

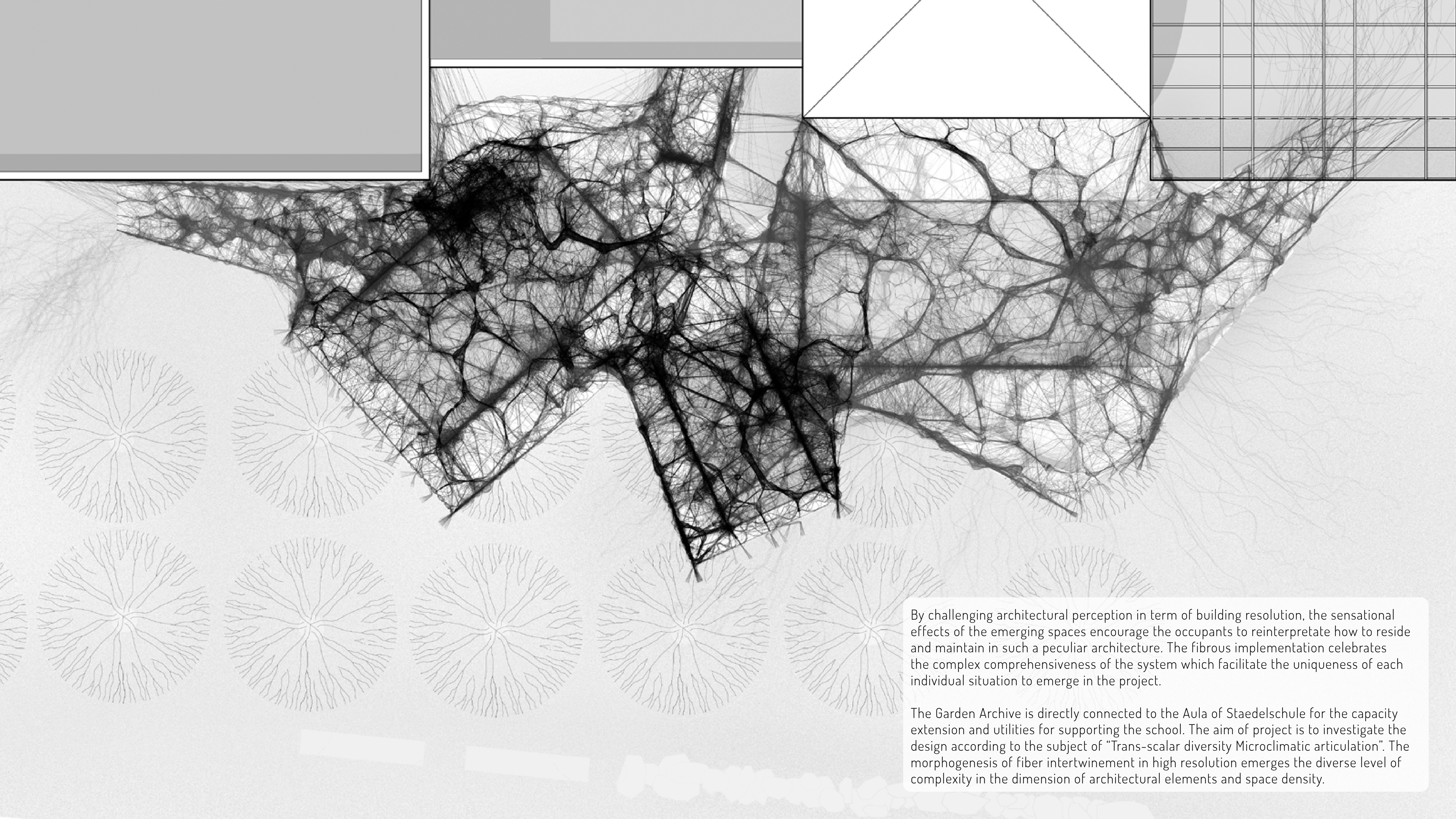


CHAKKARAT WONGTHIRAWAT

SAC MASTER THESIS 2015
THE GARDEN ARCHIVE

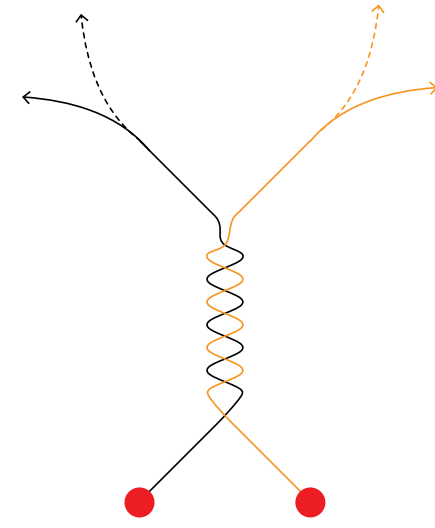
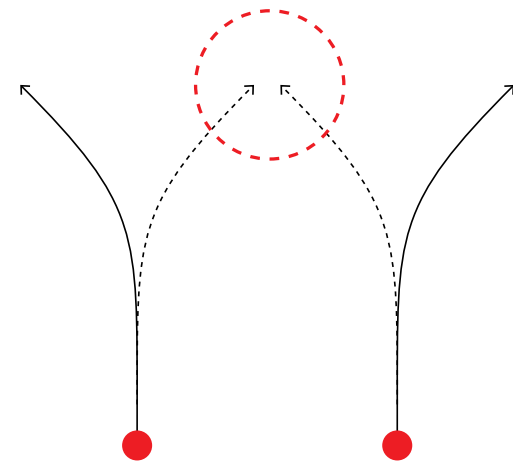
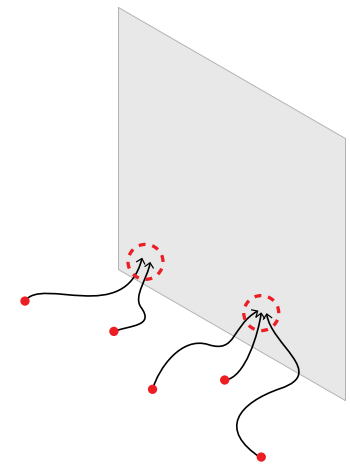
HIGH RESOLUTION DIVERSITY



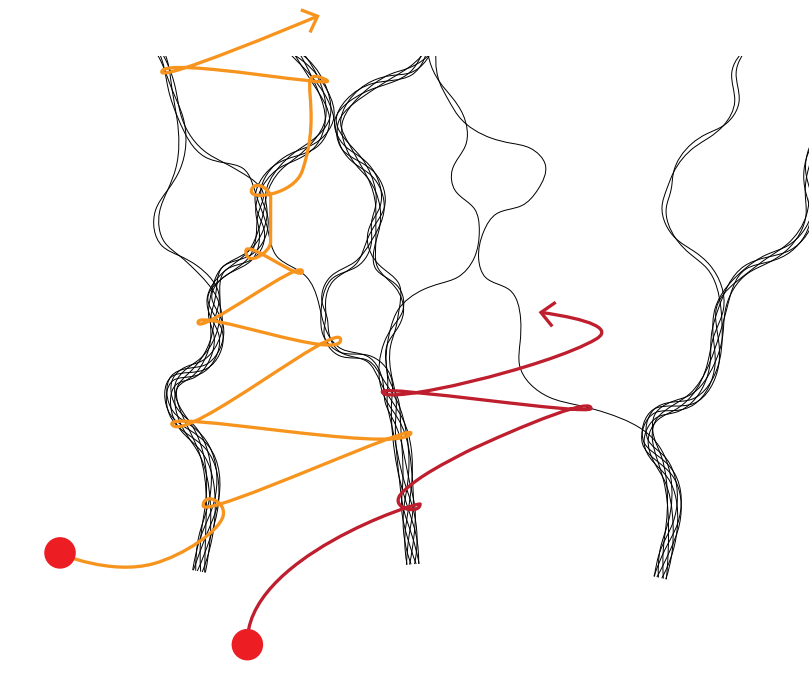
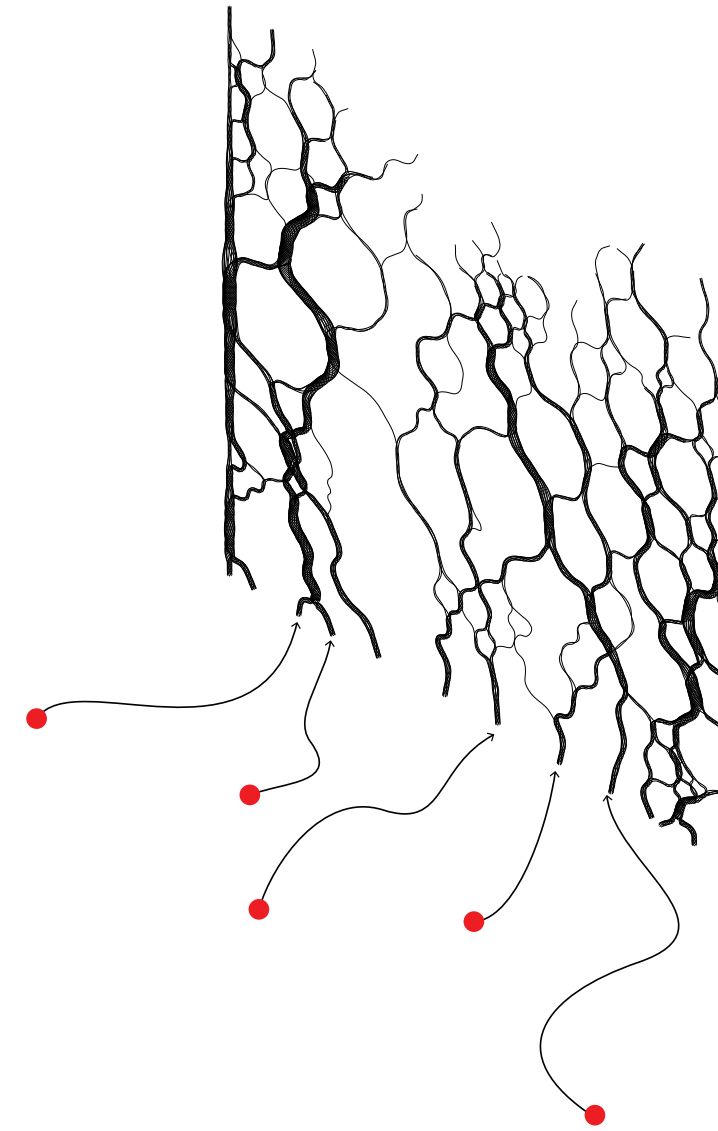


By challenging architectural perception in term of building resolution, the sensational effects of the emerging spaces encourage the occupants to reinterpretate how to reside and maintain in such a peculiar architecture. The fibrous implementation celebrates the complex comprehensiveness of the system which facilitate the uniqueness of each individual situation to emerge in the project.

The Garden Archive is directly connected to the Aula of Stuedelschule for the capacity extension and utilities for supporting the school. The aim of project is to investigate the design according to the subject of "Trans-scalar diversity Microclimatic articulation". The morphogenesis of fiber intertwinement in high resolution emerges the diverse level of complexity in the dimension of architectural elements and space density.



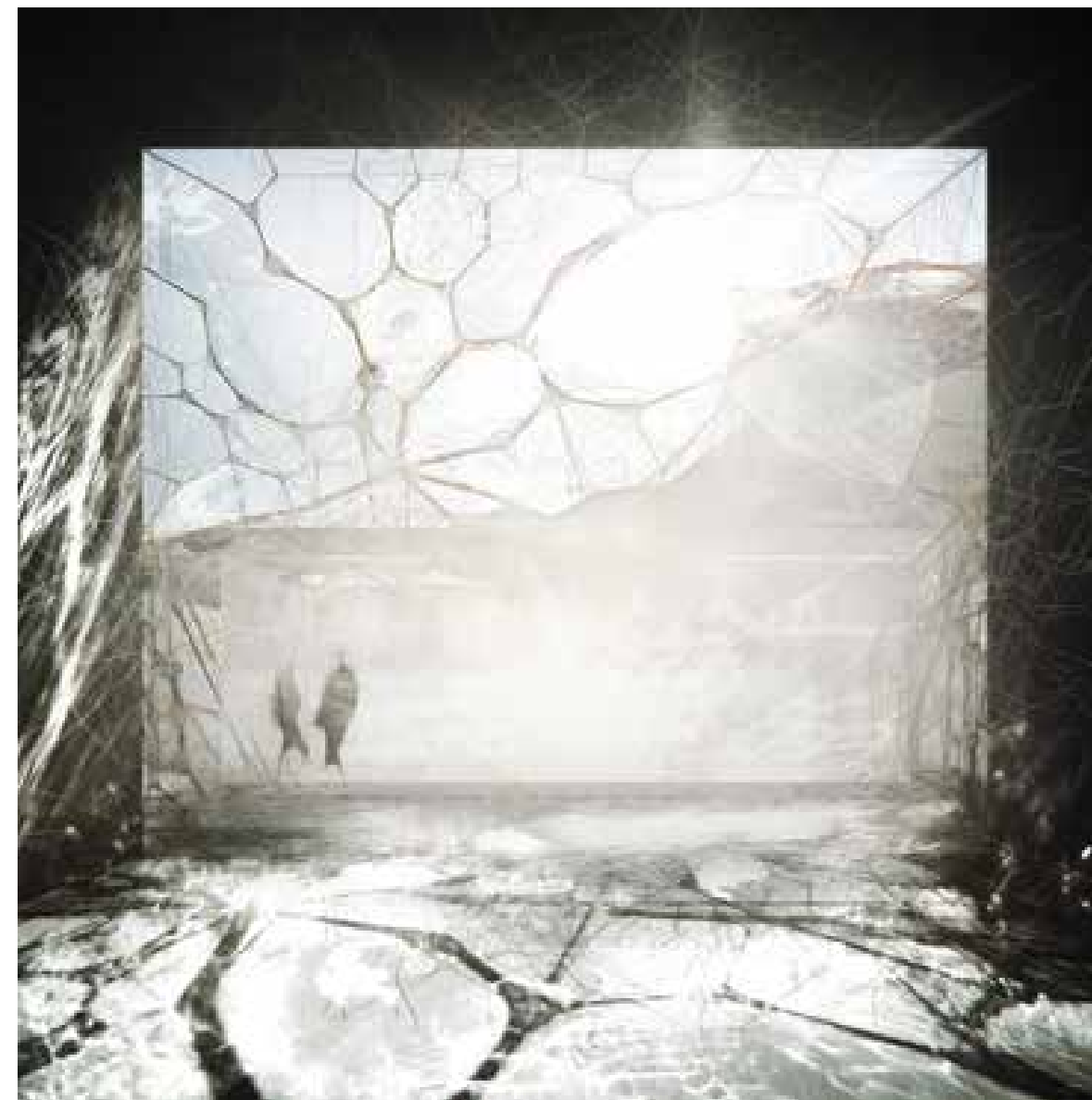
First layer of Budding: Grid



Second Layer of Budding: Bondage



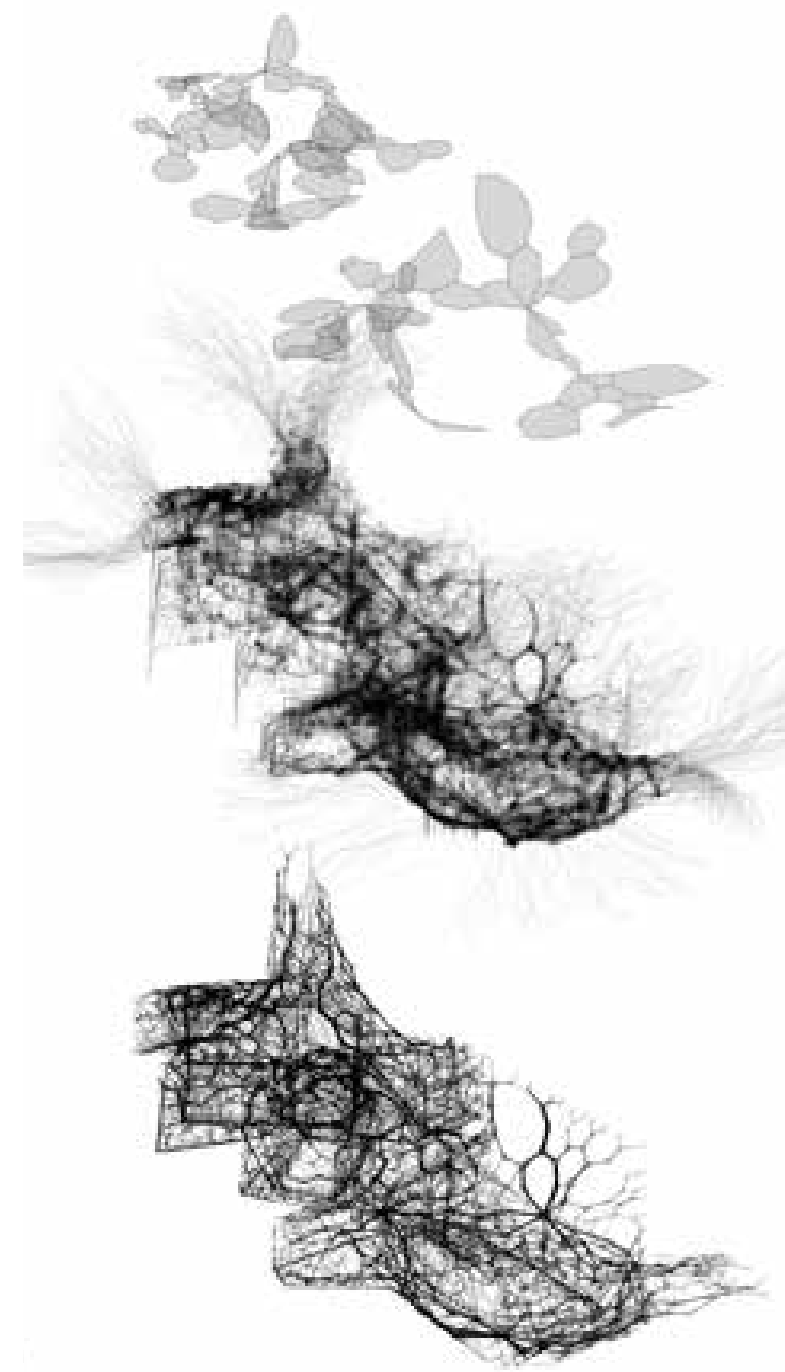
Conference Room



Lecture Room



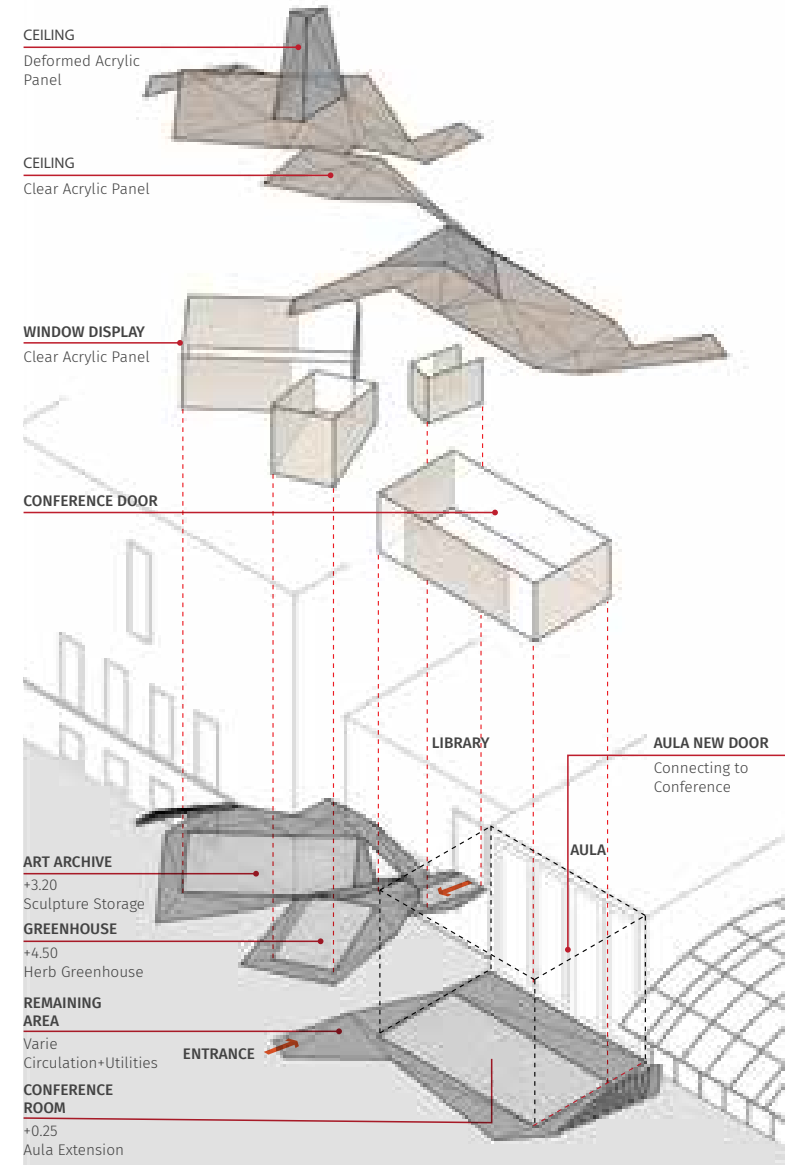
Art Archive



FACADE
Different level of Acrylic panel Deformation

BONDAGE
Tension Structure

BUNDLE
Main Structure

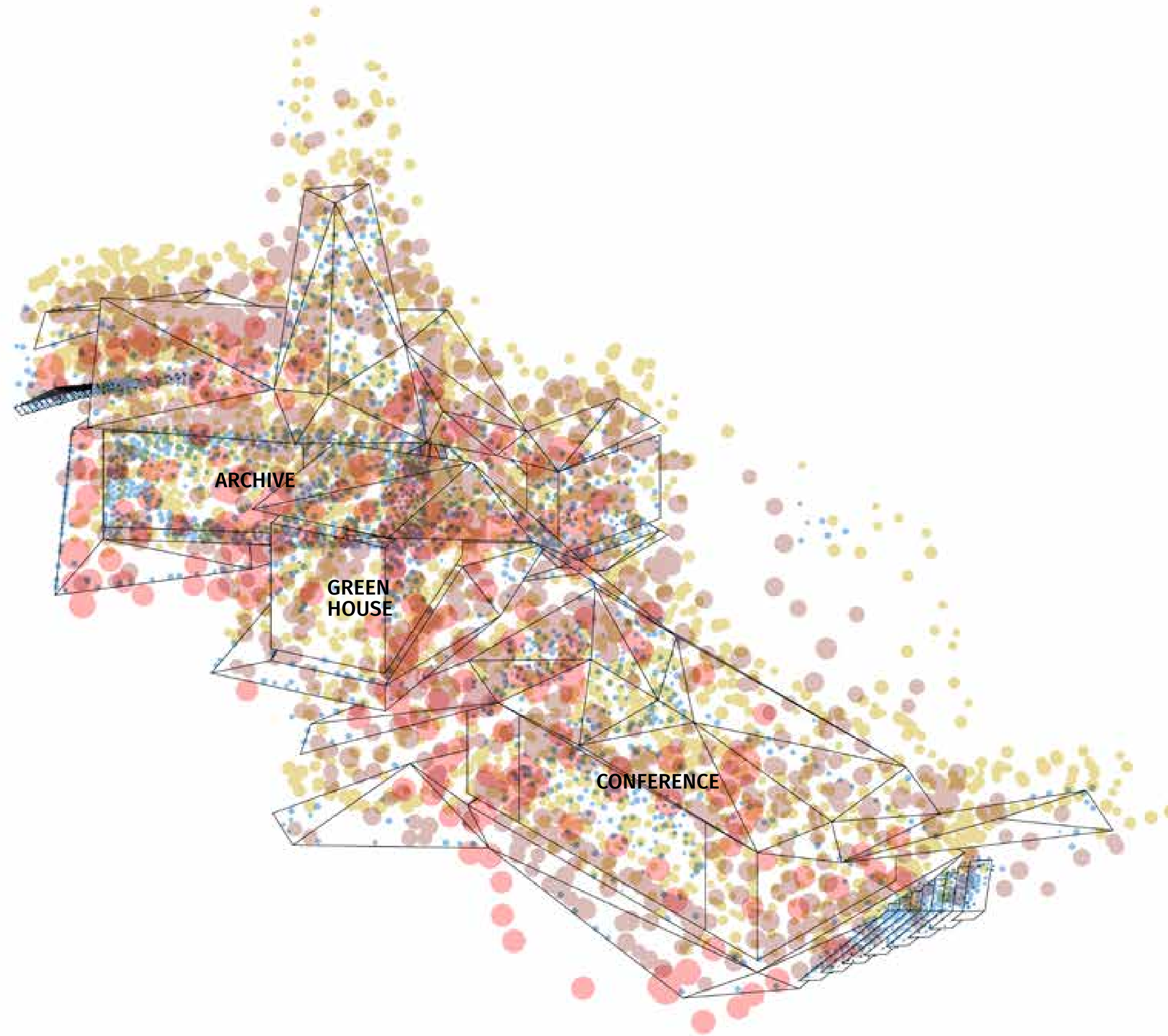


CEILING
Gradiation of Acrylic panel Dimension and Distribution

WALL
Gradiation of Acrylic panel shape deformation
Gradiation of Acrylic panel Dimension

FLOOR
Conference = 33.6 sq.m.
Greenhouse = 11.25 sq.m.
Archive = 26.00 sq.m.
Remaining Area = 102.41 sq.m.

Exploded Axonometric



Node Size Distribution Diagram

- NODE CATEGORY 01**
140 Nodes : Diameter 0.05 - 0.30 m.

 - Conference
 - Archive
 - Green House
 - Facade

- NODE CATEGORY 02**
2244 Nodes : Diameter 0.30 - 0.60 m.

 - Conference
 - Archive
 - Green House
 - Facade

- NODE CATEGORY 03**
2122 Nodes : Diameter 0.60 - 0.90 m.

 - Conference
 - Archive
 - Green House
 - Facade

- NODE CATEGORY 04**
1100 Nodes : Diameter 0.90 - 1.20 m.

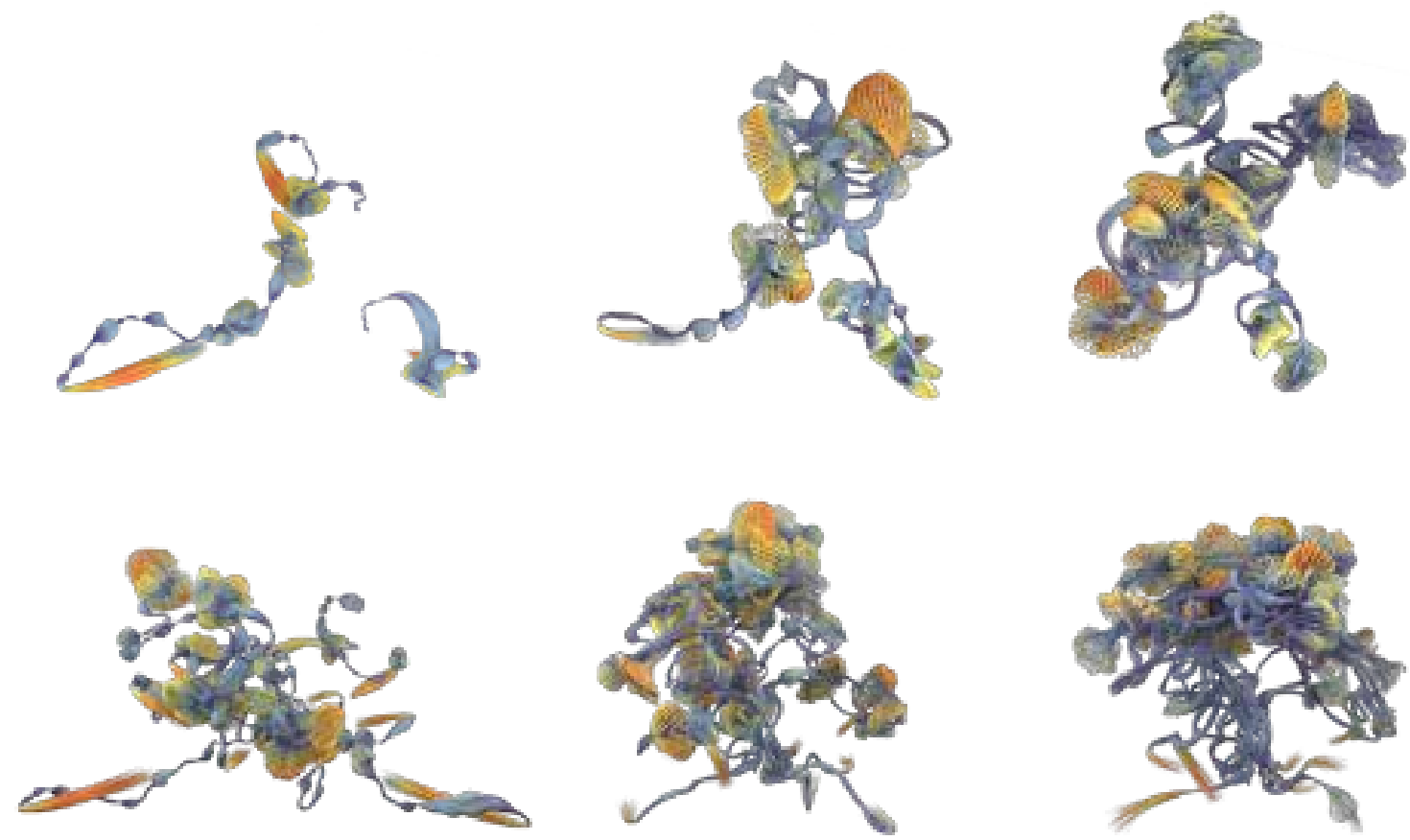
 - Conference
 - Archive
 - Green House
 - Facade

- NODE CATEGORY 05**
234 Nodes : Diameter 1.20 - 1.70 m.

 - Conference
 - Archive
 - Green House
 - Facade

SEQUENCE OF MORPHOGENESIS DATA MANIPULATION

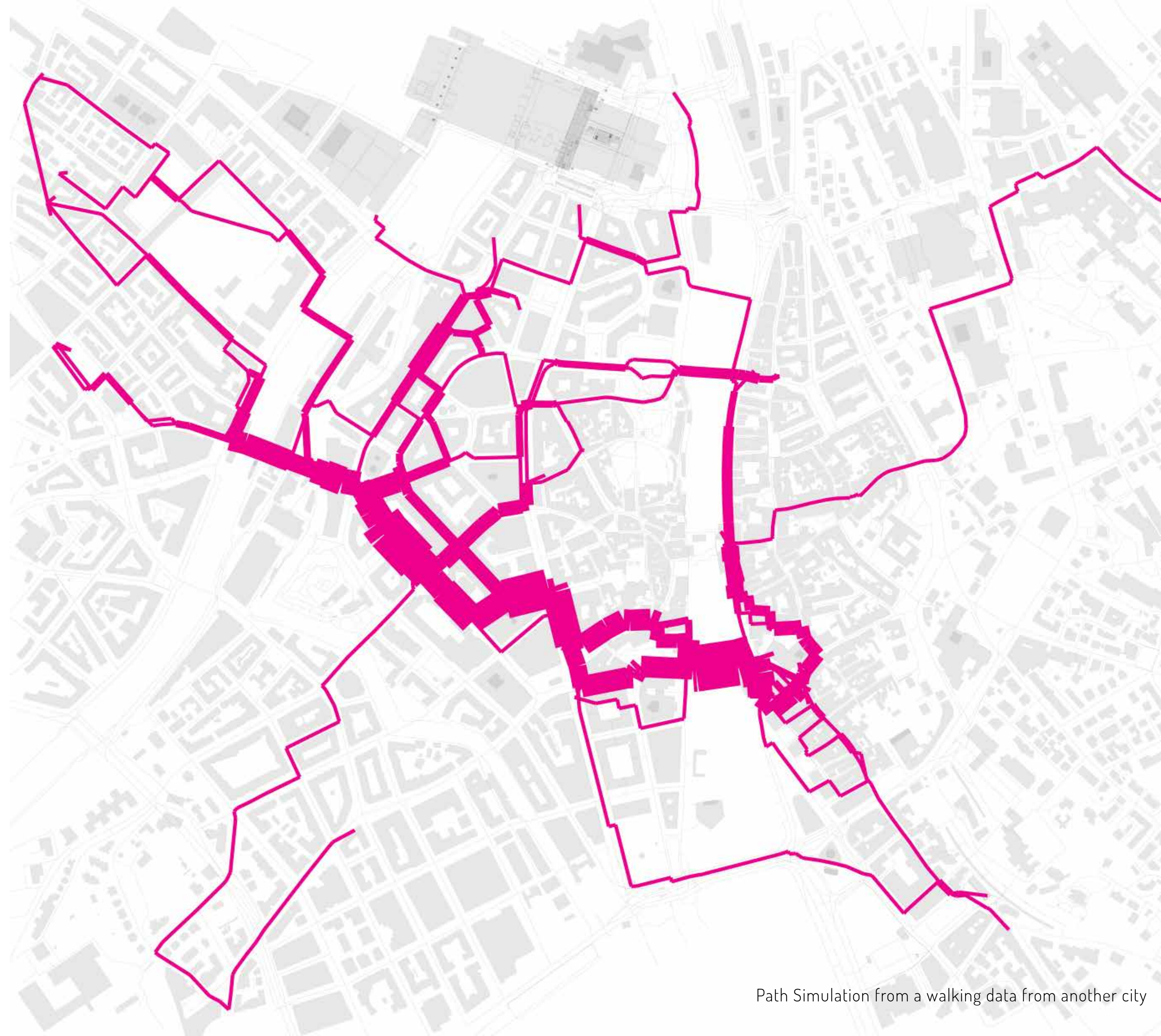
From a study of diversity of one plant elements, the task is to generate a sequence of an abstract object morphing effected by embeded data and parameters. There are 2 types of sequences emerged: Growth (Iteration) and Quantity (Sampling points)



Sequence of Growth and Quantity

STUDIO SCWITALLA
2015-2017

MOBILITY/IMMOBILITY



Path Simulation from a walking data from another city

CREATIVE WALKING NEIGHBOURHOOD

The city, which is designed around the car, is characterized by a monotonous and linear spatial experience (streets). But if we understand the city as a network of hyper connected (eg. aerial bus, subway, ...) neighborhoods, we can design those around the logic of human scale micro-mobility or even natural mobility (walking).

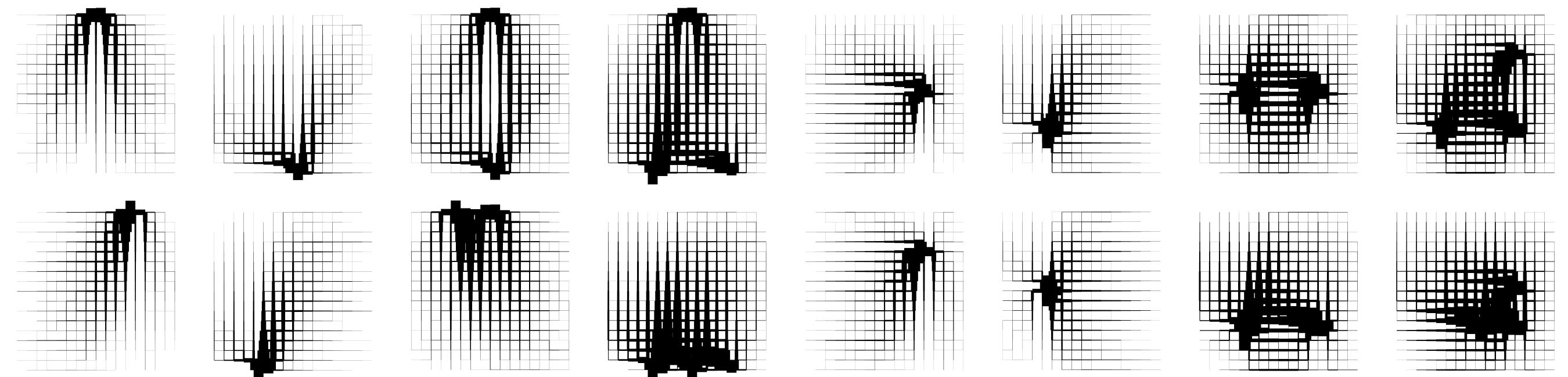
Collecting the multifaceted data, the four blocks of Barcelona, is to generate a real situation related event in order to be processed in the specific computational set up. The generated flow of people creates the gradient quality of the space, from plazas to narrow streets which are ambiguous and homogenous but it is self navigated through the quality of the space.



Redesign Barcelona Super Block: Creative Walking Neighbourhood

Creative Walking Neighbourhood

Project Type Research
 Client Schindler
 Location Barcelona, Spain
 Year 2016
 Team Studio Schwitalla
 Position Architect



Gradual Fields of walking path possibilities

AUDI URBAN FUTURE AWARD 2014

With 21st century mobility reaching its spatial and ecological limits, we have to revisit the relation of mobility and urban space on a systematic scale. The major goal of our proposal is to renegotiate the relationship between mobility and the urban space on the three levels: product, infrastructure, and use. As the 20th century has been the era of urbanization, mobility and digitalization, the 21th century is about the symbiotic fusion of these components.

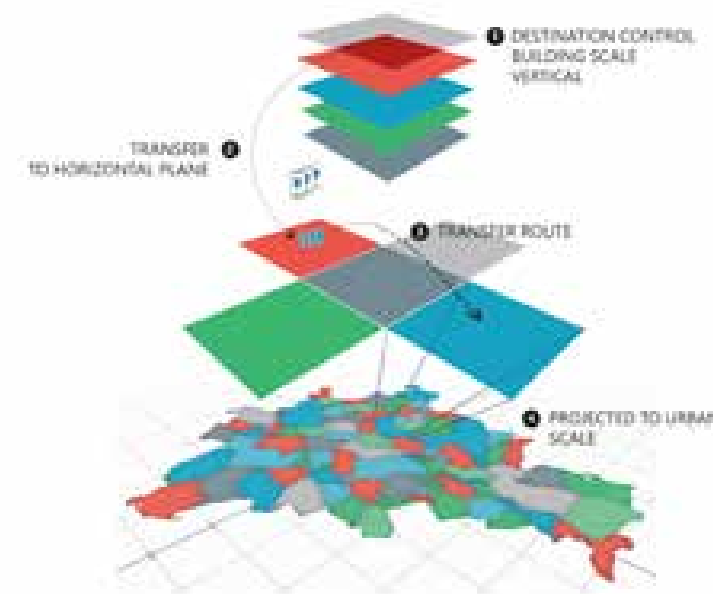
The project „DESTINATION COLLECTIVE“ proposes a long-term (~2035) vision for Berlin as well a local short-term test track „FLYWAY“ (~2017) that showcases all aspects of the envisioned future concept including individual destination control, autonomous driving, and collective mobility that can be experienced by the users. This exciting blur of individual and public transport will be particularly visible in the track becoming a site not only for traffic but entertainment, sports, and leisure alike.



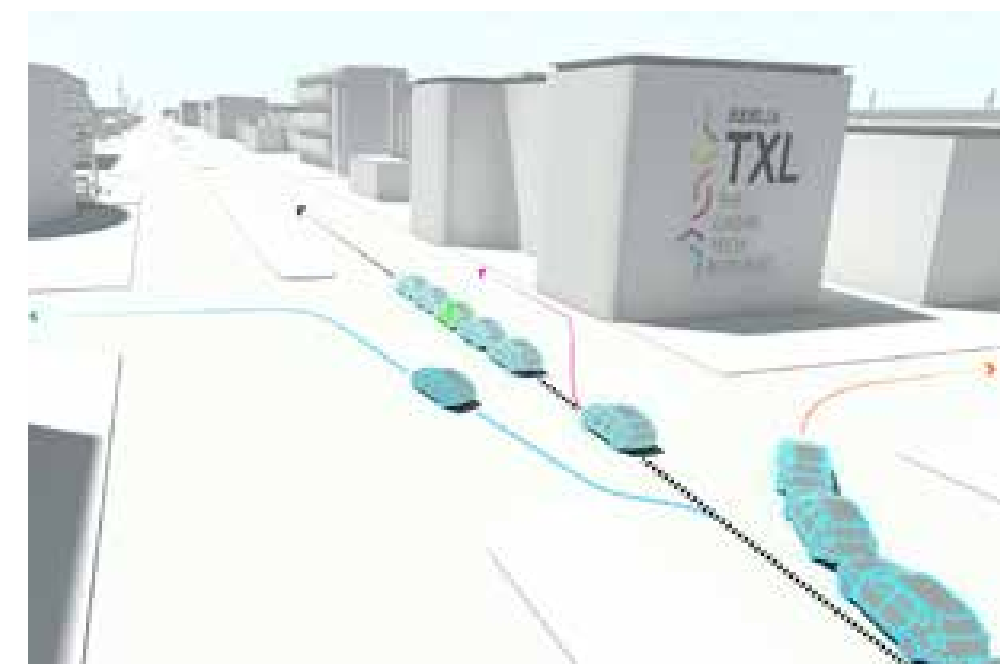
Urban Shelf with connectable micro mobility

Audi Urban Future Award 2014

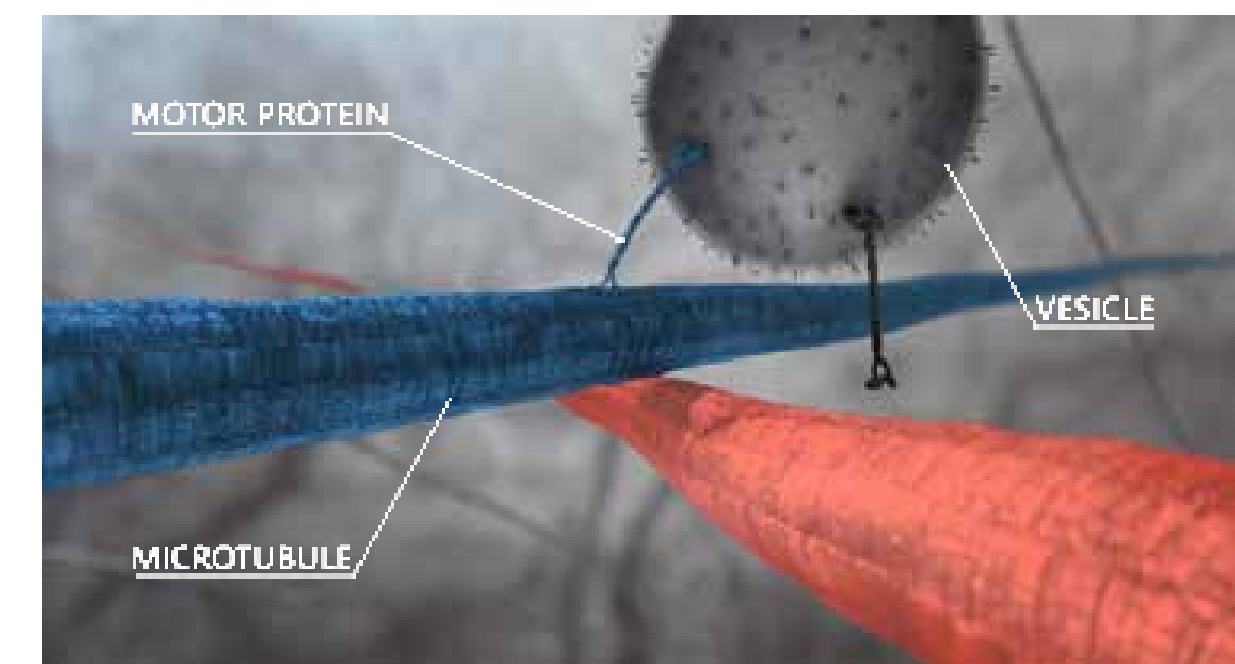
Project Type	Competition
Client	Audi
Location	Berlin, Germany
Year	2014
Team	Audi Schindler Ltd Studio Schwitalla BioMimicry Germany
Position	Intern



Learning from Elevator Technology



Autonomous Driving: Last mile Route



Biomimicry of Mobility Concept

MUSEUM OF THE 20TH CENTURY

“What is the museum should be more than a museum?”

The extension of Neus Nationalgalerie is situated at the center of the iconic premise, “Kulturforum”. Reaching by the “Kulturgondel” to the top of the roof, the exterior platforms serve visitors as a prominent destination directly connecting to Potsdamer platz and Alexanderplatz. Therefore, the design serves as the welcoming gate of the “Kulturforum” area. Each side and level of the platforms has its own spectacular view and multi level connection toward each surrounding building.

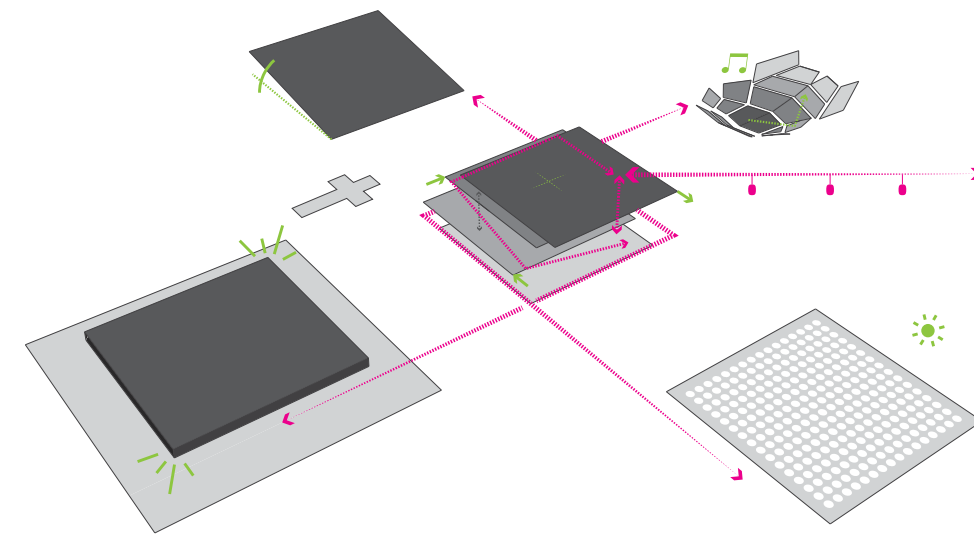
The principle tectonics of the design are shown the DNA of the present surrounding, such as the floating horizontal (NNG), the inclined surface (Piazzetta), the acoustic structure (Philharmonie) and the perforated ceiling (Stabi). The structure of the new building represents respectfully and confidently to the icons of architecture and its dialogue.



Renegotiation of public space and mobility

Museum of the 20th Century

Project Type	Competition
Client	Stiftung Preussischer Kulturbesitz
Location	Berlin, Germany
Year	2015
Team	Studio Schwitalla, LAVALAND
Position	Architect



Inherited Characteristics



Model Elevation



**FINEST SPACE
2017-2019**

Ravindra Hotel: 5 star Hotel



HOLME Ekkamai 22: Low rise Condominium

MAGLA
2018-PRESENT



Bangna Apartment



HOLME Ekkamai 22: Low rise Condominium



Nonthavej Hospital



Hitect Apparel



Pavilion



Larnchalermphrakiat



Facde Renovation



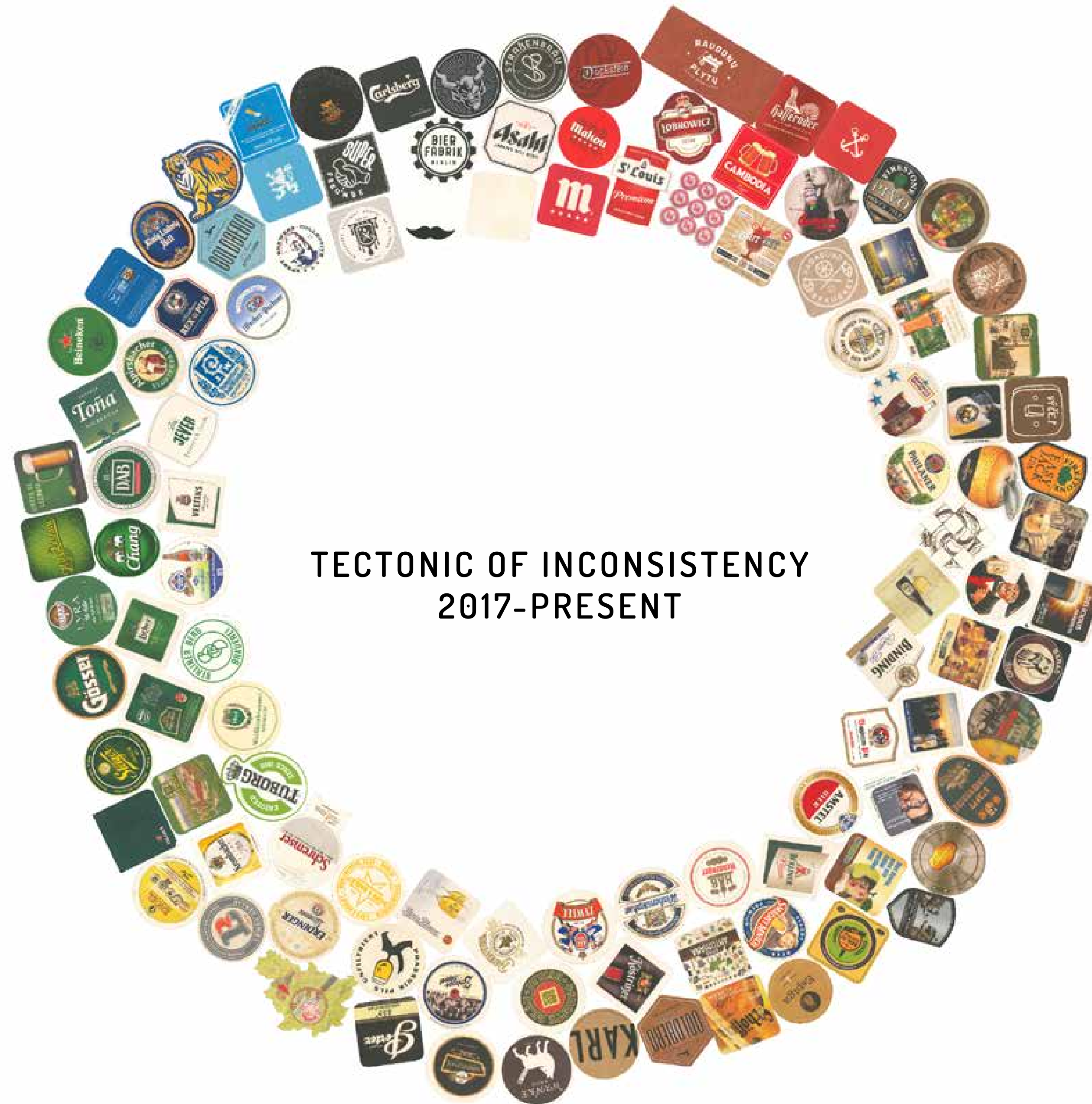
Sukhumvit 38 Design Research

REGA ARCHITECT
2007-2009

N7A
2010-2011

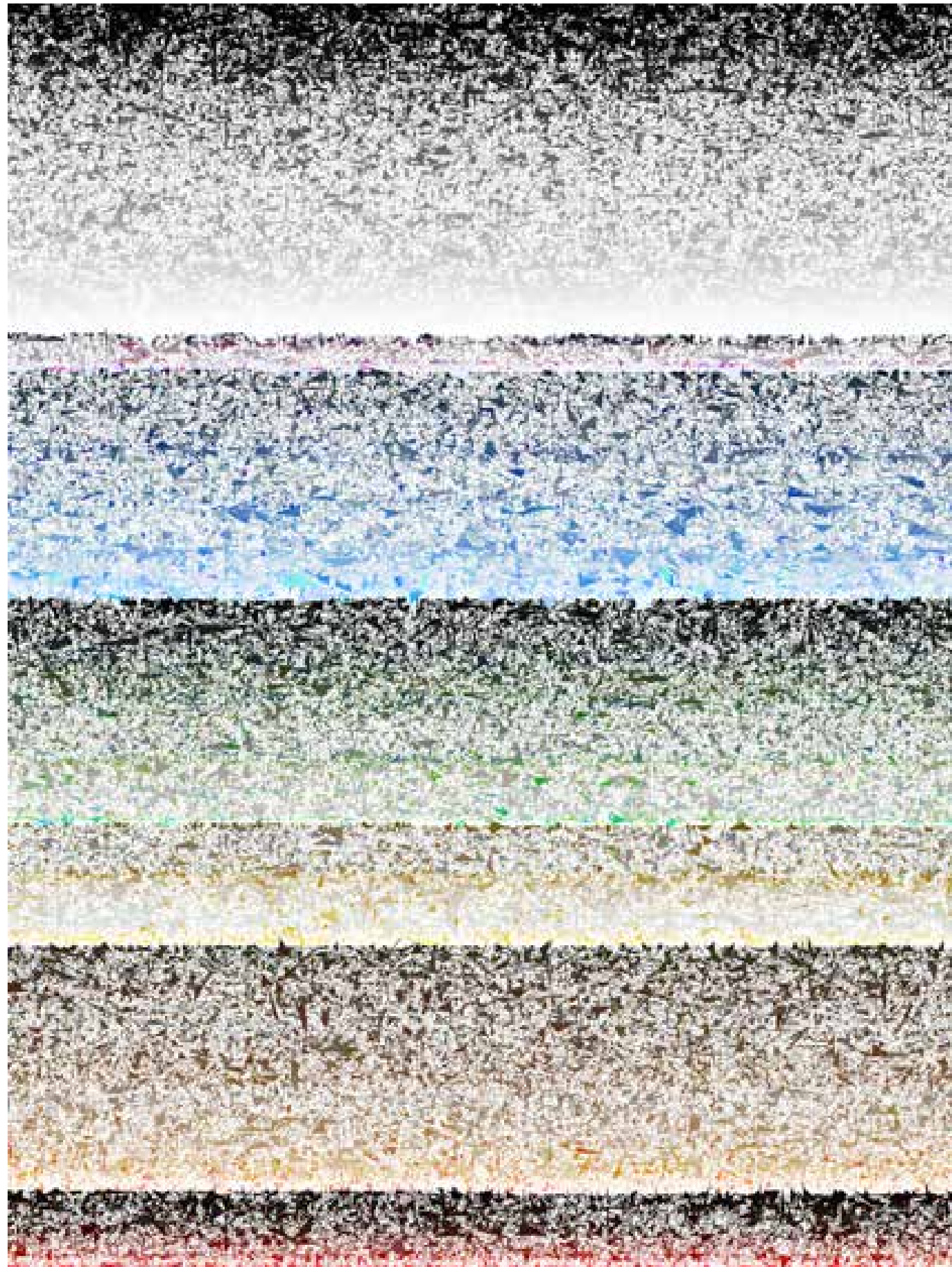
MAGLA
2012-2013

RESEARCH
2013

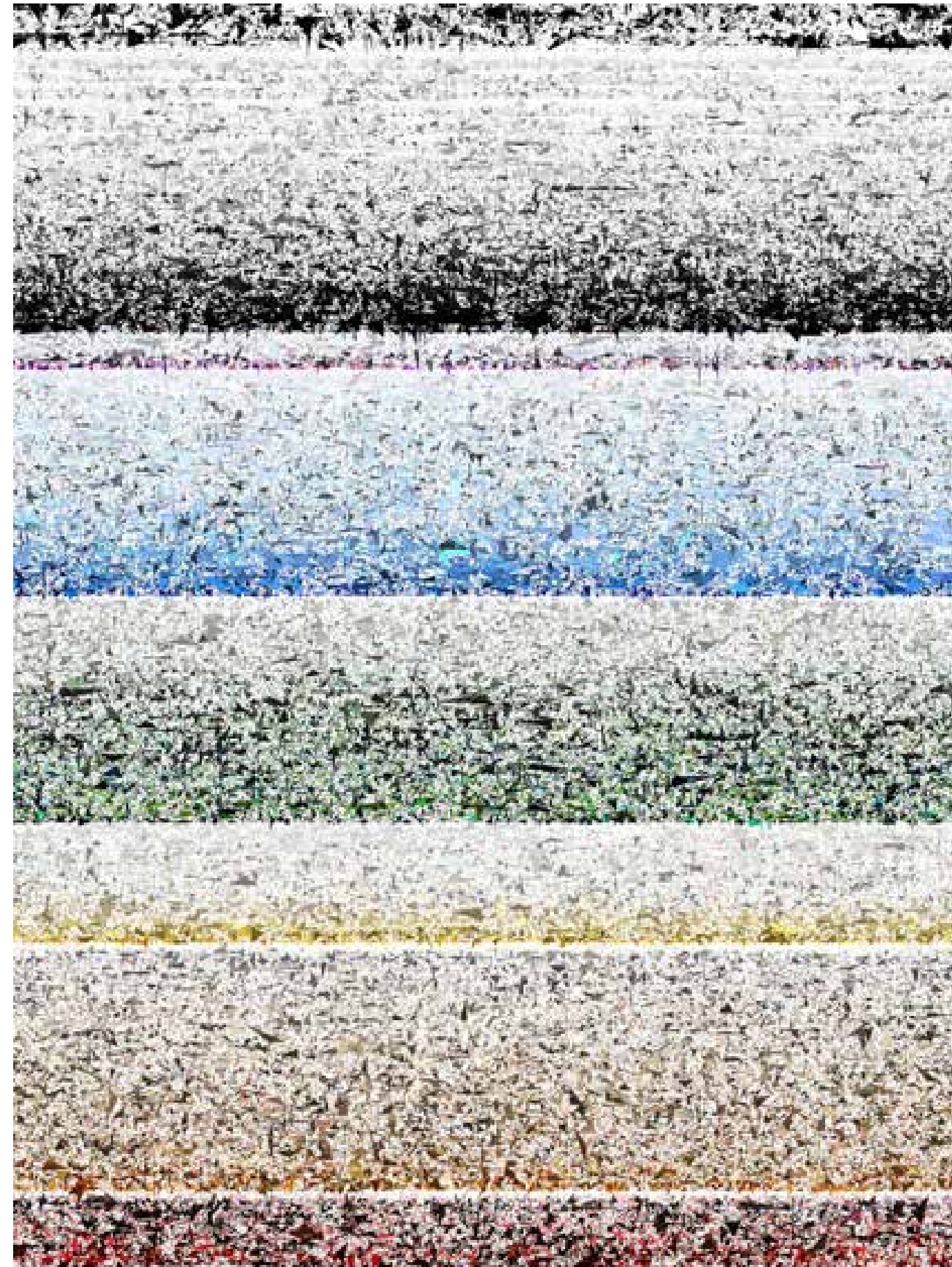


TECTONIC OF INCONSISTENCY
2017-PRESENT

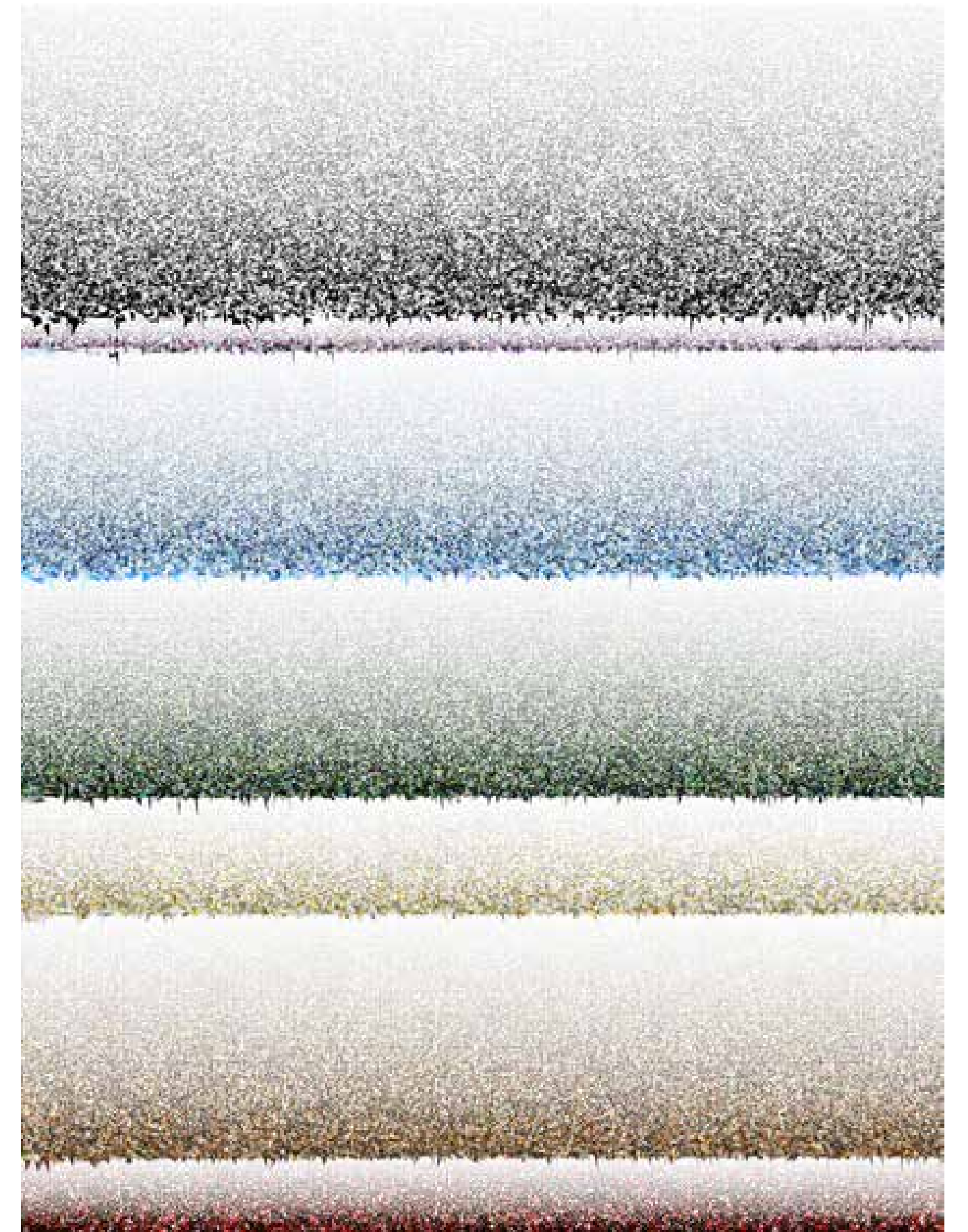




Brightness

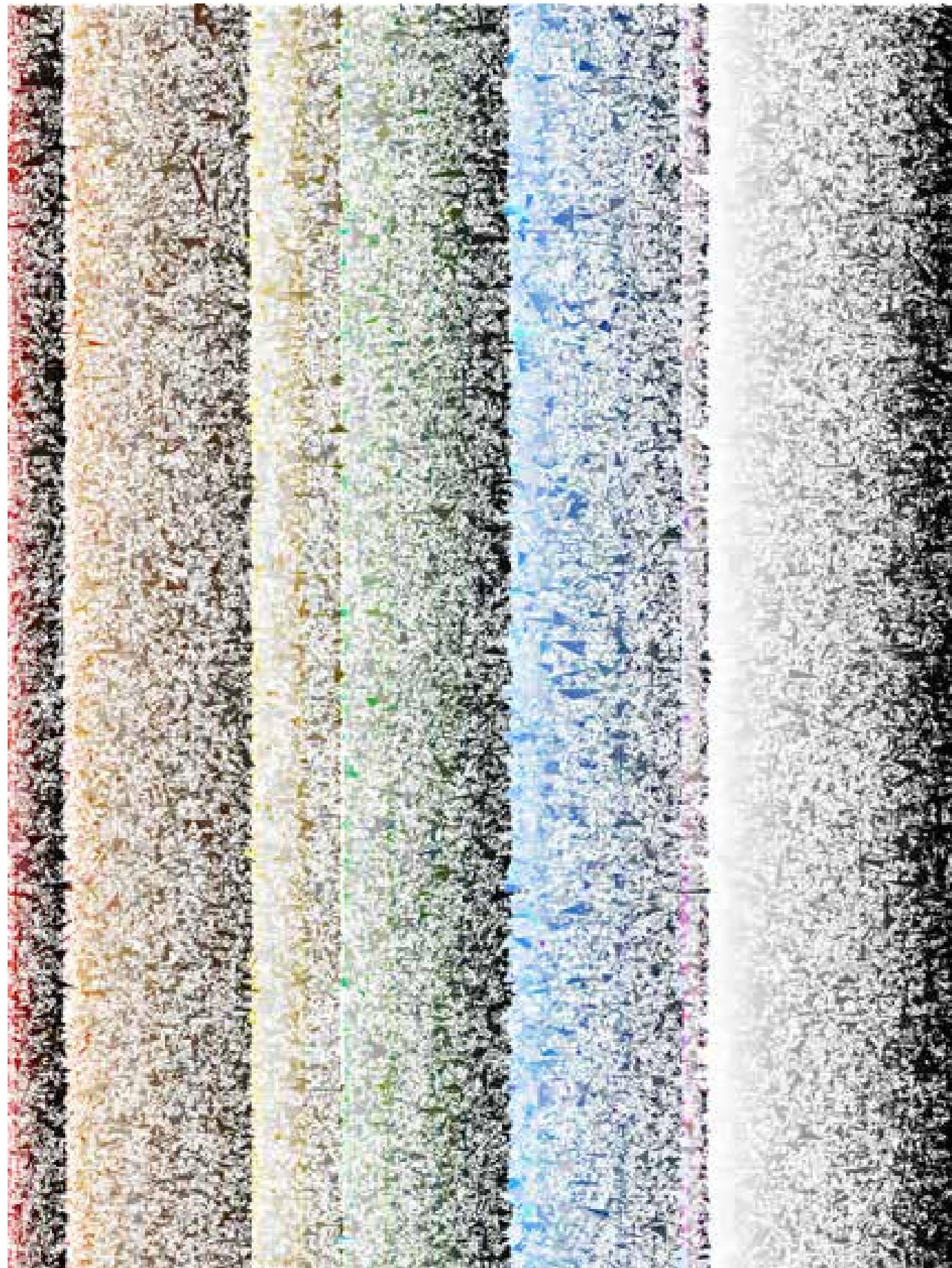


Saturation

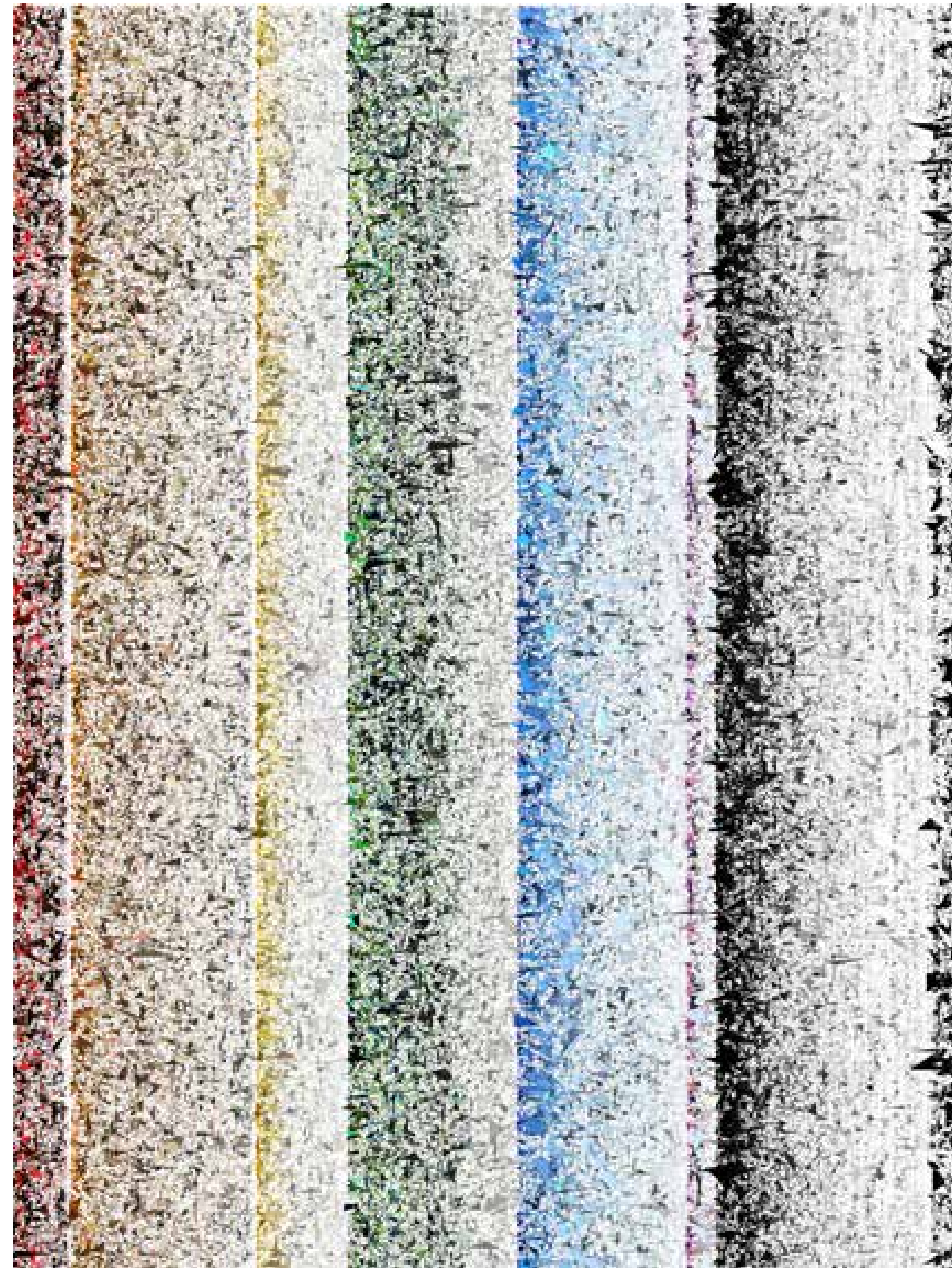


Size

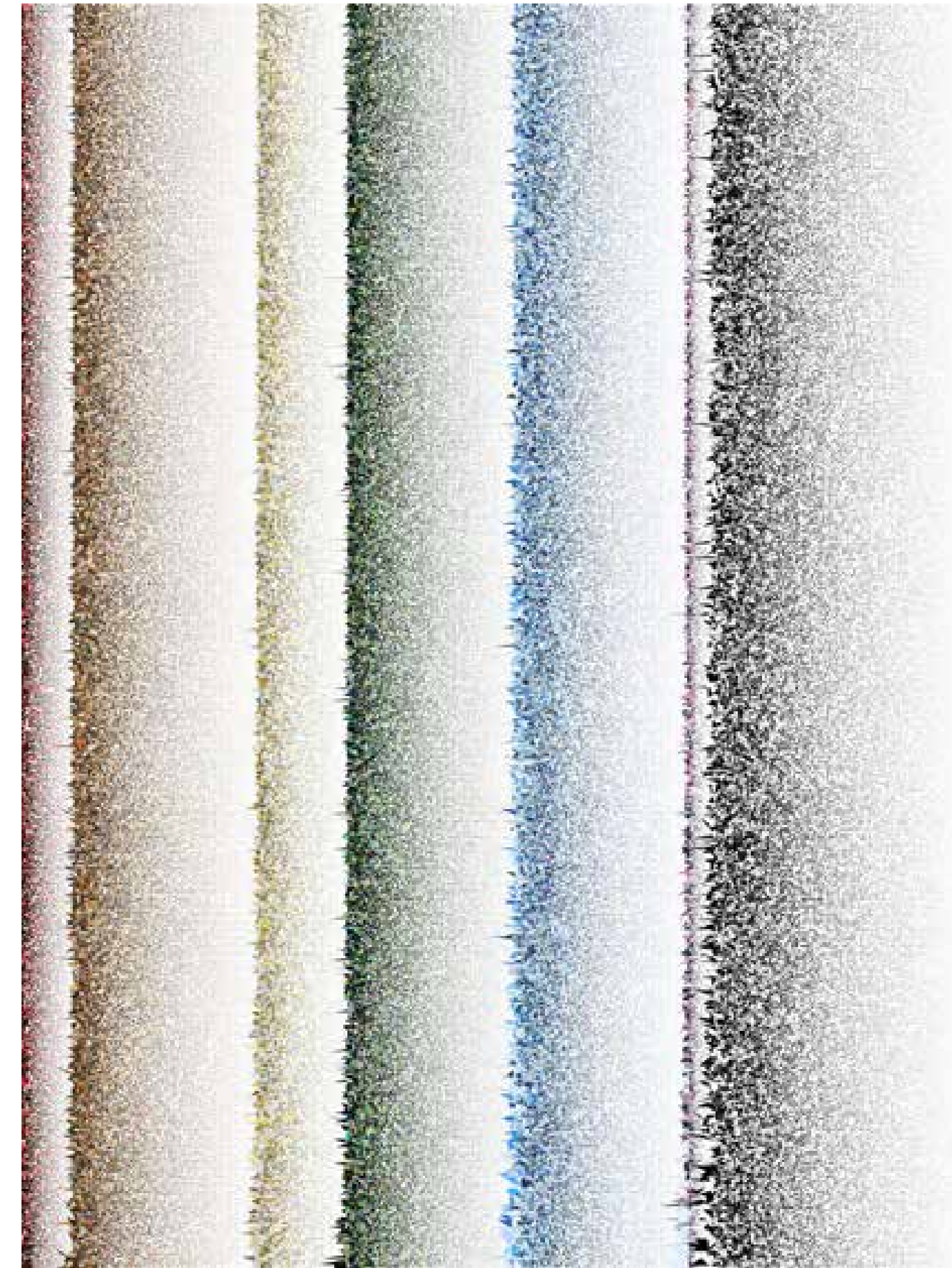
Deconstructed Image Sorting



Brightness



Saturation



Size

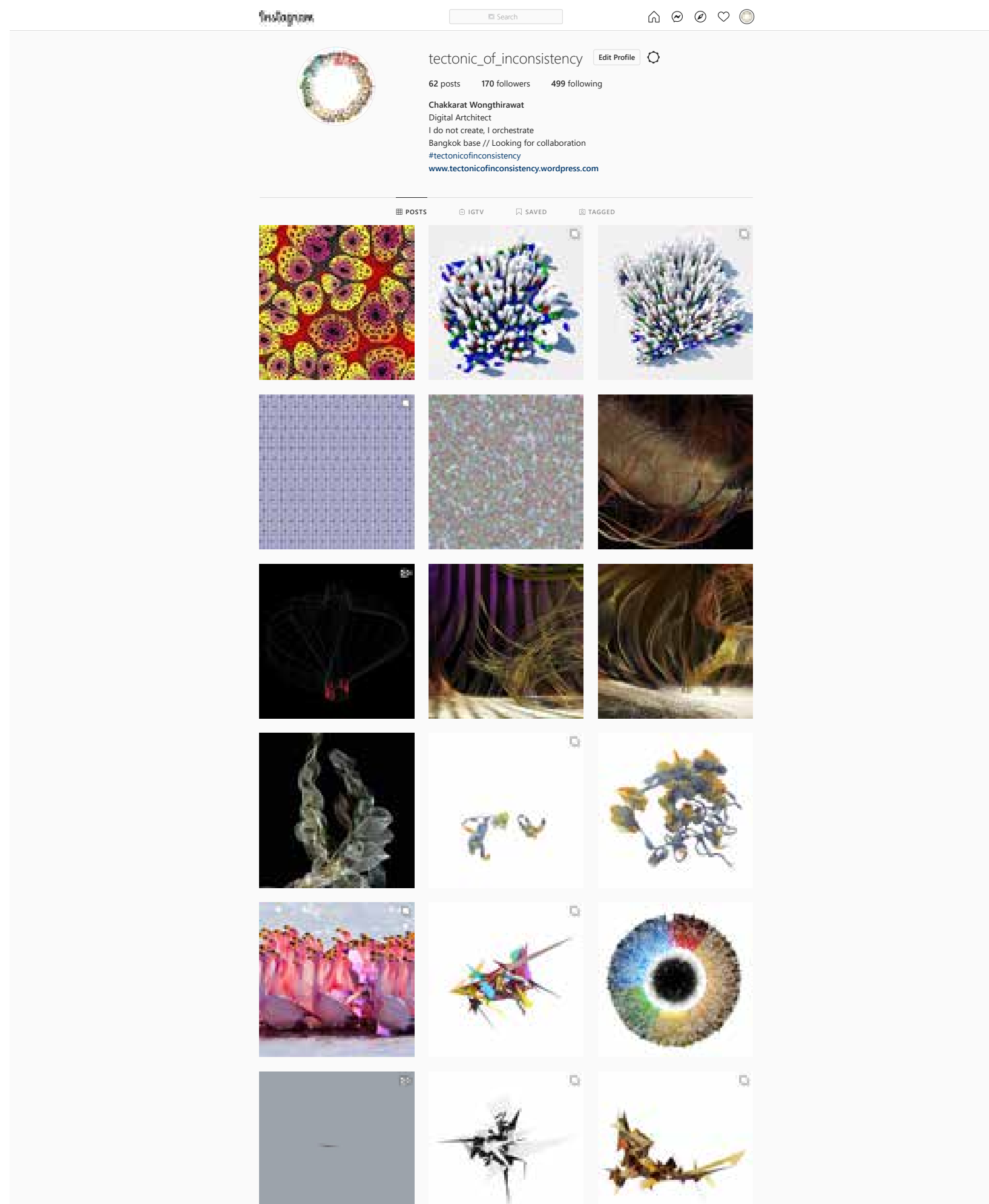
Deconstructed Image Sorting



THE CRADLE

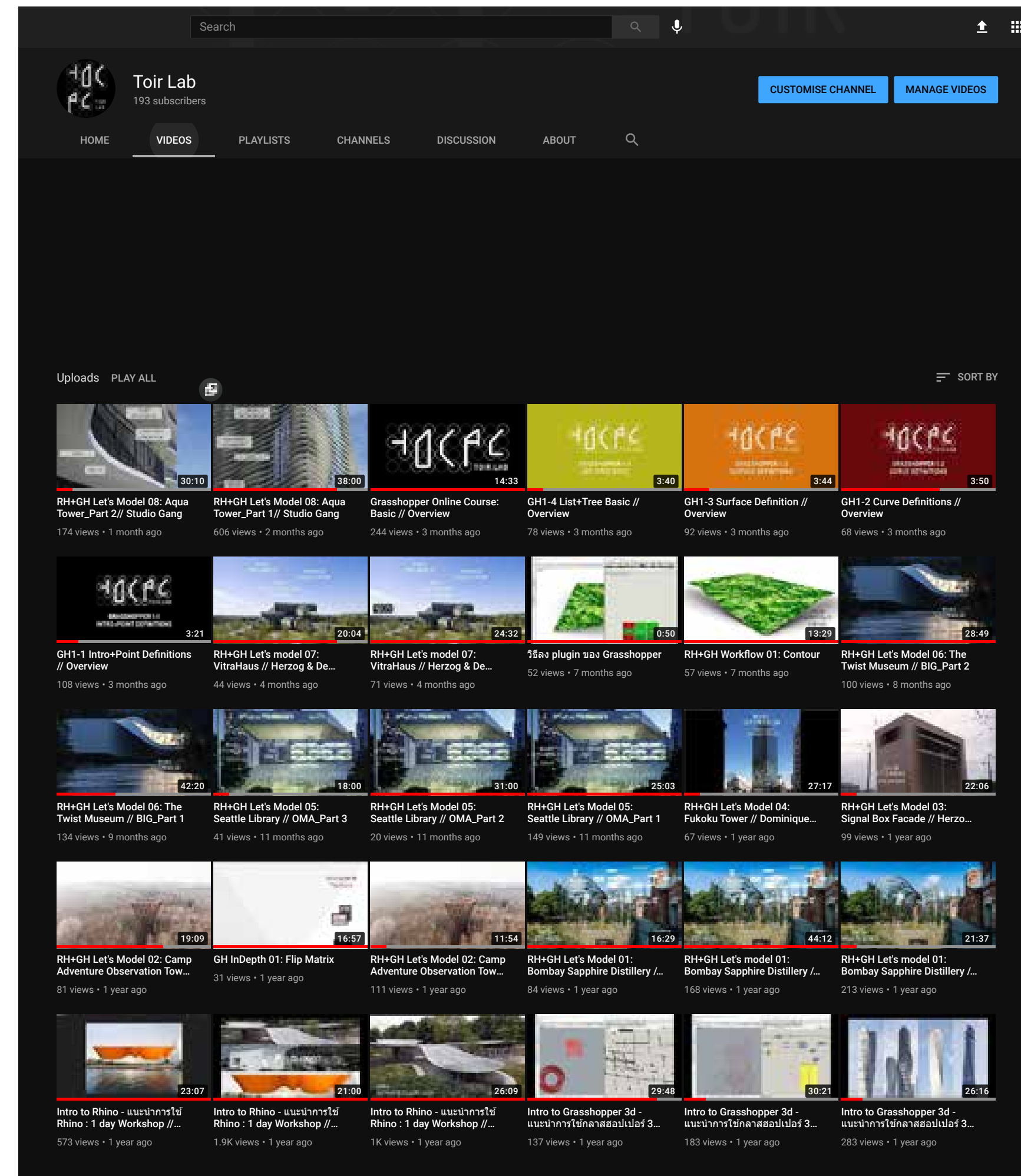
The Cradle

Project Type	Sculpture
Client	Aor Sutthiprapha
Location	The Parq
Year	2020
Team	Multi Studio Nini Renuga Hutauwatr EPIC Studio Toir.Lab
Position	Potteryclay Geometry Consultant Structure Designer



TECTONIC OF INCONSISTENCY
FACEBOOK/INSTAGRAM

DIGITAL ART USING GENERATIVE METHODS



TOIR.LAB
FACEBOOK/YOUTUBE

PROMOTING PARAMETRIC/COMPUTATIONAL DESIGNS
 AND TOOLS
 RHINO+GRASSHOPPER



Personal Information

Chakkarat Wongthirawat
7 Soi Inthamara 25, Sutthisarn Rd.
Samsaennai, Phayathai
Bangkok, 10400

0954537185
c.wongthirawat@gmail.com
Male, Thai
21 January 1984

<https://tectonicofinconsistency.wordpress.com>

FB/Instagram:
Tectonic of Inconsistency
FB/Youtube: Toir.Lab

Work Experiences

2007-2007	Rega Architect
2010-2011	N7A
2012-2013	MAGLA
2015-2017	Studio Schwitalla (DE)
2017-2019	Finest Space
2018-Present	MAGLA

Education

2002-2007	B.Arch	Chulalongkorn University
2013-2015	M.Art	Staedelschule Architecture Class with 2 awards

Computer Skill

Autocad	Advanced
Rhinoceros	Advanced
Grasshopper	Advanced
3DsMax Vray Render	Intermediate
Adobe Suite	Intermediate
Revit	Beginner
Python for Grasshopper	Beginner