

# The Sound of Schaerbeek

Implementing the soundscape of Schaerbeek in the architecture of a building

Elbrich van Stralen

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Tutors: Leeke Reinders & Eireen Schreurs

# Introduction

Sound is 'the poor relation' of architecture, is what Michael Kimmelman says in his publication in the New York times (Geluid: het ondergeschoven kindje van de architectuur, n.d.). He talks about sound as an element that is often forgotten, as Violette Schonberger (n.d.) mentions: 'sound is mainly considered as a consequence of a design decision, not as a guiding design ingredient'. This, while space and its design, think of materialization and dimension, does really affect the perception of sound. For example, churches used to be built together with a composer to make the music sound as good as possible (*Bevroren Muziek*, n.d.). Vice versa is hearing also an important sense for the perception of space. Besides that, it is becoming clear from studies that sound even affects human health (Kou et al., 2021). From all of this, it becomes clear that there are many possibilities within architecture and sound that are currently underexposed.

## Schaerbeek in sounds

Our project is about Schaerbeek, a municipality full of diversity in space and culture. Together with this comes the fact there are also many different sounds to hear: from the silence in a courtyard garden to the hustle and bustle of Brabantstraat, from urban background noise to industrial noise, from birds and other creatures on the friche to the sound of the train at the north station. Our visit on the friche inspired me greatly, because of the contrast of (at first glance) silence versus the urban noise a few meters away. Precisely because Schaerbeek is so full of sound and because this sound says so much about Schaerbeek's diversity, this seems to me to be an interesting topic to explore further and to use as inspiration and basis for my design.

## Music as a method of communication and translation

When looking at sound, there is also an art form, called music, that is part of the concept of sound. I have always been busy in music besides my studies and school by having done preliminary training at the Amsterdam Conservatory of Music and many kinds of other music projects, so it seems very interesting to me to use this knowledge for this research to add an extra layer.

Music is a medium of communication that is very close to human beings, as Alan Lomax (1962) mentions: 'music-making is one of the most strictly patterned forms of human behavior. Its modes of communication are so limited that even a casual listener can quickly distinguish the best performer and identify the pieces in an idiom of whose technique and content he knows' (p. 425). As a translation of sounds into architecture, music can thus act as an important mode of communication in this research.

There are numerous architects who have used musical pieces as inspiration for their building design, think of the Jewish Museum in Berlin by Libeskind and the Philips Pavilion by Xenakis and Le Corbusier. Capanna (2009) mentions in her article that music can be used in architecture in several ways: as inspiration, abstracting music into 'a closure that architecture shares with all other forms of artistic expression' (p. 258); as image, translating the graphic layout of a piece of music into architecture; and as method, looking for example at the instrumentation and dynamics in a piece. In my Thesis for MSc 2 I explored the similarities between composition in music and architecture, which can complement this research.

## The research

This research focuses on the main question: In what way can the sound of Schaerbeek be implemented in the architecture of a building there? This research will consist of three parts: soundscaping, composition and designing.

### Soundscaping

In the first section, a soundscape of Schaerbeek will be created by making tapes. This, to analyze and map what sounds can be found there. As already said before, Schaerbeek is an area full of diversity, which may mean that there is also a great diversity of sounds to be found. First, how best to make a soundscape is studied by literature review. Also a plan will be made what the locations and moments are which will be taped on. Examples of locations for this could include the Brabantstraat, one of the parks, a living area, the friche, etc. Different times of day and night can be considered. After this has been planned, it will be put into practice by going to the area and taping the sounds. As a final step, the tapes will be arranged and processed.

### Composition

In the compositions part musical compositions are created, by delving into creating compositions using environmental sounds. For this, next to literature, I use my knowledge from music to make this translation. The aim is to make compositions that express the scenes taped before the best. The compositions will be recorded and written down in a score. If necessary, other instruments can be added next to piano to make the translations as clear as possible.

### Design

The last part is where it all comes together. The question how to implement sound and music to architecture will be posed. Ways of doing this will be explained by literature review and case studies. After this, the soundscape and compositions will be implemented in the design process. Implementing will spread across different scales, from architecture to material.

### Conclusion

For the conclusion I hope the research about sound will give me a good inspiration for the design and bring a deeper meaning to the architecture of the building I have designed. My purpose is to find in this way a way of going deeper into the context of Schaerbeek. I also aim for coming to a design that, maybe indirectly, tells the story of the urban environment of the building.

## Sources of inspiration

There are several articles and books that have inspired me to come to this topic. For example, OASE issue 78 discussed space and sound (*Immersed. Architectuur en geluid*, n.d.). This article 'broadens the discussion of acoustics beyond the merely technical aspects' (*Immersed. Architectuur en geluid*, n.d.). In addition, a number of times a sound and architecture festival Tuned City has been held, that addresses sound in a city. There is also a platform made for this festival, where is a lot of sharing about the ways of seeing sound and projects related to it (Tuned City, 2023).

There are also architects which I think are very interesting who connect music and architecture, such as Daniel Libeskind and Iannis Xenakis. Libeskind was a musician and addressed the similarity between music and architecture in, for example, his book *The walls are alive* (The Guardian, 2017). Iannis Xenakis is a composer and architect and has written several articles and the book *Music and Architecture* (Grant, 2010) about this.

When talking about soundscaping and composition, Alan Lomax is an interesting researcher to look at. He has written an album of songs by making tapes in prisons. He has also written articles that could be valuable to this research, such as *Song Structure and Social Structure* (Lomax, 1962) .

More interesting articles for my research and an explanation why they are relevant can be found in the bibliography below.

## Literature

Beckers, R. (n.d.). *Bevroren muziek*. Bureau Europa. Retrieved November 2, 2023, from <https://www.bureau-europa.nl/bevroren-muziek/>

Interesting because it addresses the similarities between music and architecture.

Capanna, A. (2009). Music and Architecture: A Cross between Inspiration and Method. In *Birkhäuser Basel eBooks*. [https://doi.org/10.1007/978-3-7643-8976-5\\_8](https://doi.org/10.1007/978-3-7643-8976-5_8)

Delves into the possibilities of using music in architecture.

*Geluid: het ondergeschoven kindje van de architectuur*. (n.d.). Stedebouw & Architectuur. <https://www.stedebouwarchitectuur.nl/artikel/geluid-het-ondergeschoven-kindje-van-de-architectuur>

Inspiring for citing the importance of using sound in architecture. It also discusses sound in cities and refers to interesting sources.

Grant, M. J. (2010). *Music and Architecture. by Iannis Xenakis. comp., trans., and ed. Sharon Kanach*. Oxford University Press. <https://doi.org/10.1093/ml/gcq046>

Xenakis has immersed himself in the combination of music and architecture. This is a whole book on how he sees connections in this and many examples are given.

*Immersed. Architectuur en geluid*. (n.d.). <https://www.oasejournal.nl/nl/Issues/78>

This is an issue of the Oase Journal that deals with space and sound. Soundscape and acoustics are also discussed here. This issue is interesting for broadening my research.

Kahn, D. A. (1997). John Cage: Silence and Silencing. *The Musical Quarterly*, 81(4), 556–598. <https://doi.org/10.1093/mq/81.4.556>

Interesting because of the approach to silence as sound or actually music. This is also a component that may be important for my research.

Kimmelman, M. (2015, December 29). Dear architects: sound matters. *The New York Times*. <https://www.nytimes.com/interactive/2015/12/29/arts/design/sound-architecture.html?mtrref=undefined&assetType=PAYWALL&mtrref=www.nytimes.com&gwh=0A62FC0F8F680BDC3503C6D6F269098A&gwt=pay&assetType=PAYWALL>

New York Times article explaining the importance of sound to architects through three-dimensional audio. There are also examples from an urban environment used. From these I can draw inspiration for choosing the scenes of the soundscape of Schaerbeek.

Kou, L., Kwan, M., & Chai, Y. (2021). Living with Urban Sounds: Understanding the effects of human mobilities on individual sound exposure and psychological health. *Geoforum*, 126, 13–25. <https://doi.org/10.1016/j.geoforum.2021.07.011>

Deals with sound in the urban environment and what its effects are. An interesting study of what sound does to the psychological health of people is described.

Lomax, A. (1962). Song structure and social structure. *Ethnology*, 1(4), 425.  
<https://doi.org/10.2307/3772850>

Especially interesting for explaining that music is so close to human beings and thus a good way to communicate atmospheres and feelings.

Sacks, O. (2006). The power of music. *Brain*, 129(10), 2528–2532.  
<https://doi.org/10.1093/brain/awl234>

Like Lomax's article, interesting to find an explanation of why music is so expressive.

Schönberger, V. (n.d.). *Gelaagd geluid*. Architectenweb.  
<https://architectenweb.nl/nieuws/artikel.aspx?ID=51630>

One of the first sources that inspired me because Schönberger explains the potentials of sound within architecture and a city.

Schulte-Fortkamp, B., & Jordan, P. (2016). When Soundscape meets Architecture. *Noise Mapping*, 3(1).  
<https://doi.org/10.1515/noise-2016-0015>

This article explores the importance of creating a soundscape and how it is linked to architecture.

The Guardian. (2017, November 30). The walls are alive. *The Guardian*.  
<https://www.theguardian.com/books/2002/jul/13/featuresreviews.guardianreview5>

Explanation by Daniel Libeskind about his designs based on music. This may be interesting for the case studies I want to do.

Tuned city. (2023, May 10). *Tuned City – Sound / space / context*. Tuned City.  
<https://www.tunedcity.net/>

Interesting website about sound in the city. This website can be inspiring for setting up the soundscape.