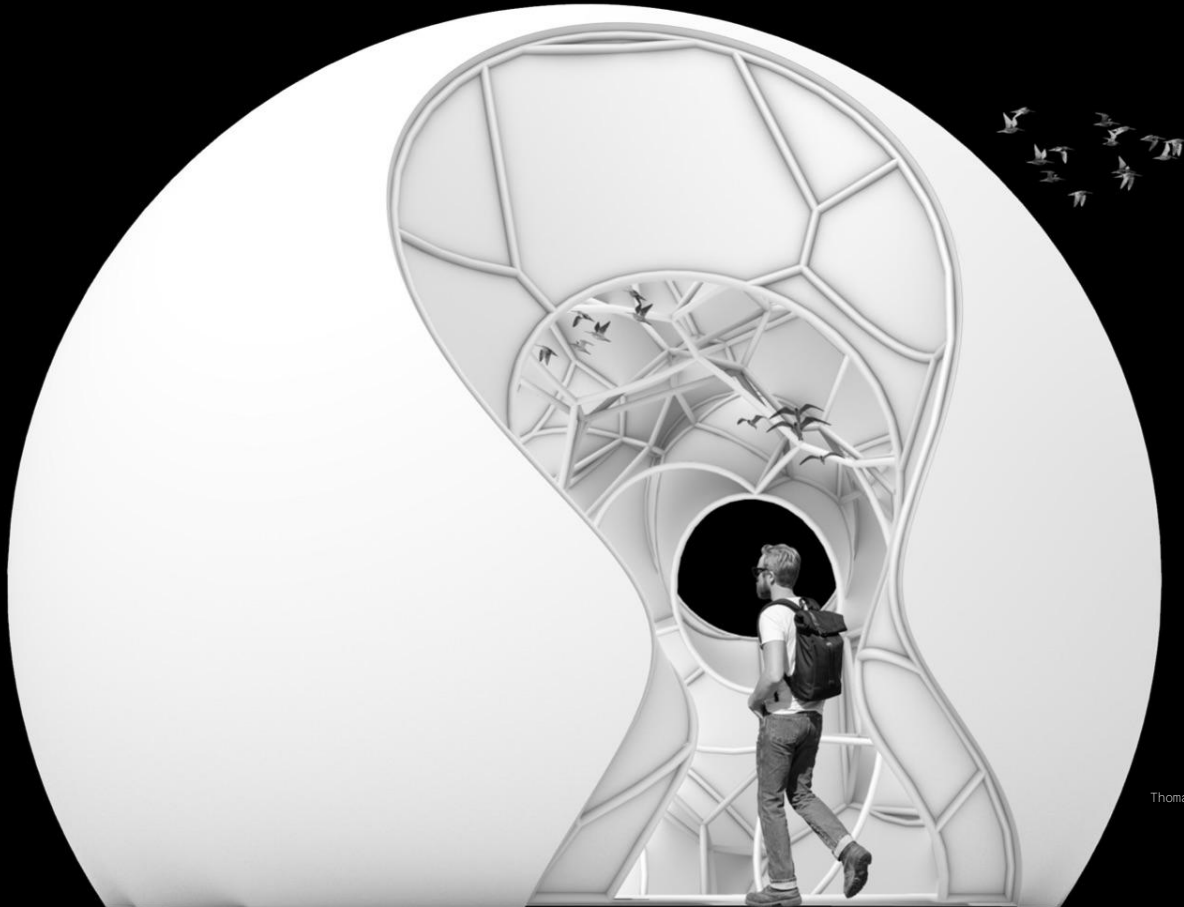


1:1 Interactive Architecture Prototypes

Design Proposal



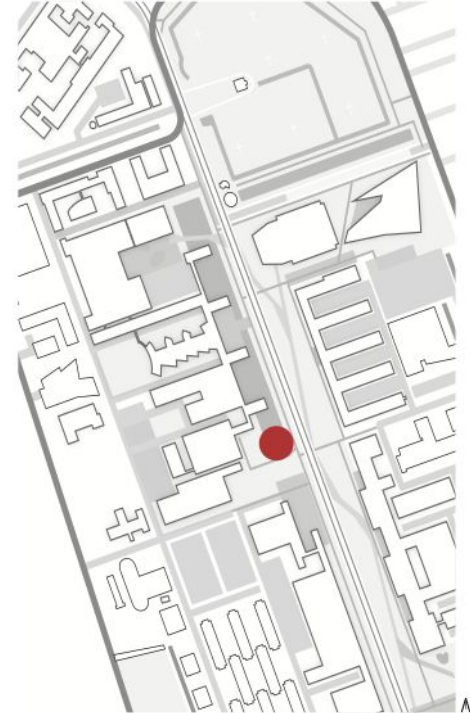
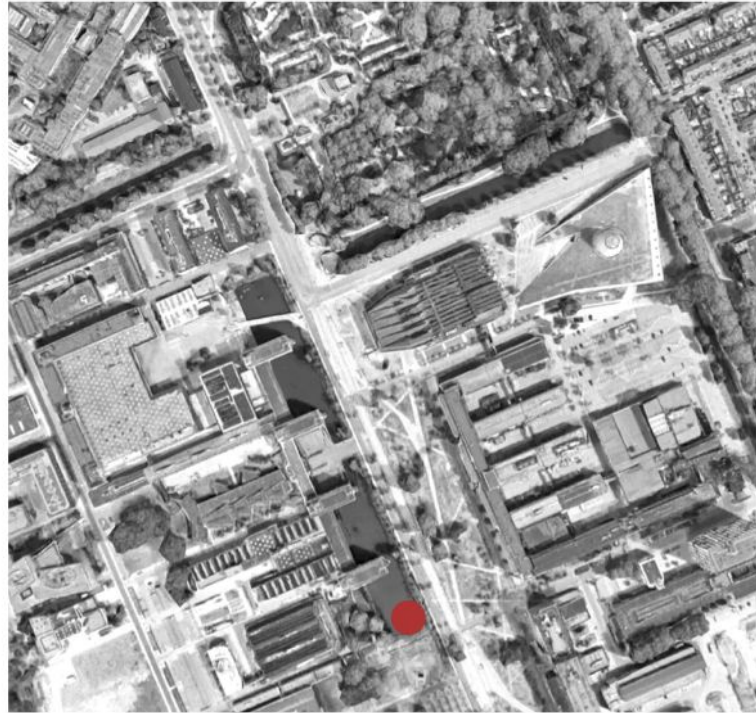
GROUP_03

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Yiyin Yu | 5568897 | Y.Yu-27@student.tudelft.nl
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Site Location:

Cornelis Drebbelweg 9, 2628 CM
Delft

51°59'59.7"N 4°22'23.2"E



Design Strategies

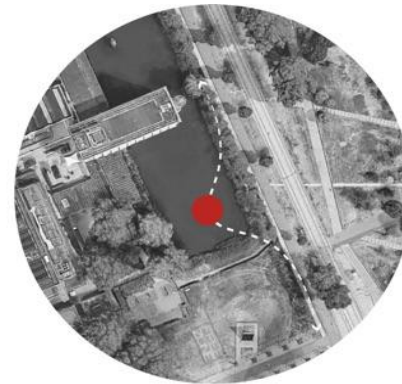
After finding a site we analysed the flows of people and placed the design into a protected area



Bike & walking path



Deviating the slower flow of people



Seating area

Users

Students and local birds

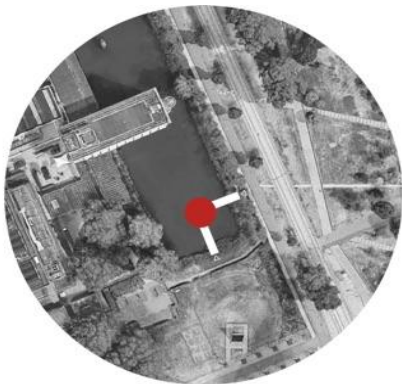


Objectives

preserve
the local bird biodiversity

inform
about the botanical diversity

create
a new quiet and natural seating spot



Connecting footwalks to the land



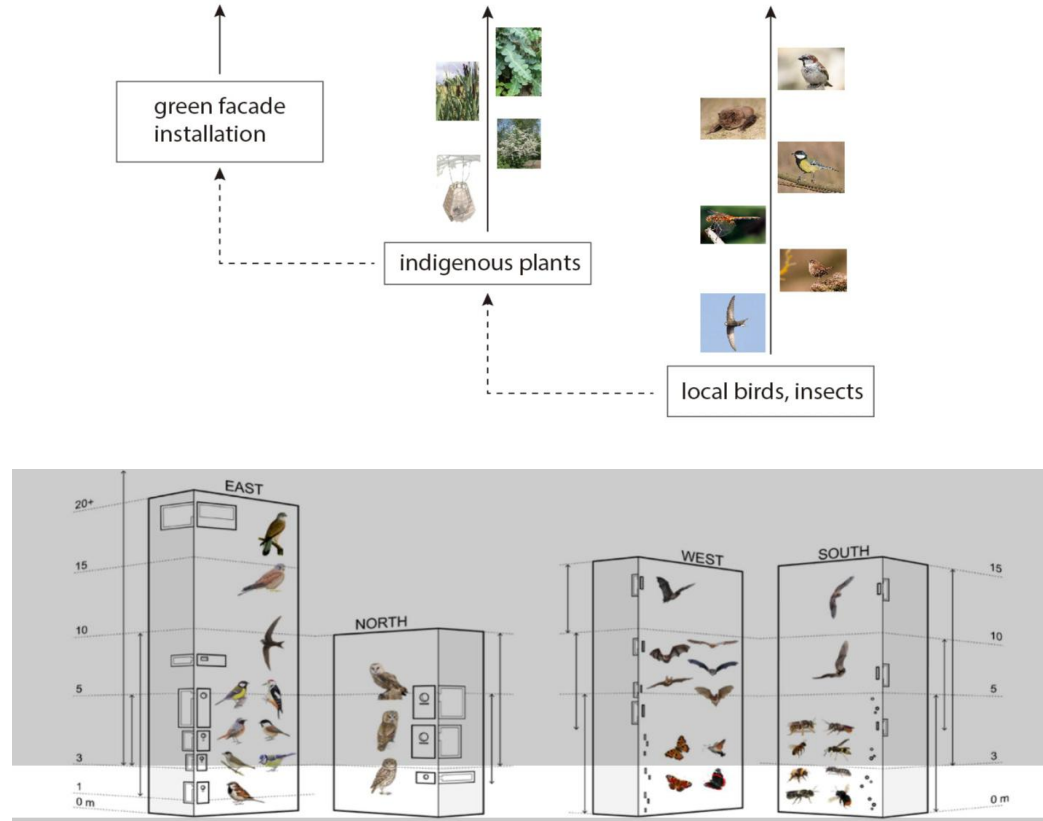
Dividing two functions



Seating and bird nesting

Nature inclusive Design

biodiversity



House sparrow
These endangered species like gardens with lots of green, but not too much trees.
It's diet includes grain, seeds, nuts and insects



Bats
Nest in (un insulated) cavities of buildings, nesting boxes and behind carpentry.
hunts around water trees and lanterns.



Eurasian Wren
Nest in wooded areas, but moves to city centers in the winter.
Feeds on insects, caterpillars, spiders, larvae and seeds.



Dragonfly
Dragonflies live nearby water, as larvae they even live in the water, adult dragonflies find new territory by following the water.



Coal tit
Mostly Nest in wooded areas, but also in parks, shrubs and gardens as long as there is enough food.
feeds on small insects



small insects
Insects live all around us, they pollinate flowers, break down organic material and form a large part of the diet of smaller birds.

Biodiversity identified



Facade strategies | Biotopes | Species

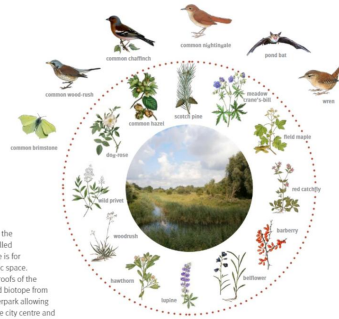
The garden biotope



Non-endemic species can also locally increase biodiversity. The city gardens are an important source of nutrition, hiding spots and reproduction sites for a variety of species. Aesthetics play an important role here. To make the gardens of Vertical part of the continuous mountain landscape, the garden biotope consists of plants of the Bretten biotope, topped up with ornamental species that are rich in nectar and berries. If surrounding garden owners share their vegetation to this garden biotope, they too can contribute to the local biodiversity.

The illustration provides a representation of the kinds of species that could be considered while designing for an urban rock biotope.

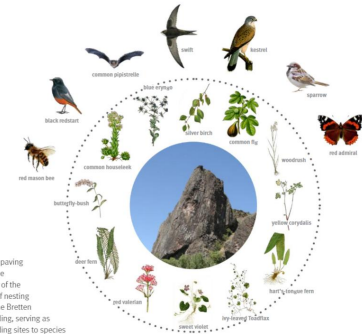
The Bretten biotope



The Bretten biotope is an inspiration for the characteristic surrounding landscape called "the Bretten". The urban Bretten biotope is for the edges, parks and slopes in the public space. This biotope is positioned on the black roofs of the buildings. The effect is a non-interrupted biotope from Brettenpark, through Sloterdijk to Westerpark allowing local species to move safely between the city centre and the dunes.

The illustration provides a representation of the kinds of species that could be considered while designing for an urban rock biotope.

The rock biotope



Sloterdijk consists mainly of buildings, paving and infrastructure the rock biotope. The designed cracks and holes of the walls of the tower Ns from Vertical provide plenty of nesting places. This tower has no plants, but the Bretten biotope is situated at its foot. The building, serving as a giant rock provides shelter and breeding sites for species that feed in the surroundings.

The illustration provides a representation of the kinds of species that could be considered while designing for an urban rock biotope.

Biodiversity identified



House sparrow

These endangered species likes gardens with lots of green, but not too much trees.

It's diet includes grain, seeds, nuts and insects



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Nests! In wooded areas, but moves to city centres in the winter.

Feeds on insects, caterpillars, spiders, larvae and seeds.



Coal tit

Mostly Nest in wooded areas, but also in parks, shrubs and gardens as long as there is enough food.

feeds on small insects



Bats

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hunts around water, trees and lanterns.



Dragonfly

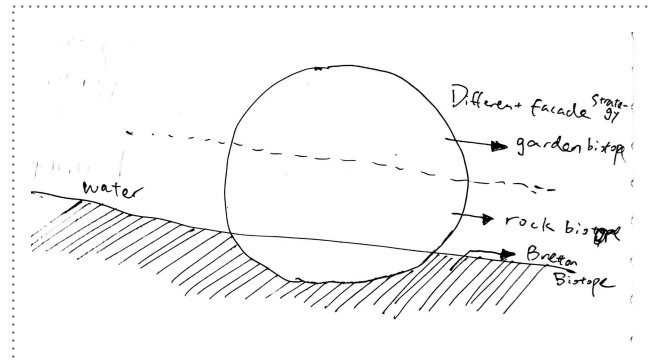
Dragonflies live nearby water, as larvae they even live in the water. adult dragonflies find new territory by following the water.

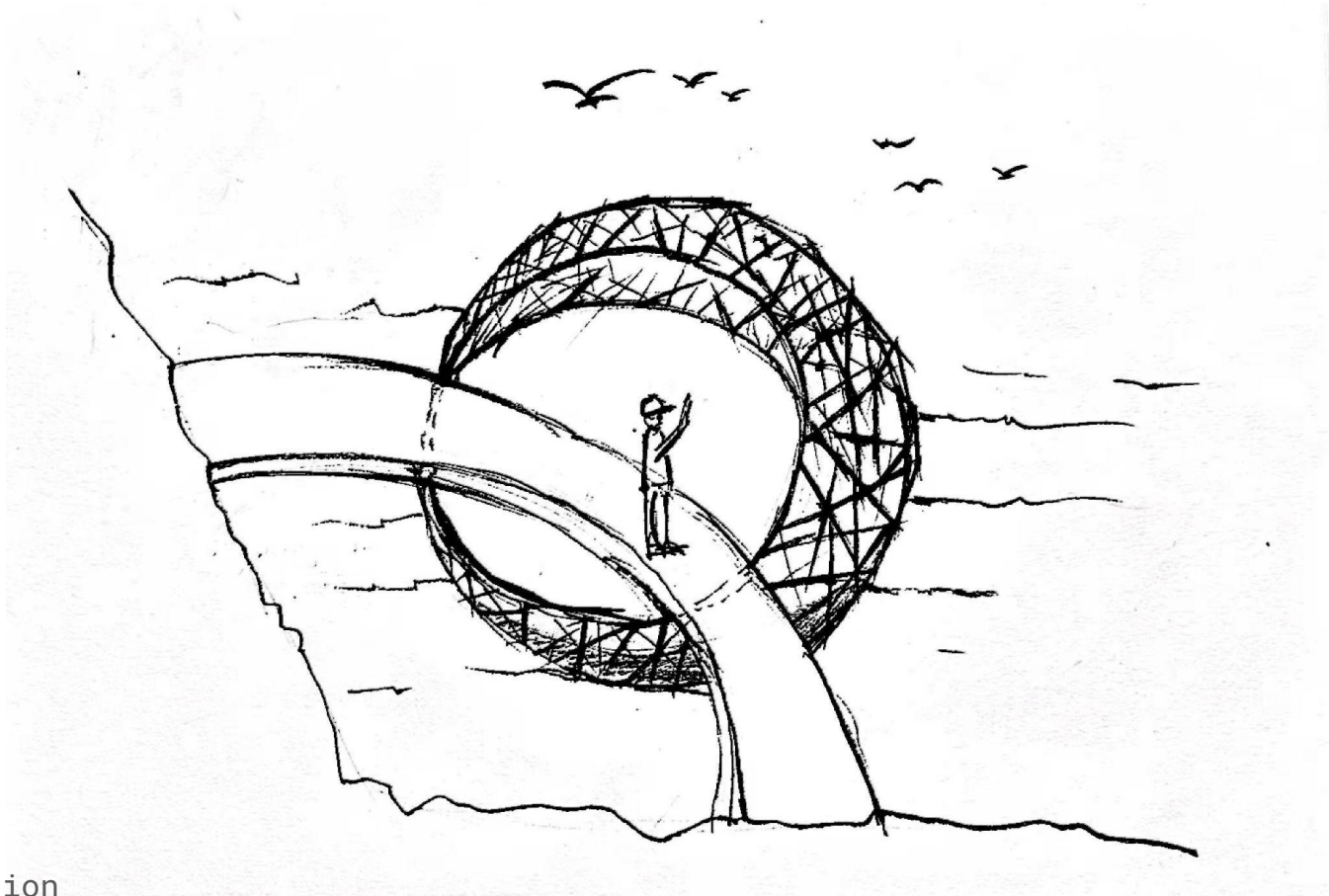


small insects

Insects live all around us, they pollinate flowers, break down organic material and form a large part of the diet of smaller birds.

Integration with the design



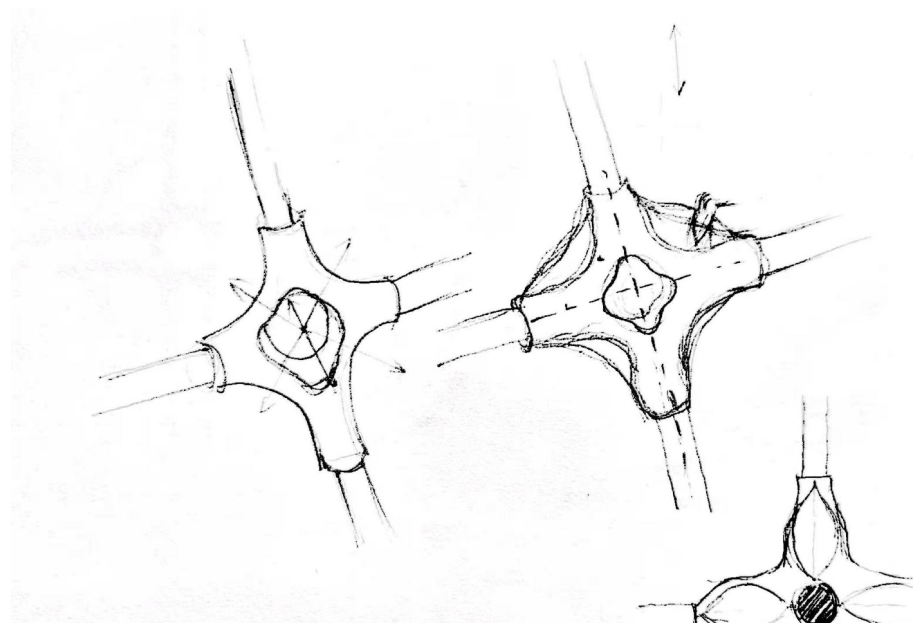
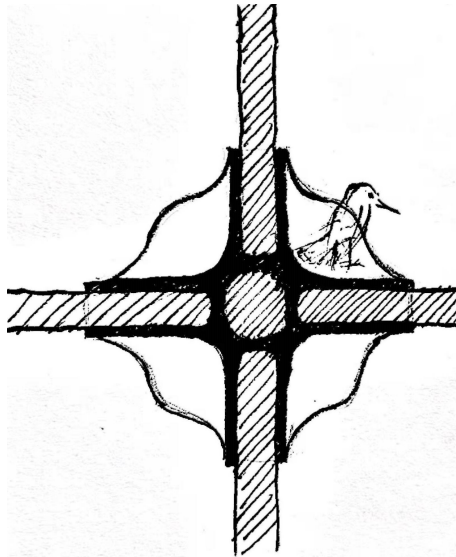


Concept visualization



Node Design

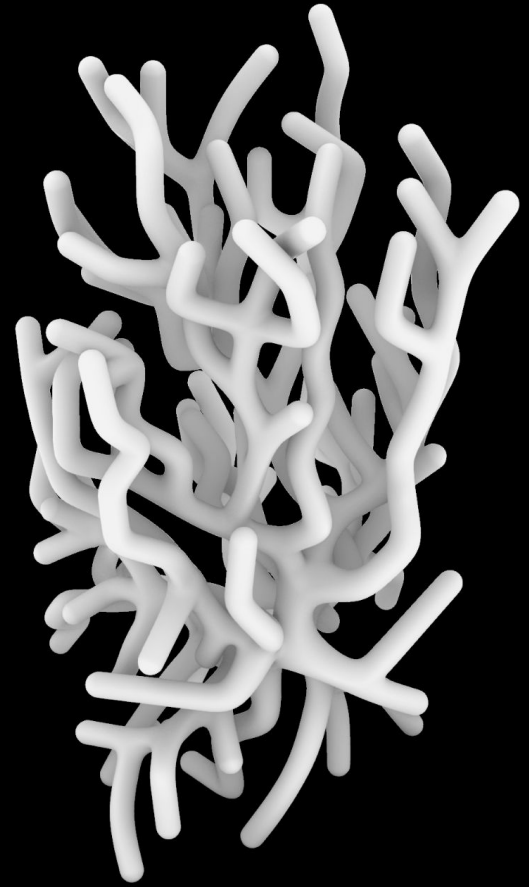
- Technical and structurally stable
- Home for birds and animals



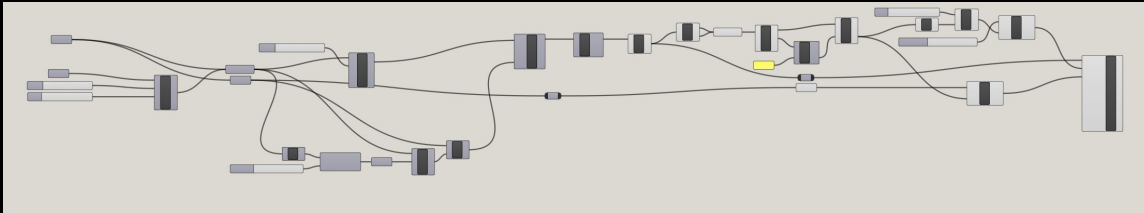
Design drafts

A test with the shortest walk function.

The thickness of the pipes is variable.

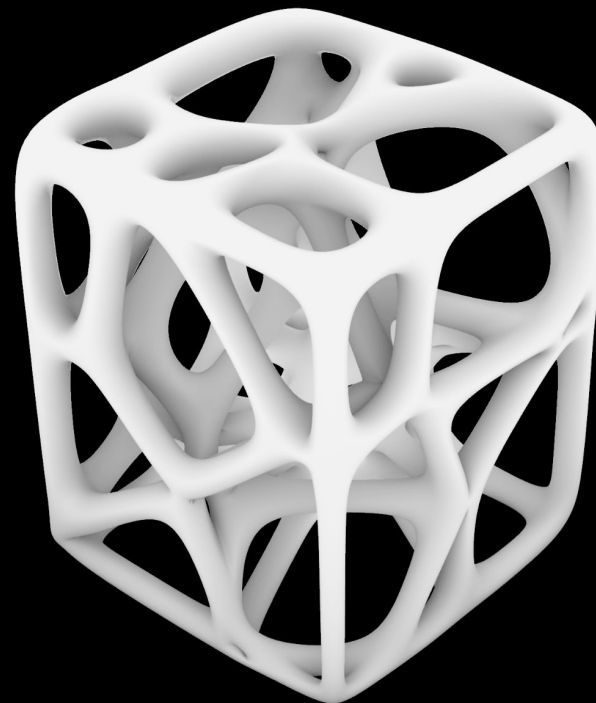


Grasshopper script

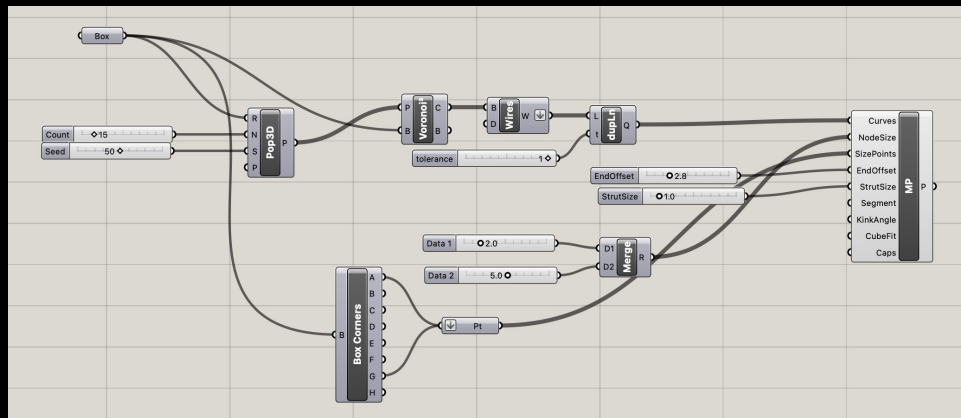


Design drafts

A quick test with the voronoi function, also with the variable thickness of the pipes, this time also with the nodes.



Grasshopper script



Design drafts

- Node Structure with nesting
- Concentrated to one side
- Entrance for Human and Bird

