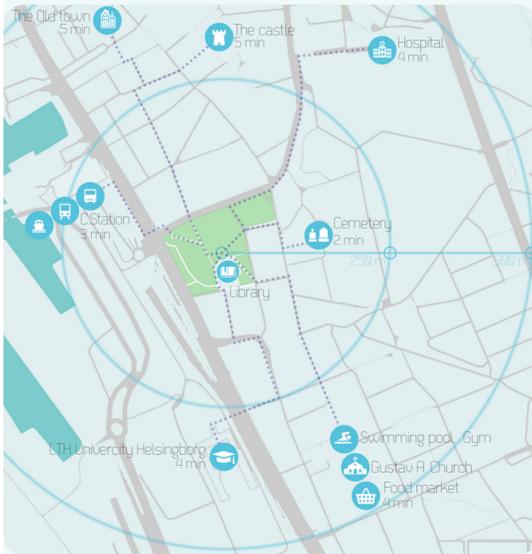


Soft Edges



THE PERFECT LOCATION



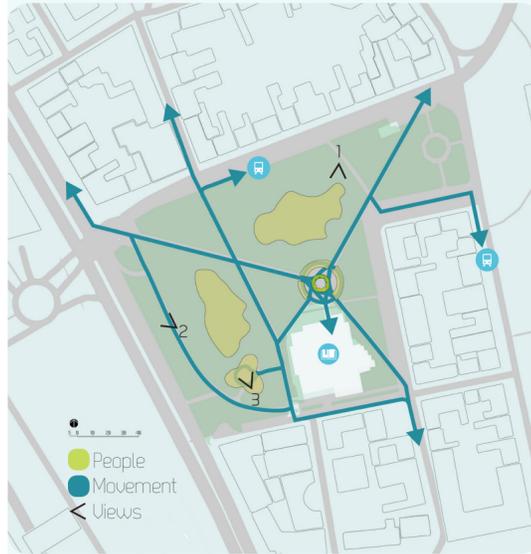
The strategic location of the park is right in the centre of the entire city. It takes maximum 5 minutes to walk by feet to reach various of functions and other facilities in Helsingborg city (e.g. Hospital, The Central transportation Station, The Old town and Castle, food market, University Campus etc). All these programs are located in a walking distance less than 500 meters.

VEGETATION



Characteristics of the park is its large amount of diversity of free-growing trees such as Japanese Magnolia, Cherry, Robinia and Chinese dogwood, which are planted in the edges of the park, creating a green forest with more than 5000 sq. which border the surrounding urban. In a harmonic way, the trees spread in between, then gather in the core of the park around a fountain.

MOVEMENT



Based on observations during different days, times and weather conditions, people pass through the park toward other side to reach different functions. And if they stay to spend time, they stand or seat close to the middle of the park and skip the edges. Even though there are good benches and lighting in the edges of the park where the green trees are planted there also.

On Air



Aspect

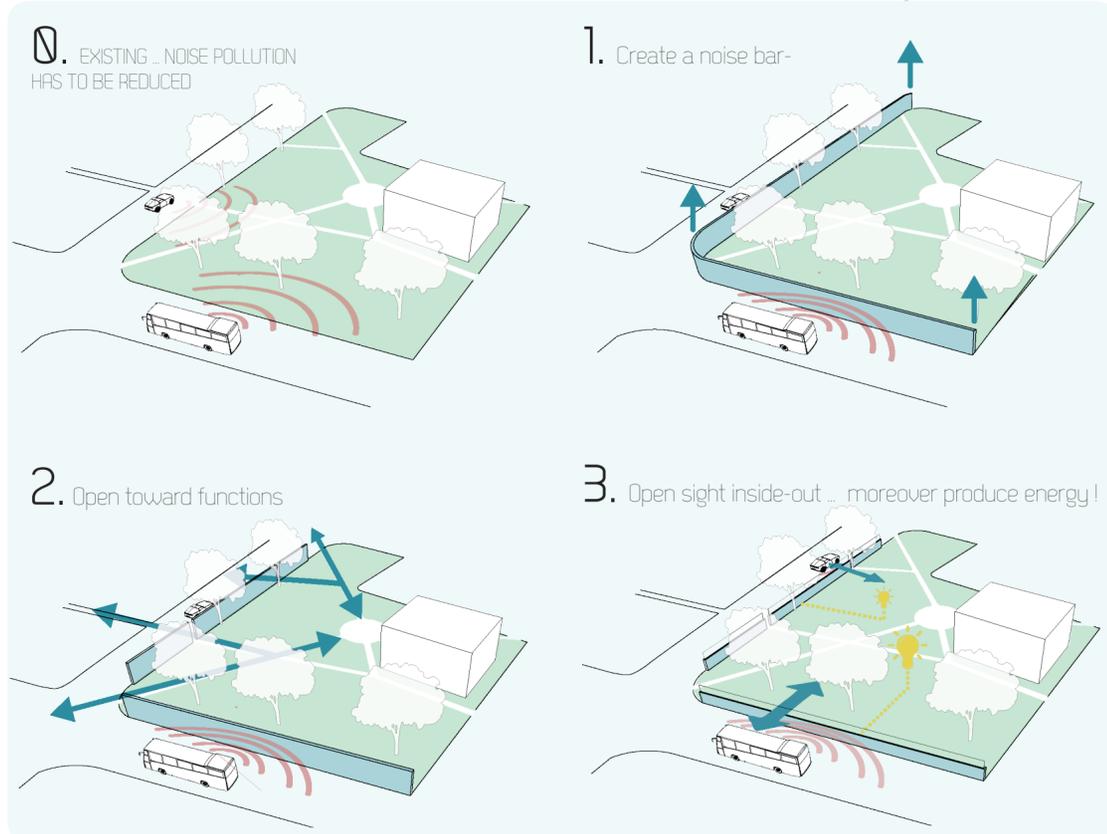
NOISE POLLUTION

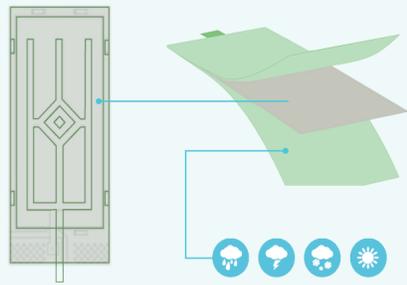


After observing, interviewing people and analysing the location, the main negative aspect that really stands between people and the greenery edges is the disturbing traffic noise caused by motorbikes, cars, busses and trucks. This diagram is based on Helsingborg City mapped noise pollution. It is clearly visible how loud it is around, especially close to the north and western edges of The City Park.

How Loud is Too Loud for us people? The diagram shows the average of various sources of noise pollution at different noise level (dB). Loud levels depend on how people experience the noise (how much time they hear the noise, and the distance from the noise). It could lead to serious heart disease, increase stress hormones, sleep disruption, and for sure the main damage is hearing loss.

Concept





Piezo ...

Inspired from nature. From the shape of tree leaves. The Piezo is a mechanical leaf with dimension 71 x 26 mm and total thickness is 0.76 mm. It is covered by a protective skin, to protect it in different weather conditions, especially the cold and rainy weather in Helsingborg - Sweden.

Piezo is related to the Greek word for Pressure. What does the Piezo do? Harvests energy from vibration.

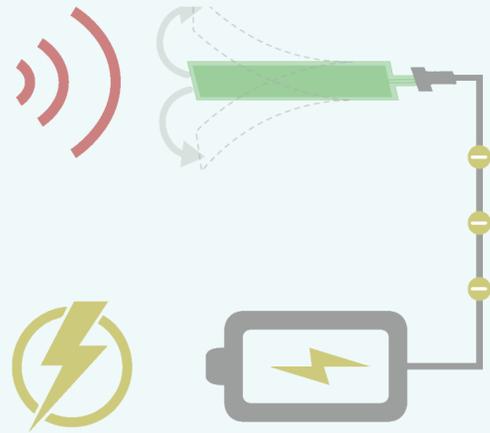


How does it work?

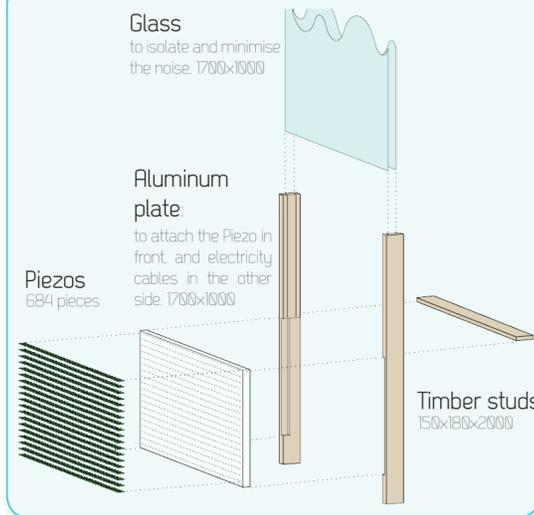
When the cars run, they generate noise, the noise is basically **sound waves**. When these **sound waves** touch the **Piezo**. It makes the **Piezo** "squeeze itself" by vibrating up and down (just like how tree leaves react when they are in contact with air, they move back and forth or up and down).

Piezo's vibration is a mechanical movements (mechanical stress) which generate a **voltage the electrical energy**. This energy can be harvested in a battery and then be used in different ways.

Each Piezo can produce at least **7 Volt** when the noise is **33 dB**. (The diagram shows more than **70 dB** around The City Park).
10 000 Piezos cost 245 SEK (Swedish Krona).



The Soft Edges



This installation has total high 2m and width 2m. It can be easily attached together around the park in the specific edges. Green Piezos give the feeling of natural leaves. The glass with Oresund waves top will stop the noise and give the possibility to people to see the life in the park and the opposite, to see the cars in the road. Electricity can be harvested in batteries or linked directly to the power plant cable system.

A smart noise barrier :
to reduce the noise
to produce energy: for charging and lighting
to bring human back to the nature



More usable green space

More outdoor activities

More Interactions

people x people

people x nature

Possibilities and Changes

Reduced noise pollution

Safer green space

Energy producing

Charging benches

Park lighting



The noise pollution will be reduced because of The Soft Edges. This will bring back human to the nature. And place them in between the trees. To let them breathe the fresh air. To touch the green grass. To hear the sound of the happy birds. And to take a selfie at this Place ! .

People can charge their smart devices by the harvested energy from traffic noise. Students can read and write on their laptops in the middle of trees. There is always power to charge. In collaboration with the library, there can be outside reading spaces also. **Sunshine reading**

Parents will let their children go free without holding hands. Because The Soft Edges provide a physical isolation from the cars. It is a safe green space now.

Now it turns to be an efficient land use, more than 5000sq. of beautiful environment can be filled by a **social interaction and activities**, by all people from various ages, background, gender etc.. All together come and gather in the nature. People will not only pass by. They will stay and enjoy. They will see the value of the treasure. There is more space for sport, festivals, outdoor exhibitions and activities

The installation Soft Edges can be in different colours also instead for green. The glass gives the possibilities to both sides to **keep eye on each other**. This increase the feeling of safety in case any dangers happen. More over, it keep the park sight open and it welcomes the drivers. They can join and enjoy the **harmony of people and nature** !



When there is less traffic noise in the roads around the park, this installation could easily moves to another places where it can protect people and produce energy. Otherwise all the components including the small Piezos and all materials can be recycled.

Reinstall or Recycle...Sustainable End