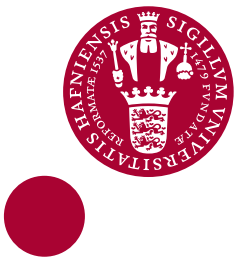

Can Participatory Experience Performances Co-create Qualification and Design of Audible Public Realm?

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Can Participatory Experience Performances co-create qualification and design of audible public realm?

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ABSTRACT

This paper discusses if experience performances, as part of a multi-sensory approach, can support qualification of public spaces. Based on Participatory Experience Performances, such as sound and experience walks during Capital of Culture Aarhus 2017 and Inter-Noise 2016 in Hamburg done by the authors, this paper discusses the interrelationship between moving, listening and seeing, all equally important for experiencing and shaping the city. The paper suggests the concept of Participatory Experience Performances and discusses if such performances could act as co-creative steps within the city making process. Finally, the promotion of embodied knowledge and language about human sensation and human-site interrelation, particularly in view of acoustically and visually differentiated spaces, which accentuates human becoming, is discussed as truly radical democratic and performative areas of action.

Keywords: sound and experience walks, multi-sensory experience, human-site interrelation, planning and design process, sound quality, public participation

1. INTRODUCTION

1.1 Moving, listening and seeing is important for experiencing and shaping the city

The current transformation European cities and landscapes go through, shifting from an industrial history to a service based future, is closely linked to citizens' lifestyles. People's mobility behavior, increased land use for housing, and changed leisure activities intensify urban growth and thereby influence the built and natural environment. Humans constantly affect cities, the landscape and

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natural environment, and they affect humans. Through mobile everyday behavior people apply their idea of city to places where they live, work and travel to. We permanently shape cities and landscapes through our physical presence and our design and organization of space. Cities and landscapes are therefore never static but always in change (Munck Petersen, 2010), also in a considerably audible way (Maag, 2013). Mental and bodily presence is simultaneously stimulated by multi-sensory effects and its emotional affects (Munck Petersen, Farsø, 2018). The vital question for a city and its development is how to handle coexistence in compact and densely built-up areas, where noisy, eccentric and dynamic tendencies interfere more intensely with quiet, stabilizing and decelerating counter-tendencies. Progressive urban growth leads to increasingly unfavorable experienced environments, meaning that the qualities of cities don't necessarily meet people's needs and match their imaginations (Maag, 2013, 2017). It also increases the discrepancy between noise abatement codes and spatial planning objectives and emphasizes the need to find and pursue new avenues for urban and environmental design (Fischer, 2016).

This is the starting position from where the authors want to take a closer look at experience performances and ask the following questions: How can we work with human's multi-sensory experience? How can we use that for qualification of an approach, by which we can build awareness and find parameters that support us to develop and design urban environments which supports peoples wellbeing? What are the added values of experience performances for the design of public spaces and the planning of urban landscapes?

1.2 Listening experiences

Sound quality understood as a *"local sound experience perceived by the listeners"* (Maag, Kocan, Bosshard, 2016, p. 2331) affects a place's popularity and how long people stay. *"Sound quality is a perception, and not a measurement"* (ibid). It is reflected, for example, in people's willingness to pay a certain land and/or rent price for housing or to move to a certain place. It has an effect on the mental and physical state of the persons staying here. It influences whether and how people say hello to each other on the street and is essential for face-to-face communication in public space.

Noise refers to a state of the acoustic environment that people perceive as annoying and unpleasant. Quietness isn't understood as a contrast to noise, but rather as a positive listening experience. Quietness and noise are different states of a place, which can dynamically interact with each other. They can be understood as two different forms of presence, which can overlap and merge. Quietness can be described as an equilibrium and noise as an imbalance of sound events in the respective context. Without considering the context, it is not possible to make a conclusive statement about quietness and noise for quality of life (Fischer, 2018).

1.3 Multi-sensory experience and human-site interrelation

Interaction with places is closely related to how humans experience and are affected by these places. Humans do not experience decibel, but they perceive places as quiet when they provide specific sensory experiences that interlink movement, vision, and hearing, thereby moving the individual person emotionally (Munck Petersen, 2016), Such extended mental and bodily presence and emphasis on a sensory-emotional register (kinaesthetic and synesthetic) per se are less developed aspects for planning and design of urban landscapes (Munck Petersen, 2010, 2016).

Sound is an intrinsic part of human interaction with spaces and landscapes (Lefebvre, 2013; Pallasmaa, 2012; Böhme, 2003, 2006). From this perspective, interactions between ear, eye, and body movement take on primary importance in affecting a person and producing extended awareness. Sound quality should thus be determined by human interaction and emotional effect. This active and culturally bounded stance permits 'a place' which show distinct sound qualities to be understood as an intimate space, subjective but general to all humans (Böhme, 2003), or even as a human's *"intimate space itself"* (Bruno, 2002). This reflects an inner condition of memory, mood, and perceptual transition rather than a state determined by silent, aurally metric dimensions. It brings forth human sensation – human becoming as a deeply rooted human-site interrelation. Places for quieting the mind based in how to work with a human's intimate space itself embeds an ethical perspective for planning and design (Munck Petersen, 2010, 2016; Munck Petersen, Farsø, 2018) and supports public spaces of high sound quality as a common good.

2. SOUND AND EXPERIENCE WALKS AND OTHER PARTICIPATORY EXPERIENCE PERFORMANCES – HUMAN SENSATION, RESONANCE AND ENGAGEMENT

2.1 Public involvement and engagement by means of sound-conscious walks

The concept of soundwalk combines walking and simultaneously listening to the environment. Soundwalks as fundamental methodology to explore soundscapes can be traced back to the origins of soundscape studies and acoustic ecology. Barry Truax, a member of the World Soundscape Project, said *"that the essential purpose of the soundwalk is to encourage the participant to listen discriminatively, and moreover, to make critical judgements about the sounds heard and their contribution to the balance or imbalance of the sonic environment. […] Its purpose is to explore sounds that are related to the environment, and, on the other hand, to become aware of one's own sounds (voice, footsteps, etc.) in the environmental context."* (Truax, 1978, p. 130) From the World Soundscape Project's initial idea to today's soundwalk practices, many variations have been established to explore and analyze the environment through walking and listening. An important and common purpose of soundwalks is to refer the methodology to acoustic mapping techniques and to gain sound maps (Ouzounian, 2014).

Decibel values recorded in noise maps are an established tool to quantify and assess the acoustic conditions of an urban environment. However, it is necessary to comprise other parameters in order to adequately describe a place's sound quality. For instance, *"sonic diversity"* is an important factor for everyday city life and is experienced as acoustically pleasant (Cusack, 2017, p. 88), while monotonous sounding urban areas are in general experienced as unpleasant – largely independent of decibel values. Such listening experiences become easily comprehensible and earcatching when listening on the spot, and, consequently, can be documented in, e.g., maps, texts, photos and drawings (Maag, Bosshard, 2012).

Soundwalk participants often complete questionnaires, map their observations and/or make sound records for the purpose of future evaluation of an acoustic environment. An established field of application are soundwalks related to sound projects in public space, like for instance to specifically generate an invisible but acoustically tangible space, a sound architecture within an existing situation (Bosshard, 2017), or to establish strategies for sound-conscious urban design (Mayor of London, 2004). However, only few sound projects *"empower people to engage with their*

acoustic environments in a critical way", meaning that many projects don't bring the participants into a *"critical dialogue or active engagement with their sonic environments"* (Ouzounian 2014, p. 168). Thus, the key question is which approaches and projects may overcome this lack of critical engagement and are better qualified for public involvement?

2.2 Engagement based on Participatory Experience Performances

Immersion of participants with their senses in the physical site promotes a bodily presence of emotional sensation emerging due to the human-site interrelation. Such resonance, between outer experiences and inner sensation, creates an embodied affect which reflects an inner condition of memory, mood, and perceptual transition. This is capable of raising an empathetic connection to the site due to one's experience of the embodied interconnectivity. The idea of a resonance in between humans and space is thus important regarding engagement. Harvard University's Professor of Visual Arts and the Environment Giuliana Bruno describes the transient relationship in the aesthetic experience between a surrounding and a person with the German word Einfühlung. It is a condition of pleasure and empathy, where an inner movement takes place between the space and the person (Bruno 2006, 2014). Sympathy for the experienced is created by the bodily subject, when it experiences a surrounding. This resonance in between the haptic experienced and the experiencer's sympathy for this supports empathy, which can be seen as a potential to envision and define new spatial values (Munck Petersen, Farsø, 2018).

This state of resonance with a power to support empathy and engagement therefore makes us focus on sound and experience walks as Participatory Experience Performances. From an urbanist and landscape architectural point of view, listening and experiencing when performed in guided walks is not a measurement of the environment, like how a microphone, a sound level meter or a soundwalk questionnaire measures. It rather consists of individual, differentiated multi-sensory experiences of the environment and its individual affect, which are shared between the participants and, thus, enables them to collectively create a common understanding of the environment. Such collective action addresses complex effect-affect interrelations, with a psychological depth, where behavior is regarded as consisting of environmental and individual parts that must be interlinked in order to function. A person's behavior, and personal factors such as cognitive skills or attitudes, can impact on their environment and vice versa, producing a common sphere (Bandura, 1986; Massumi, 2017). In this sense, listening and experiencing is a specific, participative way of engaging with the environment linked to movement and synesthetic effects, e.g., when vision of a busy street intensifies the perception of noise. Sound projects inhabiting public space and intervening with your unconscious sensing and being make you aware due to the exaggeration of the listening sense.

3. FIVE EXAMPLES OF PARTICIPATORY EXPERIENCE PERFORMANCES

The author's research is based on five examples of various experience performances of which examples 1 and 5 have been guided and performed by the authors themselves. Examples 2, 3 and 4 were performed by Andres Bosshard (Bosshard, 2017) and were joined and observed by the authors. Thereby the authors examined various interactions between listeners and urban areas.

– Example 1: guided walks in Hamburg with participants who are interested in environmental noise;

– Example 2: public sound recording event during the city festival Aarhus European Capital of Culture 2017;
– Example 3: public sound architecture during the Aarhus 2017 festival;
– Example 4: public sound performance during the Aarhus 2017 festival.
– Example 5: guided walks in Aarhus with participants who are interested in sounds as a musical (sensory-aesthetic) event;

The examples of experience performances took place in Hamburg 2016 and in Aarhus 2017. They show a variety of ways to participate in the audible public realm. Wether a singer during a public recording event of sonicArk (example 2), a random listener like a pedestrian who passes the sonicArk wind pillars (example 3) or visits the Ear of the Future festival (example 4), or a visitor of one of the author's walks (example 1 and 5), the participants all interrelate in a very specific way with the surroundings. The common objective of all experience performances was to involve the participants into the soundscape of the actual place. In this way the participants should become more aware of and in future take responsibility for the surrounding sounds. The authors captured their observations on film, photo and audio recordings.

Example 1: guided walks in the Hamburg Planten en Blomen park

During the Inter-Noise 2016 conference in Hamburg, the authors took in total 60 interested participants, noise researchers and planners, from all over the world on guided walks. The participants of the walks experienced the acoustic and spatial variety and differences of the urban space around the Hamburg Dammtor railway station and the Planten un Blomen park, both of which were very busy and well visited by people who enjoyed the nice weather. The walks had a double focus: the first one was to demonstrate the way in which buildings with their facades and roofs acoustically interact with the natural terrain and the city floors and in which way this can be relevant for city sound quality. The walks' second focus was to link sound with vision, movement and other sensory stimuli. During the walks the participants became more aware of that they always are embedded in a multi-sensory experience of space based particularly on acoustic, visual, and tactile sensory effects. Each walk lasted for around ninety minutes and followed along a carefully predefined route. A walk consisted of several sequences in which the participants walked on their own. Between these sequences the participants paused for a moment and discussed the observations they just have made. The authors used the pauses to share site related information, such as planning history, and to talk about the acoustic and spatial environment and the interplay of one's moving around in this specific context.

In the Planten un Blomen park, the participants paused at a spot where traffic noise is diffracted over tree covered slopes and reflected from facades in the background. The participants couldn't see the noise sources and mainly experienced the surrounding materials as green and natural. Noise measurements were taken with the help of the participants' smart phones and indicated that Planten un Blomen is not quiet in the sense of noise free. The near space showed good conditions for private conversations and was surrounded by human voices, and was experienced as very pleasant. The spot was experienced as visual quiet because there were no fast moving objects, nor persons. Although traffic noise showed peaks over 60dB(A) most participants found it an acoustically very pleasant and quiet spot despite the high decibel level. However, after a while the participants realized that there were many different noises in the park, which became perceptible in the acoustic foreground

dependent on one's position. The conditions for good sound quality are exceptional because traffic noises are complexly screened by the park's terrain, and subtly modulated and masked by water sources and other park noises. People are almost embedded in gardens and rarely see the noise sources. In particular where heavy roads traverse the park, water and fountains help to cope with traffic noises both visually and acoustically. The example of Planten un Blomen also shows that large (green) structures on city scale are necessary to make such multi-sensory experiences possible. Today's park builds on the remnants of the former fortification system, which has been redesigned and reused several times, amongst others, as a zoo and for the International Garden Festival in 1953, 1963 and 1973. Today, Planten un Blomen is one of Hamburg's key attractions, which should be paid attention for current city developments elsewhere.

Figure 1 – The authors took the participants of the Inter-Noise 2016 conference to the Planten un Blomen park in Hamburg. Photo: Trond Maag.

Example 2: public recording event Murmurmar on Aarhus Å River

sonicArk was the title of a dramaturgical concept of Andres Bosshard for a series of events and performances which took place in Aarhus throughout the city festival Aarhus European Capital of Culture 2017. During the public recording event Murmurmar, three solar boats carried singers of Aarhus choirs and swam on the Å River from Mølleparken down to Europaplads. The boats were accompanied by other singers along the canal and numerous listeners experienced the audible surprises in the city centre of Aarhus. Microphones, some were fixed on the solar boats, one hovered with a balloon above the pedestrians, and others were carried by the singers themselves, recorded the murmurs and voices which mingled with street noises and sounds into the sound of Aarhus. The joyous sound expedition on the Aarhus Å River inspired passersby to follow the sounds to the Europaplads, where the opening of the sonicArk sound architecture (example 3) took place. Andres Bosshard composed the recordings of Murmurmar into other events and performances of sonicArk. By means of such recording events a growing series of multichannel compositions of the city of Aarhus were collected, stored and organized in the sound library of sonicArk.

The recording event of Murmurmar offered different ways of exploring and getting involved with the Å River passing through the city centre of Aarhus. First, as a singer who joined one of the boats on water level, and second, as a listener and pedestrian who followed the boats along the footpaths on different ground levels.

Figure 2 – Key moment of the Murmermar public recording event on Aarhus Å River. Photo: Trond Maag.

Example 3: sonicArk wind pillars at Aarhus Europaplads

sonicArk included also a physical structure which was established on Europaplads in the Aarhus city centre. For six months, three sound pillars were placed in a triangle and carefully sized as the heart of the sonicArk project. The pillars formed a giant sound architecture which encompassed all sounds that Andres Bosshard recorded and composed during his visits to Aarhus during one year. The choreophony of the sounds followed a special timetable and were designed to interact with the heavy fall winds from the surrounding buildings. The movements of the wind above Europaplads articulated the panning movements of the actual sounds throughout the multichannel setup. In addition, people could also request specific sounds. For that reason, the wind pillars listened for clapping hands on site, which started an acoustic play above the listeners. All sounds for the sonicArk wind pillars were recorded by Andres Bosshard in public recording events, as showed in example 2, and carefully composed into a growing series of multichannel compositions.

Compared with the Aarhus University Park (example 5) and the Planten un Blomen park in Hamburg (example 1), Europaplads is a rather new square which became possible after the Å River in the city centre was re-opened and redesigned for pedestrians. The river was covered and used to serve as an inner city access road. Europaplads is located at the end of the Å River and interconnects the old city centre with the harbor area and its new Dokk 1 municipal building. That's why there are always pedestrians at Europaplads, however the square is not (yet) used as an area where people rest or stay for longer time. The authors sporadicly observed the site of the sonicArk sound architecture and thereby kept an eye on the pedestrians. Although they just passed Europaplads, most people

seem to notice a different sound. Some people stopped, had a look at the pillars and at the position where they guessed the sounds came from, listened for a while and walked on. Some people took a closer look at the structure and talked with the authors about the sounds and the site. Only few persons tried to activate sounds with the help of the clapping hand sensor, which was somewhat hidden in one of the three pillars.

Figure 3 – The sonicArk wind pillars at Europaplads in Aarhus. Photo: Trond Maag.

Example 4: Ear of the Future sound garden at Aarhus University Park

Ear of the Future was a three day outdoor festival in the Aarhus University Park and marked the end of the sonicArk project. The sound installation at Europaplads was dismantled just before the festival and reused to establish a sound garden in the amphitheatre of the Aarhus University Park. At the festival, Andres Bosshard played live performances of the results of sonicArk, including the recordings from the recording pleasures like the Murmurmar, with the help of a multichannel setup which was established in the oak trees and the seating rows of the amphitheatre. Andres Bosshard organized the sounds in spatially and temporally distributed compositions throughout the amphitheatre. Ear of the Future also featured a live performance by singers of the Aarhus Pigekor of a vocal composition by Jacob Kirkegaard and Katinka Fogh Vindelev. The festival was free to the public and attracted interested people who visited the Aarhus University Park. Different to Europaplads, the University Park is located away from the busy city centre and has less passersby. The authors participated the Ear of the Future festival and captured the live performances on photo, film and audio recordings. The Ear of the Future offered to the participating singers and artists an active and direct way to participate in the soundscape of Aarhus. For the visitors and passersby the event was a rather passive way of listening.

Example 5: guided walks in the Aarhus University Park

During sonicArk people joined guided walks with the authors who – literally speaking – warmed up the participants' senses to be well prepared for the Ear of the Future sound garden and the sonicArk

wind pillars. The authors shared information about the idea of sonicArk and how its participants shape the sound of Aarhus. Similar to the walks in Hamburg, the authors carefully prepared routes with individual walking sequences and common pauses for discussions about the observations made. The participants were visitors from all over the world with an interest in city quality and sounds as a musical and sensory-aesthetic experience. However, the authors set the focus of the walks on the everyday, especially audible and visual, qualities of Aarhus and how the knowledge about these interrelationships can open up new ideas of better sound quality and thus city quality in general.

In the Aarhus University Park the participants witnessed permanent noises from the numerous ventilation systems of the university labs. Unlike the Planten un Blomen park (example 1), the Aarhus University Park is almost free of traffic noises. That's why the ventilation noises were experienced as dominant and very bothersome. They only occasionally disappeared from the acoustic background and interfered most of the time with the listener's acoustic foreground. Thus, the participants experienced an audible gap to their own expectations of a park which is almost car-free during the weekends, green and apparently designed for recreation and rest. Unfortunately, the large and open university campus structure has not only exceptional conditions for sound quality, but also shows how fragile and volatile this sound quality is. This again raises specific questions about who can take care of such sound qualities and in which way they are maintained.

4. DISCUSSION AND CONCLUSIONS FOR FURTHER RESEARCH

The five examples show that Participatory Experience Performances, including sound and experience walks, involve the ear and the gaze as well as body movement. In these examples, individual experiences are collectively perceived and include embodied and immersive affects. That's why distinct sensory information, like high noise levels, can be paramount for how people experience a space, but always has to be contextualized within the actual situation and how it is experienced visually, tactilely and acoustically.

Based on these examples we suggest the concept of Participatory Experience Performances as a specific approach by which humans can become more aware of one's own perception of the environment. It is based on a better understanding of multi-sensory and sensory-aesthetic aspects, which also consider one's implications with city structure and life. Its co-creating and participatory role of many individuals experiencing together also have important democratic aspects for governance.

The approach is an opportunity to recognize the conditions for a pleasant urban environment and to gain necessary skills to develop appropriate possibilities for action in the planning process. It may enable urban planners to consciously enhance the design of places, a square or a park in a noisy environment for instance. On a strategic level a city should take into account multi-sensory and spatial related parameters, which may be identified and described with the help of this approach. It raises interest and knowledge in how the public realm affects people. Such affective parameters should in future gather a more important role for the design and planning process of cities.

For this reason Participatory Experience Performances have to be, firstly, recognized as a valuable tool for governance, participation and communication, which is based on a multi-sensory approach and, secondly, become practicable and implementable in the daily design and planning agenda of a city. Basically, it can be argued that this is more a question of a city's planning culture meaning that different disciplines have to successfully cooperate in order to raise and support active engagement.

For example, in the case of Aarhus the city planning department, the municipality, and city planning experts were not directly engaged in the performances of sonicArk (examples 2–5), although all events related to Aarhus 2017 were publicly announced and promoted by the City of Aarhus.

It can be discussed how to reach the appropriate persons to involve in the design and planning process of a specific place, such as citizens and professionals. Another issue is that Participatory Experience Performances may run over longer time and in short intervals and therefore make it difficult to maintain continuity and documentation. Sound and experience walks as showed in examples 1 and 5 are straightforward steps, by which a specific audience can be invited. Performances and site-specific events such as showed in examples 2, 3 and 4 require a longer time span. Thus, they may reach far more passersby and a bigger audience than walks, but doesn't necessarily put people in an active engagement with their environments. Both however include knowledge in how participatory events can extend citizens', community members', professionals' and politicians' scope for change, as well as knowledge and a language about embodied affective dimensions of sound quality and spatial structures.

Possible perspectives of such an approach involving sensory-aesthetic empirical aspects of city development, and thus, human/site interrelated emergence may open new ways in developing sustainable and welcoming public spaces which become an important issue in densely populated and tightly built urban environments and in light of accompanying noise concerns.

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