared spaces, the music that they broadcast is in the hands of a few radio-industry professionals. It should be noted that these people's positions are far from monolithic, and are subject to constantly changing economic, legislative and cultural circumstances. This suggests that a sonic space composed of electroacoustic sounds should be in a state of constant transformation, too, and should be the target of constant negotiations and struggles regarding its nature, e.g. in relation to the gender, class, age and socioeconomic status of its users.

The sonic environment in many shared public spaces that urban dwellers are exposed to still consists of 36-year-old Masa's alleged music preferences, although it remains unclear to what extent Masa himself uses these public spaces. Radio City's website suggests that we are also sharing the same public place with a group of people who are willing to talk not only about music, sports and technology, but also about their toilet training, since the channel claims to be aimed at males who "urinate standing".

The case study of Radio 957 shows the consolidating effects that the radio industry has had on canonised ubiquitous music and its dissemination. Originally limited to the immediate locality of its transmitter, the music content in question has gradually changed the sonic environment in several urban areas in different parts of the country. This fact should be considered when conducting any research into the nature and design of urban public spaces. Such studies should include historical and contemporary changes in the economy, music culture and, hopefully, urban planning, too.

If we accept that transphonic sounds in general, and radio music in particular, are part of our shared urban environments, it is reasonable to call for urban planners to take the electroacoustic design of a space into account, as they would do for any other acoustic design feature, especially now, when contemporary media and the technological environment have enabled such diverse and multifaceted opportunities for designing and changing soundscapes.

Soundscapes, and the research into them, are in constant transformation. The latest research projects in this field are tackling these contemporary topics and diverse challenges with a multidisciplinary toolbox. These include new digital-age requirements set for public and semi-public spaces such as libraries, which are now re-designing their premises for the needs of new target groups. Another project is concentrating on restaurants and supermarkets, and how local cultural heritage, traditional music and natural sounds could be utilised in modern acoustic design. (Kontukoski & Uimonen 2016; SAES 2016.)

Thank you for your attention.

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KEYNOTE SPEECH