



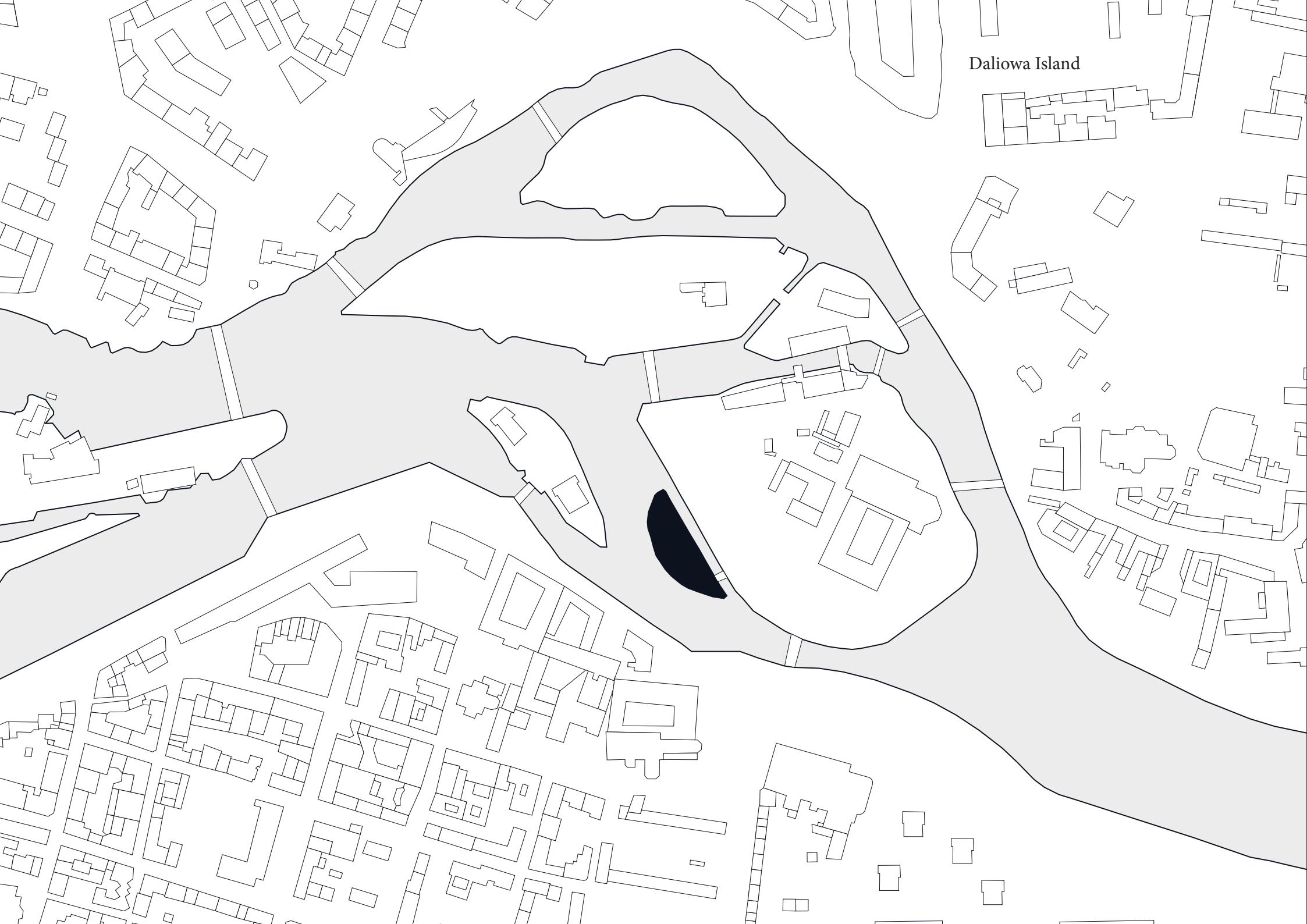
NAWA



WROCŁAW 2016
Europejska Stolica Kultury

The **NAWA** sculpture designed by Oskar Zięta will be erected on Daliowa Island in Wrocław. The sculpture will be a part of the European Capital of Culture 2016 celebrations, whose main slogan is “metamorphoses of culture”, i.e. shifts occurring in the domain of culture, communities and the city itself. The idea of metamorphosis itself also underlies the NAWA sculpture.

Daliowa Island



The **NAWA** sculpture will be erected on an unusual, mysterious and wild site. Daliowa Island – the smallest of over a dozen islands in Wrocław is situated in the primal current of the Odra river and is surrounded by both lush greenery and historic architecture.



During several decades, Daliowa Island has evolved significantly. Before World War II it was bursting with life; during the War it was markedly destroyed; after the War it was brought back to life, but in the recent years it has been almost forgotten. Today, thanks to the **NAWA** sculpture, set up as part of the European Capital of Culture, the island can be re-born and remind the citizens of Wrocław about its presence.

Inhabited, ruined and rebuilt. Until 1980s the island was perceived as an important point on Wrocław's social map.



Dalia Island in 1920s and 1970s

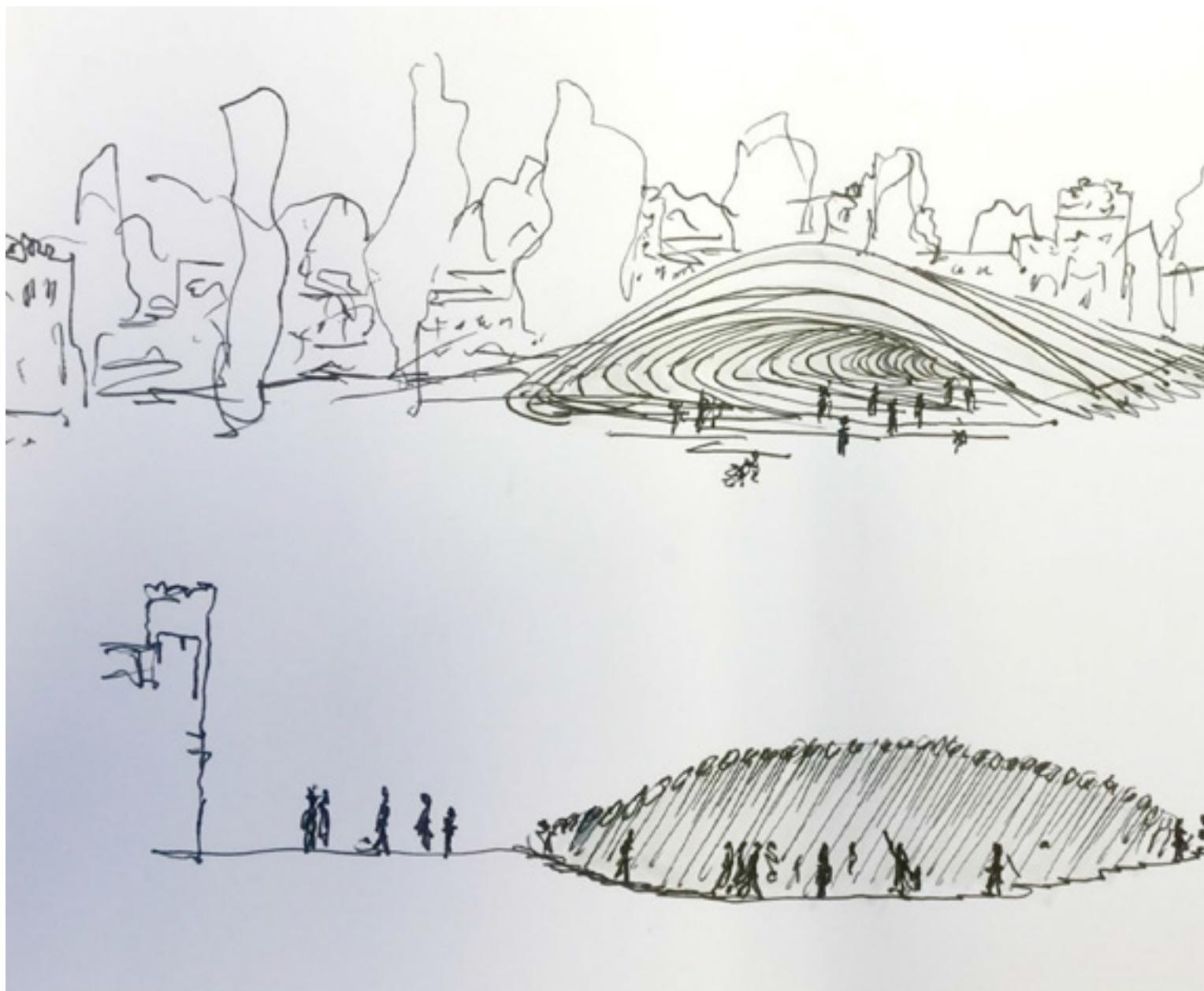


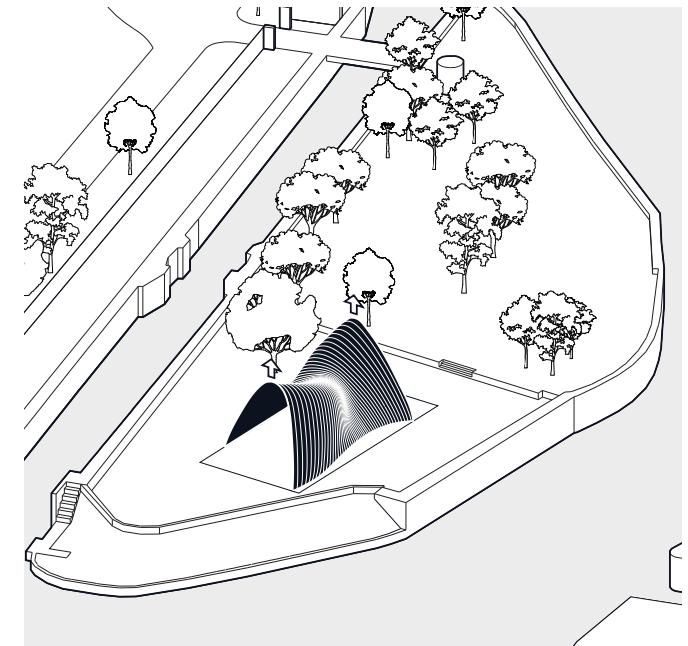
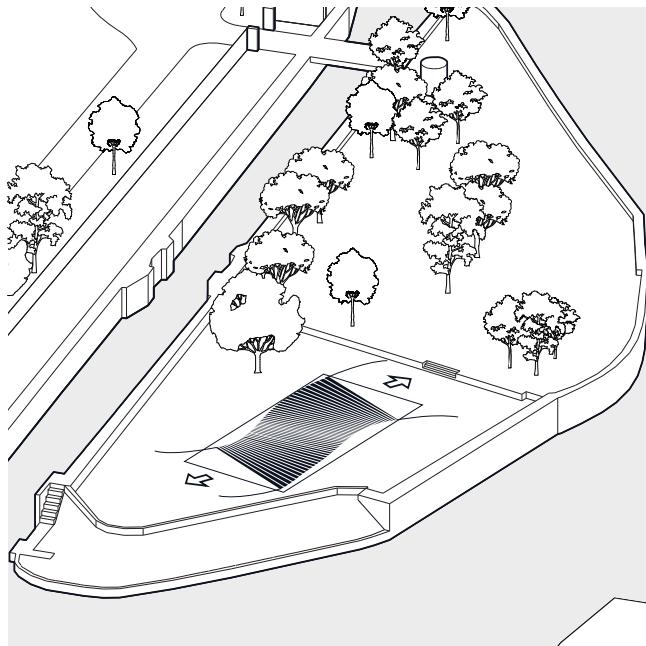
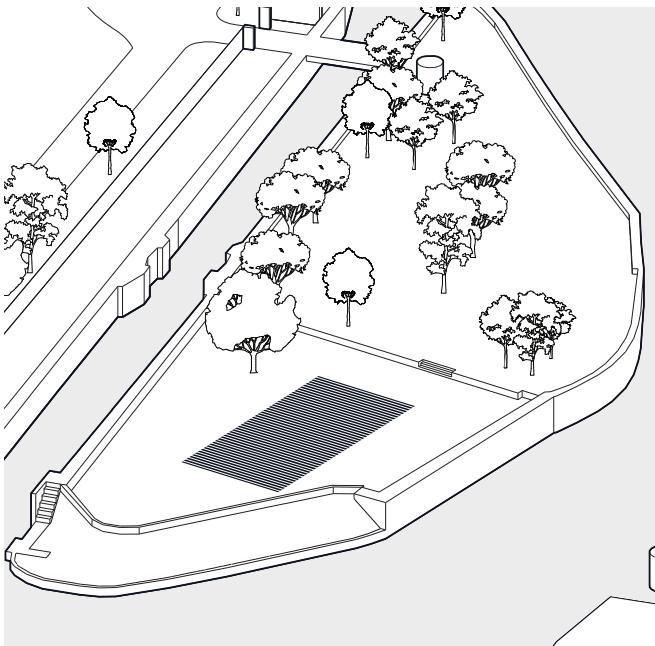
Form

Science and aesthetics

One of the major source of inspiration for Oskar Zięta is bionics. This branch of science allows to invent technical solutions which mimic the behaviour of living organisms. The search of form has led the artist to the construction of bionic arches linked together. The form of the sculpture relates both to the natural surroundings and the neighbouring buildings.

Despite its artistic character, the sculpture will also fulfill its social functions in the public space. In the designing process, researching the potential social impact of the sculpture and aesthetics were equally important. It has been contemplated how **NAWA** forms part of its surroundings and how it will be affecting its audience – both the passers-by and the ones who walk under it.





Thanks to the well-considered spot and the form which resembles a gate, the audience can contemplate the sculpture both from the inside and from the outside. The additional footbridge makes the island accessible for the pedestrians.

The curvature of the sculpture is adjusted to the pathway which links both exits from the island. The construction allows to aim the eyesight of the pedestrians to the selected landscapes, revealing and blotting out numerous perspectives.

Thanks to the arches aiming upwards, the sculpture powerfully interplays with the landscape. Bionic shapes establish the impression that the sculpture grows straight from the ground. Simultaneously, the construction based on the arches relates to the monuments nearby: The Ossolineum, The church's tower at Piasek, Wrocław Market Hall and Ostrów Tumski.

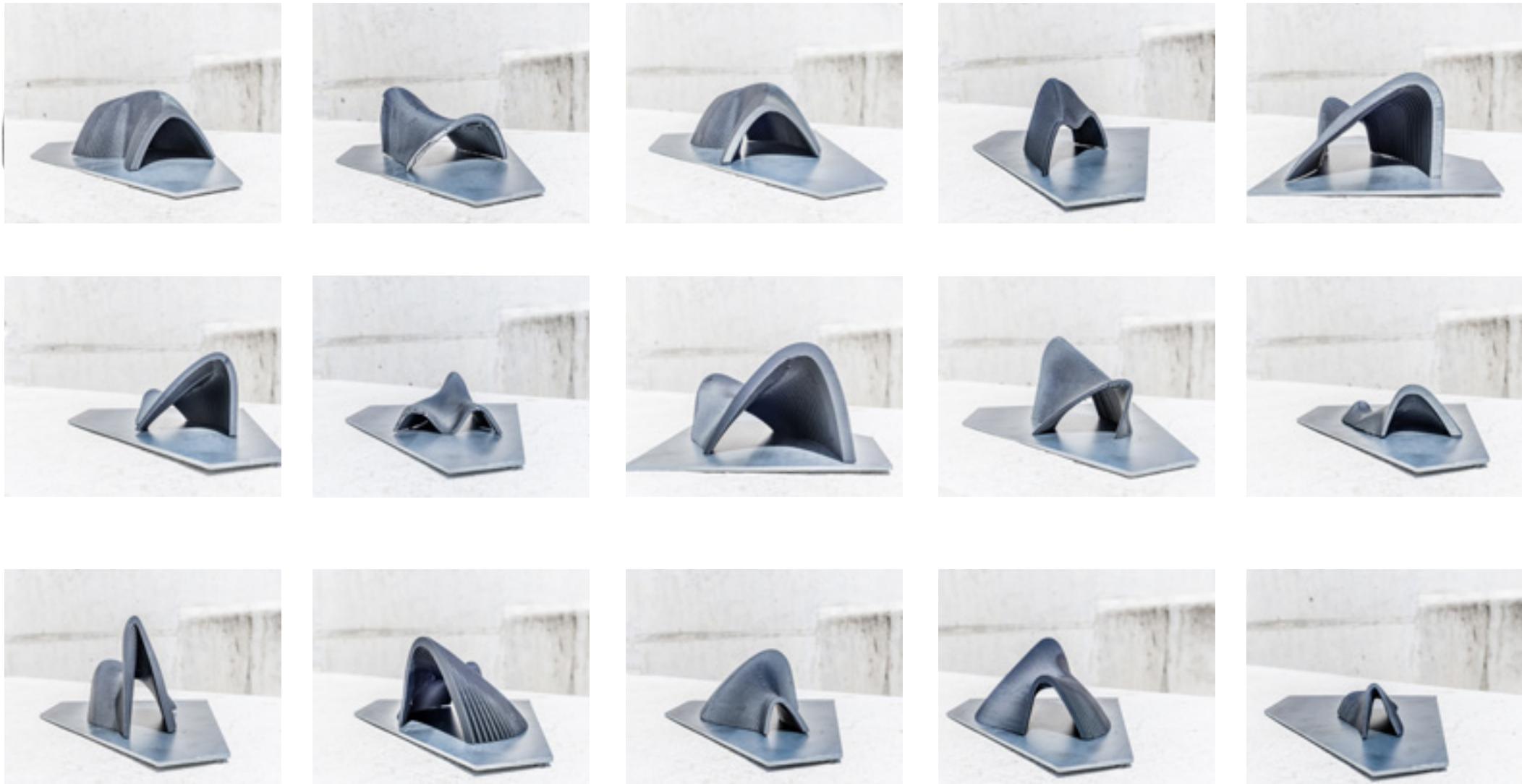
Design

The organic arches are the result of parametric design. This innovative domain operating in architecture, engineering and city planning relies on software which allows to generate blocks on the basis of combined input of parameters. During the process of computer shaping, forms are generated, which surprise the creator of the sculpture himself. Thanks to the initial parameters, the final shapes fulfill practical goals, such as optimal size, weight, adaptation to the environment.

The **NAWA** design required advanced calculations and modelling in Grasshopper software, which allowed to generate 60 blocks. Their shape was accommodated to the terrain and surroundings.



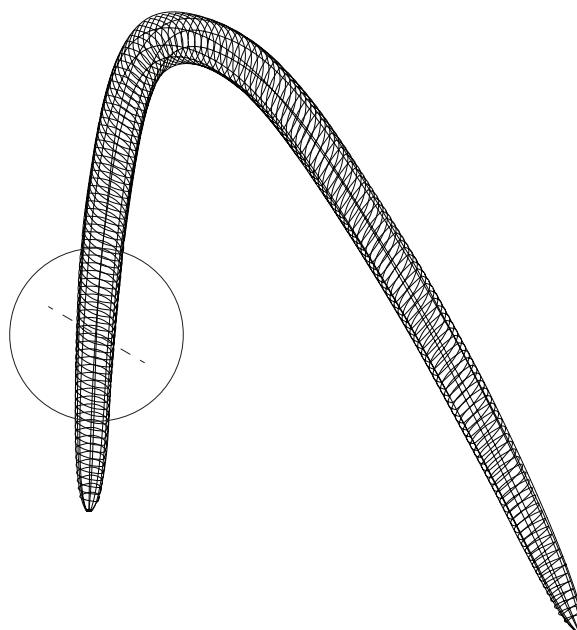
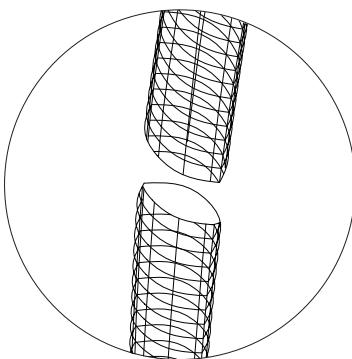
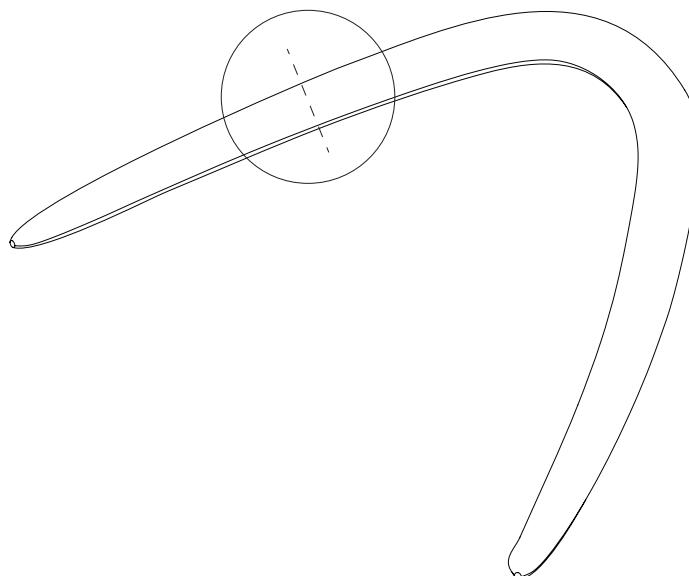
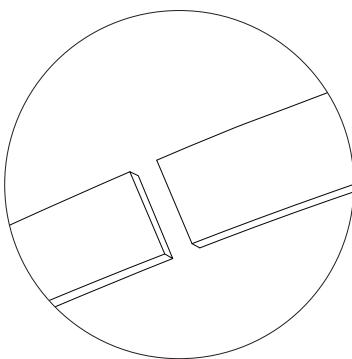
3D models situated on the mock-ups of the island allowed Zięta to test the form of the sculpture. The final mock-up was a prototype made with FiDU technology in the scale 1:2,5.



It may be difficult to believe, but the immense sculpture was built with the material of only 2mm of thickness. Particular modules reach up to over a few metres, and the biggest weighs only 450 kilograms.

The weight of the ultralight construction was possible thanks to FiDU – the innovative technology invented by Oskar Zięta. It allows to distort the shapes of steel elements welded together. Thanks to “inflating” it with compressed air, the metal forms become durable and stable, maintaining its lightness at the same time.

NAWA will be the first FiDU construction on such a large scale. Therefore, it will become a manifesto of this innovative technology.





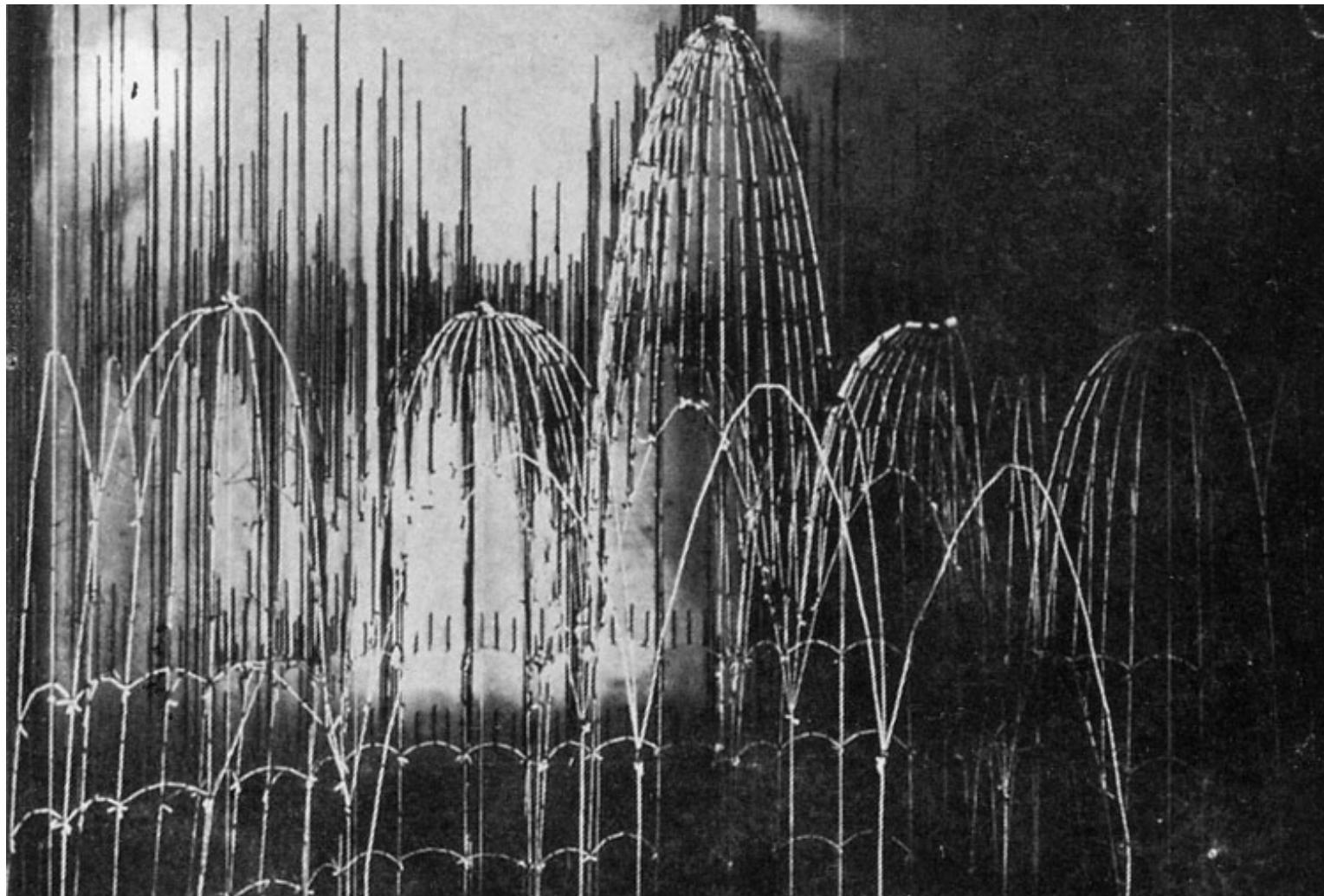
Inspiration

Beauty, durability, timelessness

NAWA's construction is based on the arches. Looking through the perspective of an architect, an arch is a perfect structure used in antique and gothic buildings. The invention of the arch was an immense breakthrough in the architecture and allowed to build tapered constructions. In the NAWA sculpture, arches serve both as the elements of construction and artistic ways of expression.



Grundtvig's Church, Peder Vilhelm Jensen-Klint, Dania

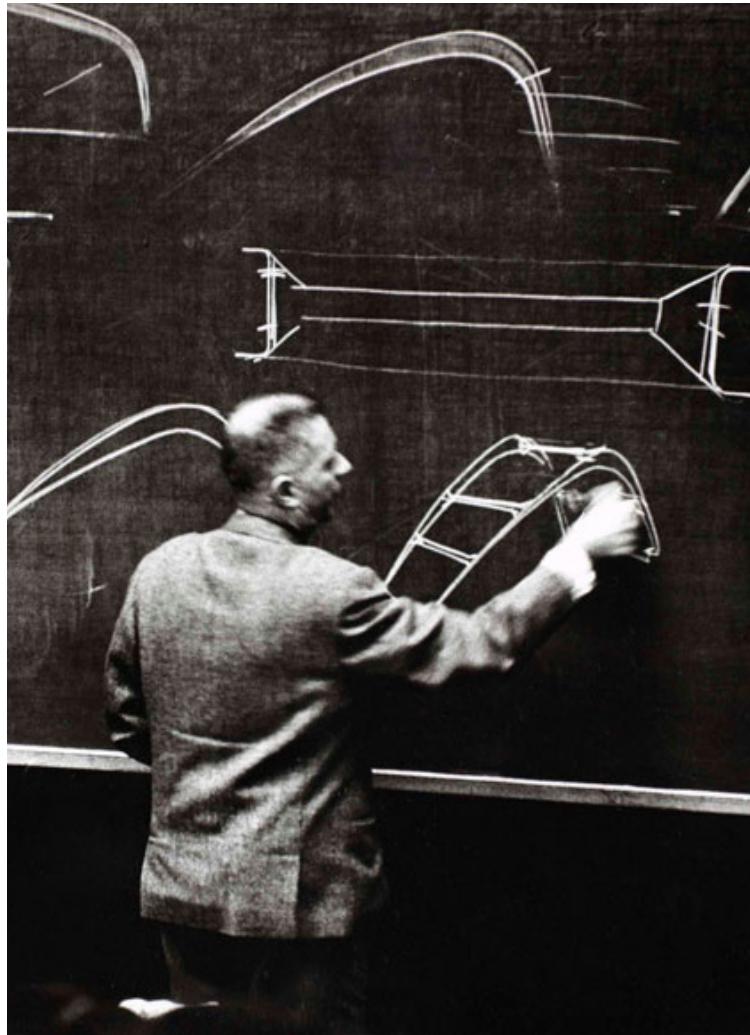


Prototype, Antoni Gaudí, Barcelona



Markthalle, Richard Plüddemann, Poland

The arch was the main research object for Jean Prouvé – the famous French designer and constructor, as it constituted an optimal form for the modern constructions. It allowed for the effective exploitation of resources and made the production process relatively easy. **NAWA** is the manifesto of the innovative use for the traditional arch form, which was made possible by FiDU technology.



Giving a lecture at the CNAM, Jean Prouvé



Prototype shell of a house located outside the domestic arts hall, Jean Prouvé, 1951

Aesthetics + Science = NAWA

The sculpture will not alter the wild character of the island. Quite the contrary:
it will amplify the nature's presence. Polished steel surface will be reflecting
its green surroundings, the river and historic architecture. Depending on the
weather and time of the day, the sculpture will look differently each time.

NAWA on Daliowa Island – final form and position of the sculpture.



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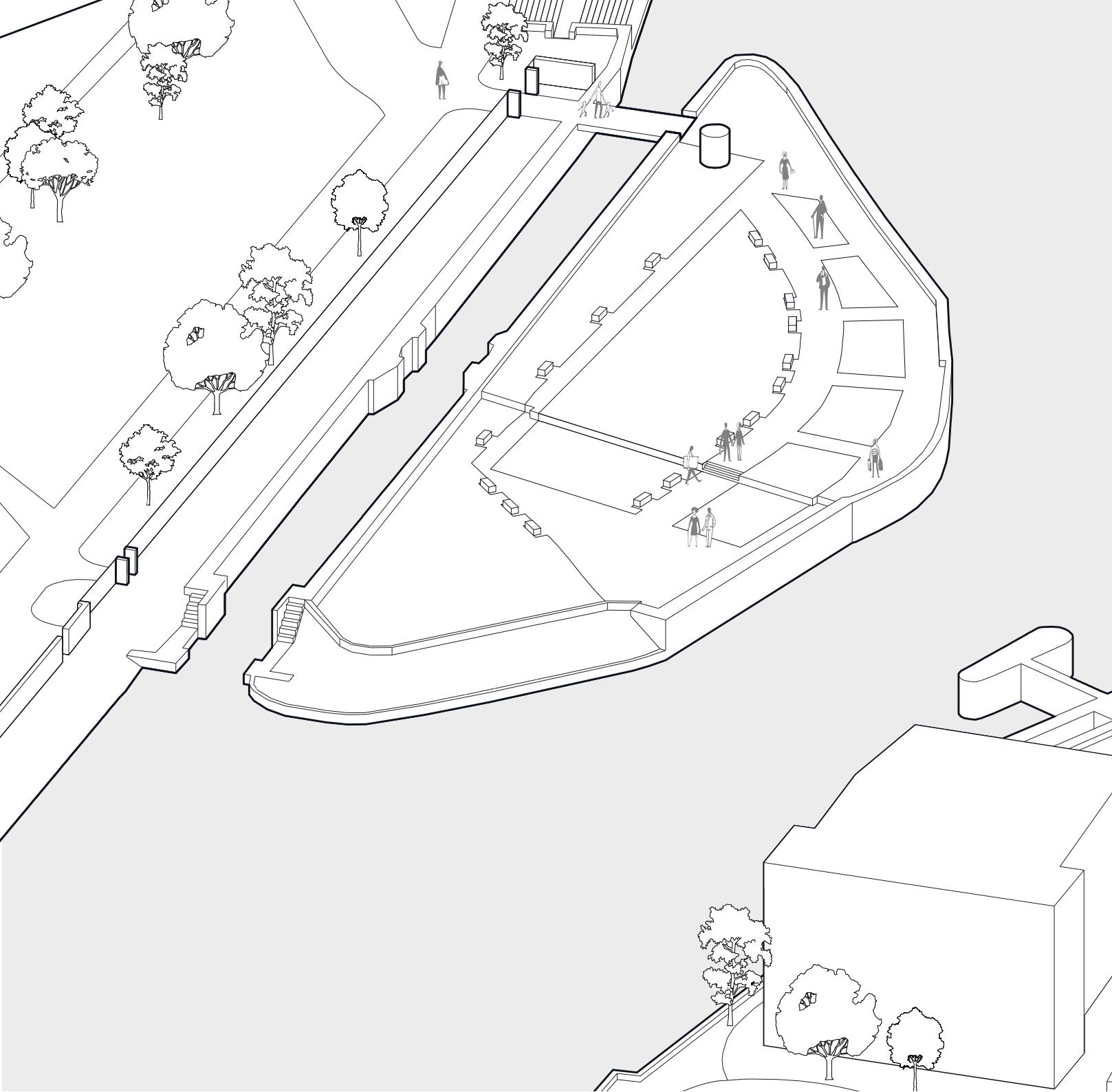


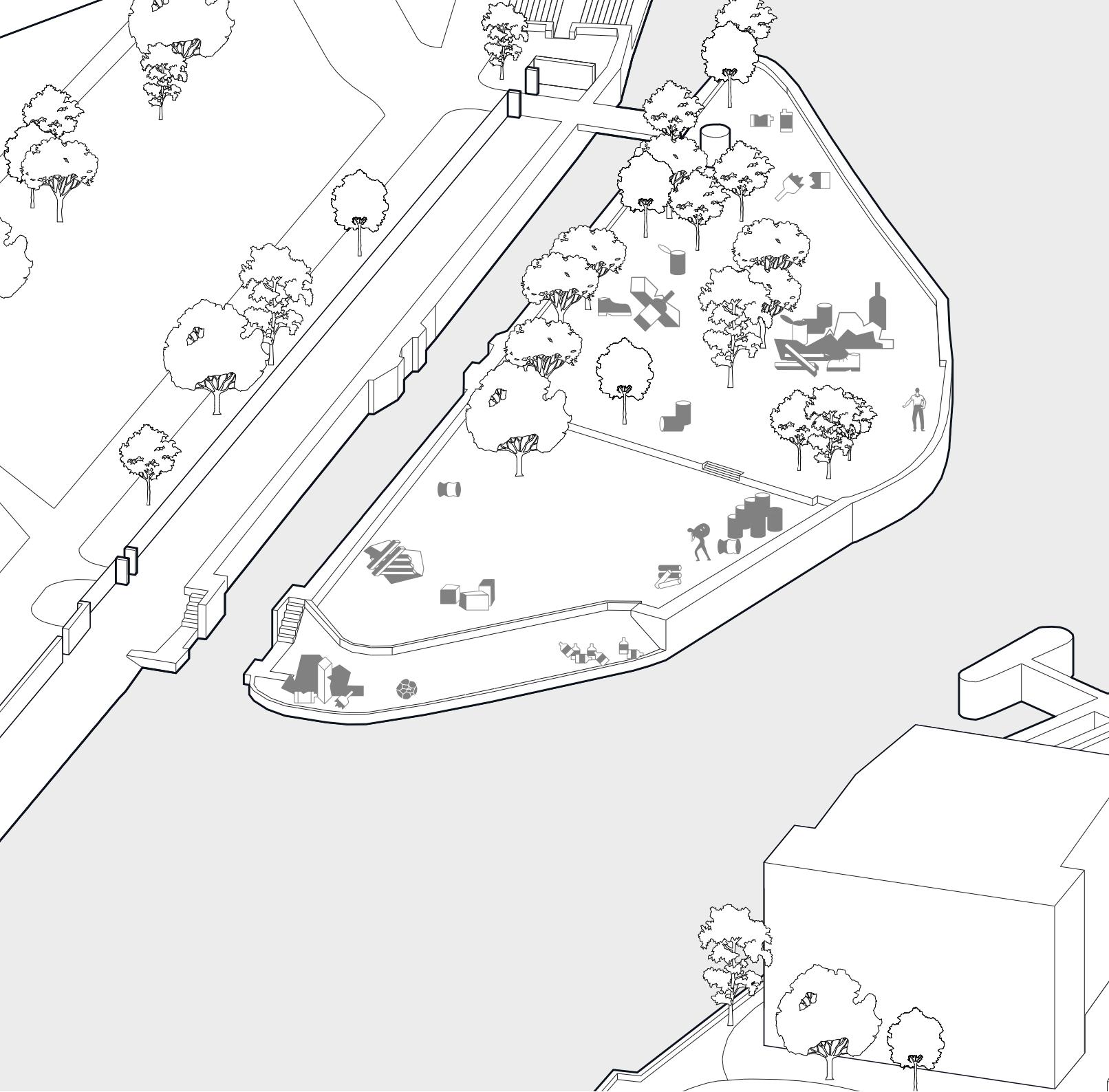
Daliowa Island.

Once inhabited and forgotten. Now reborn.

The plan for Daliowa Island revitalization includes turning the island into a place full of greenery which would at the same time be a meeting place in the city centre. NAWA sculpture perfectly embodies these assumptions. It will not ruin the natural character of the island and simultaneously it will become an articulate and attention-grabbing urban element in Wrocław.

1960-1970. Reconstruction.
Daliowa Island, rebuilt after World
War II, was a meeting place.





2015. Oblivion.

Slow but constant process of degradation and the flood in 1997 made the citizens abandon and forget about the island.



2016. Revitalization of the island.
Making Daliowa Island a transitory meeting point with the distinctive NAWA sculpture and lush greenery trigger connotations with wilderness.





Oskar Zieta

Architect, designer and artist. He obtained his PhD at the Eidgenössische Technische Hochschule in Zurich. During his studies in Zurich, he dealt with the topic of the use of computer design in the process of metalworking. How to slosh with information, such as craftsmen and sculptors slosh with tools? Finding the answer to this question led him to the discovery of FiDU technology - deformation of objects using internal pressure.