## CROMATICO

Lukas Kühne



## **CROMATICO**

Pythagoras and many European thinkers after him have seen musical scale as a simile of universe as a whole: seven pitches of musical scale corresponded in their imagination to seven known planets of that time. Mathematical order of this system characterized at the same time both the movements of the planets and pitch frequency relationships in harmonic intervals. During Baroque period, the musical scale covering the whole octave was even called "omnes" - everything, the whole world. By heightening and lowering the seven main pitches the musical scale becomes "colored". Possibilities of mathematical and harmonical combinations in this cosmic system is seemingly endless and it has been enough for basically all the western art music.

Although Pythagoras was the first to describe mathematical imperfection of our pitch space: there is systematic discrepancy written in this seemingly ideal numerical system which different tuning systems has been tried to hide ever since. But this means that 12-pitched scale is not universal nor the only possibility - different musical cultures know different ways how to divide the octave. *Toomas Siitan (Musicologist, Tallinn, Estonia, 2011)* 

A common subject in visual arts and in music is nature and the dimension of space. Cromatico is a visualization of the chromatic – or »well tempered« – musical scale, which nearly all Western classic and popular compositions from the last 300 years have followed. This sensual and didactic sculpture invites the visitor on the journey through the 12 halftones of the octave from »F« to »E«, allowing them to enter, touch and play the artwork in order to better understand space in relation to the frequencies contained within its volumes.

The external shape of Cromatico reflects its internal function, creating a visual sensation of the chromatic scale cast in 30 cubic meters of reinforced concrete. Set against our everyday habit to sing, read and use this musical system are physical spaces of the various frequencies. Deeper frequencies require proportionally greater volumes of space than higher ones. The measurements of the sculpture's chambers are scaled in proportion to the body of the visitor, and their heights increase from the highest »E« (or 164 Hz) tone at 2.21 meters to the lowest »F« (or 88 Hz) note, which stands 4.04 meters high.





















NORTH FRONT SCALE 1-100

EAST FRONT SCALE 1-100





SOUTH FRONT SCALE 1-100 WEST FRONT SCALE 1-100



ROOF PLAN SCALE 1-50

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