alter.ii

Wunderkammer 4.0 / Cabinets of Wonder I Schloss Friedenstein Gotha

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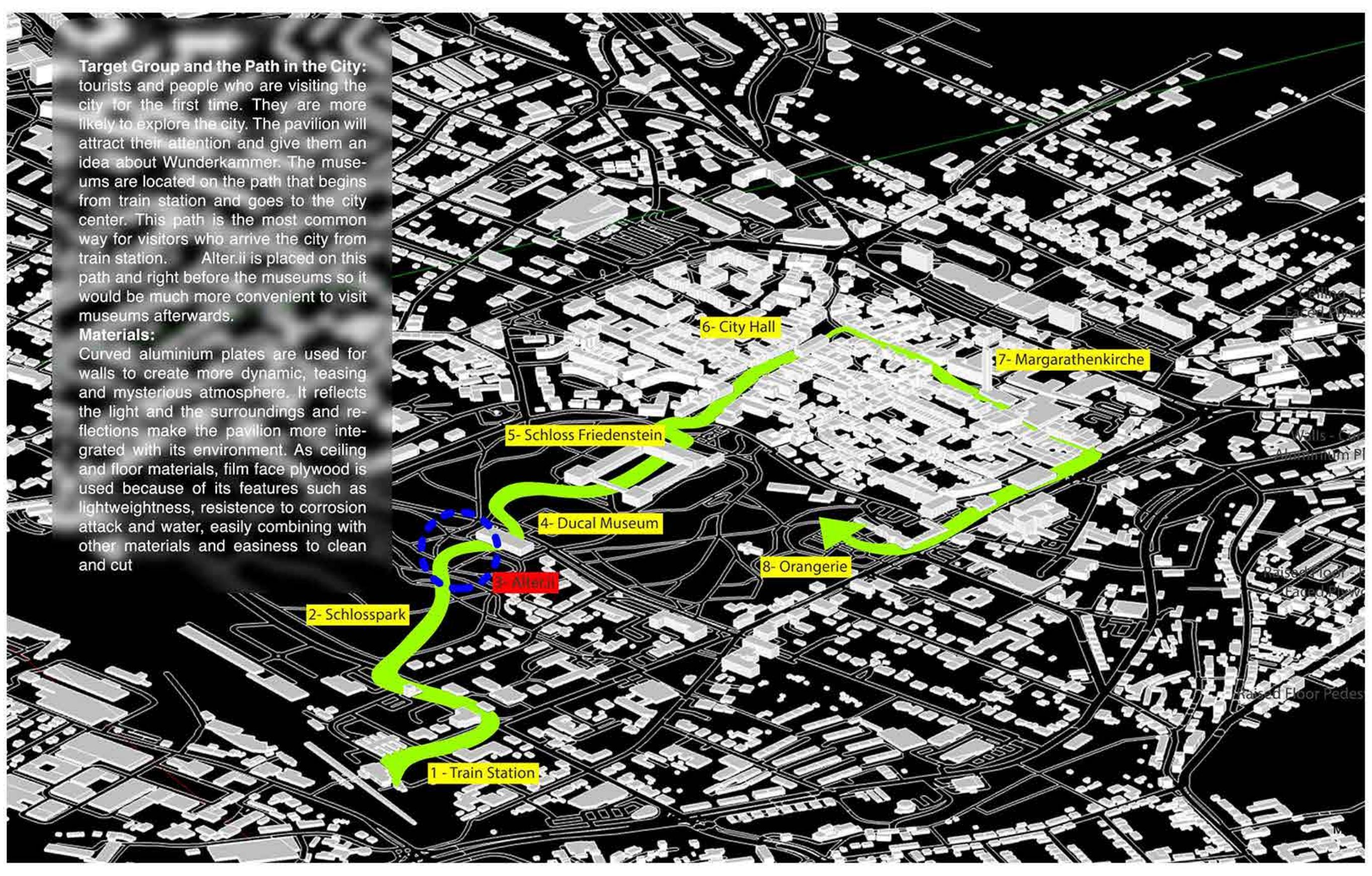
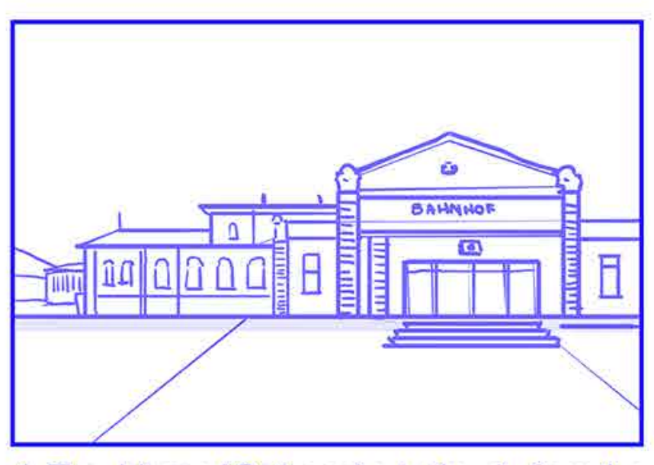
Alter.ii is an audio-reactive mediaarchitecture installation that aims to inspire visitors about the rich baroque world of Gotha. By taking inspiration from the concept of “Wunderkammer” or “Cabinet of curiosities”, many different categories of sounds have been collected from the city of Gotha and was visualized through light installations inside a specially designed pavilion space. Similar to the baroque interest in collecting interesting objects, organising and exhibiting these collections, the project “alter.ii” collects and exhibits the sounds of the city to connect the hidden baroque artefacts to our daily lives. The pavilion is designed to be built on the Schlosspark which provides a path from Gotha train station to Ducal Museum, Schloss Friedenstein and then the city centre. With the intention of creating friction in the area to engage the public with the museums and palaces of the city, alter.ii aims to invite visitors to dive into a colourful atmosphere shaped by reflections of the baroque world. The project intends to create a memorable experience with its dynamic, loud, bright, altered and colourful space by using not only visual senses but also auditory senses.

Gotha City Map



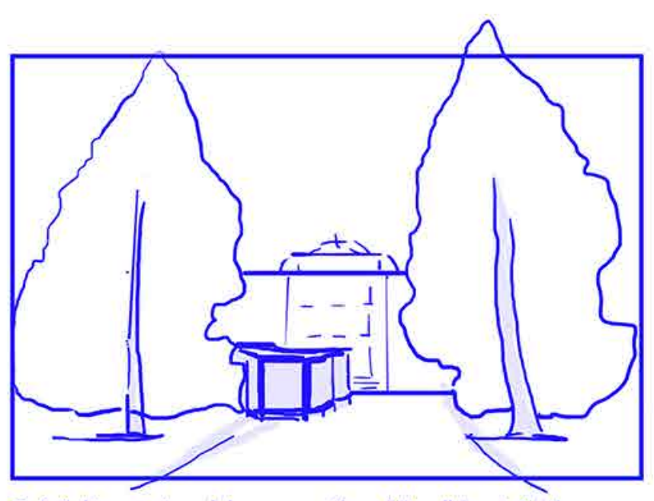
Target Group and the Path in the City: tourists and people who are visiting the city for the first time. They are more likely to explore the city. The pavilion will attract their attention and give them an idea about Wunderkammer. The museums are located on the path that begins from train station and goes to the city center. This path is the most common way for visitors who arrive the city from train station. Alter.ii is placed on this path and right before the museums so it would be much more convenient to visit museums afterwards.

Materials: Curved aluminium plates are used for walls to create more dynamic, teasing and mysterious atmosphere. It reflects the light and the surroundings and reflections make the pavilion more integrated with its environment. As ceiling and floor materials, film face plywood is used because of its features such as lightweightness, resistence to corrosion attack and water, easily combining with other materials and easiness to clean and cut

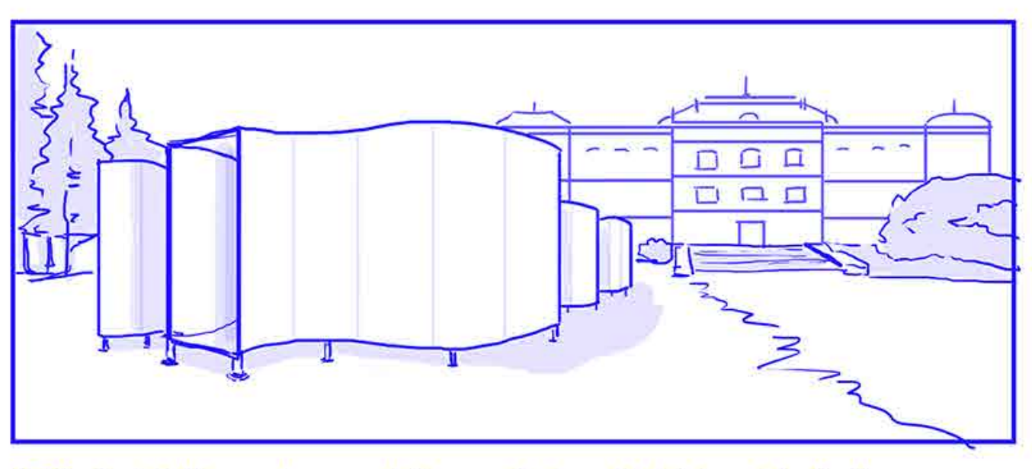


1. The visitors of Gotha arrive to the city from the train station

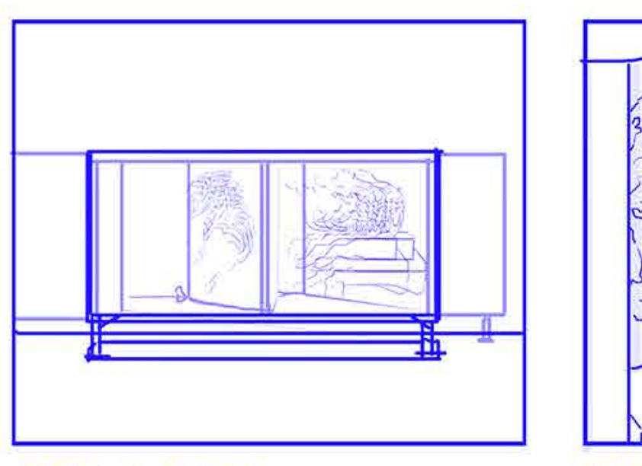
2. To go to the city, visitors go through the park.



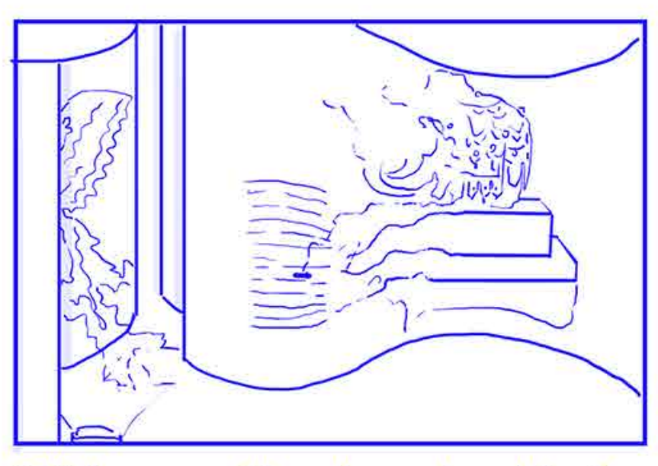
3. Visitors stumble upon the Alter.ii installation.



4. The installation welcomes visitors and raises their interest in the baroque world of Gotha and wunderkammer.



5. Entry to installation



6. Visitors connect through sounds and visuals.

Wunderkammer Categories:

Naturalia

Sounds:

leaf sounds
bird sounds
water splashing
river sounds
stones clacking
dog barks

Object:

Butterfly
The Friedstein museum of nature is home to the Nature Cabinet which hosts collections of various animals. Gotha's duke's had a special interest in researching natural history.

Exotica

Sounds:

Fabric sounds
Talking sounds

Object:

Statue of a Crouching Official
The granodiorite statue shows a squatting official who wears a long apron as a mark of status for high Egyptian dignitaries. With the 12th dynasty, there was a renewed boom in official sculpture in Egypt.

Artificilia

Sounds:

footsteps
coins
restaurant sounds

Object:

Gold-plated Silver Elephant
Duke Frederick II of Saxony-Gotha-Altenburg (1676-1732) received the precious piece as a birthday present from his wife Magdalena Augusta. Made by the Dresden court goldsmith Johann Melchior Dinglinger and his brothers.

Scientifica

Sounds:

church bell
clock tower
clock ticking
tram sound
car/bike sounds
sirens

Object:

Astronomical Tableclock
The table clock bears the signature of the Augsburg clockmaker Wilhelm Pepfenhauser and is considered his masterpiece. In addition to the time, you can read the position of the sun, moon and stars.

Mirabilia

Sounds:

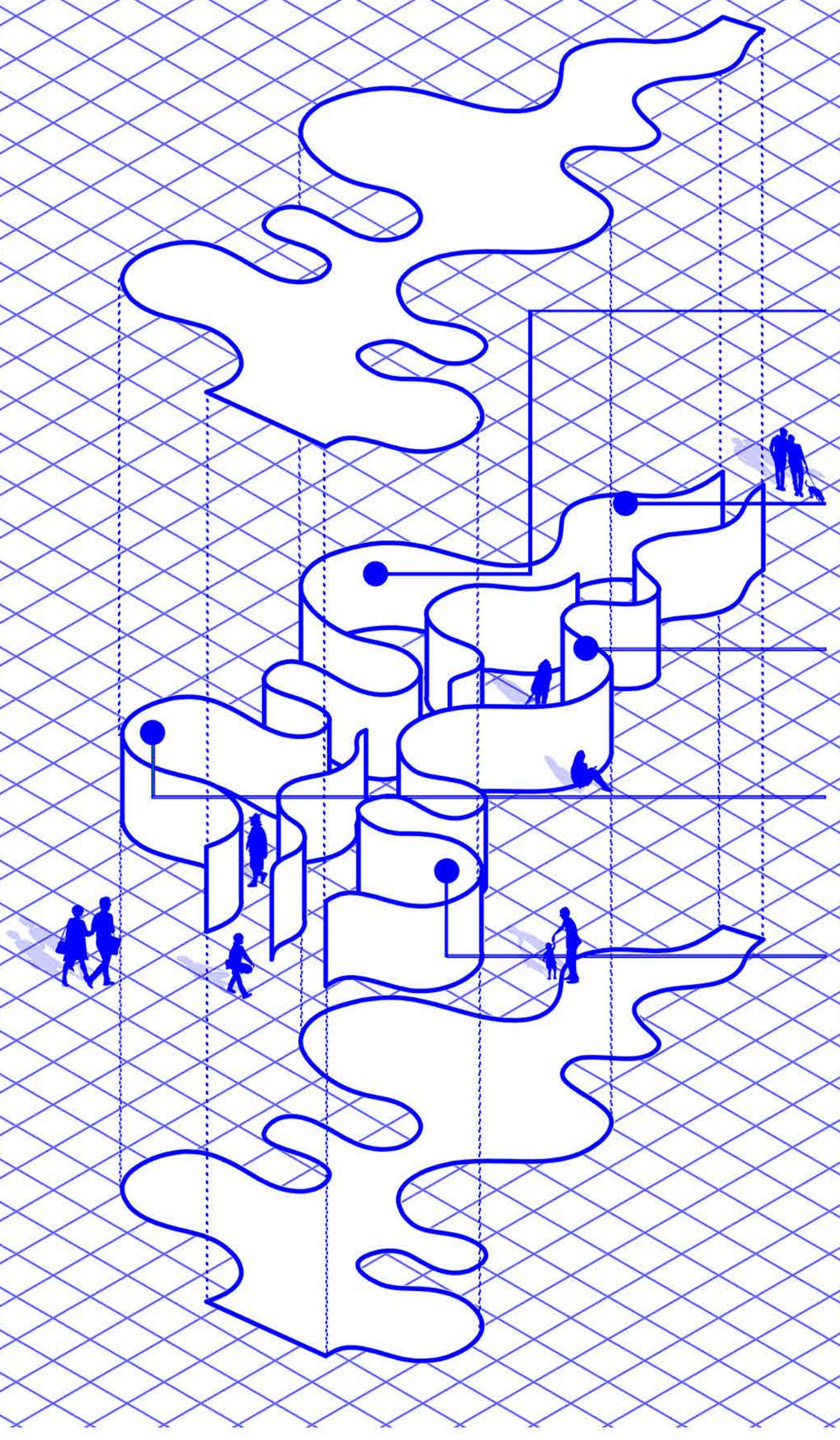
street artists
music playing
peripheral sounds

Object:

Carved Nautilus
The carved nautilus is in the collections of Schloss Friedstein. The Nautilus shell object is a combination of art, crefts and nature in a wonderous way.

Photo source: CC-BY-NC-SA @ Stiftung Schloß Friedenstein Gotha: Schloßmuseum

Pavilion Components



Artificilaia
Valuable works of art. Sounds which are collected from Schloss Friedenstein and Ducal Museum Gotha. Soundmarks.

Mirabilia
Wondrous things. Peripheral sounds which are collected from Gotha.

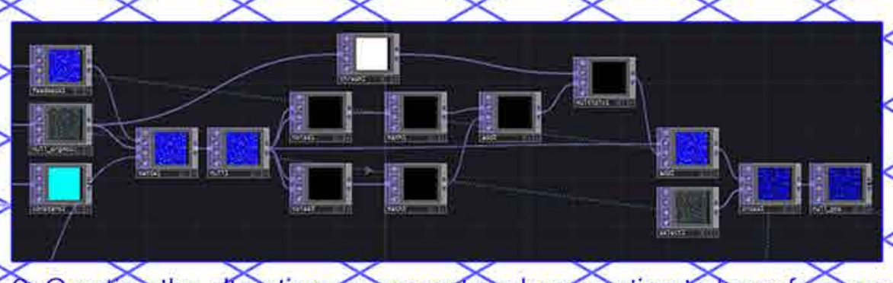
Scientifica
Scientific instruments. Keynote sounds which are collected from Gotha.

Exotica
Objects from foreign worlds. Background sounds which are collected from Gotha.

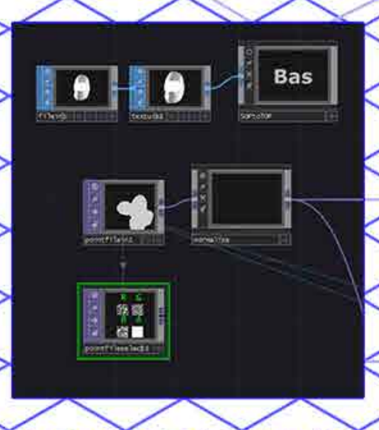
Naturalia
Rare natural objects. Natural sounds which are collected from Gotha.

Technical Process

in TouchDesigner;

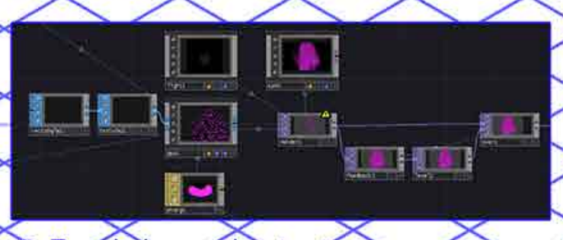


3. Creating the alteration movement and connecting to base frequency

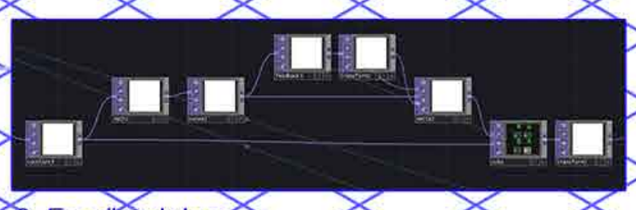


1. Creating Point Cloud from 3d object

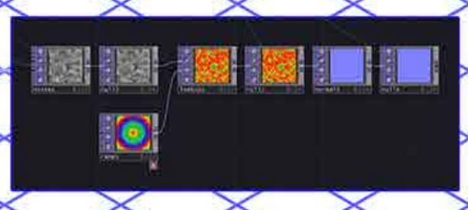
4. Categorizing sound frequencies



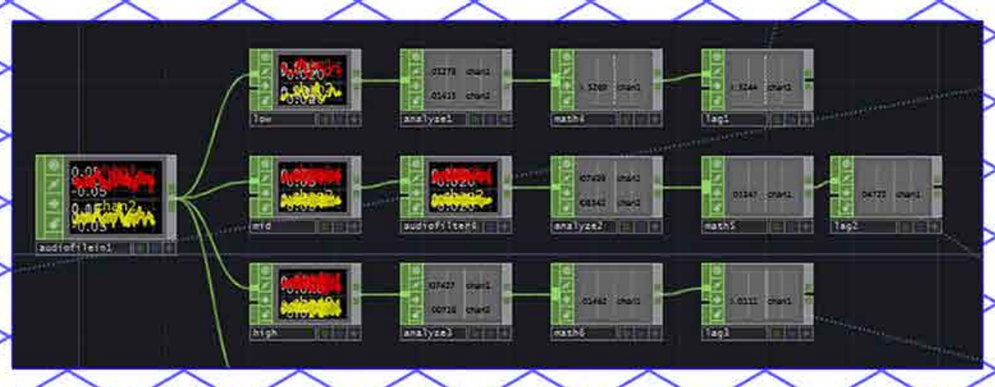
5. Rendering and output



2. Feedback loop



6. Color reactivity



Frequency Categories

<400 Hz - Bass Sounds
wind blowing, water stream...

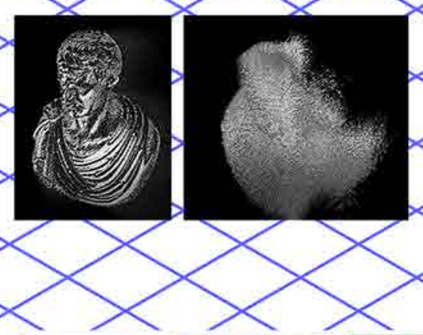
400-2000 Hz - Midrange Sounds
leaves, grass, stones...

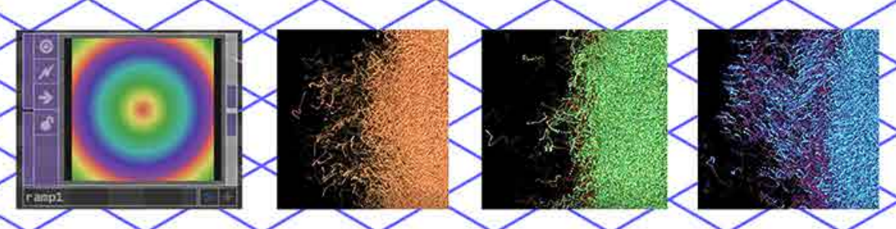
>3000 Hz - High frequency Sounds
birds chirping...

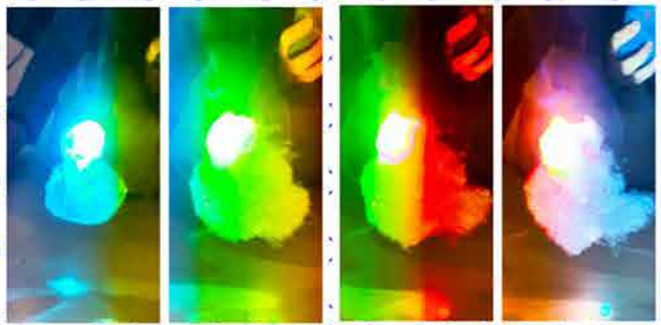
Bass ● — ● Particle Dispersion

Midrange ● — ● Color to Noise exponent

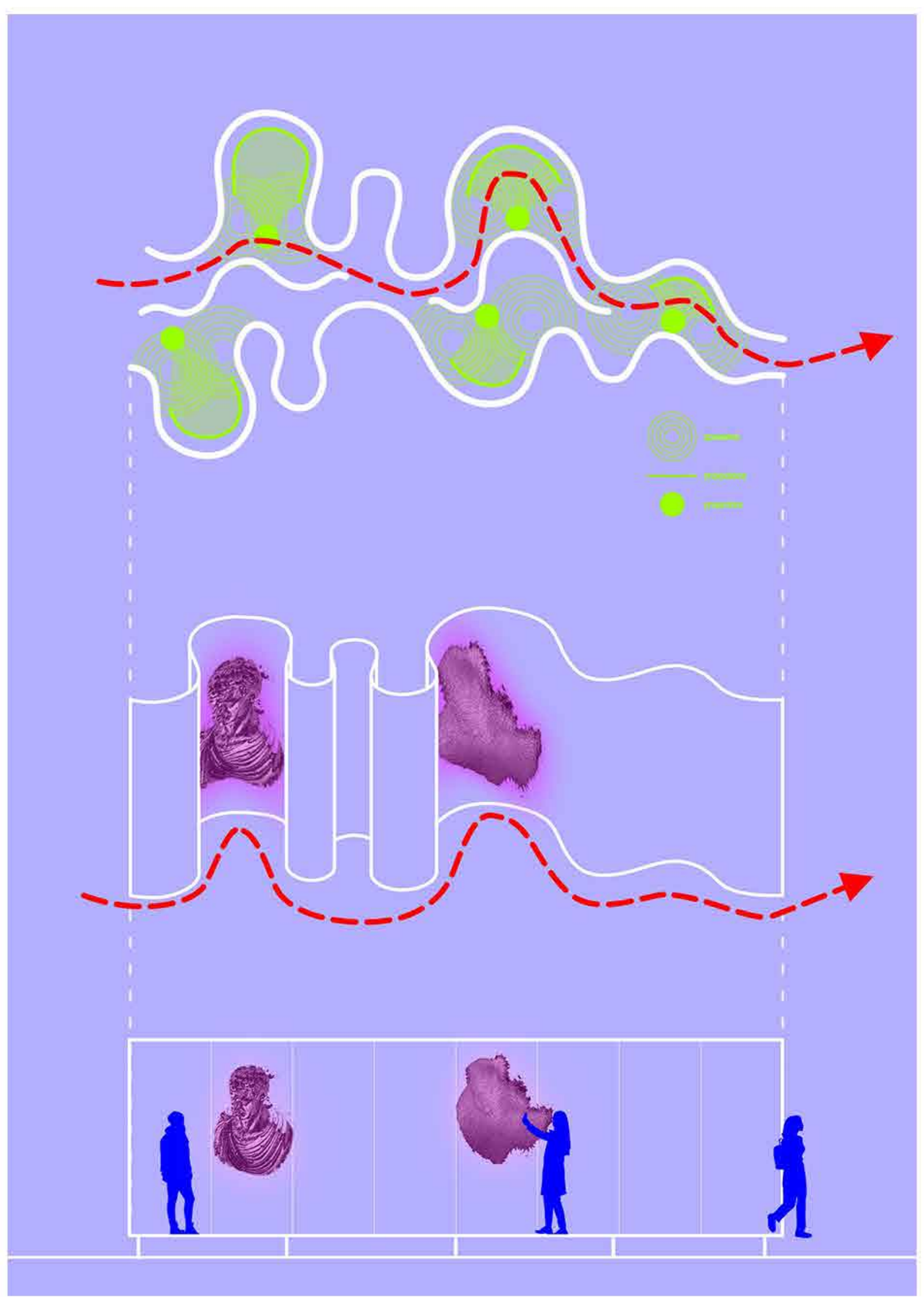
High ● — ● Color to Noise Amplitude

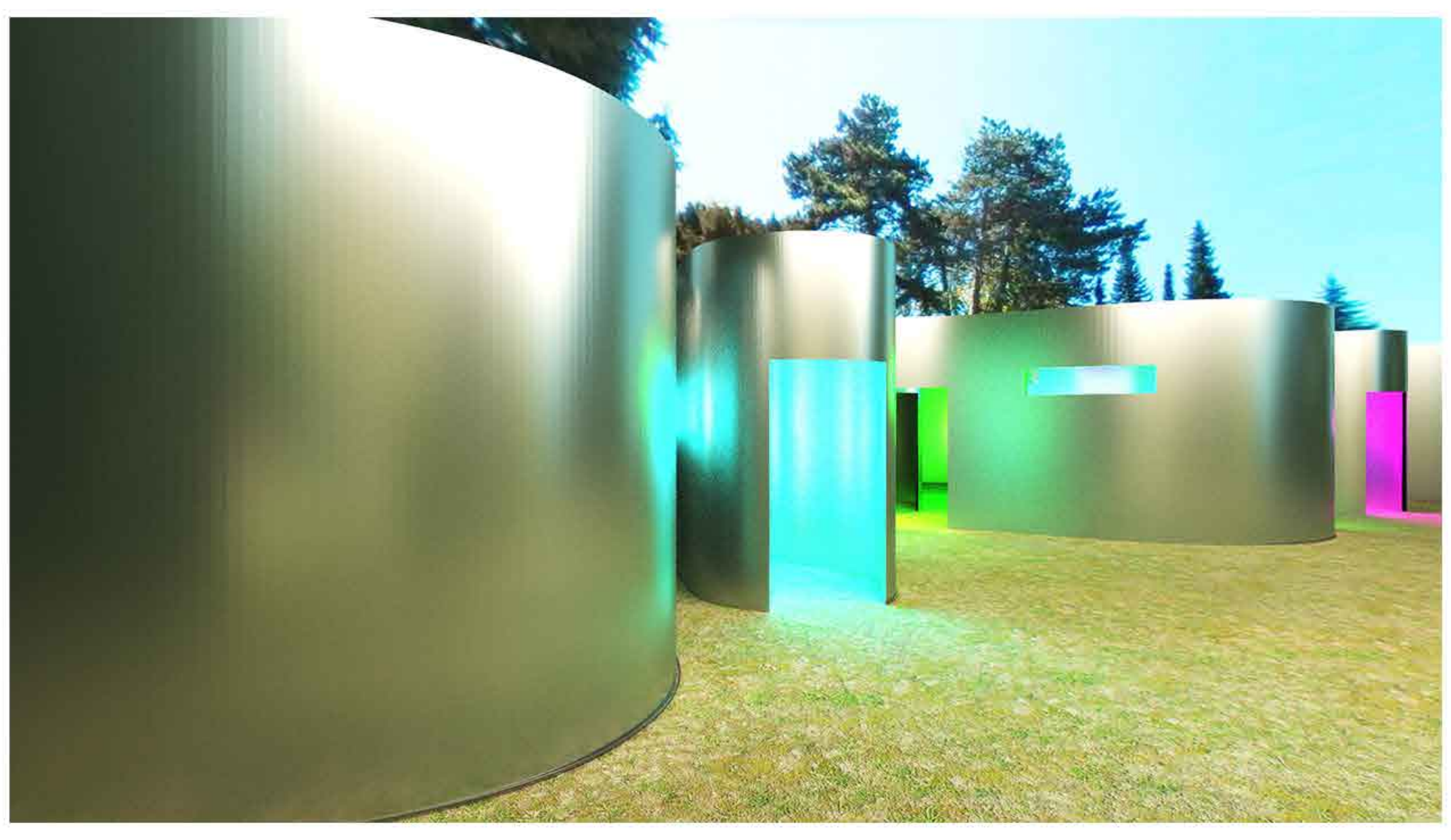


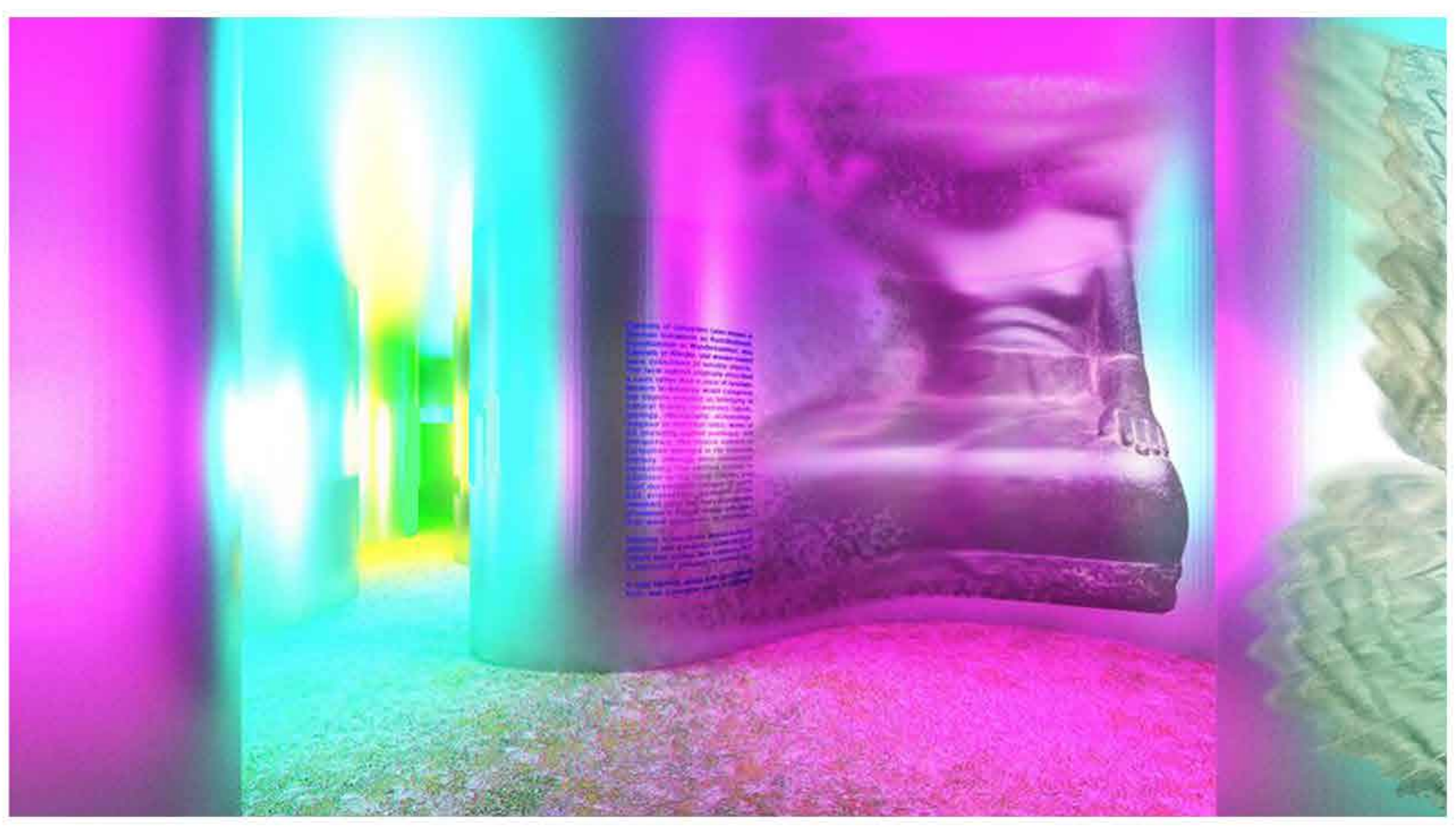




Colour change according to frequency of sound







By taking inspiration from the 5 different categories of “Wunderkammer”, 5 different soundscapes are created from collecting sounds of Gotha. These sounds are composed together in a collection, a soundscape that is directly connected to certain museum collection artefacts from the city. The selected museum objects are projected onto the walls of the pavilion in a dynamic movement by being transformed with the frequency differences from the soundscape.

With the TouchDesigner program, the objects are made to react to audio frequencies with elongation, dispersion and colour changes. The sound is analysed in 3 different levels of frequencies, which are bass sounds (<400 Hz), midrange sounds (400-2000 Hz) and high frequency sounds (>3000Hz). This separates and categorises sounds such as birds chirping or water streams. With the final rendering output, light, colour and movement all react to the sound collection of Gotha. These visual renderings are then projected inside the pavilion walls at the same time with the soundscape on the speakers. As the walls use reflective and rounded materials, the light effect is amplified.

A special, multi-sensory atmosphere is created through sound, projection lights and reflection of the architectural elements. By inspiring visitors to learn more about the “Wunderkammer” and baroque, the pavilion gives short descriptions of selected objects and invites to discover more.