

ClimateArchitecture

Prof. Dr.-Ing. Jürgen Ruth

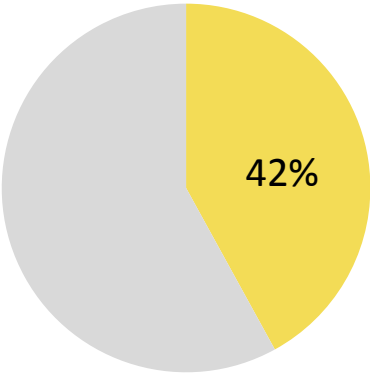
ifex – bauhaus.institut für experimentelle architektur

Bauhaus-Universität Weimar

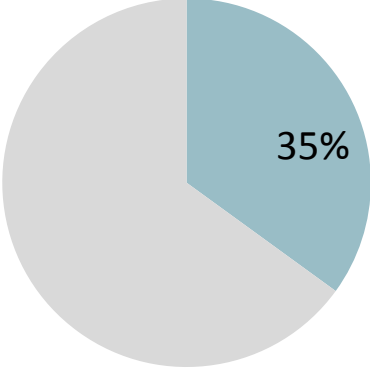


Jan Sevcik,
Julius Hefner,
Elisabeth Schmidt

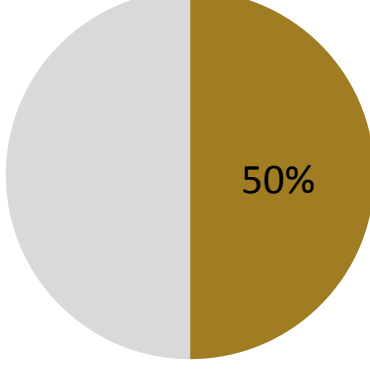
Energieverbrauch



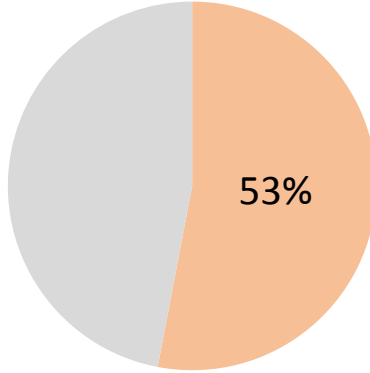
Treibhausgasemissionen



Materialverbrauch



Abfallaufkommen



BEEINFLUSSENDE GRÖSSE: BAUSEKTOR

(urban) mining

(material) substituting

(energy/water) harvesting

(climate) adaptation

(people) participating

5 approaches

(URBAN) MINING

FÖRDERN

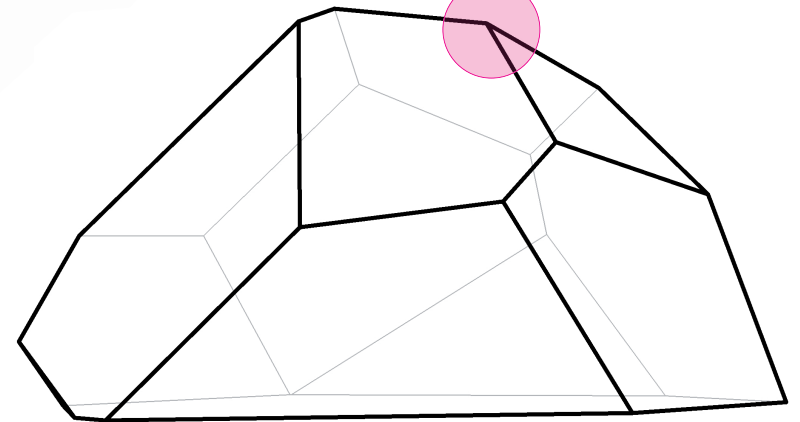
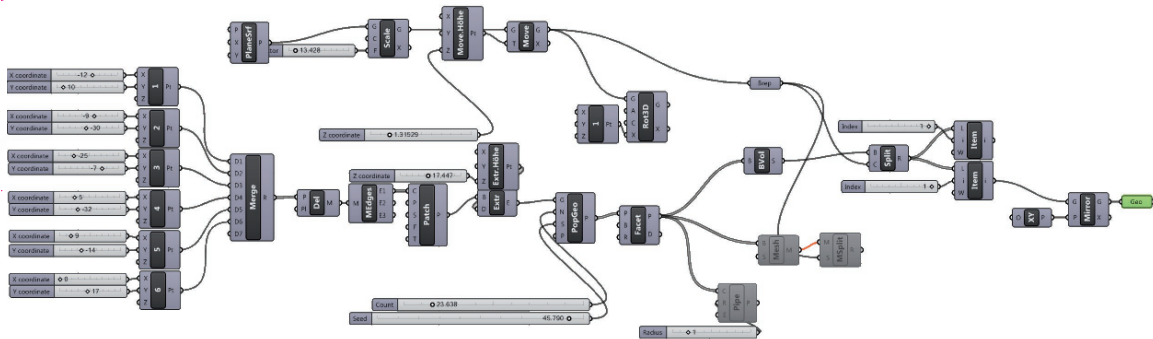
TREIBHOLZ von Islands Nordküsten



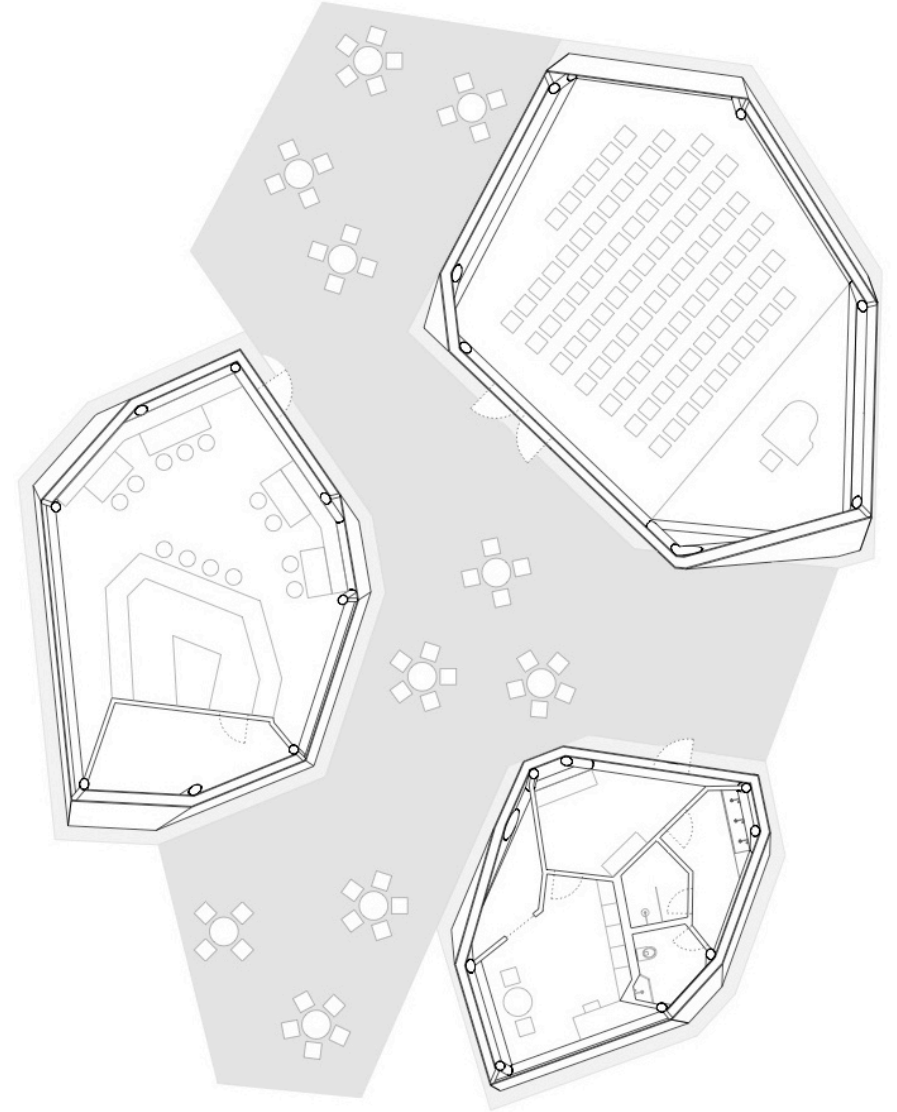
KNOTENPUNKT der Tragstruktur



PARAMETRISCHE GENERIERUNG
der Tragstruktur aus vorhandenem Treibholzbestand



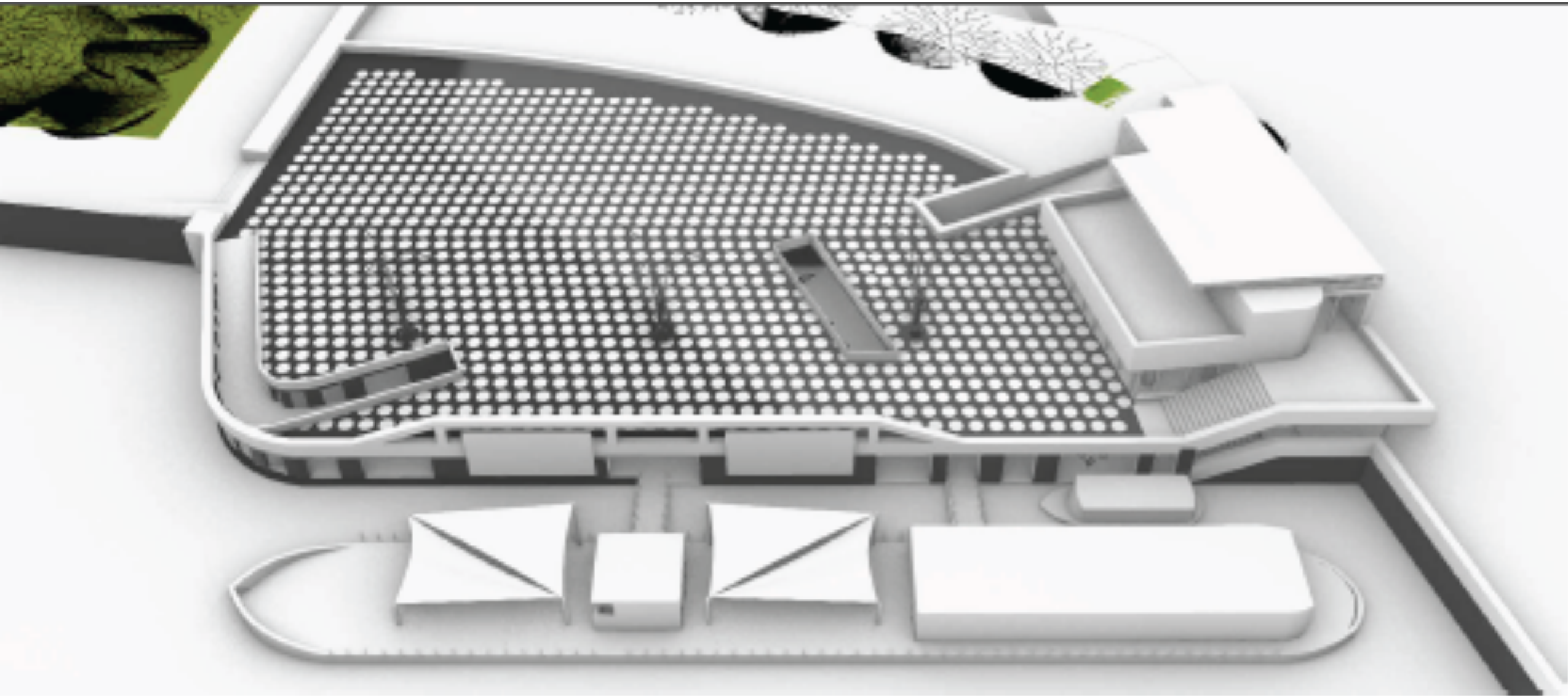
TRAGSTRUKTUR aus Treibholz



TREIBHOLZ
Daniel Polovitzer

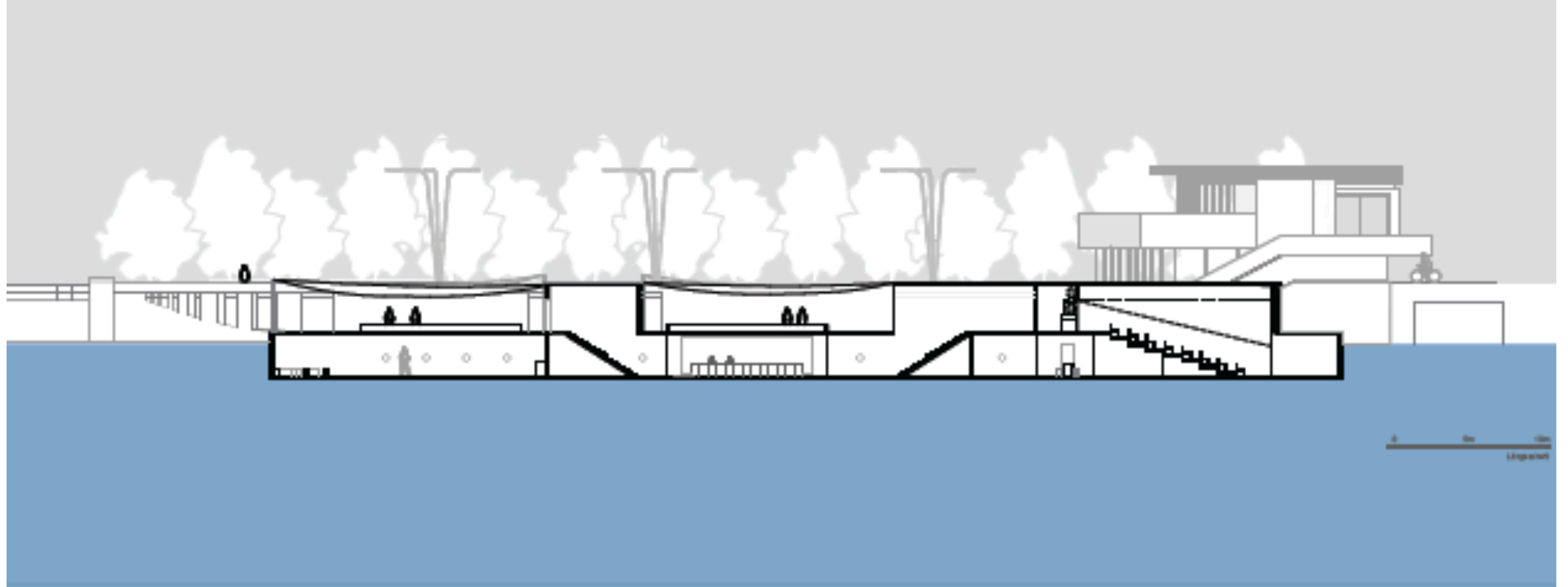


TREIBHOLZ
Daniel Polovitzer



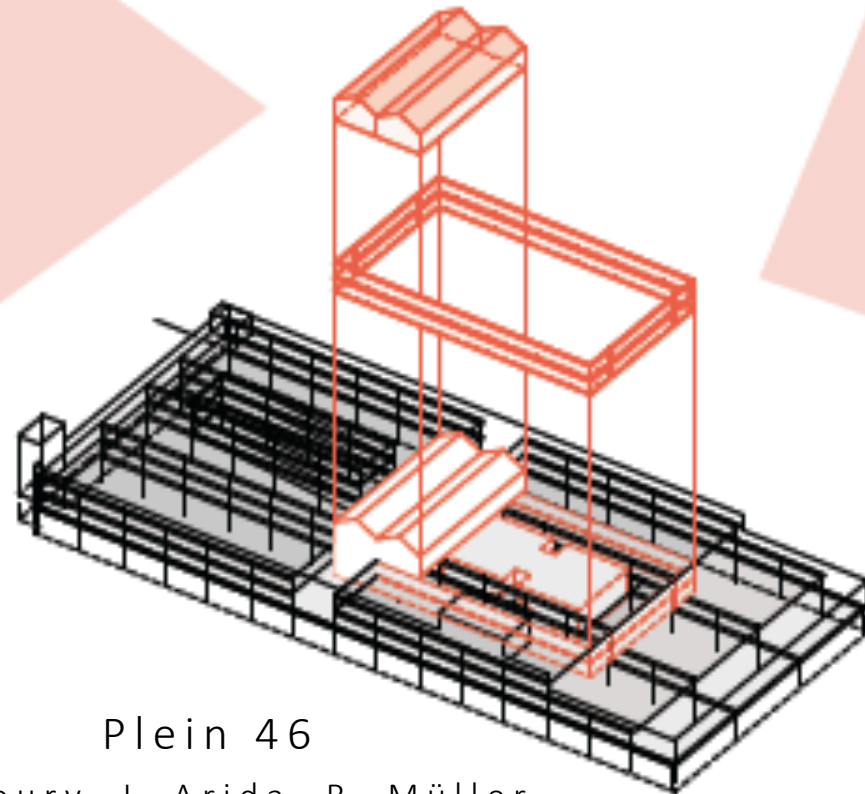
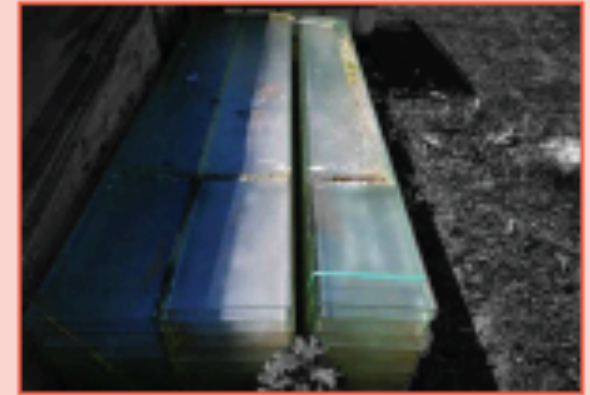
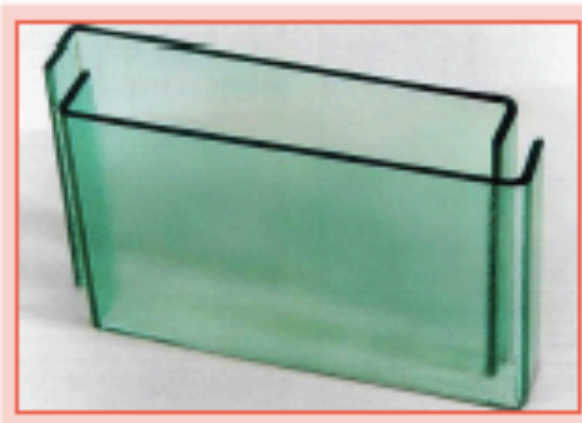
WATERKANT

C. Röhr, A. Hempel, M. Wörner-Schönecker, J. Fleer



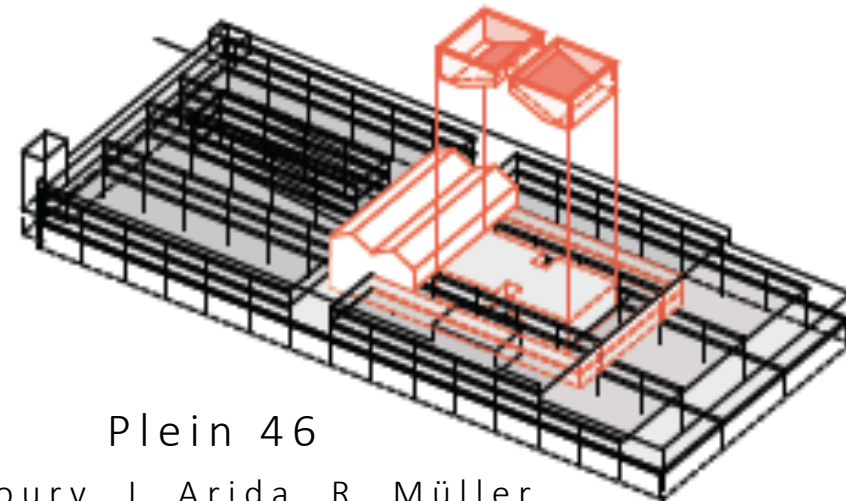
WATERKANT

C. Röhr, A. Hempel, M. Wörner-Schönecker, J. Fleer



Plein 46

S. Kloury, J. Arida, R. Müller

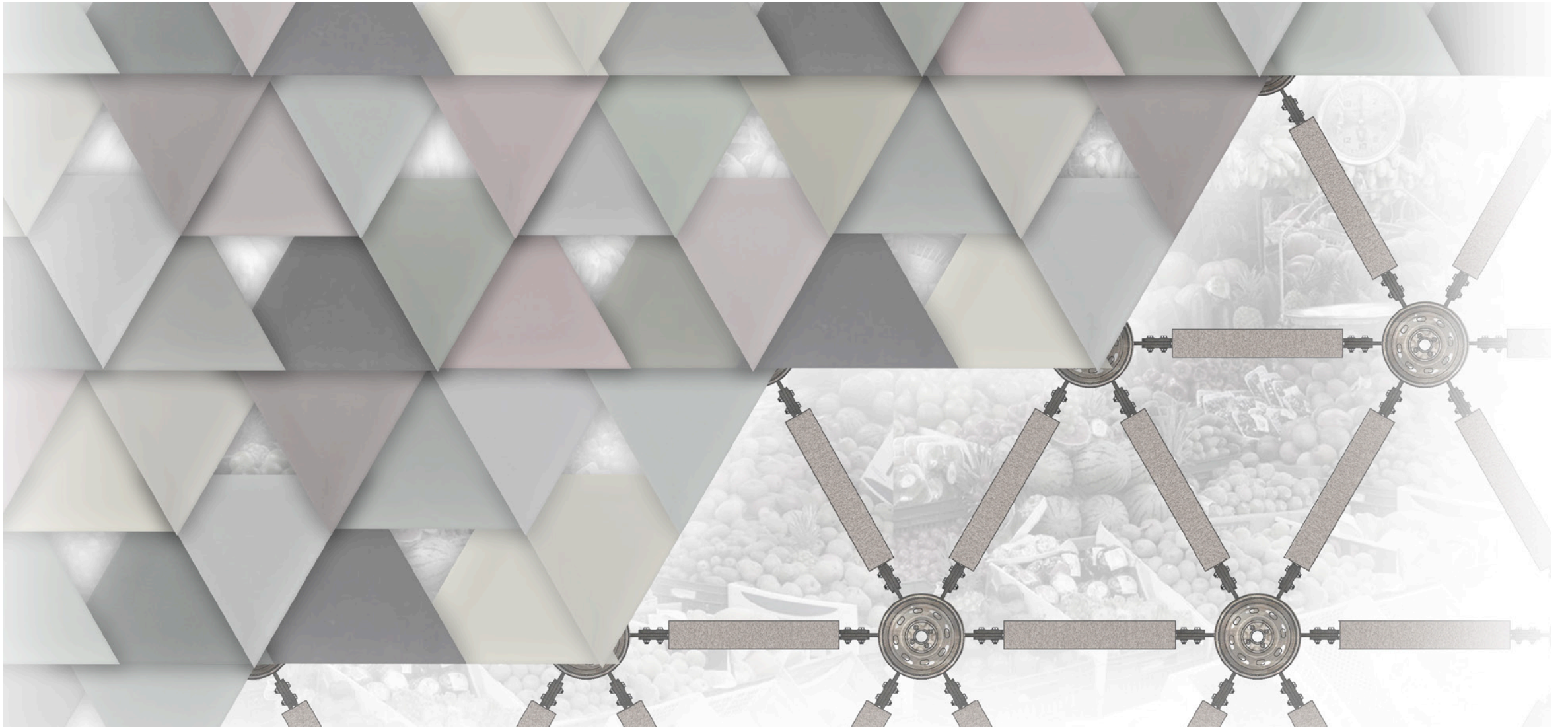


Plein 46

S. Kloury, J. Arida, R. Müller

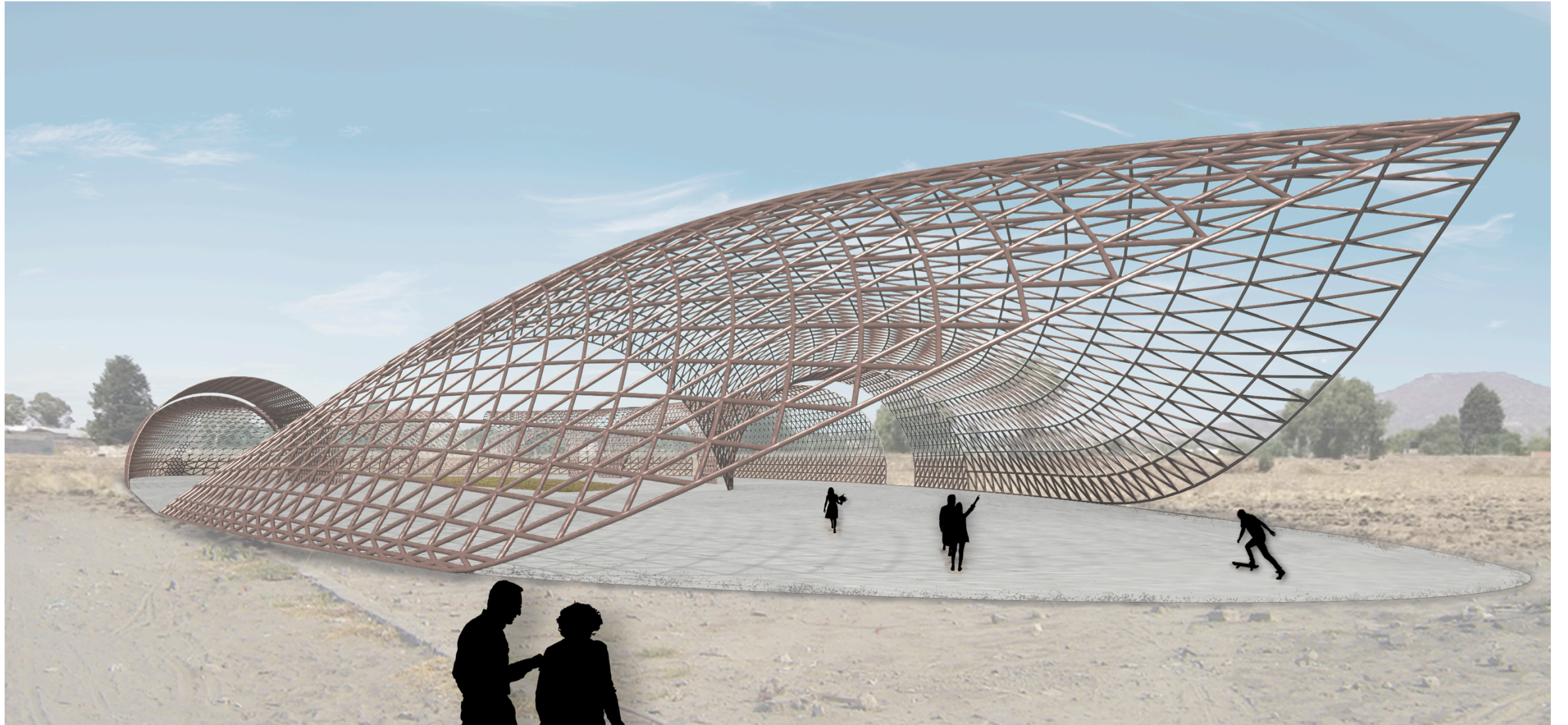


NEZA' COMMUNITY CENTER
Kai Kattge



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Kai Kattge

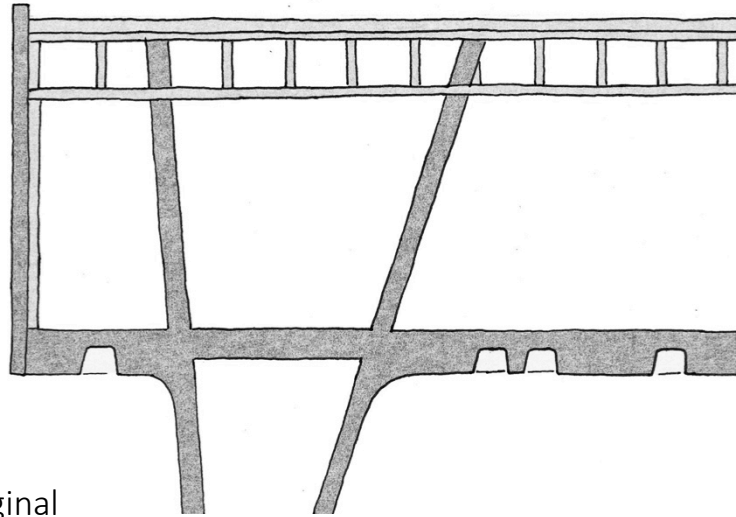


NEZA' COMMUNITY CENTER

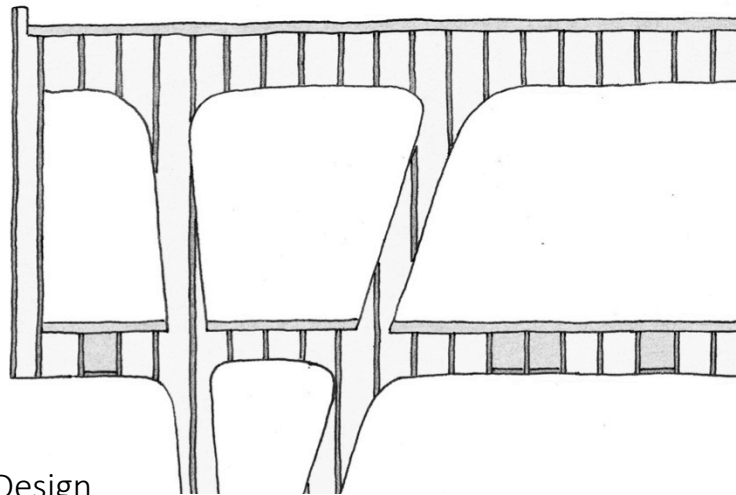
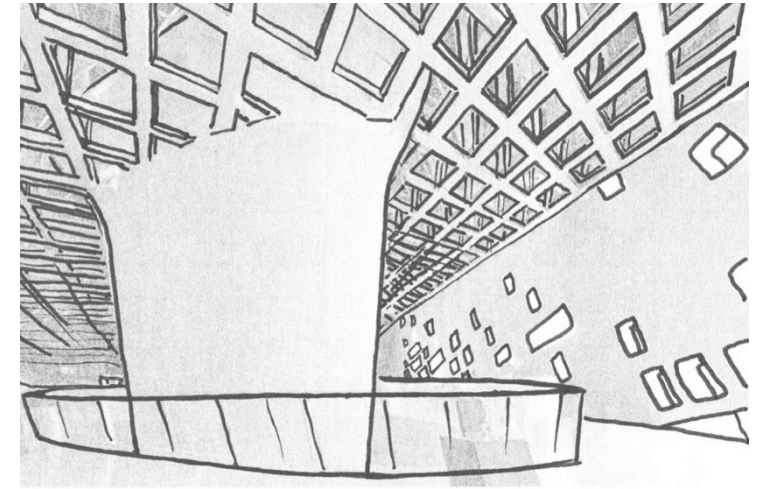
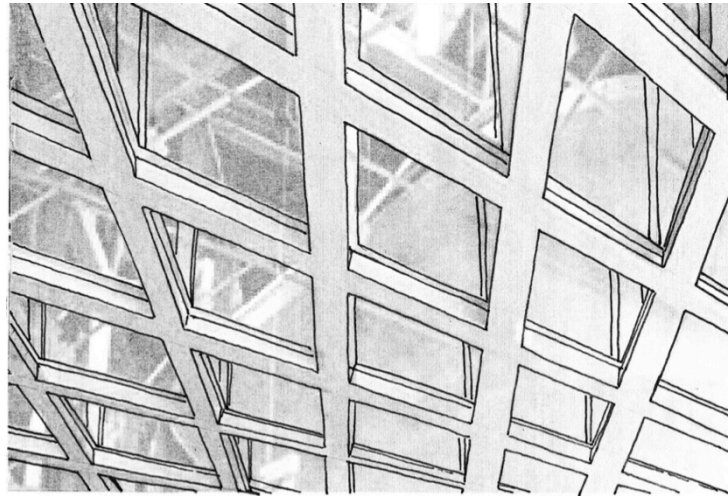
Kai Kattge

(MATERIAL) SUBSTITUTING

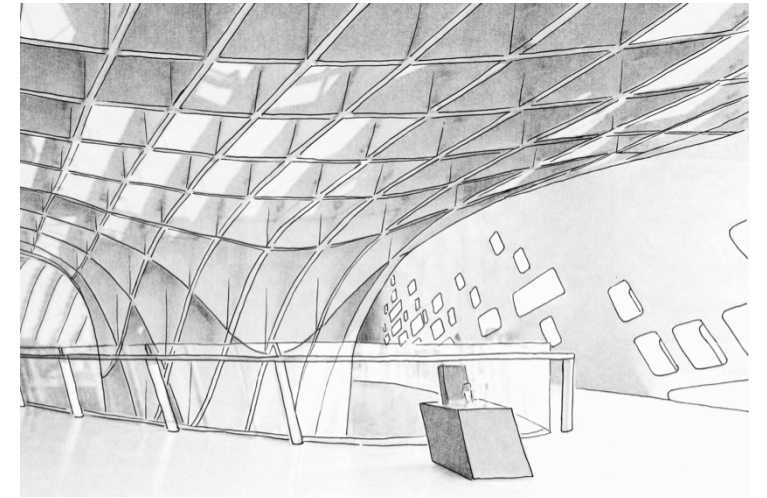
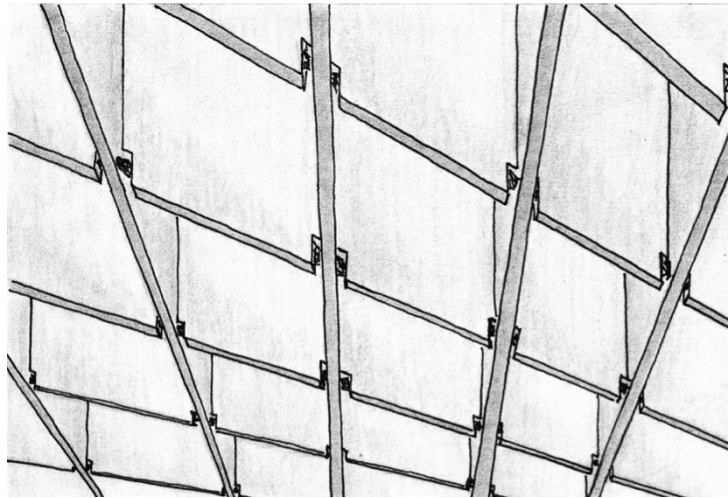
ERSETZEN



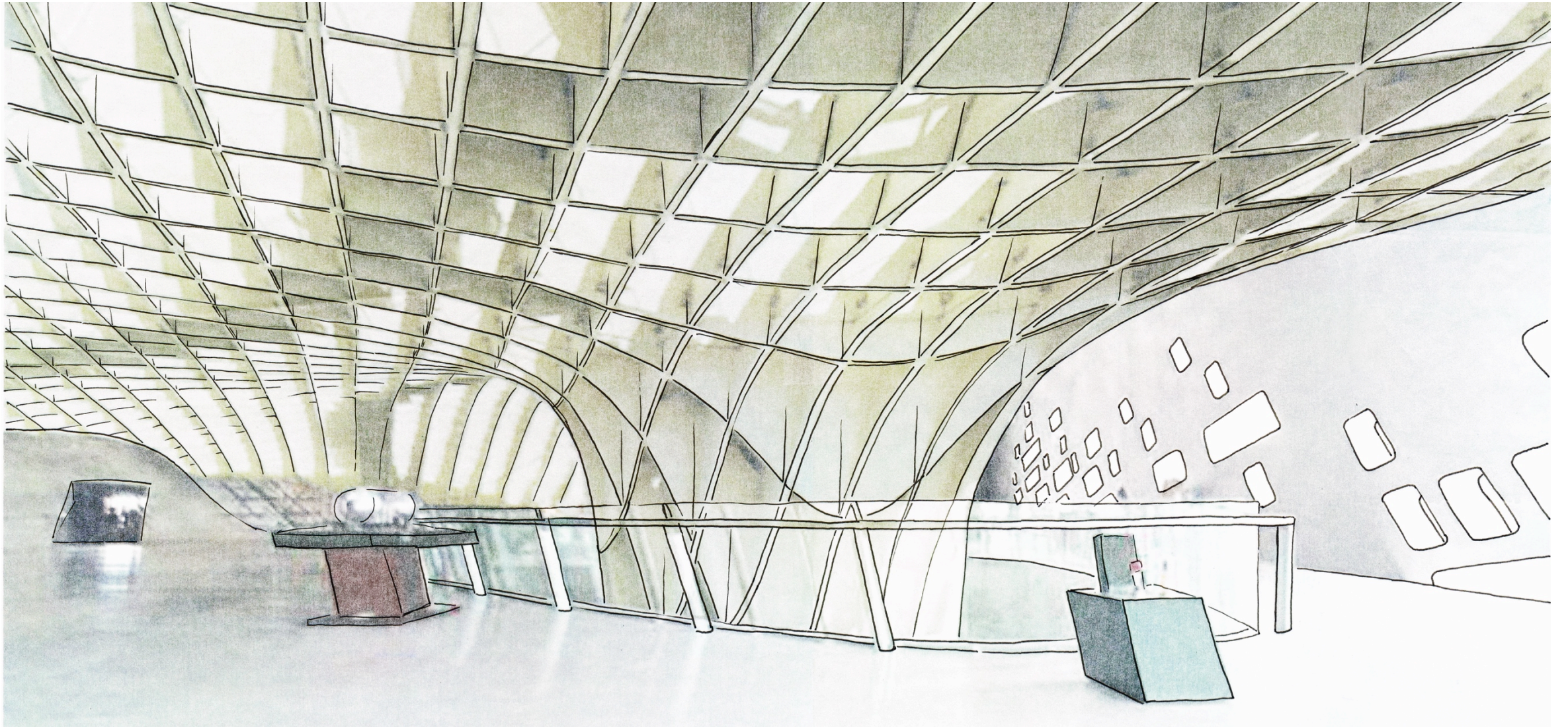
Original



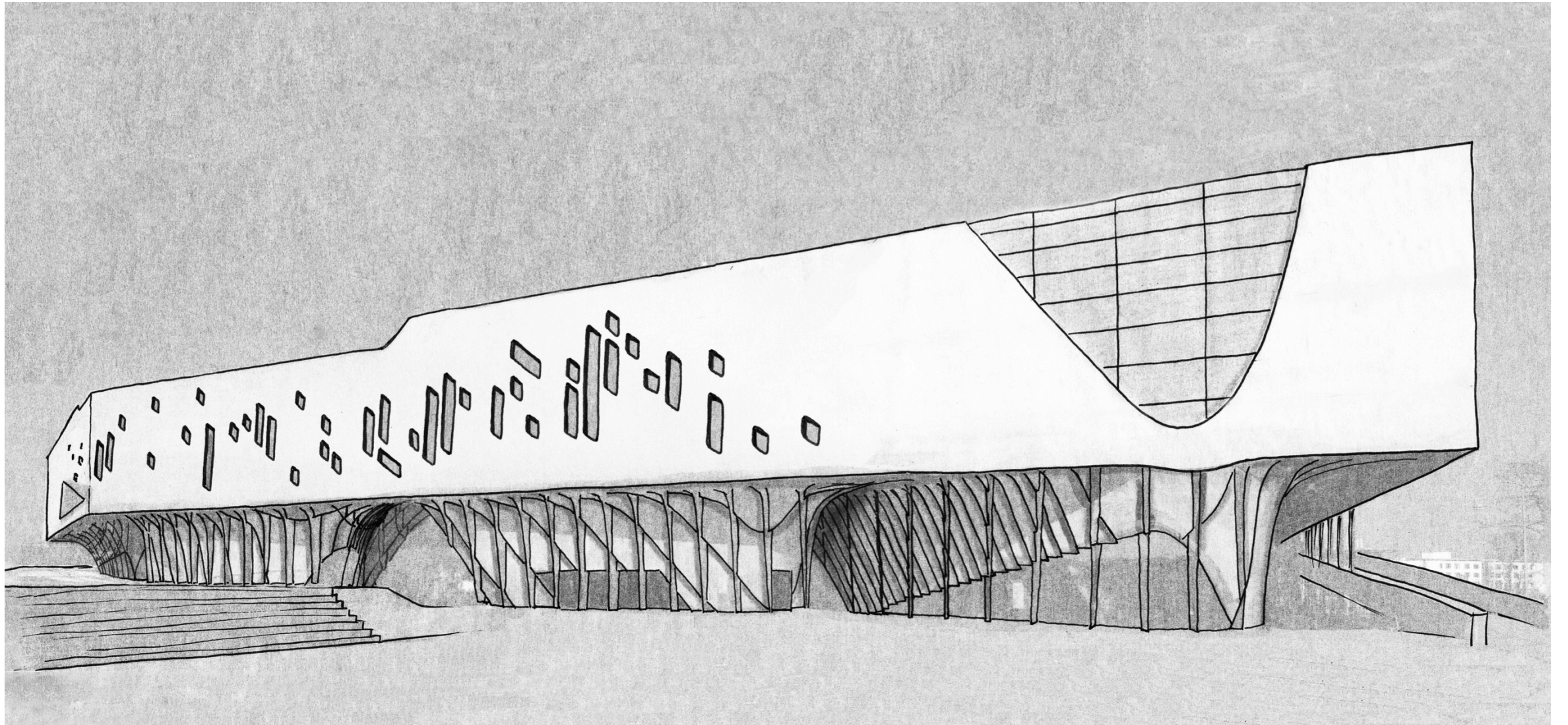
Re-Design



Phæno Science Center
Katharina Elert

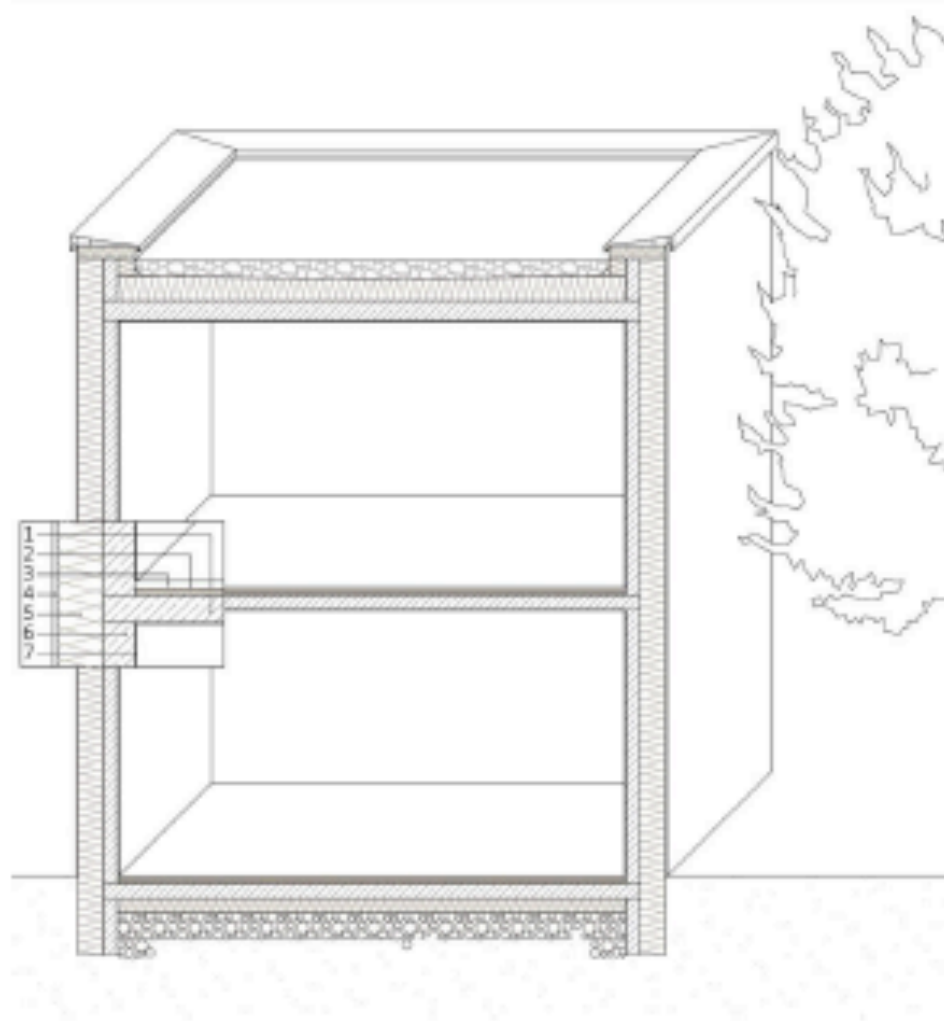


Phæno Science Center
Katharina Elert



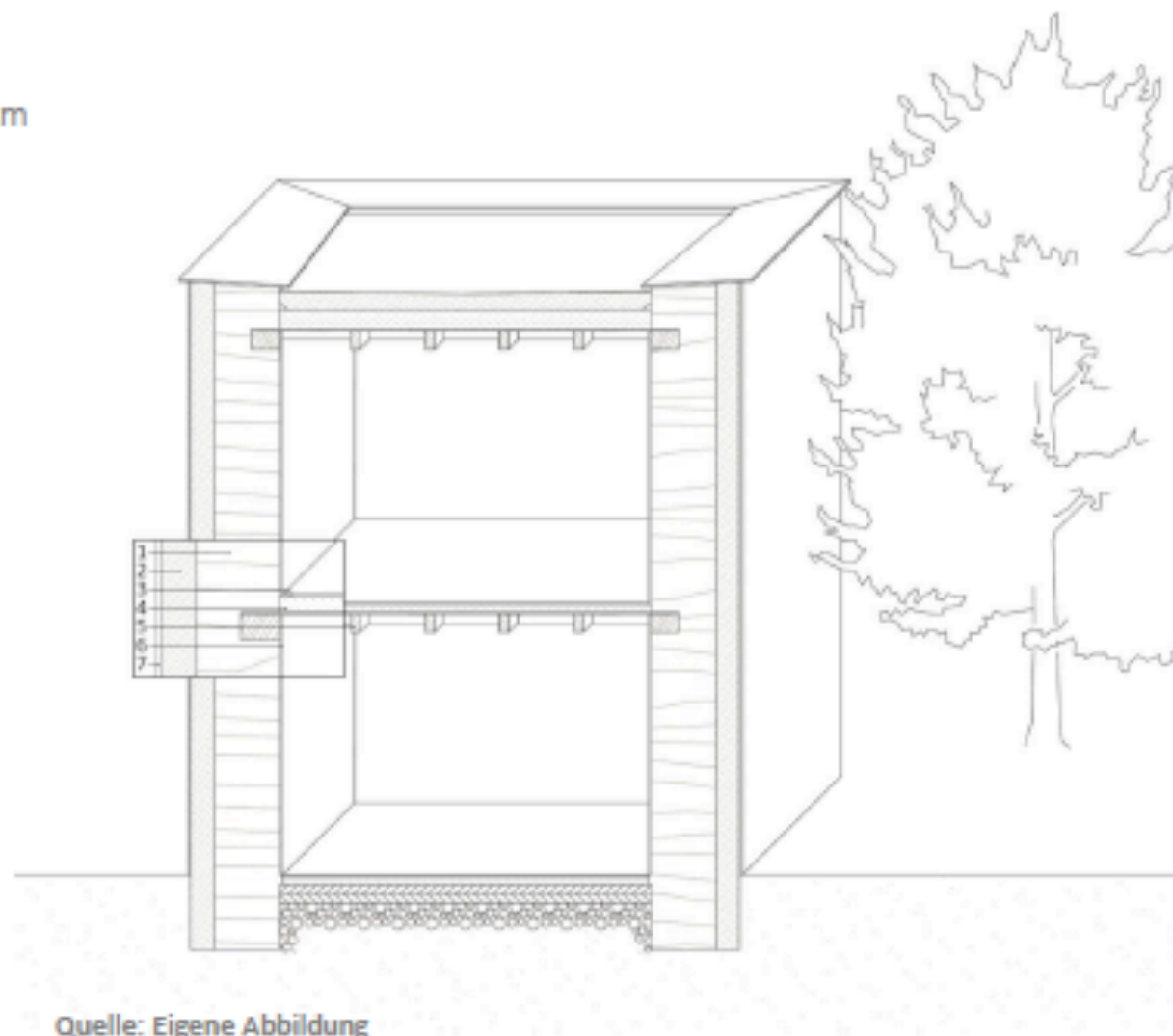
Phæno Science Center
Katharina Elert

- [1] Stahlbetondecke
- [2] Trittschalldämmung
- [3] Bodenbelag
- [4] Kalkputz
- [5] Mineralwolle – 25,5 cm
- [6] Stahlbeton – 15 cm
- [7] Kunstharzputz



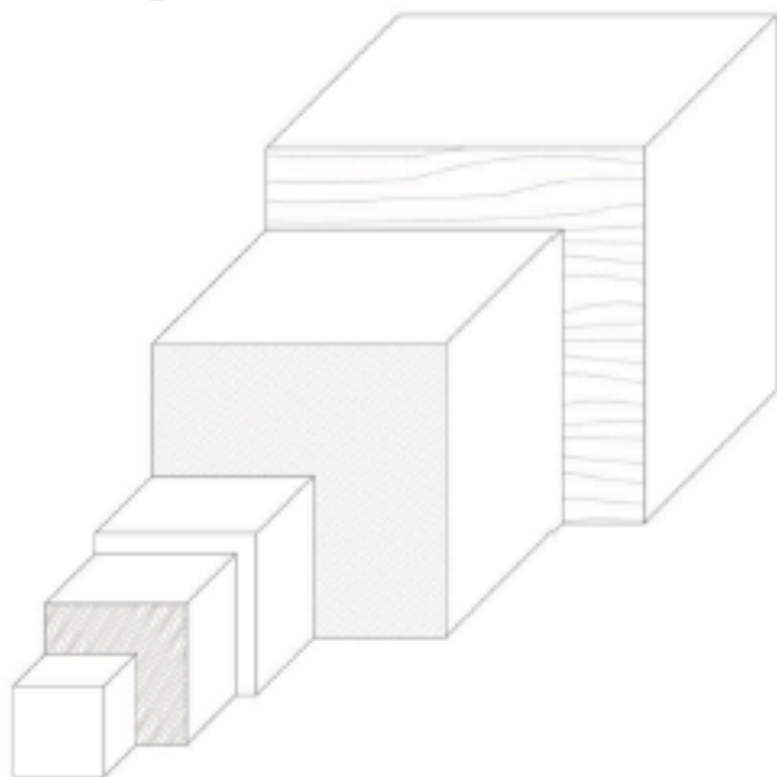
Quelle: Eigene Abbildung

- [1] Stampflehmwand – 70 cm
- [2] Strohdämmplatten – 25,5 cm
- [3] Bodenbelag
- [4] Lehmsteine trocken verlegt
- [5] Nadelholz-Kassettendecke
- [6] Lehmputz
- [7] Lehmputz

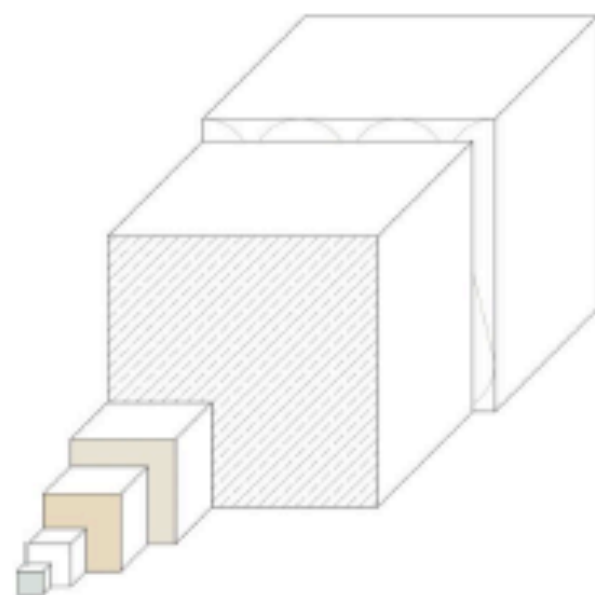


Quelle: Eigene Abbildung

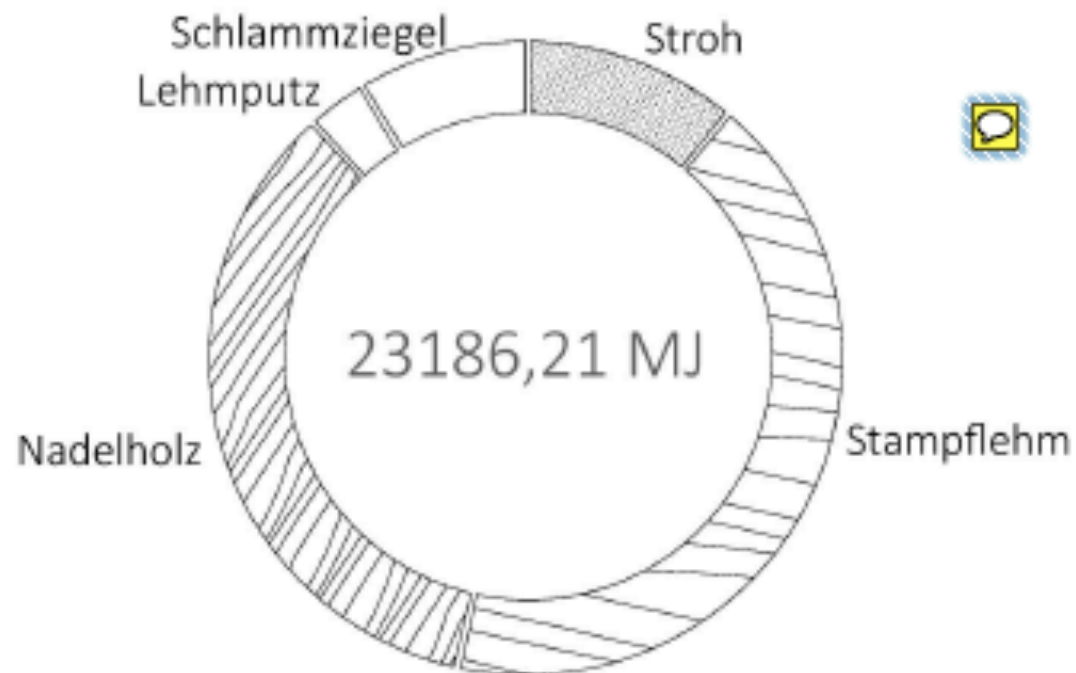
94,50 m³ Lehm
45,30 m³ Stroh
7,50 m³ Lehmputz
4,90 m³ Holz
1,30 m³ Schlammziegel



44,70 m³ Mineralwolle
35,70 m³ Stahlbeton
2,00 m³ Estrich
0,80 m³ Kunstharzputz
0,10 m³ Kalkputz
0,02 m³ Aluminiumblech

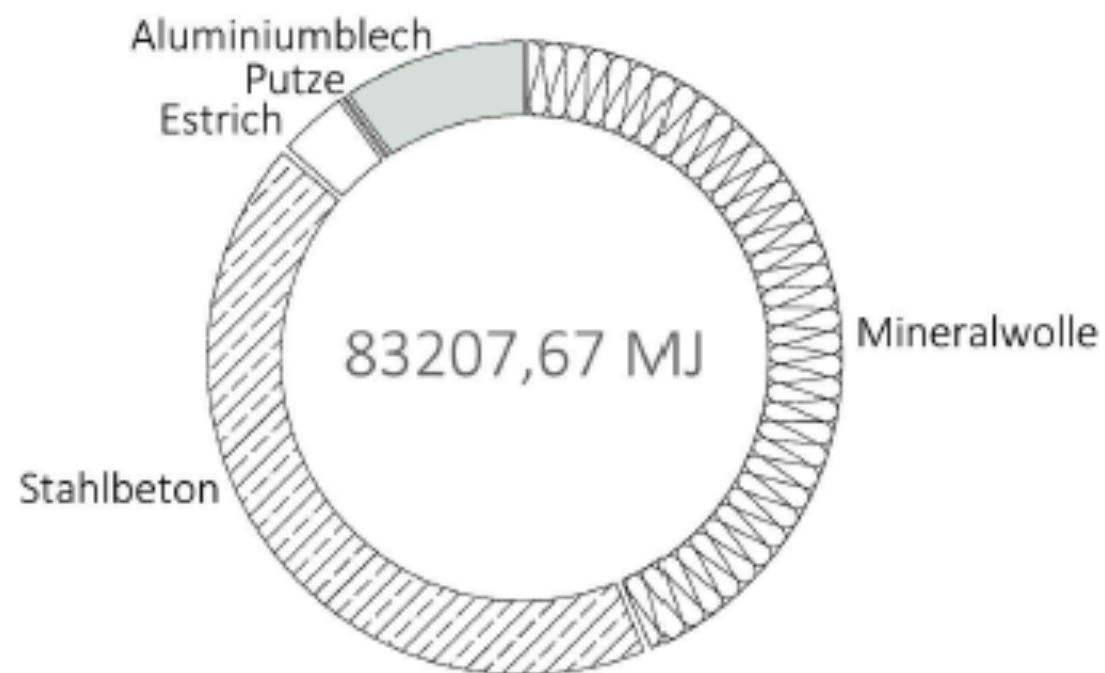


Quelle: Eigene Abbildung



Quelle: Eigene Abbildung

PENRT Stampflehm



Quelle: Eigene Abbildung

PENRT Stahlbeton



(ENERGY/WATER) HARVESTING

ERNTEN



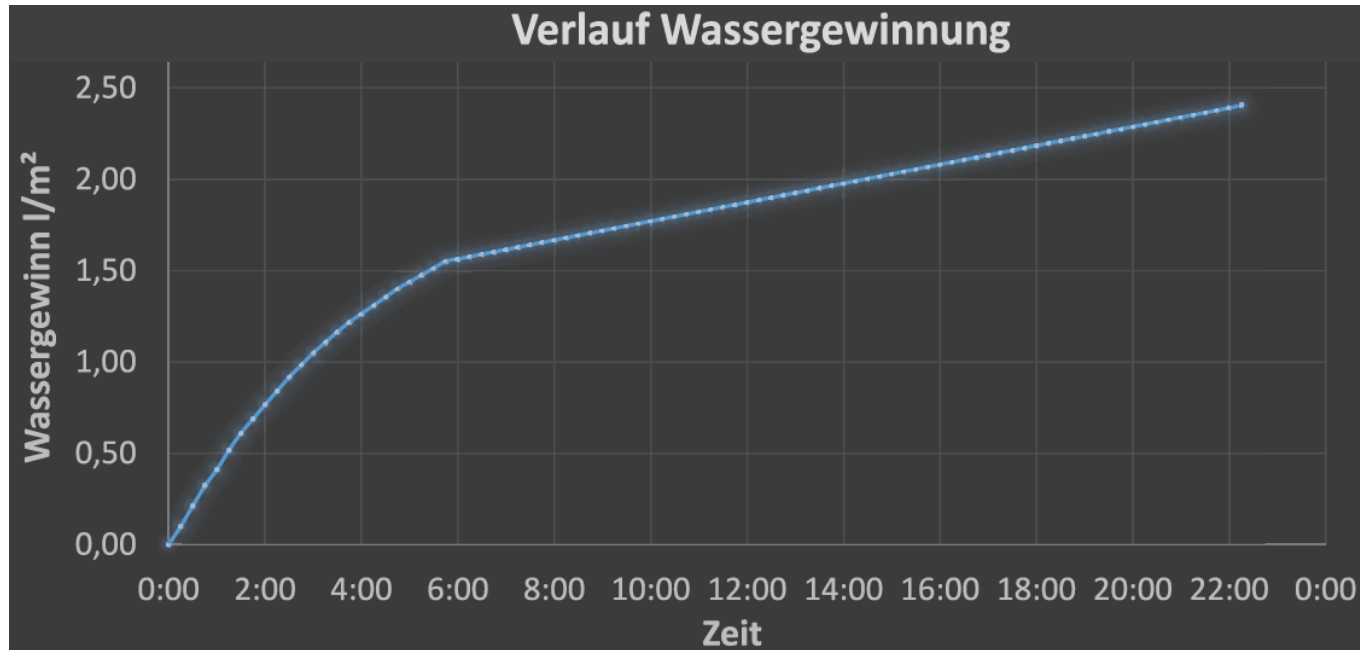
SCREENHAUS SOLAR
Germany Land of Ideas award 2010



SCREENHAUS SOLAR
Germany Land of Ideas award 2010

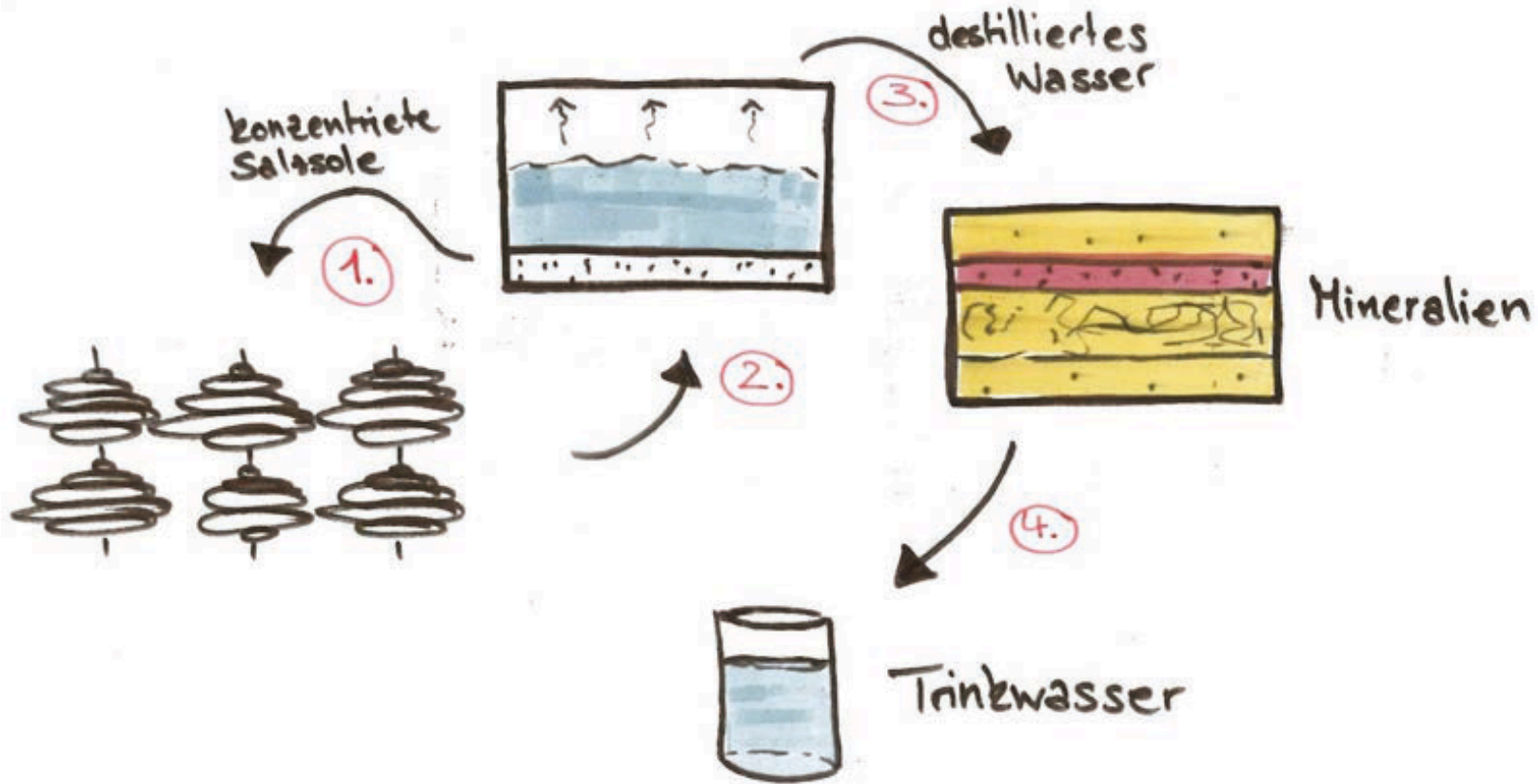


SCREENHAUS SOLAR
Germany Land of Ideas award 2010



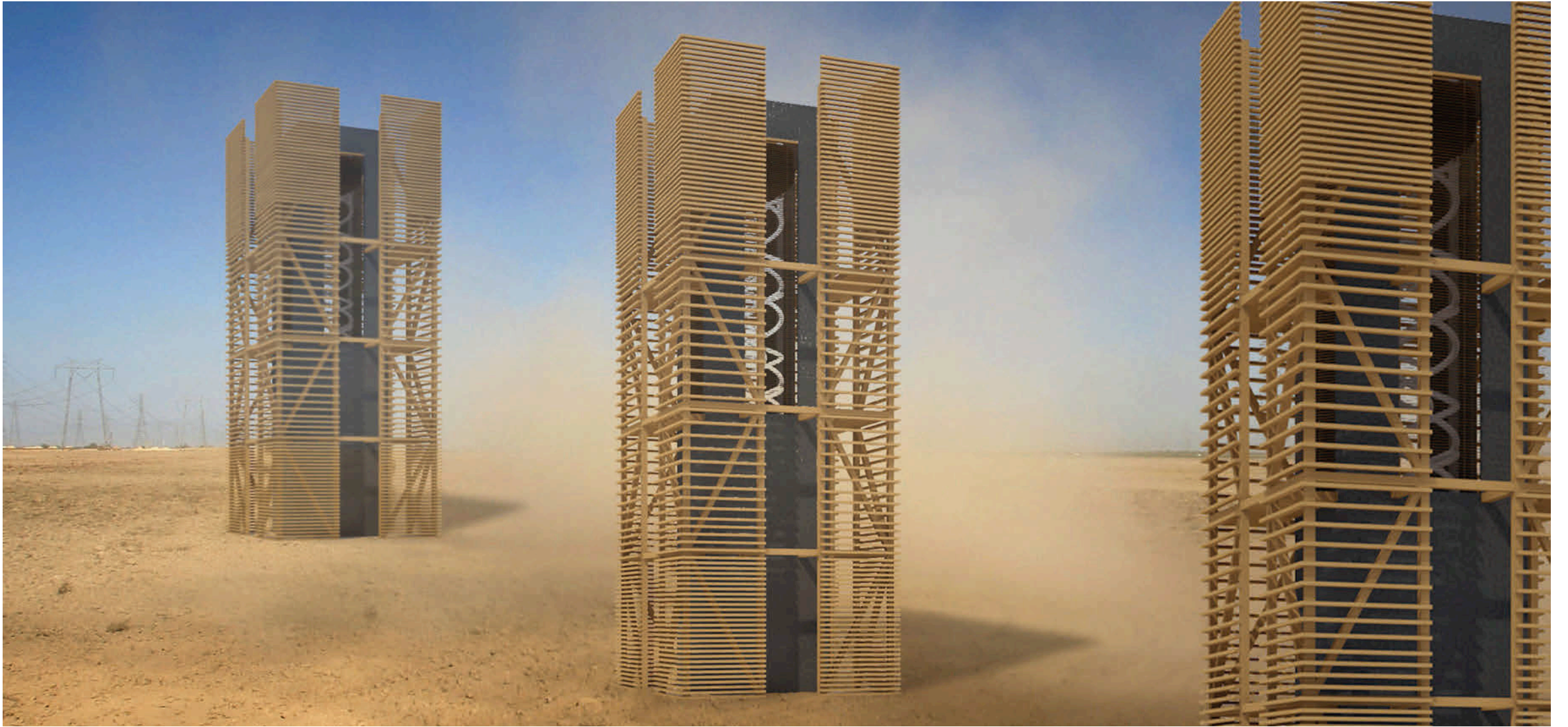
Humidity Tower

Sebastian Dietrich, Sumit Adhikari, Sina Hage



Humidity Tower

Sebastian Dietrich, Sumit Adhikari, Sina Hage

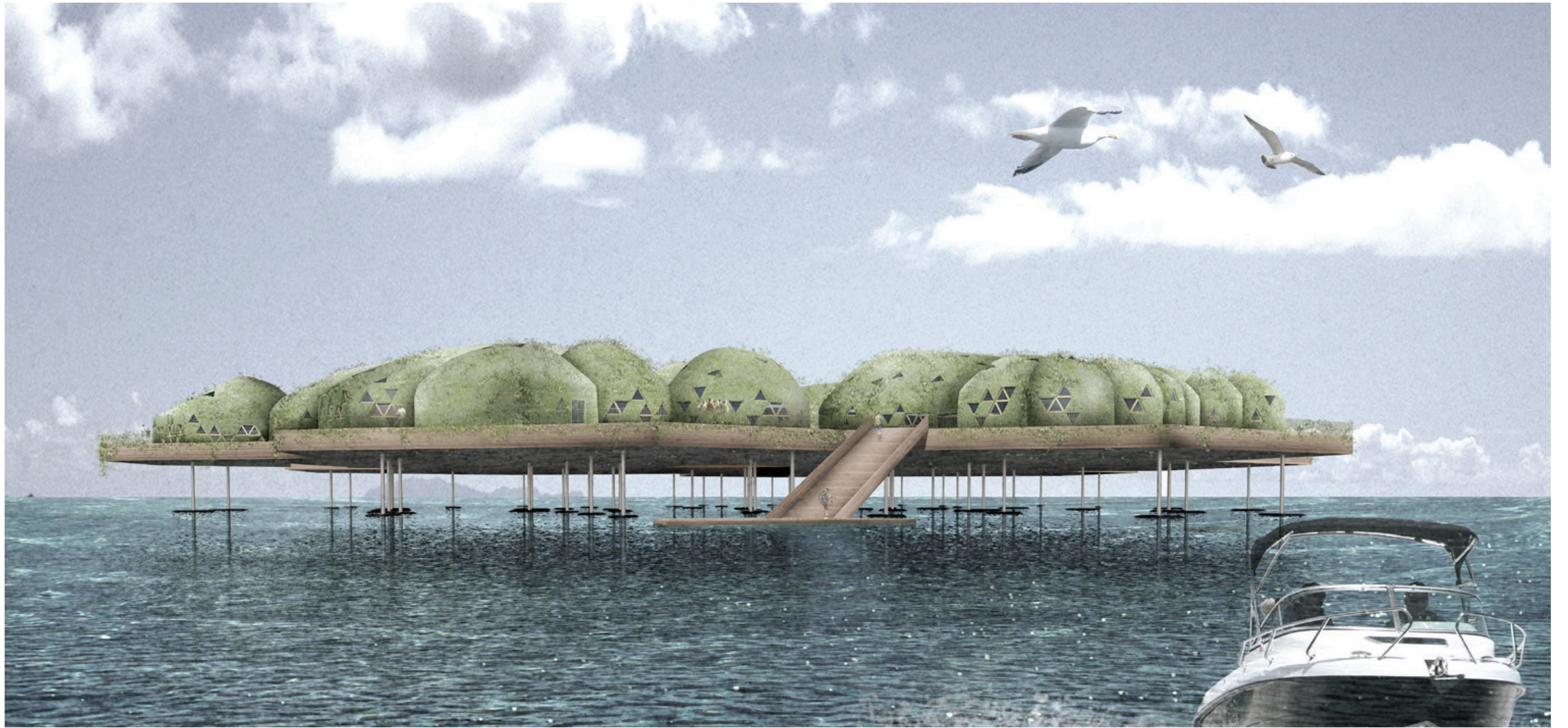


Humidity Tower

Sebastian Dietrich, Sumit Adhikari, Sina Hage

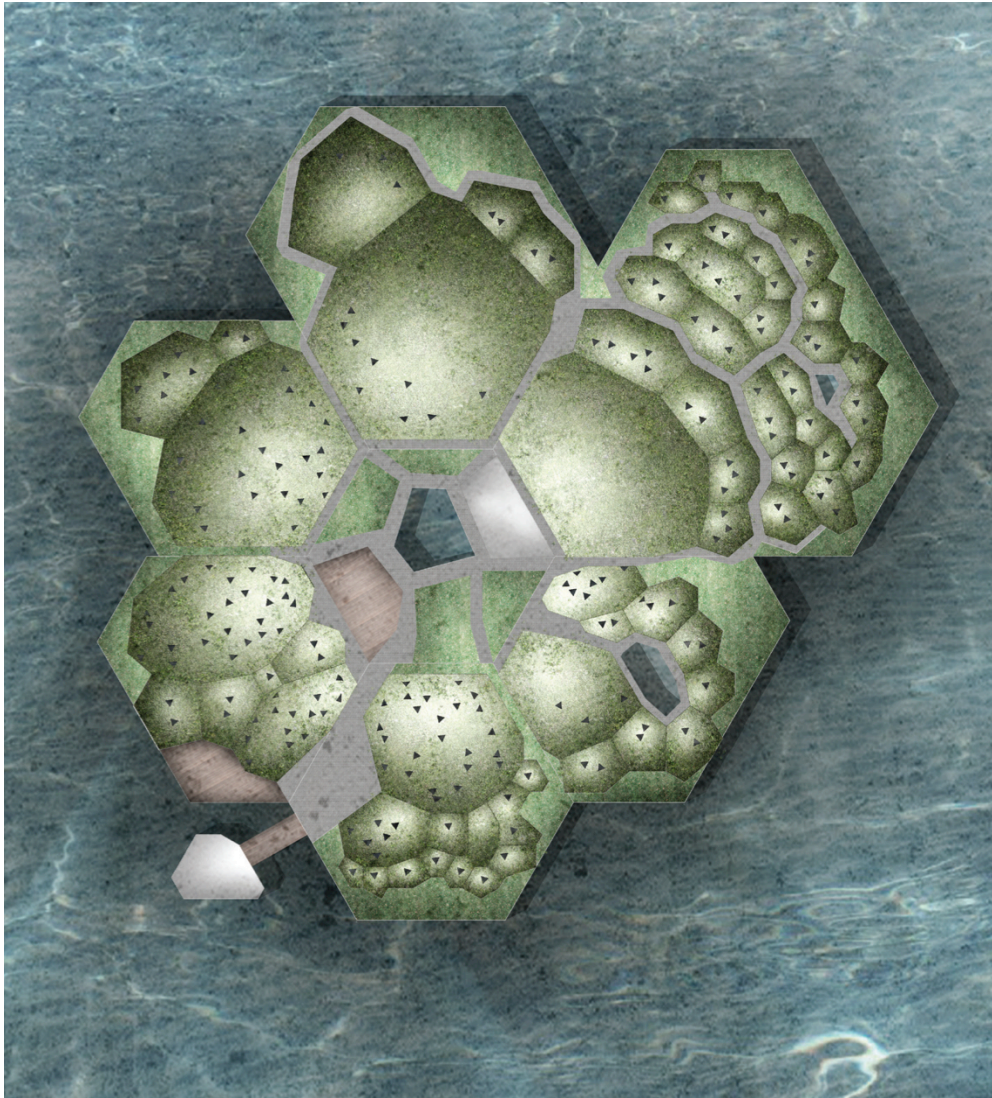
(CLIMATE) ADAPTATION

ANPASSEN



WATER BUBBLES

Sumit Adhikari, Leon Beudt



WATER BUBBLES
Sumit Adhikari, Leon Beudt



MONTAGNA DAI TERRAZZI VERDI

Johannes Leonhard, Alexander Benz, Lennard Lehne



MONTAGNA DAI TERRAZZI VERDI

Johannes Leonhard, Alexander Benz, Lennard Lehne



MONTAGNA DAI TERRAZZI VERDI

Johannes Leonhard, Alexander Benz, Lennard Lehne

(PEOPLE) PARTICIPATING

TEILHABEN



KLIMA PAVILLON

bluekon3 | energy based solutions

» Wir haben die Erde nicht von unseren Eltern geerbt, sondern von unseren Kindern geliehen. «

Indianische Weisheit