go your gait! Artistic Research on Walking & Listening

by katrinem

I am a walker and listener.

Investigating sound and space has long been an integral part of my artistic work. I started early with comprehensive training in classical music, studying violin, viola and composition. I played in orchestras and ensembles and focused on spatial performances and new performance practices. I have always had a special relationship with our most natural form of locomotion – walking. Long walks and hikes with my family were a vital part of my childhood. Even all the schools I attended were in walking distance. Walking and Listening is not only my artistic approach, it is also my way of life. It is how I experience my environment and how I explore new sites. For over 15 years now I have been investigating the walkability of cities and their associated spatial perception, through my work series go your gait! This exploration results in various types and styles of artwork: performance, composition, site-specific installation and exhibition, workshop, photo collection, audio-visual composition, text and scores

I am particularly interested in the extent to which we are able to find spaces for walking in our urban surroundings, why and how we use them, and how conscious we are of their environmental influences on us. This interest brought me to various questions. An essential one is: How does the built, controlled, and organized urban environment and its atmospheric qualities influence our walking behavior and perception of space (in public space)? I have been investigating this question based on human auditory perception, by attentive and conscious listening during walking in urban space. To do so, I have developed various methodologies, which I will describe below using a few selected art projects. What seems most essential to me is to constantly sensitize myself: to refine my walking technique and footwear and to open my own perception of auditory space as wide as possible.

In 2012, I took part in the project *Finger Exercise*, initiated by the Austrian curator and artist Silvia Keller, in which each artist was allocated one month for a self-chosen daily exercise in the field of her or his artistic praxis (for instance, finger exercises on the piano). My intention was to pause for a few minutes every day of April, close my eyes and try to hear as far away as possible. I did it sometimes during the day, whenever I thought of it. I did it while I was eating, cooking, in the elevator, on the street, while shopping, on the plane... I also did this exercise on a flight to NY, which turned out to be a bad idea when you can't escape a constant loud background noise for several hours. Previously, I thought I was always listening well, but with this daily exercise, I became particularly aware of our brain's unconscious ability to fade out unwanted input. Since then, it has been a fixed exercise for me, but I have also developed it further within practical workshops, such as with schoolchildren where we examine their routes to school, or with adults where we explore their everyday paths...

Before I describe observations from my artistic research, I would like to talk more generally about walking in urban space. The liveliness of a city is reflected in the activities of its inhabitants: how, when and where they move around in it¹. Most big modern cities are perfectly designed for motorized traffic but not for pedestrians.

Walking is the most individual form of mobility in terms of its direction and speed. Sidewalks, pedestrian areas, traffic-free roads and squares are the public spaces most preferred by those navigating a city on foot, marking its pavement and paths with the pulses of their steps.

The interesting thing about getting to know a city on foot is that you never leave the large, perceptible urban setting. Meanwhile, a slow pace of movement enables a high attention level for sensory impressions – ideal conditions for exploring a city from an aural point of view.²

Everything that we experience around us is structured by the rhythm of our own gait. A gait is a person's most distinctly individual pattern of movement³. Audible in the sound of footsteps, our rhythm emerges from the regularity with which we place one foot in front of the other. We reproduce this individuality almost exclusively in public, where one person's step rhythm joins in polyrhythm with that of another. While the sound of the rhythm often becomes masked by a city's background noise, the rhythm can be sensed from the visible motion. Seeing someone's gait can easily evoke an imagined sound of the step rhythm in our mind, as we are so familiar with the act of walking. The ways once walked leave no visible trace, but crisscross over the city like an invisible network. At all points where these crossings accumulate, we find vibrant city spaces.

Each placing of our foot upon the ground can be thought of as a fundamental tone that operates like a chain reaction on the body: Mass upon mass. Accordingly, the firmness and character of the ground play an important role in our foot's stability at the moment of placement. The footwear used not only serves as a mediator in this meeting of foot and ground but creates a new set of conditions, depending on its material, fit and function – for example, high heels, flip flops, boots, sneakers, etc. When we are purchasing shoes how much do we pay attention to the way they sound in our environment and how they seem to our own ears? After checking the fit and look of the selected shoes it is unconventional to test their sonic character as well, e.g. by going for a "test walk" outside the store. How important is it to us to hear our own steps and to like their sound?

Alongside our footwear, there are various factors, usually occurring in combination, that influence our walking movement in urban space and the chosen size and speed of our steps. These include:

- individual intention and condition of health
- whether a path is being followed for the first time or is a familiar path
- architectural structures
- the materiality, appearance and acoustic quality of the surface underfoot
- · temperature, weather and light conditions
- direct and indirect activities in the spatial surroundings (other pedestrians, traffic, etc.)

- sonic and visual events (e.g. outdoor sound systems, billboards, video screens)
- walking alone or in groups

Each of these factors could be discussed in length. I will point to just a few aspects in relation to projects and exhibitions below, such as: narrow revolving doors in Midtown Manhattan (*Path of Awareness_NY*); stairs and obstacles on the walkways in Tehran (*Path of Awareness_tehran*); pushbutton-controlled traffic lights for pedestrian in Boston (*Path of Awareness_boston*); step pattern (Place Study *Gendarmenmarkt*) or how the built space strengthens or weakens wind conditions (*my Gait_carré*).

With the following selection I offer an insight into artworks based on my artistic research on walking and listening, emphasizing two aspects: observing a site (part1, Platzstudien – Place Studies), and personally experiencing space while walking (Path of Awareness, my gait!). Path of Awareness is described in more detail, since in my opinion this format can comprehensively show very different aspects of my interests.

Go Your Gait! Part 1 (2004)

This is a five minutes long audio-visual composition. Every 30 seconds, "actors" go to a section of 30 meters. They cross the section of meadow-path-water visible to us in the video image. Due to their different walking speeds, the entrance to the picture is almost always at a different time. Alongside the "actors", other random walkers

bring their rhythms into the picture. At the end of the video I walk through the picture myself. The picture detail is chosen in a way that only the legs can be seen. The image to the left is the score. Throughout the entire length of the work, my own step is constantly audible and only synchronizes itself at the end when I myself walk through the picture.

My step sounds were also used to sonify the steps visible on the video, adjusted in tempo and length in order to emphasize the rhythmic differentiation of our step sizes and speeds.

GENDARMENMARKT BERLIN (Place Study, 2007)

The audio-visual work *Gendarmenmarkt* was created in 2007. In this work, all walking movements at the Gendarmenmarkt in Berlin are sonified according to a compositional principle that I determined according to the grid pattern made by paving stones on the square.

The "players" go their ways, creating audible traces that begin to mix with and against each other. The rhythms and structures emerging for a few moments from individual gaits occupy the square for a short while, then release it. The sine tones used to sonify footsteps are distinct from the familiar stepping sound, having an abstract technical simplicity, and thus direct focus on the rhythmic aspect. Duration, force of impact, dynamic and panning are used as differentiating parameters.

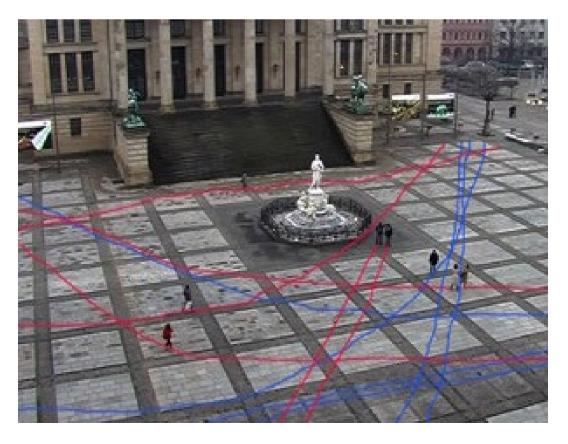


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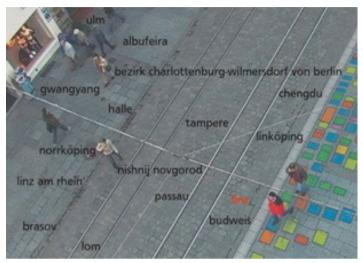






GANGARTEN (Place Study, 2007–2009)

Out of experiences gained in *Gendarmenmarkt*, the project *GANGARTEN* (ways of walking) was developed, in which Linz was reflected through its partner and friendship cities. For this, I visited sixteen cities in a timeframe of two years: Albufeira, Braşov, Budweis, Chengdu, Gwangyang, Halle (Saale), Linköping, Linz on the Rhine, Linz, Lom, Nischni Nowgorod, Norrköping, Passau, Tampere, Ulm and Charlottenburg-Wilmersdorf of Berlin. My plan was to investigate places and locations where residents of these cities could be found walking, and to acoustically portray their individual gaits.



vimeo.com/showcase/145515

In preparation, I developed a category of criteria for maintaining a consistent approach at every place. Accordingly, I consciously decided to only consider individuals walking alone and without baggage, bicycle or dog. I also chose timeframes for my research that were other than vacation times, and during which a reasonable temperature could be found on site.

The selection of sites and locations was undoubtedly the most difficult task. It was necessary to have at least twenty meters of free walking space available so that pedestrians could fall into their own innate walking rhythm. This, along with the absence of significant influence from acoustic and visual distractions, formed the two main criteria for my search. The sites also had to be places and locations used predominantly by local residents, which might first require a deeper search, depending on the focus and touristic orientation of a given city. A significant part of my stay at each location was dedicated to this process of discovery, which I documented in a travel diary.

I recorded the chosen sites with video, analyzed the gathered material and sonified the gaits of individual people with sounds similar to pure tones, so as to emphasize rhythmic structure, thus generating a score out of space (architecture, pavement, surrounding,

etc.), streams of movement, and residents' gaits. The polyrhythmic footstep patterns are interwoven with specific "city sounds" encountered during my stays, such as the sound of the ocean; an air conditioner in Albufeira – aptly named "Silencys"; the squeaking of e-bikes in Chengdu; the bells of the temple, or the seaweed toaster at the market in Gwangyang, and so on. Besides sixteen audio-visual works, first shown in the context of *Linz 2009 European Capital of Culture*, radio pieces were produced, as well as a catalog with excerpts from travel diaries, pictures and videos.

PATH OF AWARENESS (2011–)

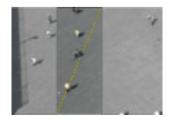
During this journeying for GANGARTEN, an incessant roaming and researching of familiar and unfamiliar cities to find out how they might be experienced on foot, the idea for the Path of Awareness format began to develop. The work's approach involves a change of perspective from previous works such as the Place Studies. Rather than observing footstep patterns in a space, the object of exploration is the individual's personal experience of space while walking. Particularly, in relation to the interplay between a sound event (a footstep with soundful⁴ shoes) and the surrounding architecture, influenced by the permanently changing interactions.

Essential elements of this configuration are a moderate speed of walking, the regularity of the step-by-step motion, and a readiness to open up our auditory perception and keep it as wide open as possible. This is in stark contrast to our customary behavior of unintentionally filtering out elements we do not wish to hear. We have acquired this habit of selective listening for all our living spaces, whether at home, elsewhere, or on the go.

Most of our daily paths are connective routes between locations where we have something to do. The place left behind continues to resonate, nevertheless, often our thoughts have already arrived at our intended destination. Or else, we are linked, en route, into a virtual space via mobile communication systems like Smartphones or audio players. The way becomes similar to a (tunnel) through public space. By proceeding in this manner, we accept not only reducing our auditory perceptive space but also weakening our relationship to our real-world surroundings, since hearing is inextricably connected to one's sense of space.

In *Path of Awareness*, the path itself is the destination.

To reach it, a route is delineated, one that offers diverse opportunities to focus on walking itself, on footwear, on the walkability of urban habitat, and its architectural as well as atmospheric qualities. As I like to tell participants: Let us confront this act of intentional listening amidst our own gait. This is how we can sense clear spatial thresholds – that is, transitions from one auditory space to another – and perceive minute spatial shifts. The soundful shoes we wear along this way become soloists in space, instruments that enter into a dialog with their environment, provide us with spatial orientation and locate us in space⁵.









Working Procedure on a Path of Awareness

Each Path is composed while walking and listening.

A given start/end point is always the beginning of the process. It is also the 'host' venue for the path, a place where you can listen to the audio-visual composition, meet for the guided walking and listening performances, and obtain scores to experience the Path on your own.





Photo: Melody Rozimand

For the development phase (10–20 days), I always ask for an accommodation close to the 'host' venue and try to avoid staying in hotels. Needing to deal with everyday tasks, such as shopping for food or finding a place to do laundry, makes it easier for me to immerse myself in new places. In Midtown Manhattan, for example, I stayed directly in a guest room at the Austrian Cultural Forum, which commissioned the *Path of Awareness_Midtown_NY*, on East 52nd Street.

In Strömstad, a city at the west coastline of Sweden, the venue *Konsthallen Lokstallet* is in a solitary location away from the city center, so they organized a construction wagon with a bed, kitchen and toilette next to the exhibition hall to meet my needs. It took me some time the first night to get used to all the unusual sounds around me, which penetrated through the thin walls. Coastal wind and animals were audible around, under, and on top of the wagon. (After my return to Berlin, I had to re-adjust myself to the quietness of our apartment, where the threshold between outside and inside is much more distinct.)

My construction wagon with a breakfast table in front of it was a perfect start for my observations. The horn and machines of the first ferry from Oslo woke me up, along with the following queues of cars at my front door. All in one direction in the morning, and back in the evening. Predominantly cars with Norwegian license plates, and well-stocked with various purchases in the evening: a consumption migration. A mall in the suburban area was built to serve these needs, with the typical consequence of causing numerous small specialist shops in the city center to close down.





View from Konsthallen Lokstallet and my construction wagon. Six times a day a ferry docked and left.

Konsthallen Lokstallet is located directly opposite the landing dock, a perfect spot to start and to end that Path: at one of the two moments, a ferry will definitely play along.

Each Path is composed in such a way that the chosen route also lets you experience the characteristics of the site.

My method to decode the evident as well as hidden patterns of a site is a persistent repetition of walking, pausing, observing and talking with inhabitants, over and over again... My walking speed at the beginning is very leisurely with frequent breaks and the walking distances are rather short or simple and repeated often. I call this my synchronization process with the new environment, in which I gradually become invisible – a part of it. During this period, I don't allow myself to 'escape', in order to stay in synchronization with the place. This mostly means not traveling somewhere else, but of course I allow time to relax for one day on site.

Most of the cities, where I do my research to develop a *Path of Awareness*, are places I am visiting for the first time. For orientation, I use offline maps on my cell phone, but never a trail tracking system. I train myself constantly to memorize the ways I have been walking and also significant details along the route. Furthermore, I make notes and drawings and record special events with photos/video/audio.

Each evening, I draw the day's route in the city map by hand. This process also aids in reflecting on the collected impressions and triggers questions and new investigations. And of course, my geographic understanding of the city grows too.

During this process, the shape of the Path gradually emerges.

On these research trips, I keep my equipment very simple and small. I prefer to travel as light as possible: A set of binaural microphones, a Sony audio recorder, a windshield for the microphones, my mobile phone with a small tripod, and my workbook. All in all, it is not more than 2 kg and fits into a small backpack.

The clothing I use is also well considered and functionally designed. A cap or straw hat, soft soled shoes and one of my working dresses, which are designed to suit my needs by Cecile Bouchier, an artist and set designer living in the Mojave Desert in California. Each dress is constructed of non-rustling material and easily adaptable to different temperatures. It has large pockets in which my workbook fits, but also the Sony recorder during recording sessions. A loop is placed on one shoulder, to guide the microphone cable from my ears to the recorder in my pocket, so that the cable does not hit the dress zipper when recording while walking.

During the development period of a *Path of Awareness*, I never walk around with soundful shoes. Instead, I try more to merge with my environment. This is in stark contrast to the *guided walking and listening performances*, in which the audience experiences the path while I use specially tuned soundful shoes.

Most of the time, I work and walk alone. Sometimes local students join me in this development period. I introduce them to binaural recordings, methods of site studies and mapping, and in return, I get dialog partners for all my arising questions. Often this is in a country where I cannot understand, or perhaps even read, the official language.



vimeo.com/album/3767021

For example, during the development period for Path of Awareness la friche in Marseille, students from Aix-en-Provence and myself explored and documented six sites along the Path with binaural recordings and footage at different times of a day and different weekdays.

My first Path of Awareness was realized at klangstaetten | stadtklaenge in Braunschweig 2012. Since then, 20 Path of Awareness works have been developed in different cities, including, Berlin, Boston, Linz, Marseille, Madrid, Montelupo Fiorentino, Mexico City, New York, Strömstad, Tehran...

Each Path of Awareness consists of multiple elements

Shape: The route of the path is precisely traced on a city map and then abstracted, so that only the shape remains.



Strömstad, Tehran, Marseille







Performance in Berlin. Photo: Martina Huber



Audio-visual composition: This is a recording of my walk along the path with a pair of soundful shoes, binaural microphones and a head-mounted video camera. In postproduction, I combine the binaural recording with stills or excerpts from video footage, corresponding to the rhythm of walking. For example, in my work Path of Awareness_Mexico City, the audio-visual composition has a 40 step structure: A still is shown for 20 steps, followed by a black image for the same length. The visual aspect serves more for orientation, and the auditory for location, in space.

All audio recordings were done with the same equipment and input level, to get comparable impressions from the different recordings and cities. They were not changed or adapted in post-production. To best experience the auditory details and depth of these audio-visual compositions I recommend using headphones while watching it.



Performance in Midtown NY. Photo: Sarah Emler

Excerpts of all Path of Awareness works: vimeo.com/showcase/3785847

Guided walking and listening performance: With a slow and steady walking rhythm with a pair of soundful shoes, I guide a limited number of participants (wearing soft-soled shoes) along the path. In order to not disturb the rhythm of the walk, there is no talking or pausing, except when necessary for traffic lights or for safety reasons. Changes of direction are indicated at the moment with a simple hand signal. Right ... left ... stop ...

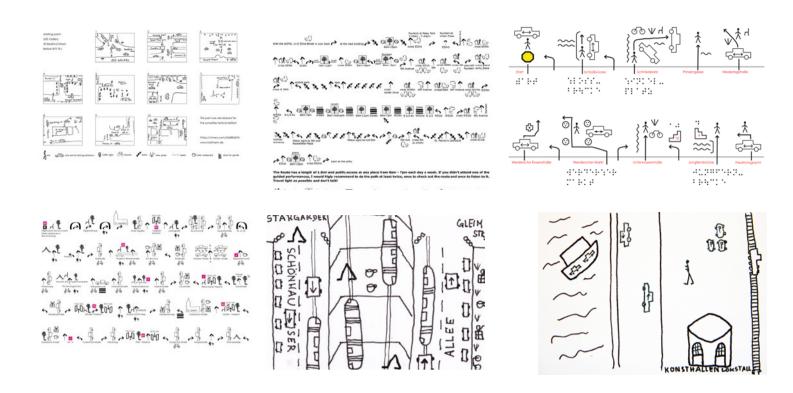
The participants stay close: walking next to me or behind me not in a line, but more like a swarm. We are not necessarily walking synchronously. Everybody can find a rhythm that fits best and keep it for the entire length of the performance. The number of participants is always limited, depending on the Path and the city. A group of 10 persons is fine, sometimes up to 15.

I recommend that the individuals travel as lightly as possible, because all bags and backpacks influence the posture and gait, and subsequently the auditory perception. Sometimes venues offer lockers to store anything that would impede walking.

For me, this kind of performance builds on all my previous performance experiences. Having an audience behind me and navigating safely through what is often a dense environment requires a heightened level of focus and vigilance, even a tension, that embraces all those involved.

Score: I produce a Score as an invitation for individuals to experience the path on their own, with their own soundful shoes. For each city, I create site-specific symbols to indicate site-specific situations. I highly recommend doing the path at least twice: once to check out the route and once to listen to it.

Description: Here are some descriptions, or excerpts from my field notes of different walks.



Scores: Belfast, Midtown NY, tactile version Berlin_Humboldt Box, Braunschweig, Berlin_MeinKiez and Strömstad

Description of Path of Awareness Braunschweig (2011)

The route in Braunschweig was selected such that it takes about fifteen minutes at a leisurely pace. One comes repeatedly to stretches making it possible to find a uniform step rhythm. The path goes over different surfaces, on simple footpaths, through various passageways, alongside high- and low-traffic streets, and past building architectures of different centuries. If one follows the pavement in front of the Allgemeinen Konsumverein to the left, after a curve, a view opens onto the house fronts of Leopold Street through two high and elongated building passageways. On entering the first passageway, the sound of one's footsteps becomes directly present and close. A good introductory tuning for the whole way. On leaving the first passageway one is received in the courtyard by a soft rustling of trees and ivy that climbs the house wall to the right. The second passageway has the effect of a soundbox again but is also modulated by activity from the seldom frequented Leopold Street.

It is necessary to cross this street – the walking rhythm is interrupted – and follow the flow of the one-way street to the clearly marked path bearing left into a building passageway. Shortly before exiting the passage one is all the more surprised by the sound effect of a flutter echo that builds up between side walls running completely parallel. An acoustic phenomenon inviting one to play with it ... The path now leads to the right onto Friedrich-Wilhelm Street alongside many recessed entrances of houses and stores. Here the passing traffic completely masks the sound of footsteps. We turn off at Hinter Liebfrauen and leave the pulsing traffic vein. A facade structure with many recessed entrances can be found here as well, and the step sounds, now audible again, begin once more to play with this structure as well as with parked cars and the gaps in between ... vimeo.com/50495775

Field notes for Path of Awareness Midtown NY (2015)

On the 2nd of September around 6 pm, I arrived at 5th Avenue and 53rd. The first thing I noticed was that I was almost the only person who wanted to leave the subway (E train) at this stop, but many others waited there to get in. My first impression was that this part of New York was a business district rather than a residential area.

At the Austrian Cultural Forum (ACFNY) on the 52nd Street (between 5th and Madison Avenues), after putting down my luggage, I immediately started to discover the environment by walking around in very slow motion. After this long flight from Europe, it was the best way to be connected with the city and to "arrive" in Midtown in all kinds of senses. Over the next 10 days, I explored the environment of the ACFNY by walking at different times during day and night. In Midtown you constantly have to deal with a very high noise level, especially when you're trying to keep your auditory senses open. Most of the streets in Midtown are organized as one-way streets and the directions alternate regularly, with traffic lights at each crossing. I watched other pedestrians and learned how they cross the streets. Pedestrians familiar with the area just turn their heads in the direction of the expected traffic. It seems as if traffic lights don't concern them. I started to time traffic lights and observed where pedestrians speed up and slow down. I became interested in what people were carrying, which particular paths they choose, and much more.

My measurements of the traffic light phases were about 45 seconds per direction, with different symbols for cars and pedestrians. For car traffic, the red-yellow-green lights, for the pedestrian a white walking human and an orange stophand. Mostly, in the middle of the "green" phase, when they show the walking human, it changes to the flashing stop-hand, sometimes combined with a countdown.

You can see many pedestrians in Midtown, mostly adults. The three biggest groups are commuters, shoppers, and tourists. Commuters usually walk alone and seem to follow an invisible line in a purposeful pace (brisk gait), talking on their phones, carrying some to-go-drinks. Usually, the commuters carry a bag or a backpack in which a laptop fits in easily. Their main time is between 8 am-10:30 am and 4 pm-6:30 pm. The shoppers are easy to spot: marked by the stores' shopping bags that one can see from afar – rarely alone, usually in pairs, constantly talking to each other, or on their phones. Compared with the commuters, their walking speed is a little bit slower and the direction is not clearly intended. The largest concentration of shoppers is between 5pm-8pm on a weekday. The tourists are often underway in pairs or larger groups. They meander a little bit back and forth through the streets without any recognizable aim or they block the traffic in front of sights and events. During lunchtime, all groups mix up in the little parks, in the public access areas, or in the private properties.

As I already experienced upon my arrival, Midtown is not a residential area. In the evening and during the night, when business rests and the stores are closed, there are fewer people and cars on the street. The speed of movements and noise level of traffic calm down significantly. This is the time for maintenance in Midtown: construction sites get busier, garbage trucks pop up, and the stores get their new supplies. All these actions are enormous sound events in the general soundscape of air conditioning and traffic, with variations from the changing of their positions. For the path, I also chose a variety of walkways through private properties with public access. Mostly these have narrow revolving doors, with space for only 1 person, a real barrier between outside and inside and a significant interruption to any walking rhythm. Each of them has different opening hours, so that the path itself is only reachable at its full length between 8 am – 7 pm. When I had finished planning the route, I trained myself to walk fluently along it at different times of day and night and listened to the changes in sounds.

In the score to *Path of Awareness Midtown_NY*, the rhythmic structure of midtown can be seen: the grid, the one-way streets, the traffic lights, the cross walks, and the various opening hours of the public access ways through the private properties. All elements of city design that influence our walking. (score image p.20)

Excerpts from field notes of Path of Awareness Tehran (2016)

After my arrival in Tehran, I realized immediately that for the inhabitants walking is not the preferred way of moving. For me, without any knowledge of the language, it was impossible to follow the common behavior of using the collective cab system, or a car by myself, and also it was not in my interest.

To start my research, I choose a destination at some distance and then tried to reach it by walking. Offline maps on my smartphone gave me the necessary security of orientation. Navigating through the city by walking was a challenge and adventure. Tehran is cut in parts by expressways and highways. Reaching available pedestrian bridges and underpasses, and crossing them, always creates detours. Often these roads are equipped with fences in the middle, which makes a spontaneous crossing impossible even without any traffic. Sidewalks – when they exist – are often narrow, uneven and rough, with many obstacles and fanciful step structures. Cars and motorcycles were everywhere and always had the right of way. (During my entire six weeks in Tehran, end of 2015 and autumn 2016, I saw no bicycle).

It took me some days to realize I did not see women with their babies walking in the city with a stroller, or wheelchair users on the street, or even children walking alone on their way to









school. For all of these people, it is nearly impossible to navigate through the city on foot, because of the conditions of walkways and also for safety reasons (because of the traffic dynamics mentioned above).

What does it mean to grow up in a city where you could not learn to walk alone? What does it mean to experience your city only by sitting in the private bubble of a car?

Tehran is filled by motorized traffic sounds. The general noise floor on many sidewalks, or pedestrian bridges next to highways, or busy streets makes it impossible to communicate or to experience the urban environment in a joyful and inspired way.

I also experienced that the scarf around my head, softly covering my ears changed my hearing perception. How does clothing influence my connection to the environment around me? vimeo.com/184479324

MY GAIT! (2011–



Photo: Ursula Rogg

Simultaneously with the development of the format *Path of Awareness*, I started with the concept for *my gait!*: a long-term study of my own walking rhythms. I was motivated to do this research project out of my interest to directly investigate my residential area in terms of walkable routes and their atmosphere⁶. The routes are chosen such that they always originate from my respective place of residence. At the same location, the same route. The requirement is that I walk on my own, without baggage.

For this purpose, I developed an audiovisual-sensory system⁷ comprised of

step-data collection via pressure sensors in shoe inserts, binaural audio recording and, synchronized to this, video recording with a field of view camera. In addition, cameras on ankles and wrists capture a view of the surroundings from a moving body. Results and materials from this research find their way into scores, compositions, audio-visual works and texts.

My gait!_carré is one of these results. For this, a carré at Prenzlauer Berg was chosen, which was documented and recorded by the observation tools mentioned above.

The urban space is typical of this quarter of Berlin, having the form of an unequal rectangle with 2 long and 2 short sides. One short side is the Schönhauser Allee, one of the main traffic arteries, which runs from Alexanderplatz to the north. On Schönhauser Allee the U2 subway, runs as an elevated railway, and 2 car lanes run in each direction, which are also used by a tram. The other side streets are of varying width with continuous cobblestones, which are used as

shortcuts by local experts at peak times. The sidewalk has a width of at least 2 meters on all sides and is made of slabs that do not form a flat surface so that you quickly get used to lifting your feet when walking. Between sidewalks and roads, there are 2 kinds of "buffers", parking cars in vertical and longitudinal position and trees planted at a distance of about 8–10 meters. Towards the façade, the carré forms a closed form, i.e. there are neither gaps in the buildings nor open passages for the public to the courtyards.

The central image of the work is the video captured with the field of view camera, which provides orientation when walking along. The images of the cameras on both legs and the right arm, which provide views of the façade structures from the perspective of the walking system, act like peepholes in the central image.

The even, pendulum-like movement of the arms stands in contrast to the movements of the feet, which contain short moments of standstill, even if we ourselves have the feeling of constant locomotion.

For this series, binaural recordings are combined with the step pulses and the wind noise is transformed into tonal structures. The wind noise arises when walking per se, but may also be amplified by the architectural arrangement of the Carré.

vimeo.com/99946193

Conclusion

Walking, as a highly complex interplay of motion sequences for which our body is ideally constructed, continually fascinates me. This act of walking, which we learn with so much effort as toddlers, usually only comes to our attention once again when the rhythm and processes of our musculoskeletal system are disrupted. Walking rhythm is a pulse that accompanies us along all paths with a not stoic regularity, and radiates toward inside and out.

Hearing is among our first senses to develop. Its varied uses (for sensing orientation or atmosphere, etc) are rarely (consciously) employed in everyday living conditions today, and thus they atrophy. For some years now I have also been working specifically with schoolchildren – mainly in Germany and Austria – who often do not have music lessons in school due to a lack of teachers and financial constraints, and often have barely cultivated any language for talking about what they are hearing. After just a few days of attentive listening exercises and experiments on acoustics, there is a noticeable change. How long will this change last?

This makes me wonder: Have we perfected the art of ignoring what we hear on a daily basis, so much that a natural attentiveness has been forgotten?

One essential aim of my work is to contribute to a broader understanding of cities in general, how we perform our social and economic interactions within them and to offer questions and discussions based on personal experiences on site. Walking means to perform a rhythm in space. Doing it attentively makes us aware of other rhythm structures and patterns which regulate public space - from the traffic lights, to the culturally-defined calendar of rituals like national holidays. A more socio-political based understanding of this question is presented in Henri Lefebvre's last published work Rhythmanalysis8. Rhythm is found in the workings of our towns and cities, in urban life and movement through space. Equally, it is in collisions of natural biological and social timescales, the rhythms of our bodies, and society. Holger Schulze, whose work is advocating for a participatory listening attitude especially in his text Spatial Body Sound – An Anthropology of With9 writes: "Hence, in an anthropology of with, the statics of fixed and impervious objects of thought are replaced by a highly flexible and vibrant mode of thought and perception, one that responds to transformations in the material around us with fitting perceptual transformations. Immersion is no longer just an intellectual game, but has consequences in our daily actions, in every single situation here and now."

In working, exchanging and cooperating with other artists, scientists, architects and city planners¹⁰, I seek to expand, reassess and refine my own approach to the topic of walking and listening in urban spaces. Throughout this process, a central concern is the way sound and space work together in creating atmospheres¹¹.

Every city, every place recounts its auditory narrative, just as every space speaks and a sound event is colored by its surrounding environments. Season, topography, architecture, economic & social structures and dynamics – all of these can be heard¹². Gender, age, culture and personal history play an important role in how we make sense out of an auditory event. How we hear, perceive sound, is connected to a variety of conditions and circumstances, some of which I hope I have been able to illustrate through a few of the examples from works. City design, the organized built environment, sets conditions that influence our sense of certain architectural or urban places. Invisible and subtle, these structures are directing our social and economic interactions – shaping ways we walk and ways we feel in our living spaces.

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Endnotes

- 1 cf. Atzwanger, Klaus: Lebensraum Strasse: Aspekte menschlicher Gehgeschwindigkeit. Zolltexte Wien, 2. Edition, 1995, Seite 19–21.
- 2 Listening Sites Bonn by Sam Auinger, 2010. This statement emerged during a research period in Paris, 2009, based on shared experiences and convictions by Sam Auinger and myself.
- 3 cf. Whittle, Michael W.: *Gait Analysis: An Introduction*. Butterworth-Heinemann, 4. Edition, 2007.
- 4 Soundful shoes, by which I mean shoes that can produce an audible and noticeable tap which might resonate and create an interplay with the physical environment along the walk. The soundful shoes which I use have a specially adapted and tuned heel for the purpose of the performances. The word is a playful translation for what I use in German, *klanglich*.
- 5 For further more extensive research on the auditory experience of spaces, see for instance: *Spaces Speak, are you listening? Experiencing Aural Architecture* by Barry Blesser and Linda-Ruth Salter, MIT Press Ltd, 2009, as well as, *Sonic experience A Guide to Everyday Sounds* by Jean-François Augoyard and Henri Torgue, Combined Academic Publ., 2005, among other sources.
- 6 Böhme, Gernot: *Atmosphäre, Essays zur neuen Ästhetik*. Edition suhrkamp, 2013.
 - Böhme, Gernot: Architektur und Atmosphäre. Verlag Wilhelm Fink, 2006.
- 7 In collaboration with Roland Babl. Imanol Gomez and Gerald Schalek.
- 8 Lefebvre, Henri: *Rhythmanalysis Space, Time and Everyday Life.* Bloomsbury, 1992.
- 9 Schulze, Holger: Spatial Body Sound. An Anthropology of With. In: Sam Auinger & Friends. Folio Verlag, Wien/Bozen, 2007, p.75–83.
- 10 In this regard I would like to mention particular Sam Auinger, Gernot Böhme, Peter Cusack, Elen Flügge, Annea Lockwood, Bruce Odland, Dietmar Offenhuber, Bettina Oppermann, Penelope Wehrli et al.
- 11 "But, of course, acoustic space is also experienced in real space. Nevertheless, it is bodily space, the space of my own presence, which is constituted by the extent of my bodily awareness"
 - Böhme, Gernot: *The Great Concert of the World*. In: *Sam Auinger & Friends*. Folio Verlag, Wien/Bozen, 2007, p.47–58.
- 12 Auinger, Sam: Lecture *city sound a hearing perspective*. bonnhoeren – stadtklangforum, Kunstmuseum Bonn, May 2010.