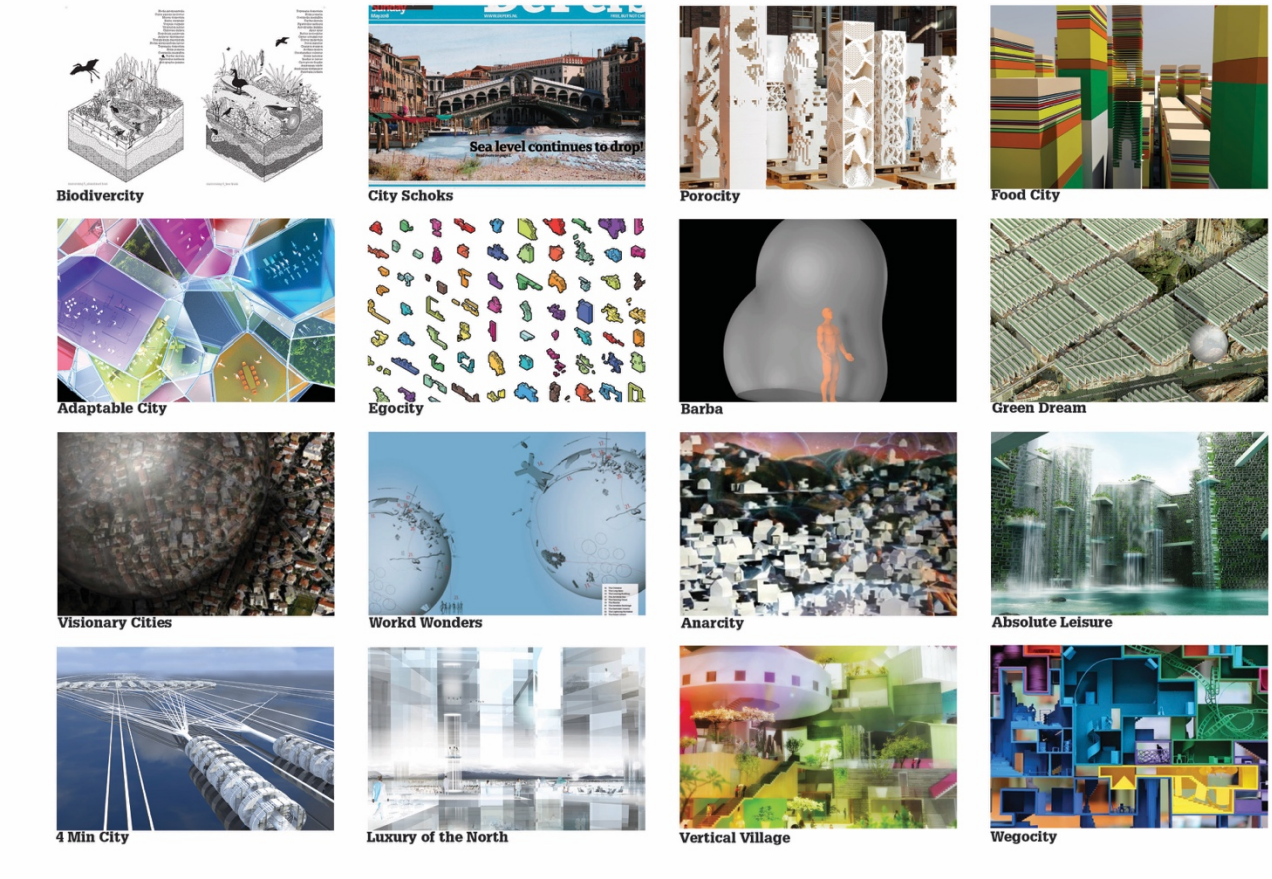
The Why Factory

Our World, Our City, Our Block



Fall 2016 Academic Program

Why?

According to the United Nations Population Prospects, the world population will reach 11 billion in 2100[1]. This growth brings with it significant social, economic, and environmental challenges. Climate change, environmental impacts (and their public health implications), social and demographic frictions, economic and planning policy, to name a few, all heavily influence and are shaped by the sheer numbers of people living in or moving to cities around the world.
What will be thus the footprint of 11 billion inhabitants? How much is it that we need? What are the impacts of those needs? What are the design products necessary -at different scales- to fulfil these needs and absorb their impact? Can development rely on scenarios instead of planning?

Throughout the 20th Century, from the CIAM declarations to SIM City, architects, urban designers and a multitude of stakeholders have tried to decompose the different components of the city into matrices, lenses, layers, categories…, looking at programs, densities or functions. Despite all efforts, this attempt often resulted in a simplistic top-down interpretation of settlement.
In a trend against romantic and formally driven responses, the functionalist movement relied on mapping tools, demographic surveys, light and sun exposure. It did not stop in the improvement of buildings: the movement went all the way to the urban scale and defined the future policies regarding planning for most of the century. Those urban 'layers' were often too rigid and soon outdated. Parameters such as time, evolution, resilience or sustainability, for instance, were barely included in the urban development considerations until a decade ago.

In the past 10 years, The Why Factory has explored -independently- a multitude of alternative approaches to the construction of the city and developed a wide array of scenarios: Biodiversity (*Biodivercity*), Permeability (*Porosity*), Connectivity (*4minCity*), Automation (*Robotic City*), Density (*Vertical Village*), Sustainability (*Green Dream*), Freedom (*Anarcity*), Self Sufficiency (*Food City*), Flexibility (*Barba*), Customization (*Egocity*), Leisure (*Absolute Leisure*), Inventions (*World Wonders*).

Now, in the academic year 2016/2017, the different Studios that The Why Factory will offer (MSc1 and MSc ¾ at TU Delft, IIT Chicago and GSAPP New York) are an invitation to look at the city through a multitude (or an almost unlimited number) of filters simultaneously, and to test the capacity of adaption of a home, a slab, a tower, a neighbourhood, a city, a region... to the application of this new agenda. Let us turn the construction of the city into a demountable, elastic and malleable act.

[1] *World Population Prospects*. United Nations, 2015

T?F Fall 2016 Academic Program

All studios (MSc1 and MSc3/4 in Delft, IIT in Chicago and Delft, and GSAPP in New York) will share a common point of departure -the *Cloud Workshop*- and a common agenda, which will further be developed at different scales -"Our World", "Our City" and "Our Block"- by each studio.
Throughout the Fall, a series of transversal reviews will be announced, so that students can follow the work undertaken by other studios in other locations. At the end of the semester, a large body of work will be available for future compilation and dissemination.

1. Cloud Workshop: The 11 Billion People City

TUDelft Msc1, TUDelft Msc3/4, IIT, GSAPP (78 students)
September 12-16, 2016
Instructors: Winy Maas, Javier Arpa, Adrien Ravon, John Manaves, Patrick Janssen
Teaching Assistant: Chun Hoi Hui

2. Our World

TUDelft Msc1 (42 students)
Instructors: Winy Maas, Tihamér Salij, Diana Ibáñez López, Stavros Gargaretas
Future Models Seminar Instructors: Paul de Ruiter, Michaela Turrin
Building Technology Instructors: Ferry Adema, Erik Hehenkamp

3. Our City

IIT Chicago (11 students)
Instructors: Winy Maas, John Manaves, Félix Madrazo, Arend van Waart

4. Our Block: at Home in the Slab

GSAPP Adv V Studio, New York (12 students)
Instructors: Winy Maas, Javier Arpa, Adrien Ravon

5. Our Block: at Home in the Tower

TUDelft Msc3/4 (13 students)
Instructors: Winy Maas, Adrien Ravon, Javier Arpa
Future Models Seminar Instructor: Arend van Waart

Our Block: at Home in the Slab

GSAPP Advanced V Studio. Fall 2016

Instructors: Winy Maas, Javier Arpa (javier@thewhyfactory.com), Adrien Ravon (adrien@thewhyfactory.com)

From CIAM Planning to Scenario Testing

What's the scenario? A constantly mutating sequence of possibilities. Add a morsel of difference and the results slip out of control, shift the location for action and everything is different. There is a fundamental gap between societies that base their development on scenarios and those that base their development on planning...[2]

During most of the CIAM era, the city had been clearly divided in four areas: habitation, leisure, work and traffic. Bypassing the crisis of modern planning and the response of formal gestures given by postmodernism, we encounter ourselves back at the point where we do have a hope on the power of understanding cities through science and technology. Yet the challenges that we encounter nowadays differ from those of modern planning: we do need housing, work, leisure and traffic policies -indeed-, but at the same time we need to be aware of how nowadays our footprint impacts the planet at scale not seen during the Modern era.

How much food and where it is produced come, for instance, to the equation, as well as the type of governance that better responds to current demands. What about animal species that were basically neglected from urban life for decades? How does energy consumption define what a city can be? As new concerns arise, designers must devise a method for confronting the ever increasing number of parameters that the city needs to address.
Yet contemporary design rarely – if ever – takes those scenarios into account. Rather, design disciplines continue to engage the task of planning and designing for new settlement in fixed, singular and unresponsive ways that presume the preferred outcome is the only one worth elaborating. However, designers need to begin thinking in terms of scenarios, contingency and variability[3]. On that score, during the Fall Semester 2016, students will be confronted to a multitude of *what if's?* that will shape their design.

As previously mentioned, throughout the *Cloud Workshop* in Delft, students will start by looking at the fabrication of the city through a multitude of filters, and to commonly define a series of hypothetical scenarios that will affect the future agenda of design.
What if the average global temperature rises 6C instead of 2C by 2100? What if national borders are eliminated? What if regulations impose a minimum global FAR of 20?...
During the semester, all students will be asked to test those scenarios at different scales. While students in MSc1 and IIT students in Delft apply their scenarios at a regional or urban scale, GSAAP Advanced V Studio students will test their hypothesis on a housing slab. In the meantime, MSc3 students at TU Delft will be working at a similar scale: the housing tower.

The studio will be organized topically as follows:

1. Cloud Workshop
The 11 Billion People City.
2. Future *Neufert*
At Home.
3. Theoretical Model
My Slab.
4. The Act of Mixing
Our Slab.

[2] *Five or Six*. Liam Gillick. Edited by N. Schafhausen, F. Kunstverein, and C. Schneider. Sternberg Press, 2000
[3] *The City That Never Was*. Christopher Marcinkoski, Javier Arpa. The Architectural League of New York, 2013

1. Cloud Workshop: The 11 Billion People City

September 12-16, 2016
Instructors: Winy Maas, Javier Arpa, Adrien Ravon, John Manaves, Patrick Janssen
Teaching Assistant: Chun Hoi Hui

Excel Mania (12-15 September)

Beyond CIAM

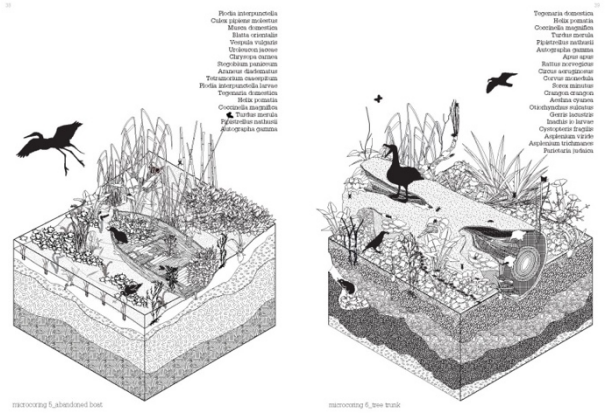
During the first part of the workshop, students will develop an illustrated matrix that combines the different topics, ingredients, parameters and units of measurement involved in the calculation of the footprint of a hypothetical city of 11 billion inhabitants, from the global to the domestic scale.

What do 11 billion people need? What does one person need?
We will analyse typologies, heights, floor area ratios, accessibility, energy, biodiversity, food, automation... We will measure and compare, hopefully, all that can be quantified. But we shouldn´t avoid getting to the bottom of the matter, to the bottom of the wishing well that the city represents to its inhabitants. Let´s speak about the world in the first person too.
Students will work in teams of three (26 groups of 3 students from different universities). Each group will focus on a given topic and will produce one large excel file illustrated with axonometric views.

Data collection: Students will explore different sources (from CIAM declarations to the CIA *World Factbook*, from the UN reports to Monocle rankings, etc…) so as to build a vast inventory of the different components that have an impact on a 11 billion people city footprint.

Parameters: How to measure our global footprint? Students will refine and organize a list of parameters to help calculate the 11 billion people city footprint (quantity, length, height, area, volume, light, noise, CO2 emissions, energy consumption…).
The information will be organized following a dimensional sequence: length (Km1), area (Km2), volume (Km3), time (Km4), other (Km5?)[4]...

Axonometric views: Students will develop a collective catalogue of standard elements included in the global footprint calculations (from wind turbines to urban blocks, from flora, fauna or transportation infrastructure to personal needs...). This catalogue will serve to define the graphic language to be used by all students from different universities throughout the semester.



Biodivercity, *The Wild City*. The Why Factory & Giovanni Bellotti, 2011

[4] *KM3: Excursions on capacity*. MVRDV. Actar Publishers, 2005

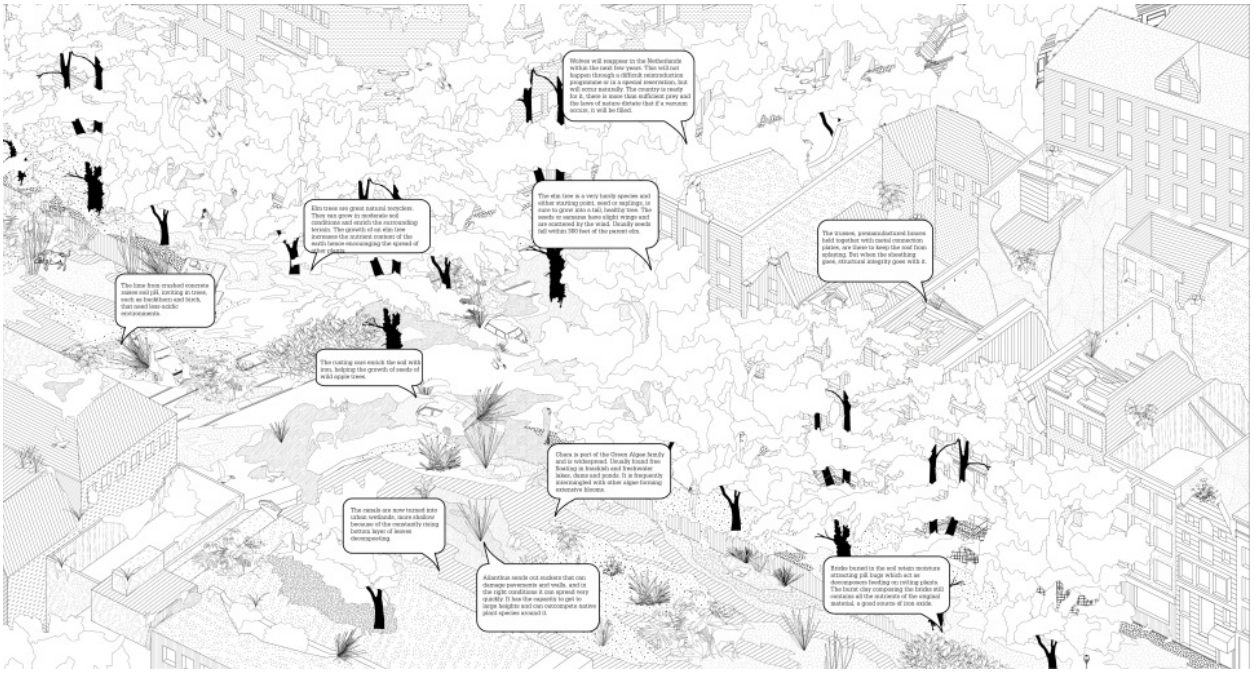
Future Scenarios (16 September)

What if...?

In the last day of the workshop, having understood that there is a multitude of components with an impact in the 11 billion people city footprint, students will propose a list of future scenarios at the scale of 'our world', 'our city' and 'our block'.

Scenarios: Students will produce a collection of almost 100 hypothetical future scenarios (each group of 3 will produce 3 scenarios): What if cars disappear? What if solar energy is the only resource available? What if we are forced to live in complete autarchy?... Those future scenarios will be developed in relation with the data gathered during the *Excel Mania* exercise. Students are expected to have attained a certain degree of understanding of the vast array of consequences and implications of these different scenarios.

Production of Visions: Each team will develop one vision per scenario (3 visions per group). Each vision will be explored at four different scales: 'our world', 'our city', 'our block' and 'our home'. Those different scales are determined by four distances in Google Earth (1000km, 10km, 1km and 10m)[5]. Each team may focus on a different location in the planet. Visions will be produced using Photoshop. The four slides will be included as an animated sequence.



Biodivercity, *The Wild City*. The Why Factory & Giovanni Bellotti, 2011

[5] *Powers of Ten*. Ray and Charles Eames. Movie, 9 minutes, 1977

Cloud Workshop Schedule

GSAPP Advanced V Studio Students are required to be present for registration at the "Orange Tribune" on Monday September 12th at 9 am. Our address is:

The Why Factory
Faculty of Architecture of the TU Delft
Julianalaan 134
2628 BL Delft
The Netherlands

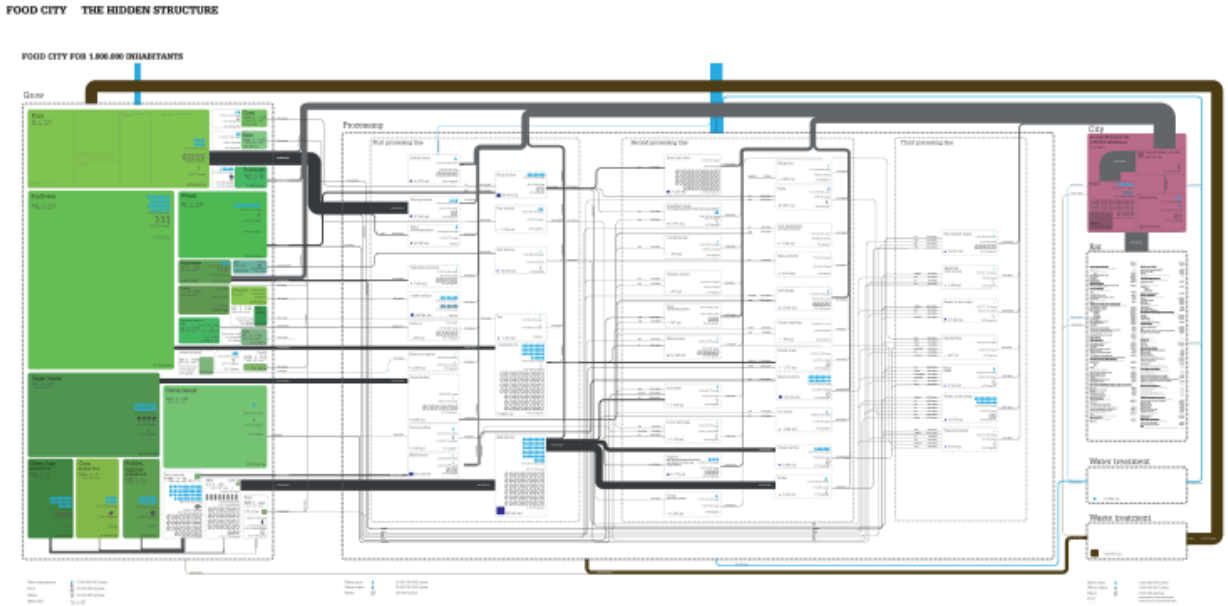
Monday, September 12, 2016
Semester Presentation and Workshop introduction. 10 am / Room K
Excel Mania – Data collection
Review with Winy Maas. 6.30 – 8:00 pm / Room K

Tuesday, September 13, 2016
Excel Mania

Wednesday, September 14, 2016
Excel Mania

Thursday, September 15, 2016
Future Scenarios

Friday, September 16, 2016
Presentation Preparation
Final workshop review with Winy Maas. 3.00 – 6:30 pm / Room K
At the end of the day, Exercise 1 (*Narratives and Calculations*), will be assigned, and we will decide which scenarios will further be explored during the semester.



Food City: Grow, Process, Eat, Digest. Lara Tombholt with The Why Factory, 2011

2. Future *Neufert*. At Home

When we imagine ourselves living in the city and we superimpose the figure and the background -living in the city, the neighborhood, the desired house... - it is our desires which sketch out the scene while we throw these down into the well which will make them possible. During this intimate moment, neither planning regulations, nor developers, not even the banks, intervene. We are alone, wandering around an imagined house, where all is the future. [6]

The construction of "our world", "our city" or "our block" must not forget *our* needs. Nor should it forget *our* home, nor should it forget that every home should be a unique dwelling full of motives for its future residents to want to live there. For this reason, the future scenarios previously selected during the workshop (one per student) will be applied at the scale of the individual. What does one person need? What does one person want? What is the house one would wish to inhabit? How do scenarios impact my home and my desires? What would my personal space be like if...?
Students will produce a narrative, calculations, diagrams, drawings and a physical model of a housing unit inhabited by one person that responds to the initial scenario.

Exercise 1. Future scenarios: Narratives and Calculations

We will look at the collection of scenarios proposed during the workshop in Delft and will elaborate a critical analysis of those scenarios, their impacts at different scales, the transformations they imply and the narrative derived from them. The particular interest here is in how larger economic, climatic, political, social, energetic, productive, environmental or material flows will influence and shape the future transformation of urban form. It is important to formulate a research hypothesis before taking on this exercise. Our work then will focus in developing a narrative originated by the selected hypothetical scenarios. This narrative will serve as a tool to start mapping the quantitative impacts of your scenarios on the needs of an individual. You will propose a storyline, draw diagrams, and perform calculations.
The exercise will require substantial research: reference data must be carefully considered and critically employed. In some cases, you will have to invent ways to visualize this information. In other cases, you will need to modify or manipulate its representation. What you should not do, under any circumstance, is simply reproduce content that you find in your research. You must interpret or frame it in some particular way. In this sense, the exercise is as much about analysis as it is about developing a mapping language capable of expressing the contexts in which your work resides.

The precise format of the deliverables will be indicated on the day of the assignment of the exercise.

Assigned: Friday September 16, 2016
Please note that this exercise will be assigned at the end of the Cloud Workshop in Delft.
Due: Monday September 26, 2016

Exercise 2. Future Homes

In this exercise, students will produce a 3d visualization of their future home. This 3d model should reveal the impacts of the scenario selected on a dwelling unit for one person. This exercise will lead to the production of new housing typologies. What will a dwelling look like after cars disappear? What if solar energy is the only resource available? What area does a totally self sufficient housing need?
How to achieve maximum biodiversity, permeability, accessibility or flexibility at the scale of the housing unit?
You will develop their design proposal for a dwelling unit for one person, and will produce floor plans, sections, 3d axons and physical models.

The precise format of the deliverables will be indicated on the day of the assignment of the exercise.

Assigned: Thursday September 26, 2016
Due: Monday October 3, 2016

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[6] *Density and Desire.* In *Density is Home: Housing by a+t Research Group.* Aurora Fernández, Javier Arpa, Javier Mozas. a+t Publishers, 2011

Exercise 2. Schedule

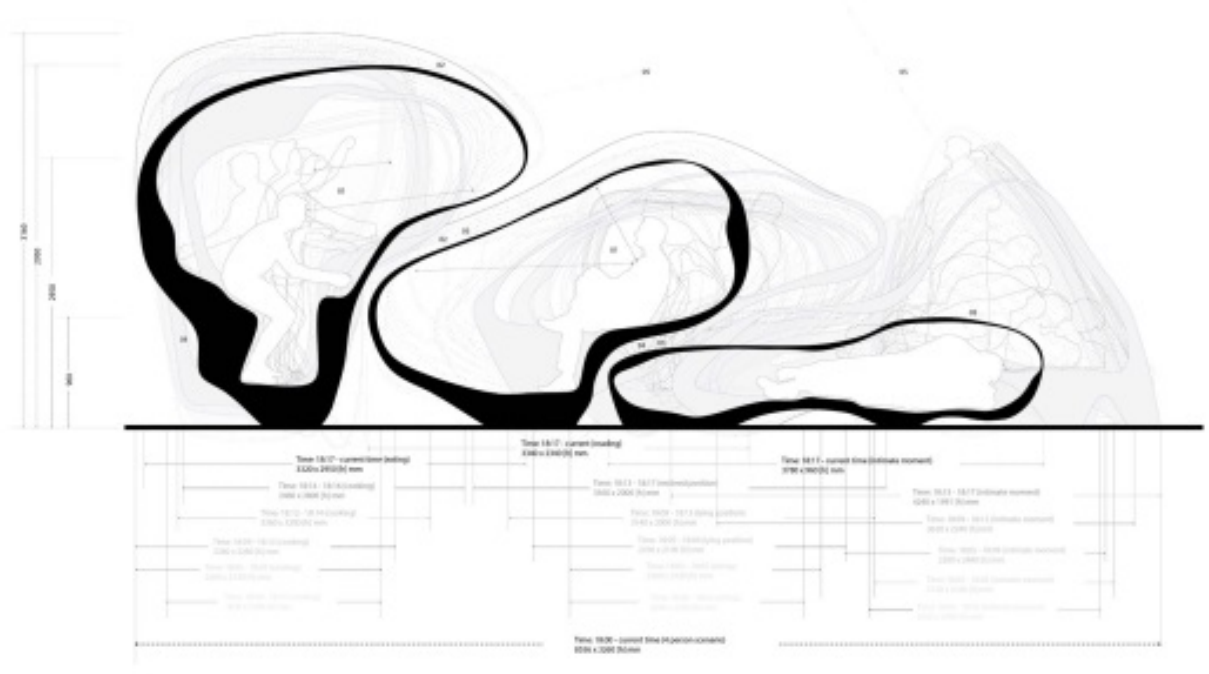
Monday, September 19, 2016 (Adrien Ravon)
Lecture: *T?F Methodology – Why a scenario?*
Group Discussion: *Why a Scenario?*
Exercise 1. Desk crits.

Thursday, September 22, 20 (Adrien Ravon)
Exercise 1. Desk crits.

Monday, September 26, 2016 (Javier Arpa)
Lecture: *The City that Never Was*
Review of Exercise 1.
Exercise 2. Desk crits.

Thursday, September 29, 2016 (Javier Arpa)
Lecture: *The City that Never Was*
Exercise 2. Desk crits.

Monday, October 3, 2016 (Winy Maas, Adrien Ravon)
Review of Exercises 1 and 2.



Barba: Inhabiting Zero Wasted Space. Stavros Gargaretas with The Why Factory, 2013

3. Theoretical Model. My Slab

The future of the city depends largely on its agile response to changes, to new environmental requirements, and social and economic transformations. The purpose of this studio is therefore to test the adaptability of traditional urban forms to the application of a new urban agenda. To do so, in this part of the studio you will apply the scenario narrative and calculations developed during the first weeks to a classical urban form: the housing slab.

Towers and Slabs are probably the most contradictory products in the history of the modernist mass housing block, and are home to millions of city dwellers around the world.

Few urban forms have roused as much controversy. While in the United States decades-long criticism caused the demolition of most mass housing projects for the poor, in the booming metropolises of Shanghai and Mumbai remarkably similar developments are being built for the wealthy middle class. While on the surface the modernist apartment block appears universal, it is in fact diverse in its significance and connotations as its many different cultural contexts.

... the modernist vision to house the masses in serial blocks succeeded in certain contexts and failed in others. Success and failure, in this respect, refers not only to the original goals – to solve the housing crisis and provide modern standards for the entire society – but equally to changing significance of the housing blocks within the respective societies and their perception by architects, politicians, and inhabitants.

These differences show that design is not to blame for mass housing's mixed record of success. The comparison of the apparently similar projects suggests that triumph or disaster does not depend on a single variable but rather on a complex formula that includes not only form, but also social composition, location within the city, effective maintenance, and a variety of cultural, social, and political factors.[7]

Our work through the semester will focus thus on a traditional urban form -the slab-. We will test its capacity to build a resilient city, regenerate the urban tissue, face contingencies, anticipate disruptions and inflections and cushion the consequences.
In this part of the studio, you will start by adapting your scenario based housing unit for one person to a multitude of users. This will allow you to produce a catalogue of housing typologies ranging from one to 12 residents.
The next step will be the production of a series of 12 housing slabs (one per student) based on the 12 scenarios that each of you are studying. The slab's dimensions will be 200 x 50 x 50 m (L x W x H).

Exercise 3. Future Users

In this exercise, you will need to modify the initial cell for one individual in order to include a multitude of users. From single family units to student's housing, from people at risk of exclusion to artists' ateliers or the *weirdest* possible user…your cells will need to adopt new configurations, resulting in a large diversity of typologies. Your actions on the initial cell will thus promote the integration of everyone within the city, introducing suitable types and sizes of housing for different lifestyles, people of certain ages or specific groups.

The format of the deliverables will be indicated at the time of the assignment of the exercise.

Assigned: Thursday October 6, 2016
Due: Thursday, October 13, 2016

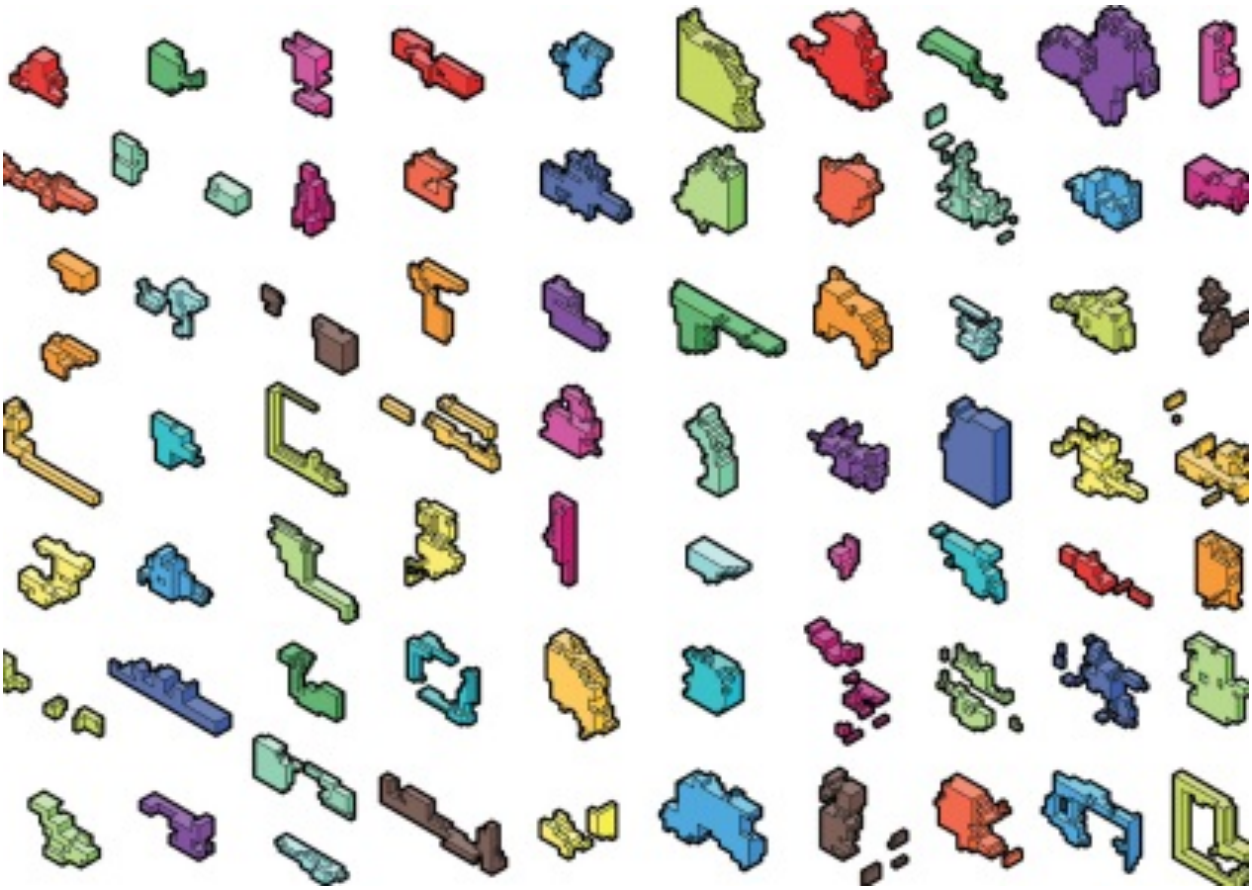
[7] *Tower and Slab: Histories of Global Mass Housing*. Florian Urban. Routledge, 2011

Exercise 3. Schedule

Thursday, October 6, 2016 (Adrien Ravon)
Lecture: 'Egocity, maximum desires = maximum density'
Exercise 3. Desk Crit.

Monday, October 10, 2016 (Javier Arpa)
Exercise 3. Desk Crit.

Thursday, October 13, 2016 (Javier Arpa)
Review of Exercise 3.
Assignment of Exercise 4.



Egocity: Maximum Density, Maximum Desires. The Why Factory, 2015

Exercise 4. Capacities. Future Slabs

If we consider that multifamily housing is probably the principal place for interaction among many individuals, the architectures that comprise it play a key role as tools for social integration and the improvement of community life.
In this exercise, we'll focus on capacities. Students will analyze their housing typologies and propose a spatial solution for the integration of a minimum residential density of 60 units per hectare in a given envelope of 200 x 50 x 50 m.
You will need to think about how to foster social relationships, and develop strategies of negotiation between neighbors, breaking the isolation of domestic life. Probably you'll need to enrich your cells by shared spaces and common areas of flexible use, involve the residents' participation in the management of these common spaces, in the design of the housing, or building maintenance.
You will perform calculations in order to challenge the integration of your units in this dense context, and at the same time keep the requirements that your initial scenarios demand.

This exercise will focus on the use of 3d modelling and computational tools in the design process. Students will develop a parametric model to visualize, quantify and compare their scenarios.
The precise format of the deliverables will be indicated on the day of the assignment of the exercise.

Assigned: Thursday, October 13, 2016
Due: Monday, October 31, 2016

Grand Paris: Pari(s) Plus Petit. Wieland&Gouwens with MVRDV, 2009

Exercise 4. Schedule

Monday, October 17, 2016 (Adrien Ravon)
Lecture: *Future Models.*
Tutorial: *Future Models.*
Exercise 4. Desk crits.

Thursday, October 20, 2016 (Adrien Ravon)
Exercise 4. Desk crits.

Monday, October 24, 2016 (Javier Arpa)
Exercise 4. Desk crits.
Lecture: *Density is Home.*

Thursday, October 27, 2016 (Javier Arpa)
Exercise 4. Desk crits.
Mid-review preparation Pin-up.

Monday, October 31, 2016 (Winy Maas, Javier Arpa, Adrien Ravon)
Mid-review.

4. The Act of Mixing. Our Slab

In the final part of the studio we will work within complex sets of information, and will test the capacity of your design to adapt to different scenarios. We are interested in the overlapping scenarios and the consequences this has on the building, and the ability to inject intensity into your slabs. We will mingle, relate, and exchange all data, and mix several scenarios within the same envelop. Can we design a slab that is as dense, as fertile, as utile, as agile, as productive… as possible?
If your slab is no longer the outcome of one initial scenario but of several hypotheses, what is the result of the cohabitation of different uses and users? How to organize different typologies, programs, densities and technologies in the same slab? What are the different possible combinations?

In this last phase of the studio, students will look at the mixing of scenarios as an architectural act. Based on the skills acquired along the semester, you will develop a catalog of organizational logics for your slab according to the different scenario requirements (split, twist, shift, erode, merge, connect, explode, stack, share, fold, weave, open wrap, etc…).

This work will result in the production of 14 physical models, accompanied by diagrams, digital models, narratives, details, sections and floor plans. Finally, you will develop a tool to evaluate the performance of your projects according to the parameters defined during the initial workshop (volume, light, cost, noise, energy consumption, adaptability…)

Exercise 5. Performances. The Way Buildings Act

In this exercise, we will look at the overall performance of your projects. Some performances are easily measurable in terms of figures and ratios. Other times, performances relate to a more subtle set of subjective conditions. Nevertheless, they have the same importance.
Students will develop a series of collective tools and parameters to evaluate and reflect on the performance of their slab. We will measure costs, volume, energy, orientation, accessibility….and will try to evaluate how flexible, dense, diverse, self-sufficient, comfortable, accessible… each design is.
You establish what criteria to use in order to measure the different aspects of you design.

The precise format of the deliverables will be indicated on the day of the assignment of the exercise.

Assigned: Thursday, November 3, 2016
Due: Monday, November 14, 2016

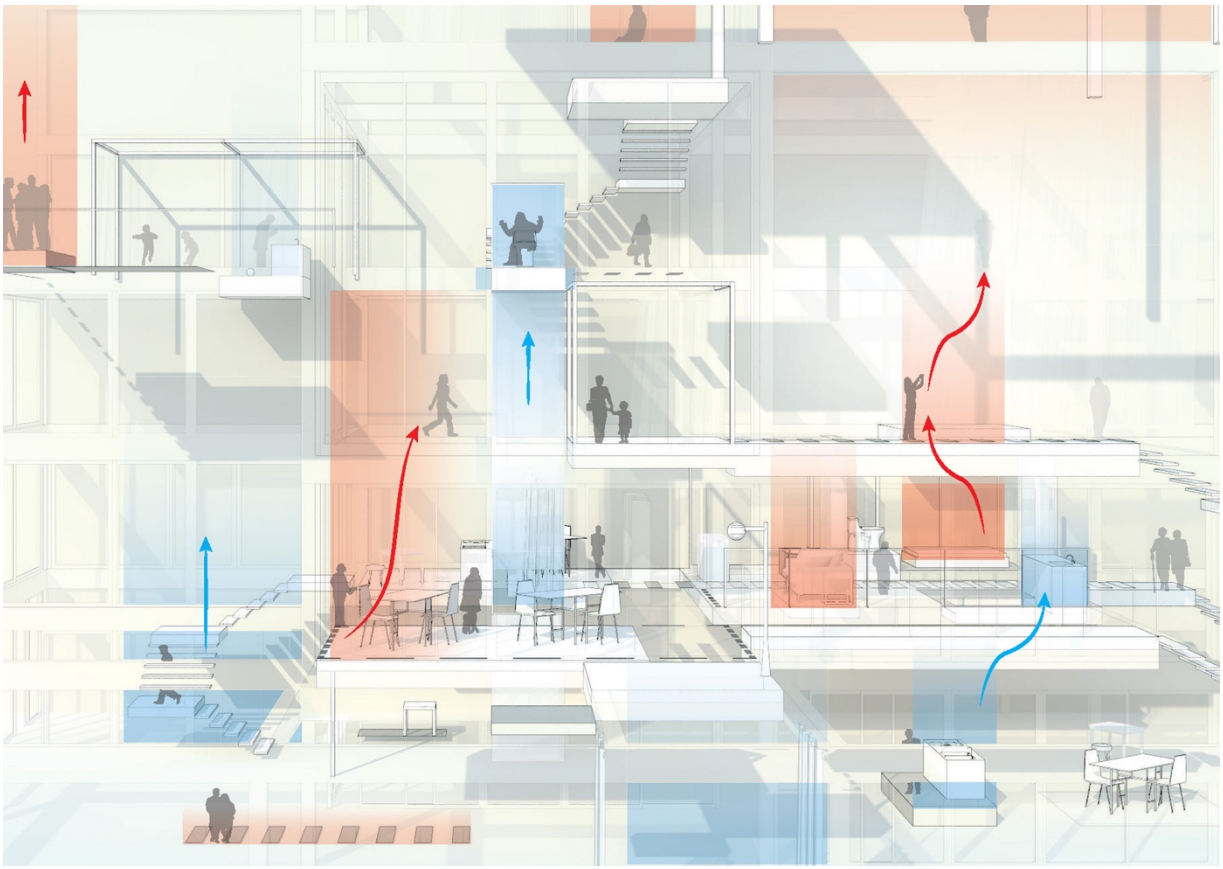
Exercise 5. Schedule

Thursday, November 3, 2016 (Javier Arpa, Adrien Ravon)
Assignment Exercise 5

Monday, November 7, 2016
No Class

Thursday, November 10, 2016 (Javier Arpa)
Lecture: *Why Performances?*
Exercise 5. Desk crits.

Monday, November 14, 2016 (Winy Maas, Javier Arpa)
Review of Exercise 5.



ClickCity: When do we need walls?.Lucile Dugal with The Why Factory, 2016

Exercise 6. The Mixer

In this final exercise, students will bring their project a step further by developing a catalogue of solutions able to enhance the overall performance of their design. They will transform their initial design by using scenarios as a tool to make it more flexible, dense, diverse, self-sufficient, comfortable, accessible…
Can your slab satisfy the housing desires of all its residents? Can nature exist in your slab? Can your slab feed itself? Can your slab be diverse while exploding a single agenda to the maximum? How automated can your slab be? How porous, biodiverse, healthy, accessible, entertaining, productive, automated, green or flexible can a slab be while keeping a given population density?

The precise format of the deliverables will be indicated on the day of the assignment of the exercise.

Assigned: Thursday, November 14, 2016
Due: Wednesday, December 7, 2016

Vertical Village: A Day in the Life of…. Wieland&Gouwens with MVRDV, 2011

Exercise 6. Schedule

Thursday, November 17, 2016 (Adrien Ravon)
Lecture: Scenario Mixer.
Tutorial: Scenarios Mixer.

Monday, November 21, 2016 (Adrien Ravon)
Exercise 6. Desk Crits.

Thursday, November 24, 2016
No class.

Monday, November 28, 2016 (Javier Arpa)
Exercise 6. Desk Crits.

Thursday, December 1, 2016 (Javier Arpa)
Final review preparation.

Wednesday, December 7, 2016 (Winy Maas, Javier Arpa, Adrien Ravon)
Final Review.

Studio Instructors

Winy Maas (1959, Schijndel, The Netherlands) is an architect, urban designer and landscape architect. He is the co-founder of the globally operating firm MVRDV. He is professor and director of The Why Factory, a research institute for the future city he founded in 2008 at the Delft University of Technology. He is a visiting professor at IIT Chicago, the Catholic University of Louvain, and the University of Hong Kong. Previously, he taught at ETH Zurich, the Berlage Institute, MIT, Ohio State and Yale University. He curates exhibitions, lectures throughout the world and has taken part in a multitude of international juries.
In 2012 he was appointed urban supervisor for the city of Almere and since 2003 he has supervised the Bjørvika urban development plan in Oslo.
In 2013 Winy Maas joined the Economic Development Board of Rotterdam (EDBR). He is the coauthor of numerous research projects in collaboration with MVRDV and The Why Factory.

Javier Arpa (1972, Madrid, Spain) is an architecture and urbanism author, curator, researcher and lecturer. Having completed a Master of Science in Architecture at the Delft University of Technology, Javier specializes in the dissemination of architectural and urban design practice.
He is the curator of the exhibitions *Paris Habitat* and *Paysages Habités*, and is the author of the monograph *Paris Habitat: One Hundred Years of City, One Hundred Years of Life*. Javier was Senior Editor for *a+t* research group, one of Europe's leading publishers in architecture and urban design. He coauthored numerous publications about housing and urbanism.
He is a lecturer at the University of Pennsylvania and Design Critic at the Harvard Graduate School of Design. Previously, he worked for a number of architecture firms in Argentina, Spain, and France, and led several urban planning projects in China.

Adrien Ravon (1986, Versailles, France) is an architect operating across the boundaries of different disciplines by combining both theoretical and technical approach. Ravon completed his studies at FADU-UBA and ENSAPM, Paris, where he defended his thesis. In parallel to his academic path in architecture, Ravon has studied programming, multimedia and interactive games.
After collaborating as an architect with Jakob+MacFarlane in Paris, Ravon joined The Why Factory in 2011 as a teacher and researcher. He has worked on various projects and had a key position in advancing the Future Models course, which provides specific computing support to The Why Factory's work. He co-authored The Why Factory's publication Barba, life in a fully adaptable environment and is now supervising The Why Factory's graduation unit. Adrien has worked with the Berlage Institute, Rotterdam; ETH Zürich; KTH Stockholm, EIT ICT Labs, IIT in Chicago and IAAC in Barcelona.

About The Why Factory

Bringing argumentation back to Architecture

The Why Factory (T?F) is a global think-tank and research institute, run by MVRDV and Delft University of Technology and led by professor Winy Maas. It explores possibilities for the development of our cities by focusing on the production of models and visualizations for cities of the future.

Education and research of The Why Factory are combined in a research lab and platform that aims to analyze, theorize and construct future cities. The Why Factory investigates within the given world and produces future scenarios beyond it; from universal to specific and global to local. It proposes, constructs and envisions hypothetical societies and cities; from science to fiction and vice versa.

The Why Factory thus acts as a future world scenario making machinery.

Research and Education

The Why Factory combines research with education. Workshops and design studio's are integrated part of the different research projects. The Why Factory teaches in the Master of Science program of the faculty of architecture and the built environment at the Delft University of Technology, both in architecture and in urbanism. Additionally, international workshops and collaborative studios connect the research with other schools and institutions.

Each semester T?F offers different design and research studios open to both Architecture and Urbanism students. It includes highly integrated research and design aspects facilitated by design studios and complementary theory, programming and representation courses. While research is carried out collectively, students work individually on their design projects.

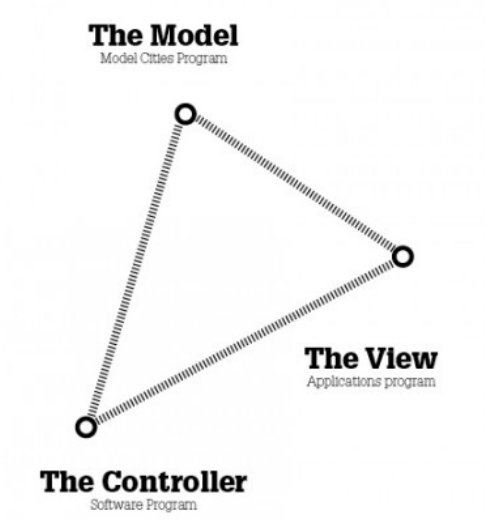
They complete both long-term design assignments on various scales as well as shorter studies and workshops. Those investigations often have experimental character and are inherently linked to visions of the city in regard to the researched subject.

The range of topics addressed in the studio varies per semester and is always announced a week prior to the enrollment period through our website and information posters at the faculty. The subjects addressed so far include:

Green Dream, World Wonders, The Death of Leisure City, Robotic City, Austeria, BiodiverCity, AnarCity, Transformer, Food City, Eurohigh, Sensor City, Copy/Paste and more Design and Research studio

T?F Methodology

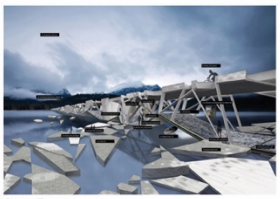
The Why Factory runs research projects, which are positioned in a classical research tripod of models, views and software; of model cities, applications and storage.The research on the Future City is undertaken through the interactive composition of three fields. It speculates on possible theoretical models in the model city program. It makes counter proposals for existing cities. It stores its knowledge through an evolutionary gaming program.

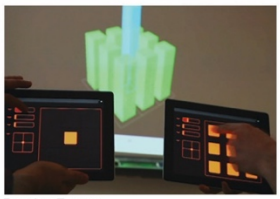


We Make Future Cities

Research and Design

The Future City theme focuses on the shaping of urban futures and involves systematic processes for thinking, planning, scripting and envisioning the future. The theme Future Cities explores technological, environmental and social aspects and makes use of different perspectives on the future.

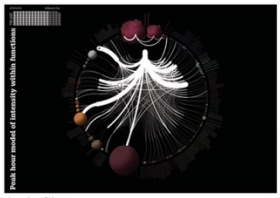

Copy Paste


Dancing Towers


Super Kampung

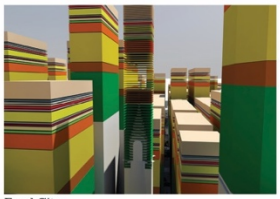

Wegocity

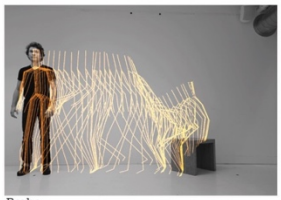

Green Dream



4 min City

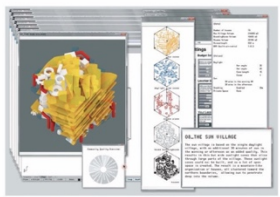

Anarcity


Food City


Barba

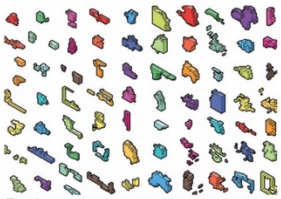

Porocity

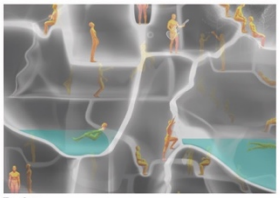

Green Dream

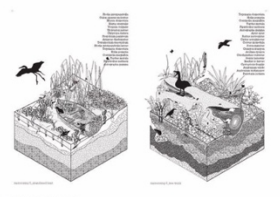

Vertical Village

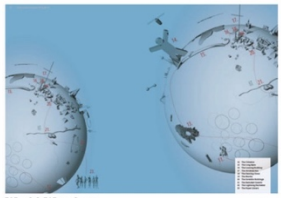
City Shocks


Absolut Leisure


Egocity


Barba


Biodivercity


World Wonders

T?F Products

Future Cities Series

We want to engage in a public debate on architecture and urbanism. The Why Factory's findings are therefore communicated to a broad public in a variety of ways, including exhibitions, publications, workshops, and panel discussions.

The work of The Why Factory has been exhibited at various events, such as the Business of Design Week, 2009, Hong Kong; Foodprint Manifestation, 2009, Den Haag; Imaginarium, 2010, Berlin; and Vertical Village, which has been shown in the Museum of Tomorrow, Taipei, 2011, at The Total Museum of Contemporary Art, Seoul, 2012 and Hamburg Museum, Hamburg, 2013.

At the core of The Why Factory's campaign is a series of books —the 'Future Cities Series'—, which is being published in association with NAi Publishers in Rotterdam. In the 'Future Cities Series' the following books have been published:

Visionary Cities (2009), Green Dream (2010), The Why Factor(y) (2010), The Vertical Village (2011), Hong Kong Fantasies (2011), City Shock (2012), World Wonders (2014), Barba (2015).

Upcoming publications are Absolute Leisure, Copy Paste, Hong Kong Towers, PoroCity, Desires, and 4 Minute City.