



Portfolio

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design project complex building for zoo hannover

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Heterotopic Space

bachelor graduate project

An architectural rendering of a modern, rectangular building with a perforated facade, set in a lush green landscape. The building is surrounded by trees and grass. Several small figures of people are visible in the foreground, and a bird is flying in the sky. The overall scene is bright and sunny.

einhybrides Eingangsgebäude für den Zoo Hannover

SPACE REACTION

Site Analysis

Zoo Position in Hannover



Stadtmitte / Neues Rathaus
9min
Zoo

Transport System in Hannover
Airport
Railway
Highway



Herrenhäuser Garten
14min
Zoo



Strandbad Maschsee
12min
Zoo



Messe
9min
Zoo



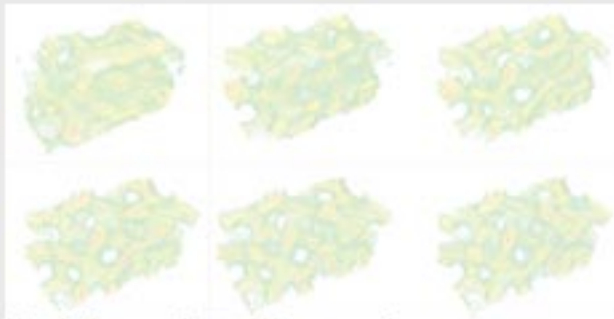
Hotels in Hannover
Economy
Comfort
Luxury



Reaction Diffusion 3D Form 40*20*20

Reaction-diffusion systems are mathematical models which explain how the concentration of one or more substances distributed in space changes under the influence of two processes: local chemical reactions in which the substances are transformed into each other, and diffusion which causes the substances to spread out over a surface in space.

It has also been argued that reaction-diffusion processes are an essential basis for processes connected to animal coats and skin pigmentation.



Prototypes from Prosecing

Site Plan

Parkdeck

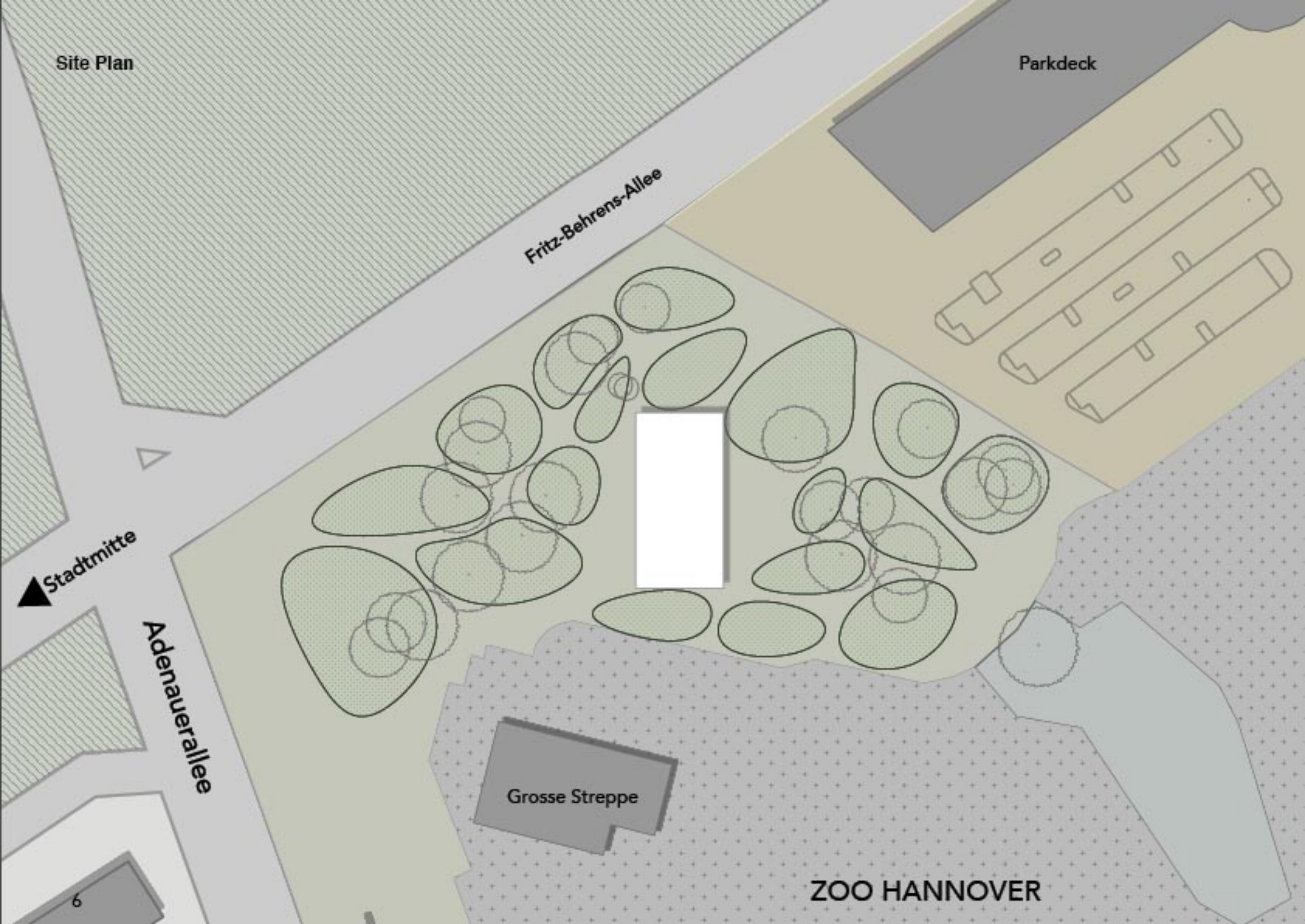
Fritz-Behrens-Allee

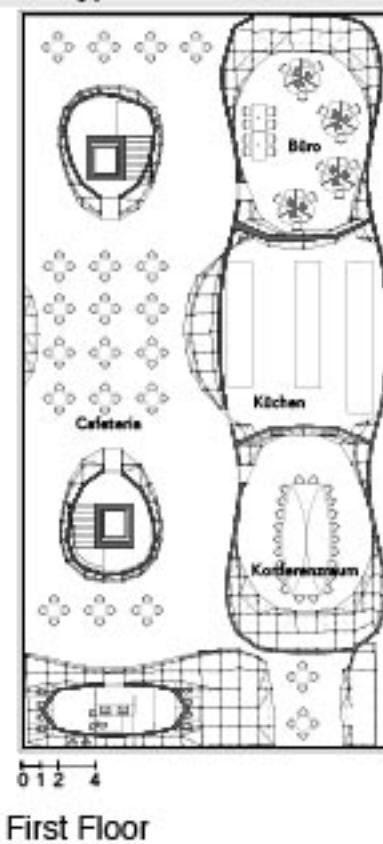
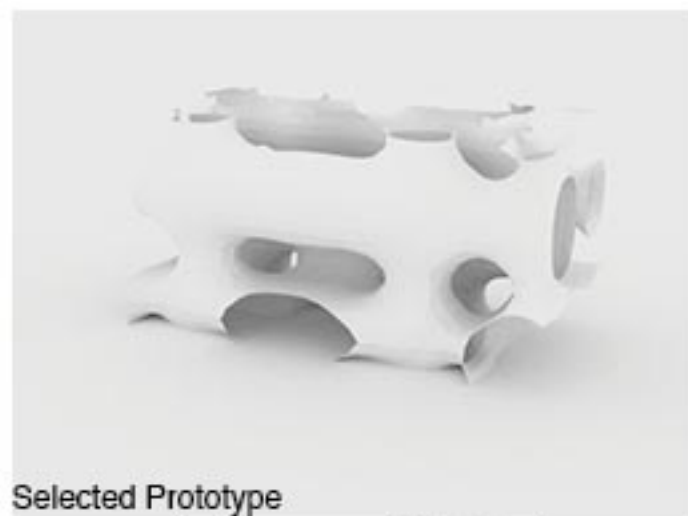
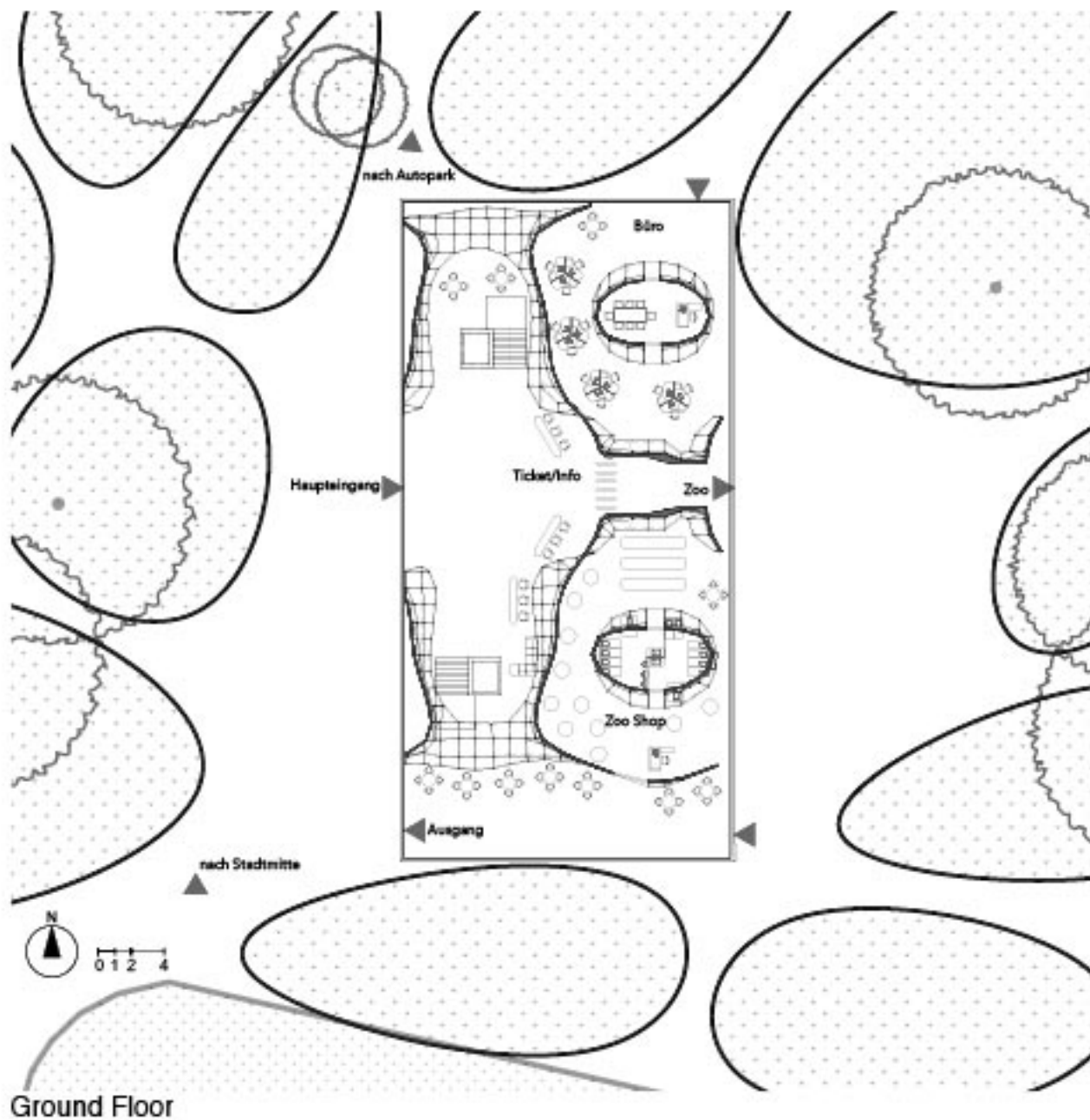
Stadtmitte

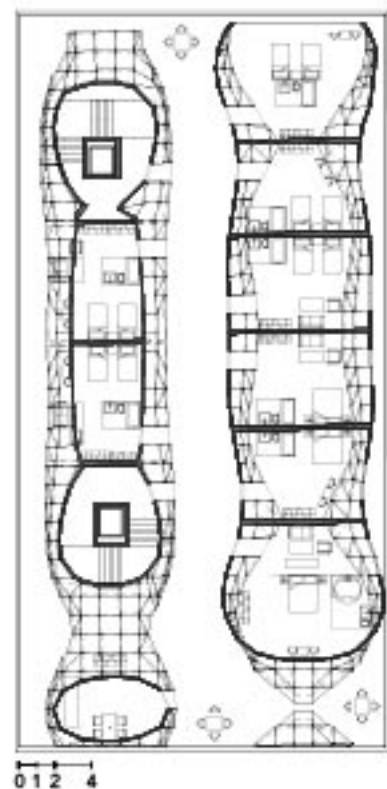
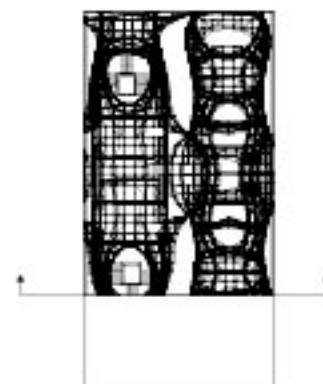
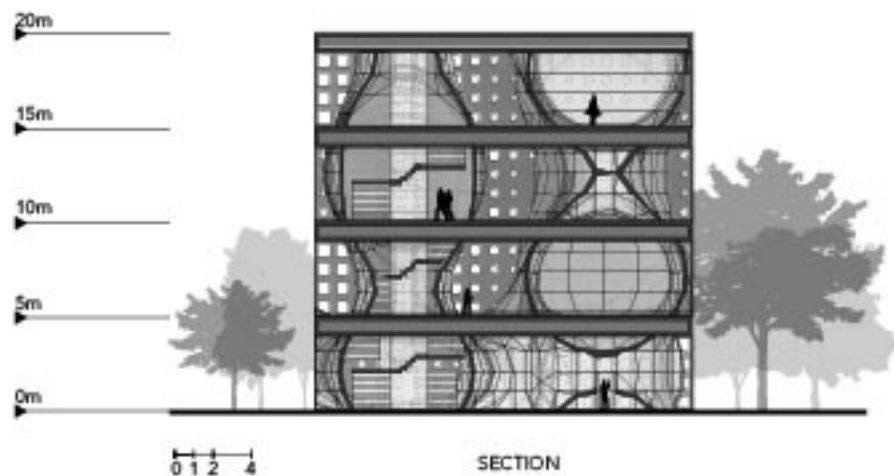
Adenauerallee

Grosse Streppe

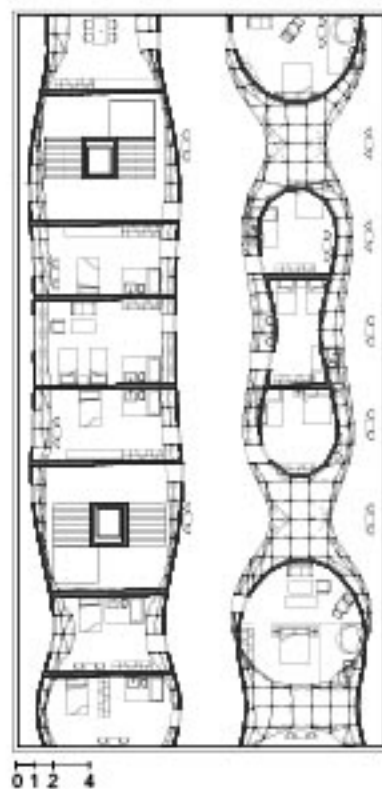
ZOO HANNOVER



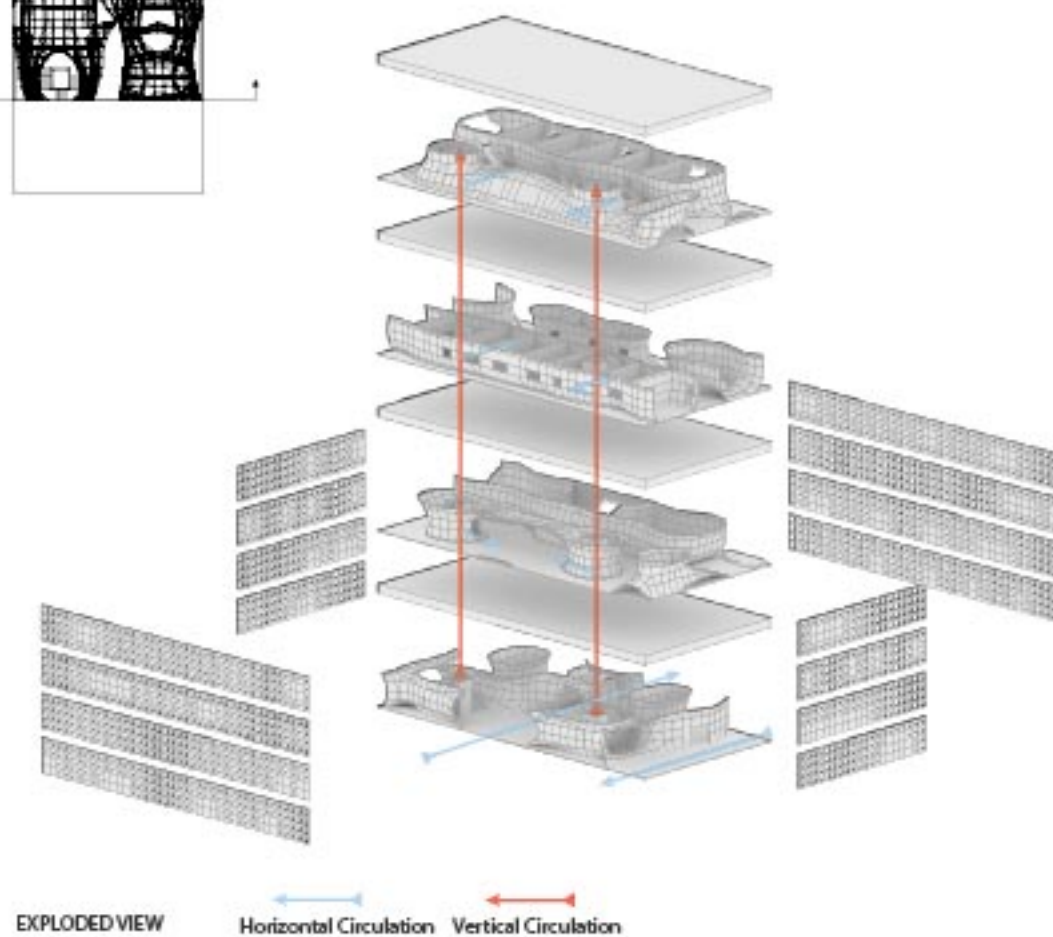


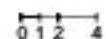
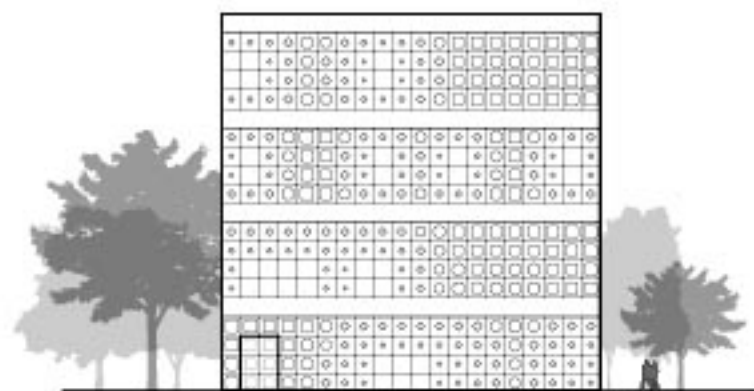


Second Floor

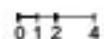
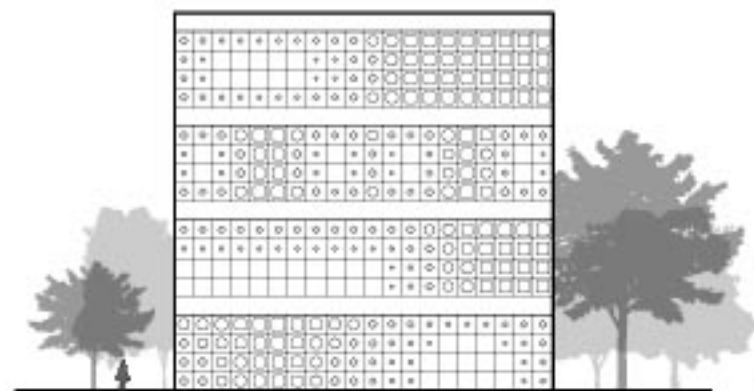


Third Floor

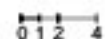
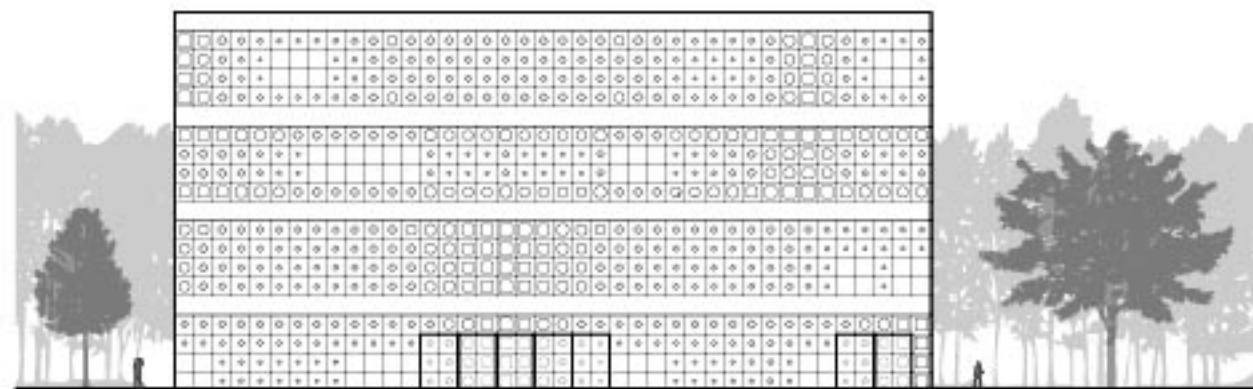
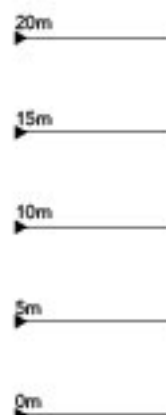




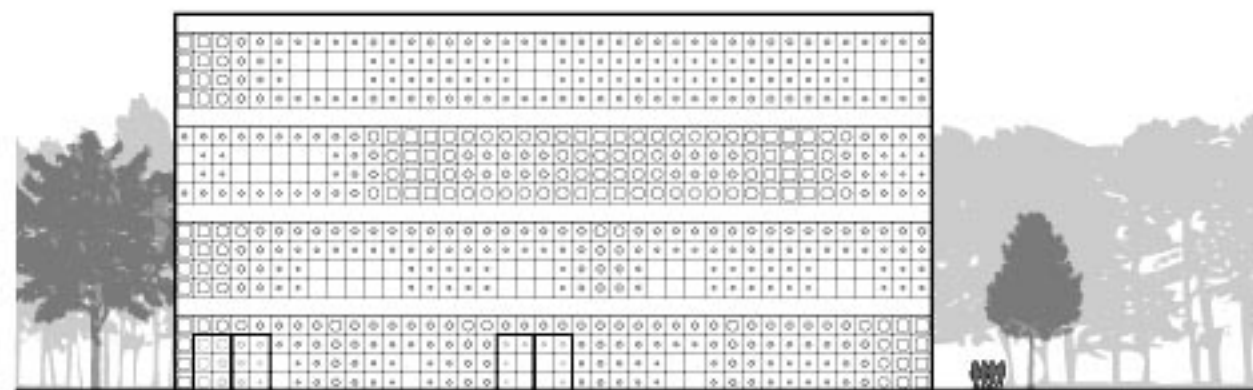
NORTH ELEVATION



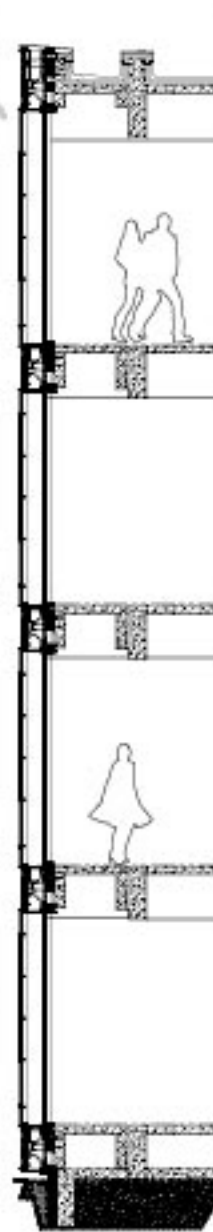
SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION



Facade Section
1:100





SWARMING PHYLLOTAXIS

Experimentelles Entwerfen SS2012

Swarming Phyllotaxis ist ein Research in Master SS2012. In dieses Research werden Voronoi-Diagramm, Phyllotaxis und Schwarmverhalten als das Verhältnis zwischen Teile und Gesamtheit entwickelt. In diesem komplexen gemischten System, steht bottom-up Prozessen, die nach unterschiedliche Bedingungen verändern können.

PHYLLOTAXIS

In botany, phyllotaxis or phyllotaxy is the arrangement of leaves on a plant stem. The term Phyllotaxis refers to the patterns on plants formed by the arrangement of repeated biological units. In nearly all cases, the Fibonacci Numbers and the Golden Ratio occur in these arrangements.



互生
Alternate



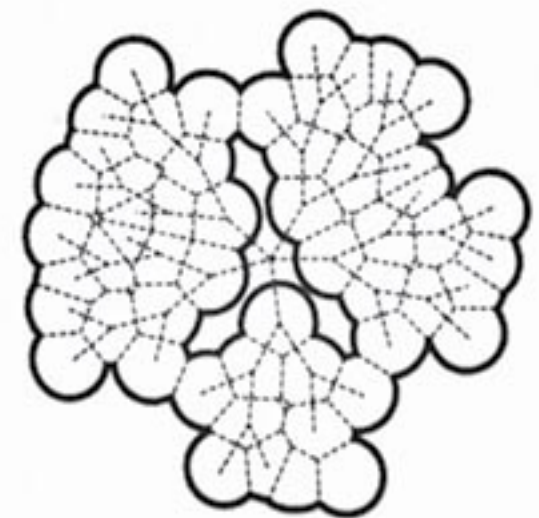
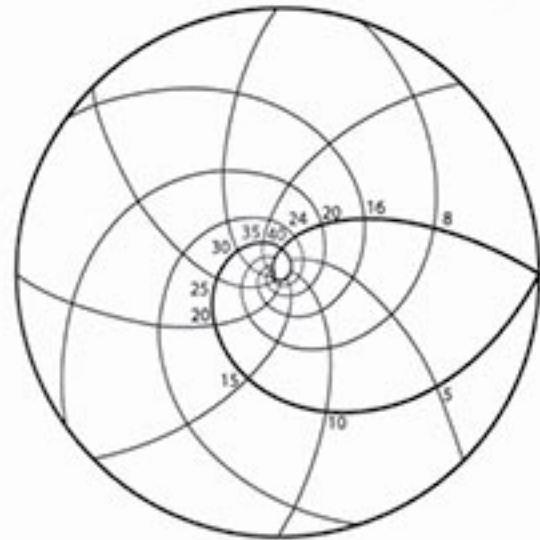
對生
Opposite

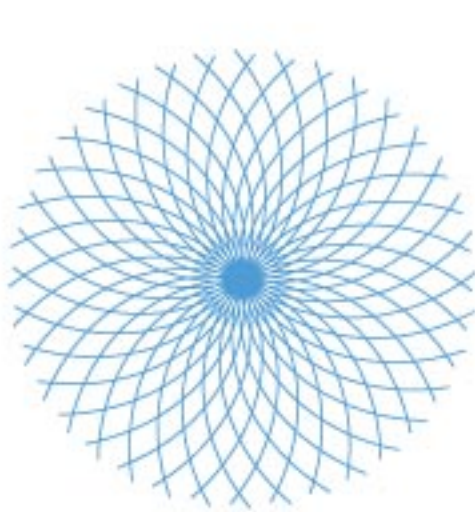


十字對生
Decussate

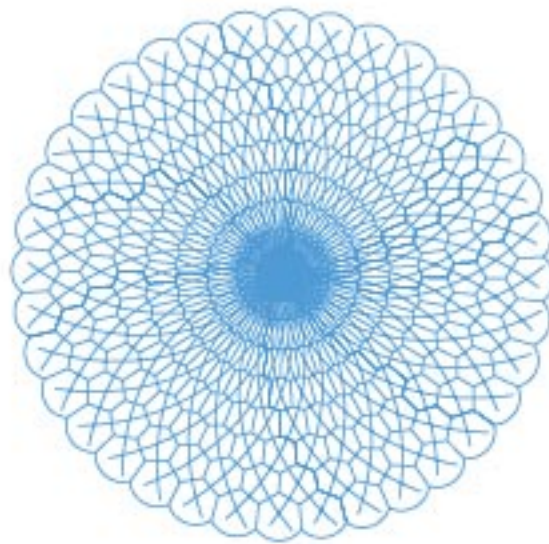


輪生
Whorled

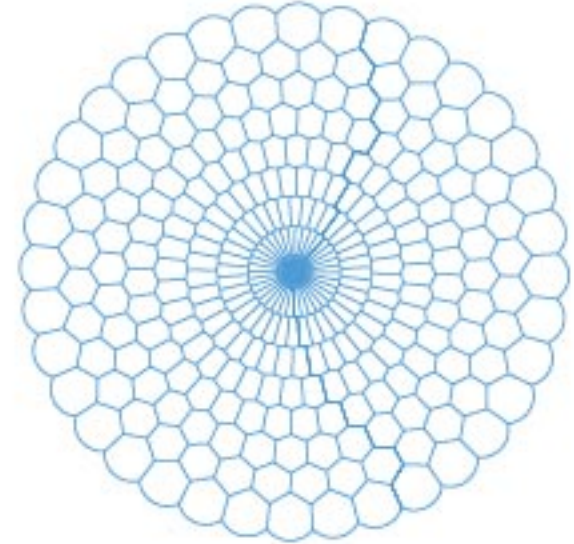




basic grid



basic grid + voronoi form



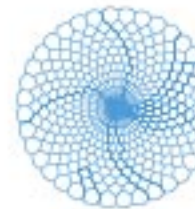
voronoi form



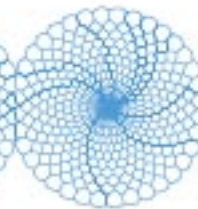
Series 15



Series 60



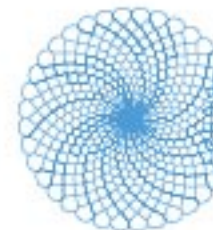
Series 105



Series 30



Series 75



Series 120



Series 45



Series 90

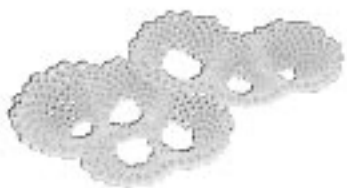


Series 135





OFFSETTYPE1



OFFSETTYPE2



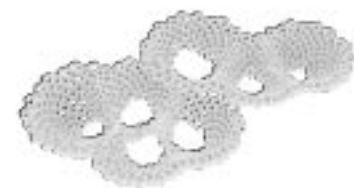
OFFSETTYPE3



OFFSETTYPE4



OFFSETTYPE5



OFFSETTYPE6



OFFSETTYPE7



OFFSETTYPE8



OFFSETTYPE9



OFFSETTYPE10



OFFSETTYPE11



OFFSETTYPE12



OFFSETTYPE13



OFFSETTYPE14



OFFSETTYPE15



OFFSETTYPE16



OFFSETTYPE17



OFFSETTYPE18



OFFSETTYPE19



OFFSETTYPE20



OFFSETTYPE21



OFFSETTYPE22



OFFSETTYPE23



OFFSETTYPE24



VF SEED=0



VF SEED=1



VF SEED=2



VF SEED=3



VF SEED=4



VF SEED=5



VF SEED=6



VF SEED=7



VF SEED=8



VF SEED=9



VF SEED=10



VF SEED=11



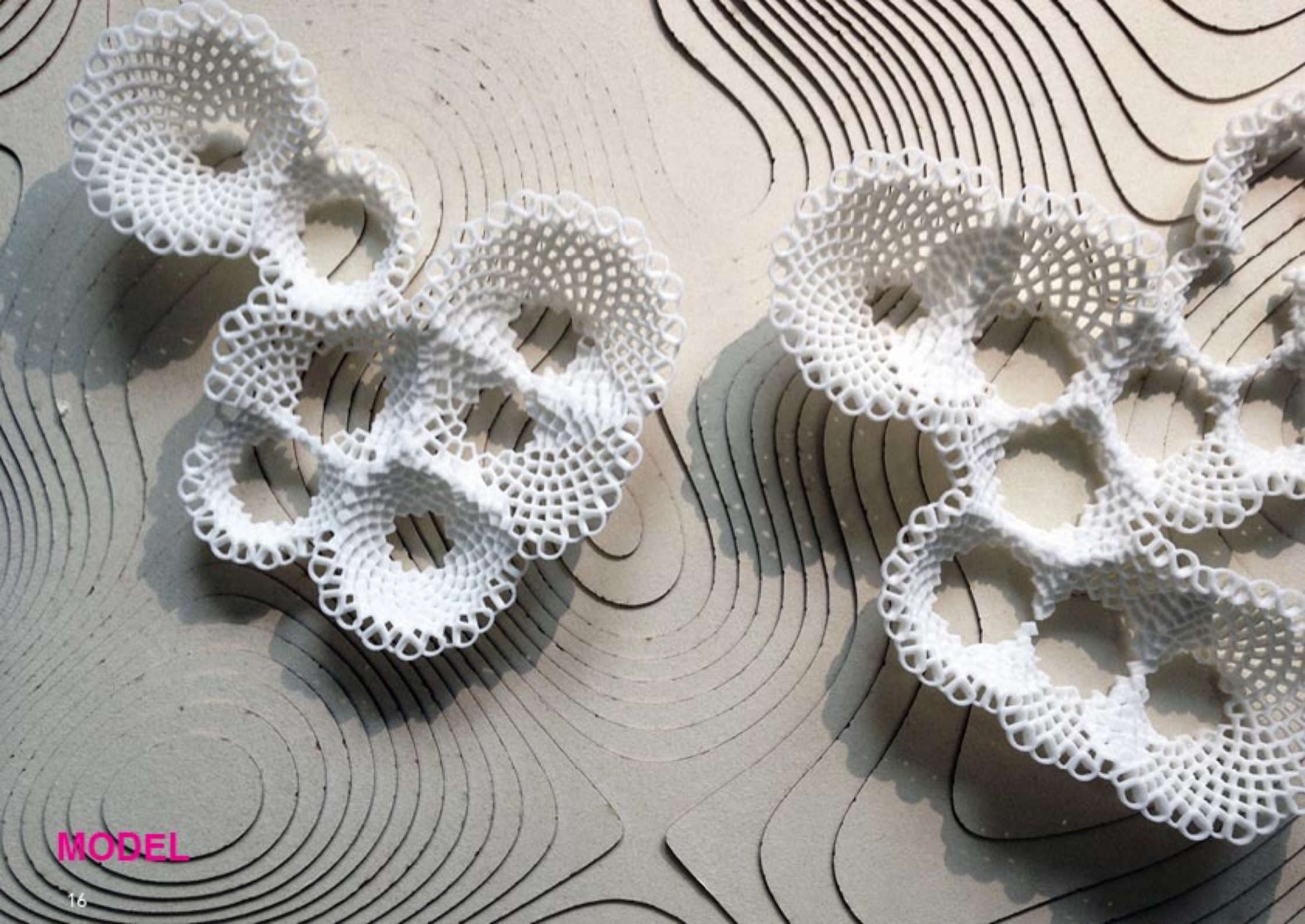
VF SEED=12



VF SEED=13



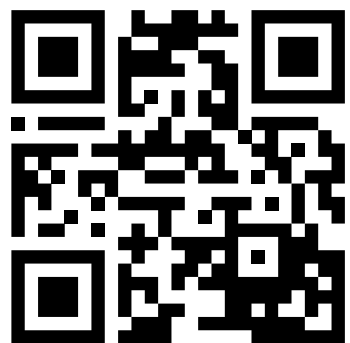
VF SEED=14



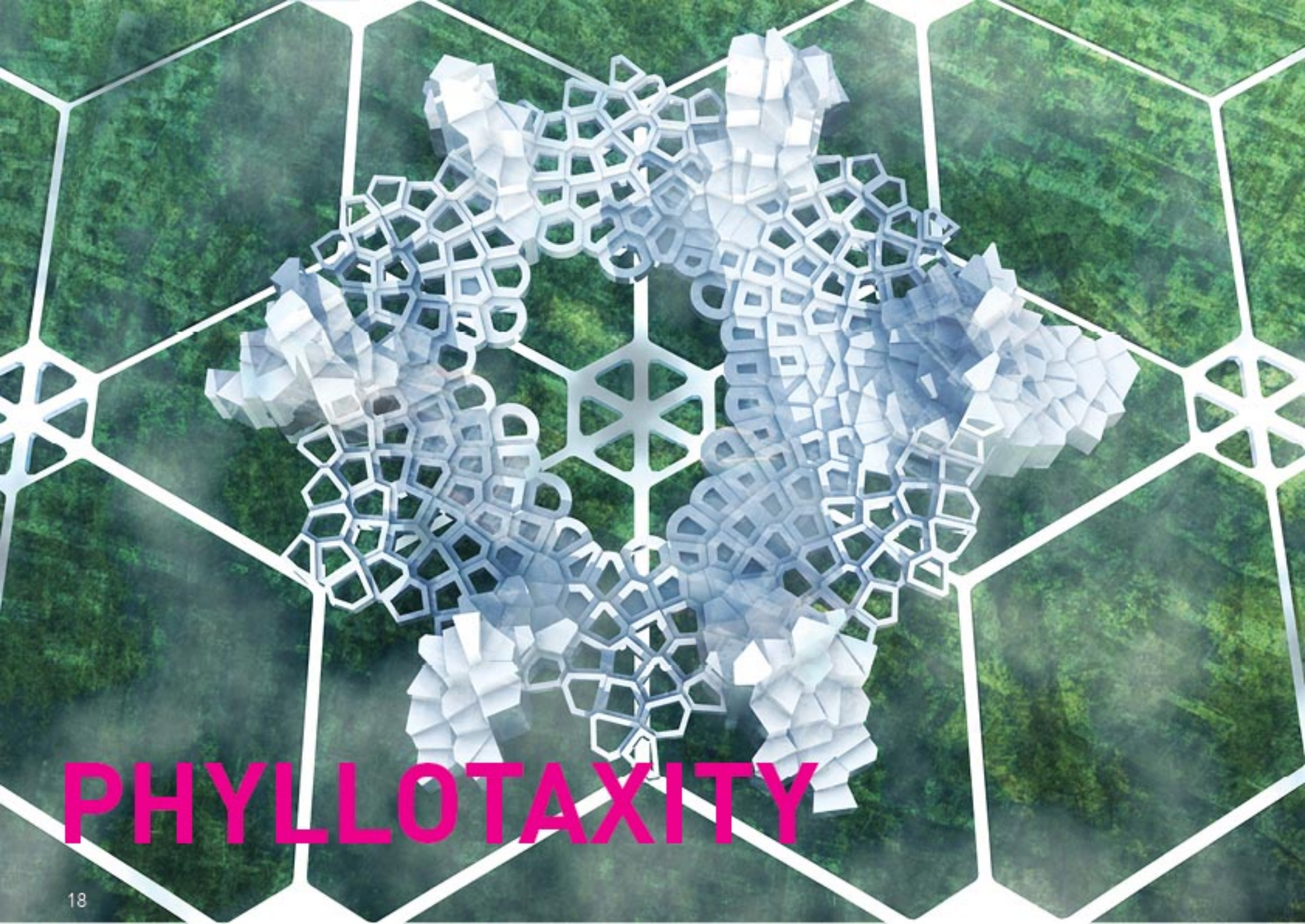
MODEL

MODEL

See more at Vimeo!

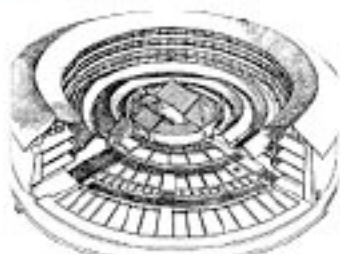


<https://vimeo.com/53868040>



PHYLLOTAXITY

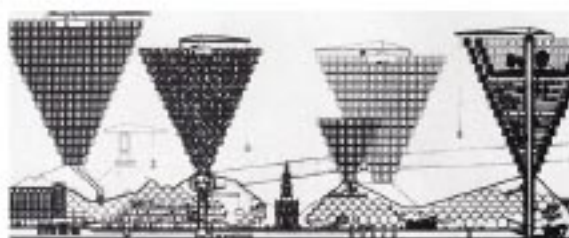
CASE STUDY



TULOU



TULOU



PLUG-IN CITY



CLUSTER IN THE AIR



FLOATING CITY

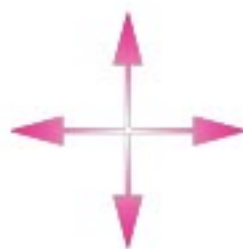
CONCEPTUAL TRANSFER



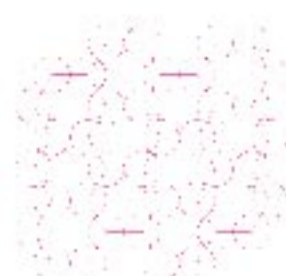
INWARD GROWTH



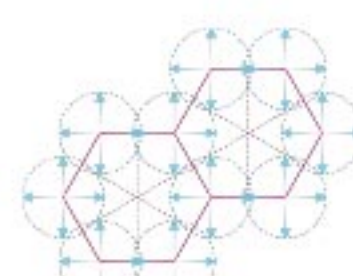
HETEROGENEOUS GROWTH



OUTWARD GROWTH



GROWTH RASTER



INWARD & OUTWARD GROWTH



HETEROGENEOUS GROWTH
WITH RASTER

SPECIFICATION



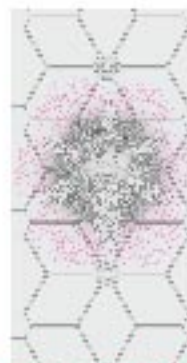
PRIVATE AREA



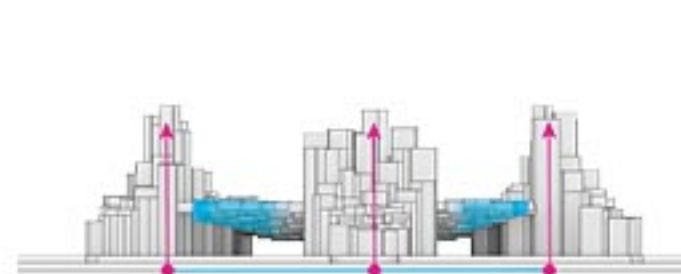
COURTYARD



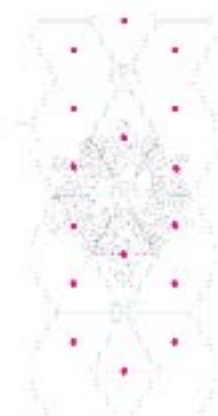
PUBLIC AREA



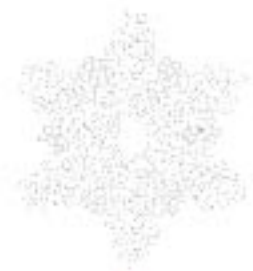
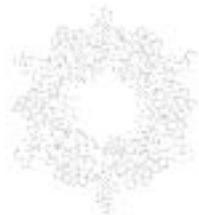
DEVELOPABLE AREA



VERTICAL TRANSPORT
HORIZONTAL TRANSPORT



URBAN RAIL TRANSIT
VEHICLE TRAFFIC

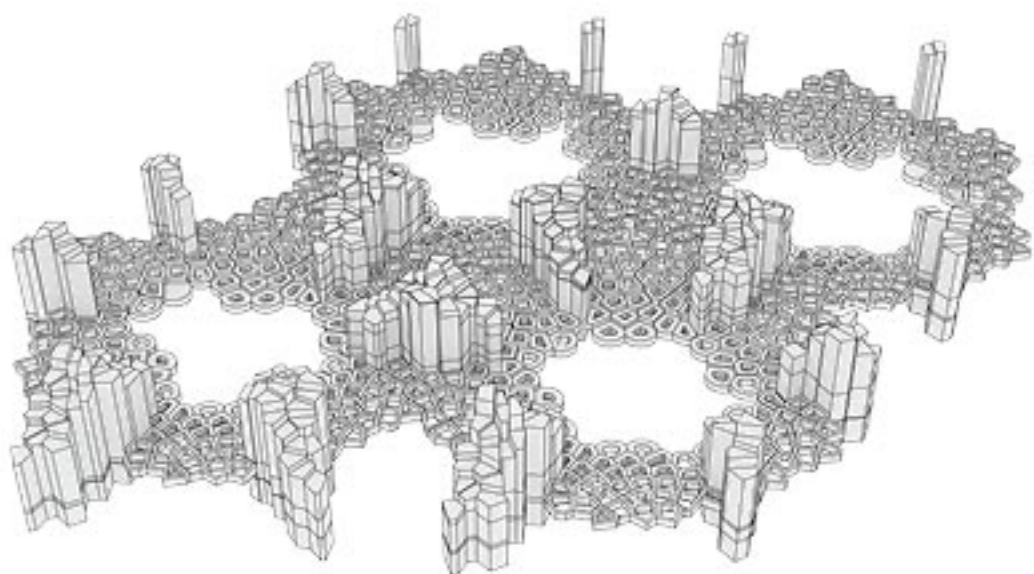
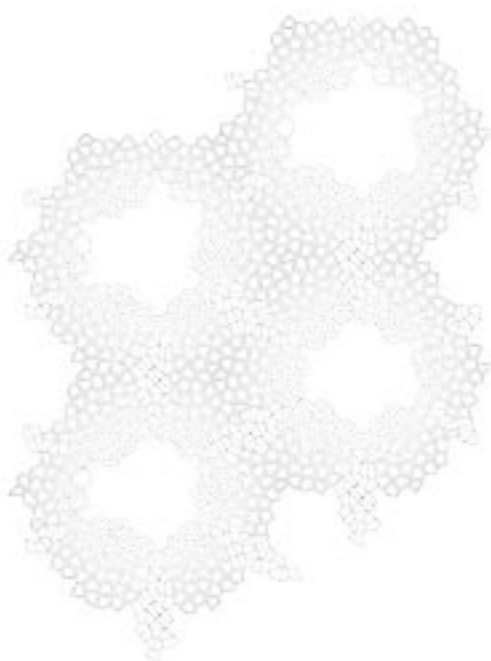


125

150

175

200







MODEL

FOLDING TESSELLATION

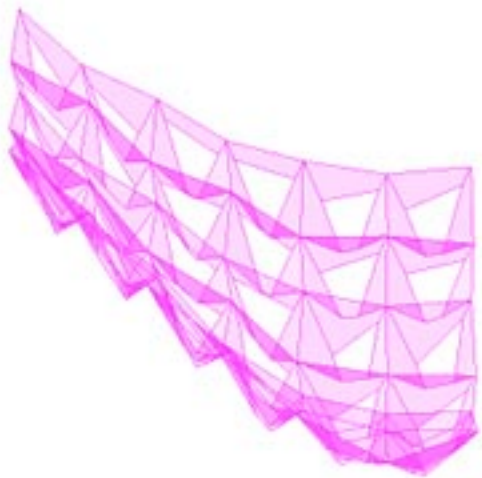


"wolkenkuckucksheim"

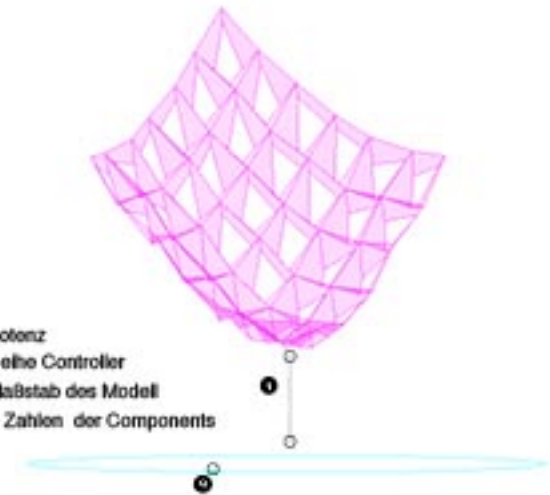
CSD computational structure design

im Masterstudium, Wintersemester 2011.12

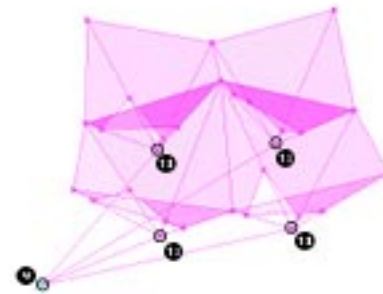
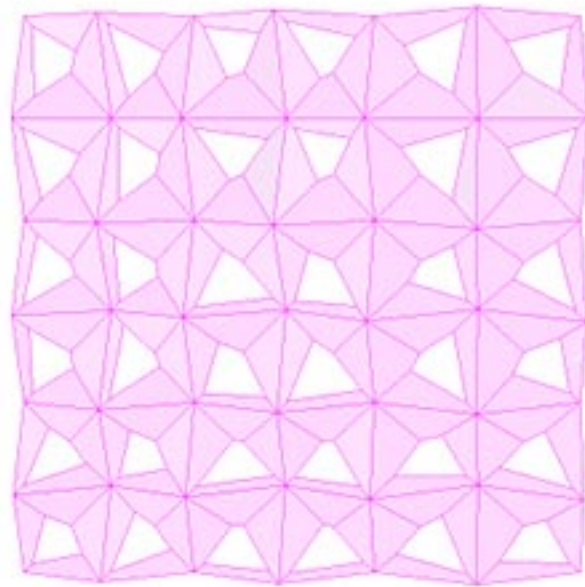
Folding Tessellation ist eine raumgreifende Struktur in der Uni. Das originale Konzept kommt aus ein Origami. Diese Folding Tessellation ist nicht nur als eine Struktur, sondern auch als ein System in der Uni steht. Die Löcher auf diesen System sind mit der Distanz von Lichtorientierungspunkte kontrollierbar.



- ① Potenz
- ② Reihe Controller
- ③ Maßstab des Modell
- ④ ⑤ Zahlen der Components



Slider Funktionen



Evaluation der Löcheröffnung



Grundriß

Pool Umkleide

ST 5.0 - Hauptf
Wintersemester 2013/2014
Lehrstuhl Darstellungsmethodik und Entwurf
Prof. Holger Hoffmann
M. St. Carsten Jansen, M. St. J. Maria Peter, M. St. J. Maria Peter, M. St. J. Maria Peter
1130402 Jean-Gao

Dieser Entwurf ist ein System der Multifunktionsmöbel für das Pool im Keller des Gebäudes H8 am Campus Hagen. Dieses System bietet Möglichkeiten für Gruppensprache, Beauftragung für die Kunst und Arbeitsplätze für Papier, Ton, und Plastik. Es gibt insgesamt 10 Laptoparbeitsplätze und 12 Desktoprechnerplätze. Alle Teile von Möbeln sind mit digitalen Produktionsdaten produzierbar und rekonfigurierbar. Die gesamte Baukosten sind nach verschiedenen Forderungen verstellbar.

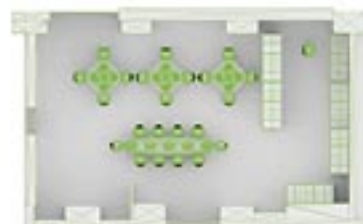
ORIGINALE RASTER
MIT
70CM KREISE



AUFSICHT 1:20
IN VERSCHIEDENE
SCHNITTE



ALLE SCHNITT
SCHNITT



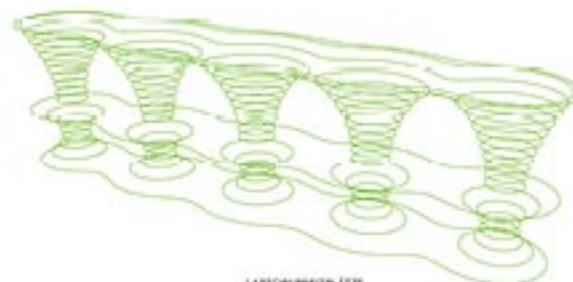
AUFSICHT 1:100



BARHÖCKER



TISCH FÜR DESKTOPRECHNER



LAPTOPARBEITPLATZ



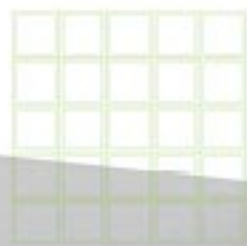
PERSPEKTIVE



PERSPEKTIVE



PERSPEKTIVE



ORIGINALE RASTER
MIT
70CM QUADRAT



JEDES QUADRAT BETRÄGT 36 PUNKTE



80% PUNKTE WERDEN VON ALLEN PUNKTEN
ZUFÄLLIG REDUZIERT



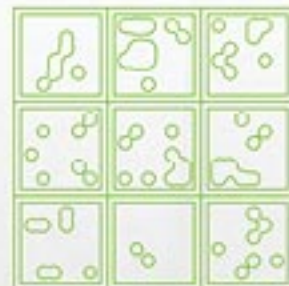
RECHNEN MIT METABALL ALGORITHMEN



AUFSICHT VON REGALE SYSTEM 1:20



DAS REGALSYSTEM HAT MODULE
VON 1% BIS 5%



异质空间

HETEROTOPIC SPACE

城市传统街巷的演绎与幻想

THE INFERENCE AND IMAGINATION OF TRADITIONAL
STREETS AND LANES

小河直街创意园区

XIAOHE ROAD CREATIVE PARK

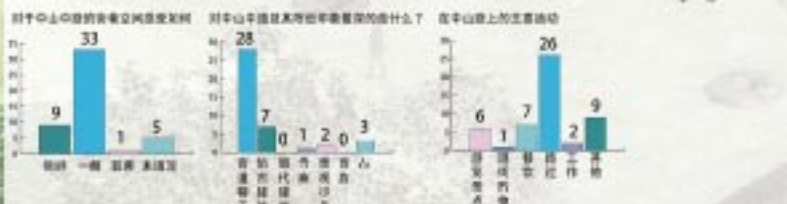
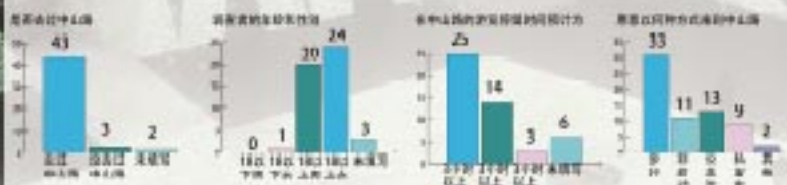
随着城市的发展,传统街巷在旧城改造中逐渐失去了原有的空间肌理,取而代之的是现代主义的均质空间。在这一进程中,人们同时也遗忘了自然的存在。异质空间身处于作为山水城市的杭州,它考虑了在最大程度延续传统街巷肌理的同时,为城市中的人们带来对自然的关注。因此在对城市之中的传统街巷的演绎和幻想中,异质空间开始了它作为异托邦的涌动。

With the developing of the city, the modernism's homogeneous space has replaced of the traditional streets and lanes while they are losing the spatial tissue during the transform. At the same time, people forget the existence of the nature in this process. The heterotopic space in a landscape city hangzhou tries its best to extend the tissue of the traditional streets and lanes, it also wants to bring the citizens' attention to nature. However, the heterotopic space begins its evolution of the inference and imagination of traditional streets and lanes.

异质空间

HETEROTOPIC SPACE

城市传统街巷的演绎与幻想
THE INFERENCE AND IMAGINATION OF TRADITIONAL
STREETS AND LANES
小河直街创意园区
XIAOHE ROAD CREATIVE PARK



前期调研选择了规模较大，改造较为成熟中山路作为考察对象，并在线上以调查问卷的形式进行了投票调查。

We choose Zhongshan Rd. which is major and mature in transformation as the object in the earlier stage of study, and vote online in the form of questionnaire.



开敞度分析
Opening Analysis



场地现状图
Status of Field



传统街巷空间原型——小河直街街区
Prototype of Traditional Streets and Lanes —— Xiaohedistrict



异质空间

HETEROTOPIC SPACE

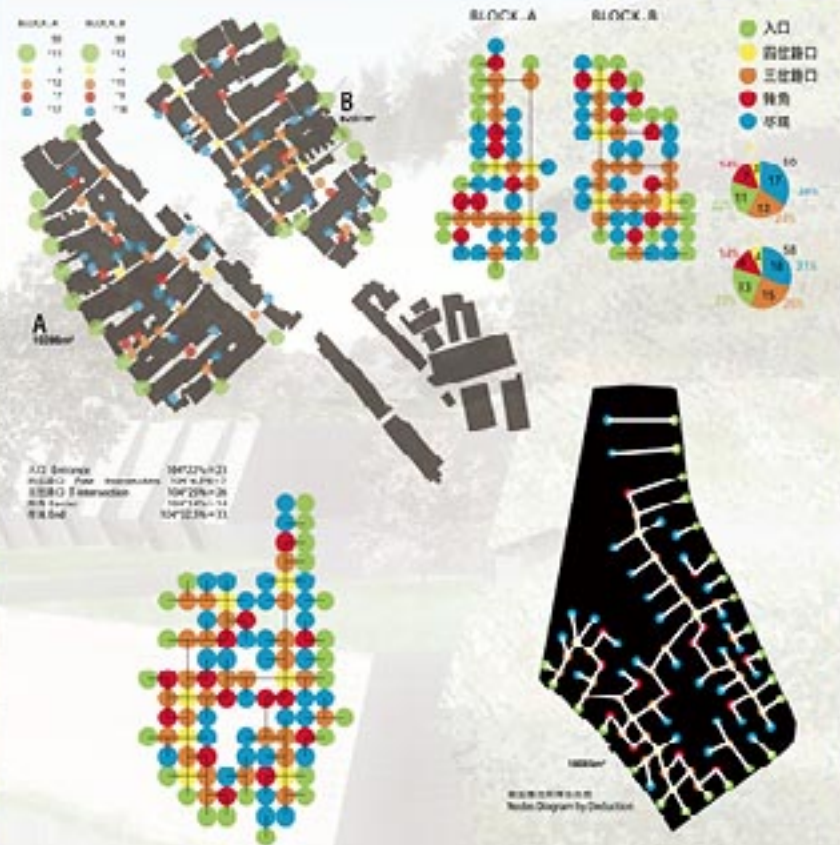
城市传统街巷的演绎与幻想
THE INFERENCE AND IMAGINATION OF TRADITIONAL
STREETS AND LANES
小河直街创意园区
XIAOHE ROAD CREATIVE PARK

为了最大限度的保持传统街巷的肌理，对小河直街创意园区设计所涉及的交通节点分布进行分析并归纳出节点示意图，根据所占面积百分比得出新地区的节点数，并将其分布于方案总用地。

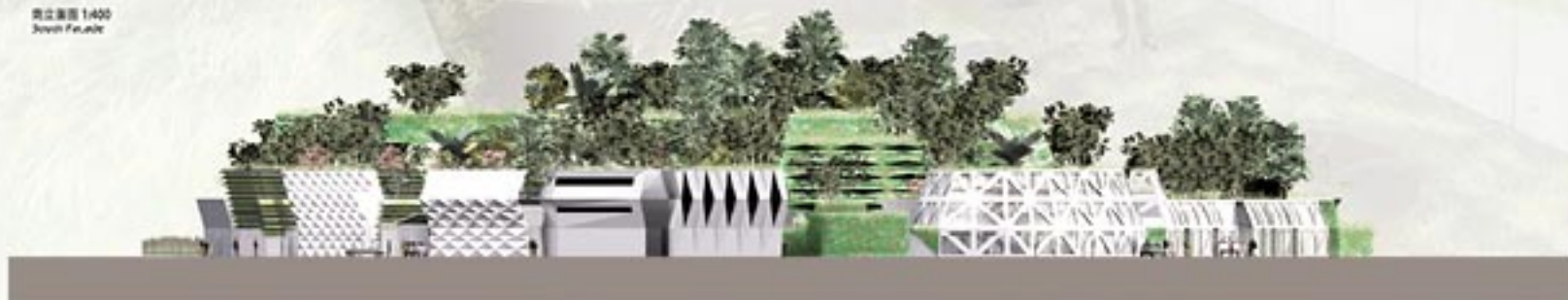
In order to keep the most tissue of the traditional streets and lanes, through the study and analysis of the traffic nodes of Xiaoheshi, and generalize the nodes diagram, according to the percentage of occupied area of the nodes in the new area, and to distribute in the location.



开敞度分析
Opening Analysis



鸟瞰图 1:400
Aerial View



异质空间
HETEROTOPIC SPACE

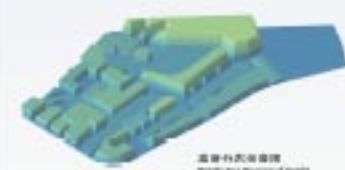
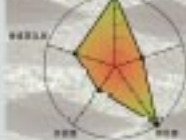
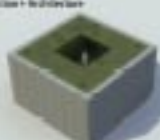
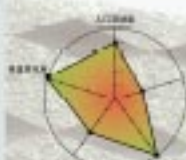
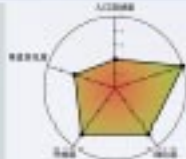
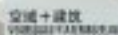
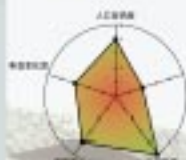
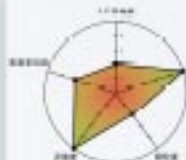
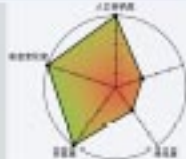
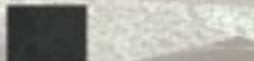
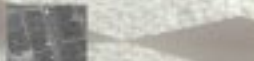
城市传统街巷的演绎与幻想
THE INFERENCE AND IMAGINATION OF TRADITIONAL
STREETS AND LANES
小河直街创意园区
XIAOHE ROAD CREATIVE PARK

将杭州城市宏观异质空间转换为微观异质空间构成,并使其相互组合形成新的空间。通过对这些新的空间分析、评价、组合,产生了整个创意园区的构成。

新的空窗的译给编以下5个变量的值来体现:
人口容纳度/ 亲水度/ 绿化度/ 开放度/ 垂直变化度

Transform the main feature space into feature sets consisting of *log*-transformed, and continuous values from the input space, through the analysis, evaluation and combination of the main space's features to achieve a better result.

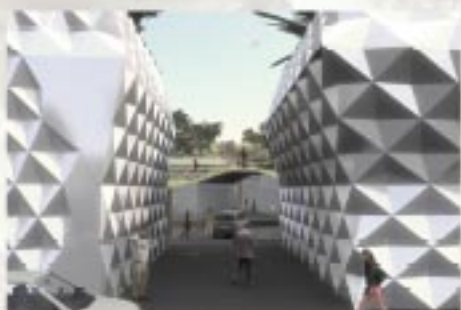
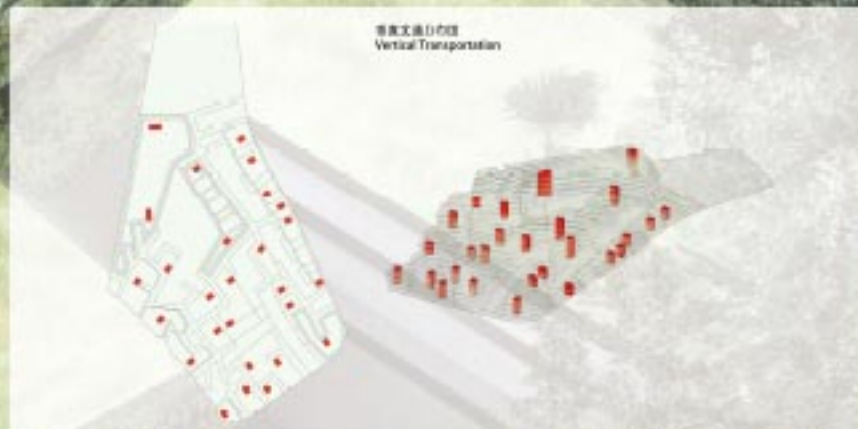
The evaluation of the new area is reflection on five aspects:
Population Water Capacity Green Opening Natural
Value



异质空间

HETEROTOPIC SPACE

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北亞細亞 1403
Akashi, Euzetta



异质空间

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功能分布示意图
Function



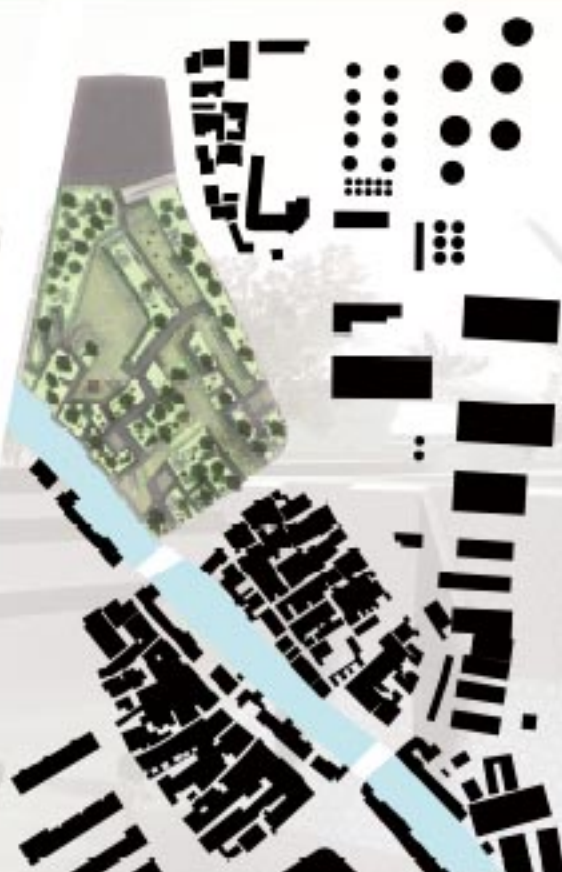
剖面图 1:2000
Section

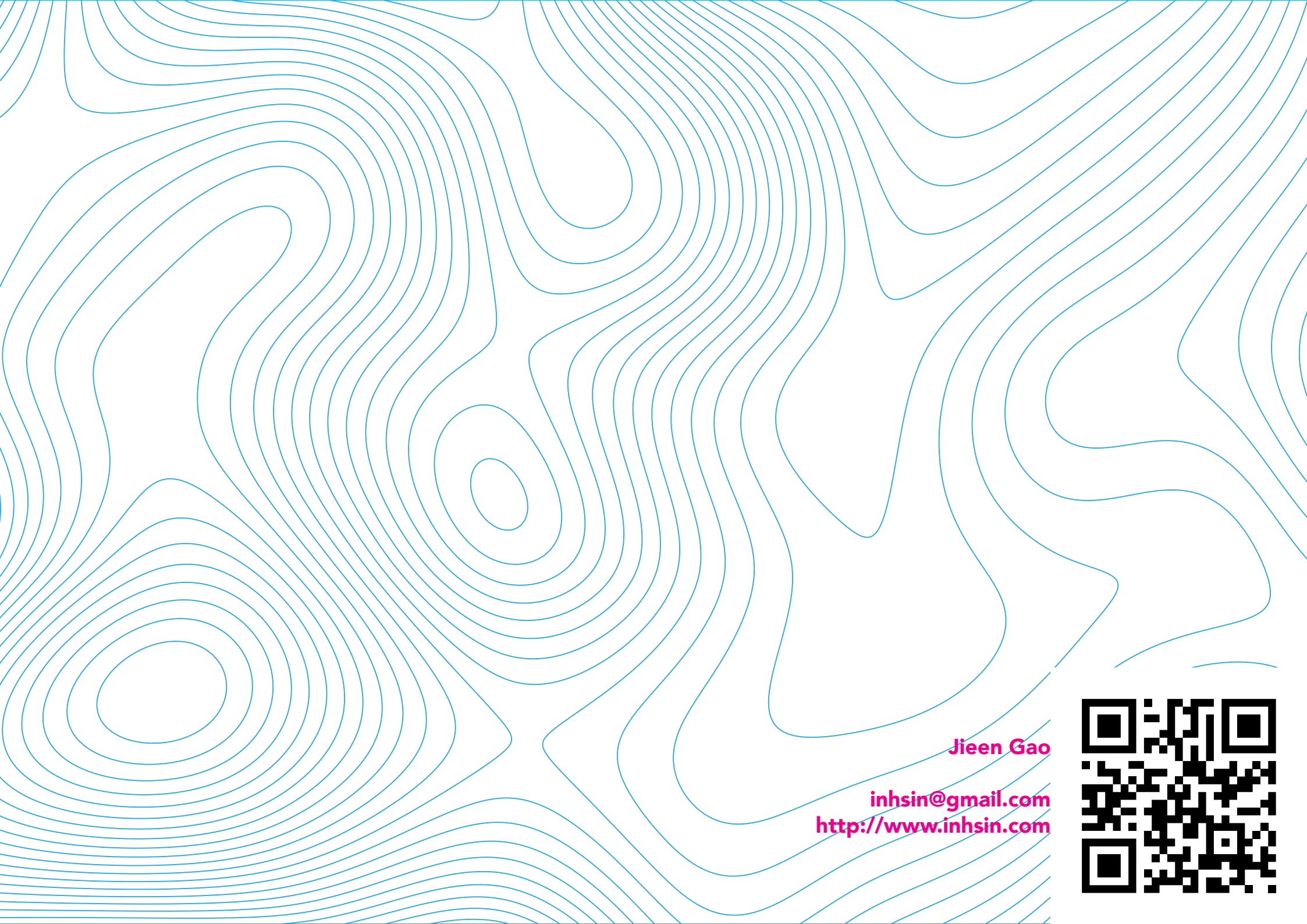


鸟瞰图 1:400
Aerial View



总平面图 1:2000
General Plan





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