t?f
The Why Factory

Wego City

IIT Cloud Studio Abroad Fall 2015
Hosted by The Why Factory /
Delft University of Technology

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"Tailor Made Housing"

(w)egocity
Tailor-Made Housing

INTRO
The next Why Factory studio will take place (again) in The Netherlands. This country has a great tradition of collective housing examples. The studio will expand on this and develop the next step in general housing. (W)ego city investigates and push forward the limits of design freedom by making for each user its dream house under dense circumstances that share a collective infrastructure. There are so many housing possibilities in terms of outer envelope, but the current production of towers and slabs reduces the variety into extrusions of the same floor plans. How to improve this?

EGO'S
First we investigate what different houses can be imagined based on a series of potential characters coming from everywhere, from any country and any culture just as our contemporary cities are culturally mixed. How excessive can their ideas be? The studio develops an intense catalogue of potential clients and their houses with the aim at arriving to highly specific demands based on market research.

WEGO'S
Then we investigate how these different cultures can be constructed within a given regular envelope like a slab, a tower or a cube. Suddenly the ego's become wego's. How to negotiate on that? How to get the best for everyone out of that? The studio develops a tool (game) that can facilitate and visualize the beauty of the puzzle that comes alive.

CONSTRUCTION
And then how to construct that? And then how to adapt that over time? What building material is the best for this? How does the infrastructure follow that? How to build the stairs and the pipework.What structural principles are applicable?

ANCESTORS
The studio will base itself on former researches at the Why Factory as in the Vertical Village and Egocity.

PLACE
The studio will be housed in The Why Factory, part of the department of architecture at the Technical University in Delft.

TUTORS
The studio will be tutored by Winy Maas, Felix Madrazo, Adrien Ravon, from The Why Factory and John Manaves from IIT.

THE EXTRA CLASS
In addition to the studio, instruction will be given on scripting of negotiation tools. This will be tutored by Adrien Ravon, and Arend van Waart from The Why Factory, who have an excellent scripting experience.

TIMING
The studio will take place August–December 2015. At the same moment a parallel graduation studio of T?F students on the same matter will be organized.

BOOK
The studio will be documented in a format of a book report (IIT Cloud Report) following the guidelines provided by the tutors. This book will serve as the base for further development. The final edited results of the studio will be part of the upcoming publication ”(W)EGOCITY: The bottom up mode” by T?F and IIT to be published by NAI 010 publishers in 2016.

(w)egocity
Tailor-Made Housing

What sort of city can you have when everyone chooses to live on their own?

The paradox of our current urban challenge is that although the city remains the best solution to diminish our impact on the environment we want to live a life that is not standardized, we want to maximize our personal desires, we want to have our own dream house without compromises.

How to solve the seeming unsolvable conflict between freedom and density? Which solutions can architecture, design, and process can come up to in order to achieve results that can please the users desires while keeping track of our urban footprint?

The first wave of modernism used slabs and towers to accommodate high-density urban environments. Yet during the 70's and 80's many people rejected eventually this scheme due to the repetitive and monotonous characteristics of it amongst other reasons. Later on came suburbia (and Vinex in The Netherlands) as an answer to individuality desires. Yet this wave caused severe irreversible damages on the environment and has contributed to increase levels of Carbon dioxide emissions due to massive individual commuting, furthermore it did not solve the issues of individuality; customization was reserved for materials and garden furniture.

(w)egocity aims to tackle frontally the dilemma of maximum desires / maximum density by accommodating truly the needs of users for a differentiated lifestyle, yet it does so following a restricted urban envelope that keeps energy consumption and footprint under control.

The challenge of the studio is to come up with solutions that give priority to process, negotiation and self-assurance that the result of each house will not aim to arrive at mediocre results but at highly individualized designs. The aim is to devise methods that avoid compromise at all costs.

Architecture therefore is considered in this studio as the design of an ideal software that solves conflicts between neighbors fight for space.

We ask the students to reflect on each game theory and application results and also to think on the idea of what means spatial conflict, what means to privacy conflict, what is the difference between the polder model of middle ground and the (w)egocity? What is the future of process design protocols?
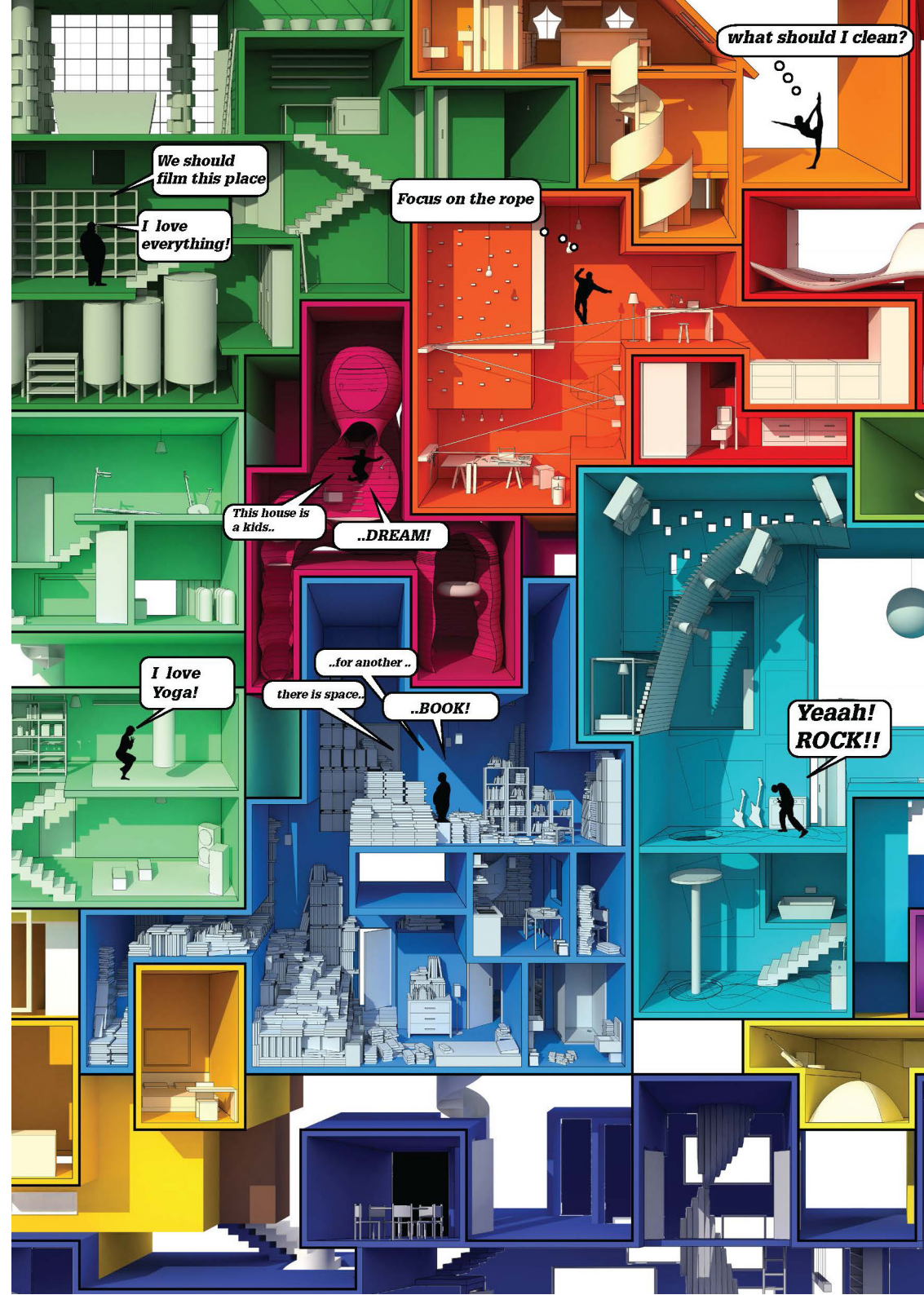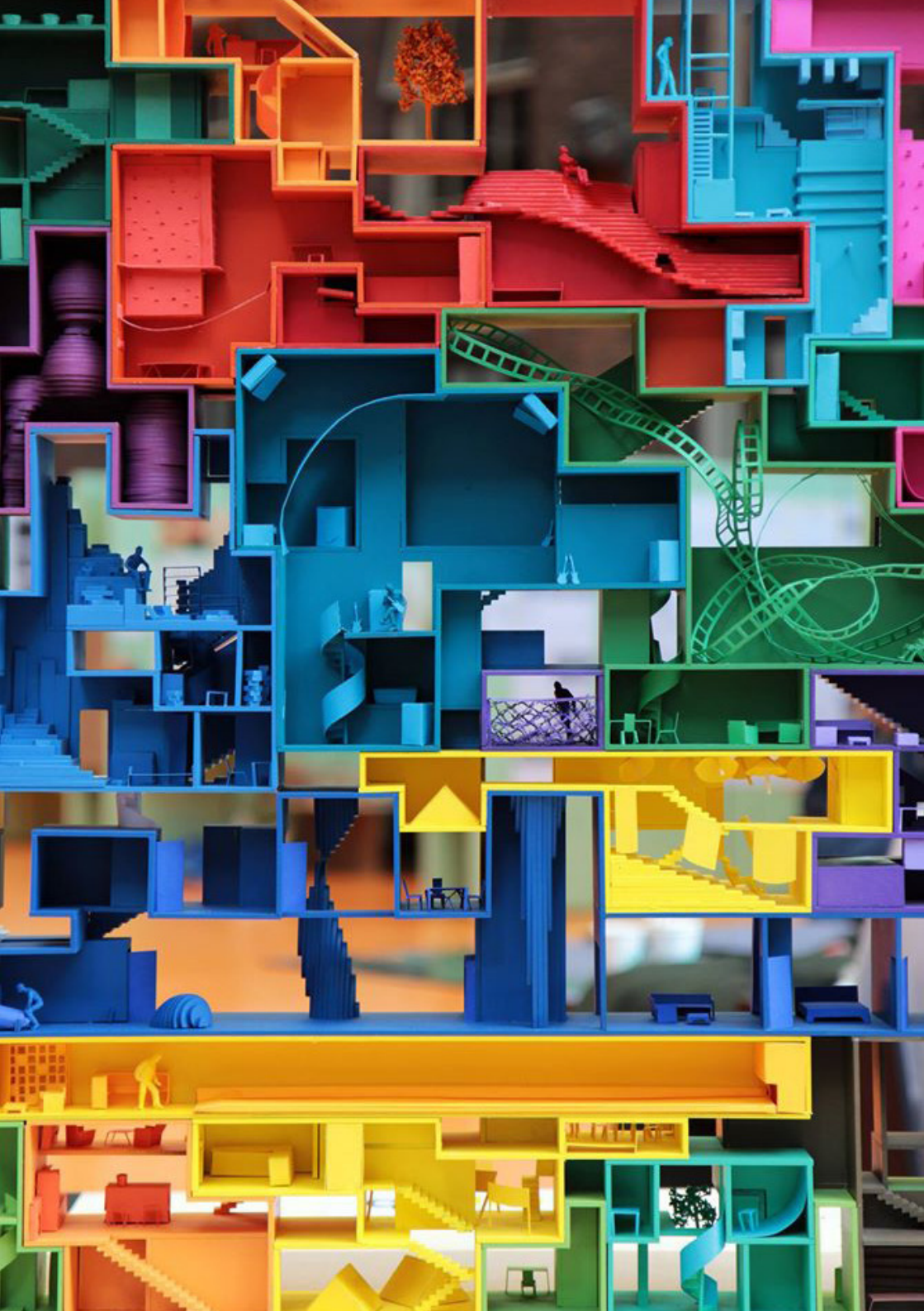
EgoCity, instead of juxtaposing "average" individual "dreams", proposes a new urban model whose primal matter is its citizens' most crazy fantasies. It is a project that goes far beyond a theatre of formal architectural follies and aspires to construct, in urbanised and dense conditions, a participative dream, a living mosaic that contains an unlimited amount of desired situations.

In order to achieve that, rather than focusing on an aesthetic result, a particular interest has been manifested in the development of an appropriate gaming process that would be capable of taking advantage of every player's specificity and then transform it into a spatial potential. We consider that this constant emergence of unexpected typologies can be proven a vehicle of crucial interest towards an authentically human-driven architecture..

(w)egocity
Tailor-Made Housing

1.0. Dream Home Trends
The Housing world heritage
(2 weeks + Theory Class)

    1.1. The Catalogue
    1.2. Chicago expanding trends

2.0. Dream Home Maker
Tailor made catalogue
(2 weeks)

    2.1. User Profiles
    2.2. Parametric Neufert
    2.3. Combination

3.0. Meet your Neighbor
No Compromise!
(3 weeks)

    3.1. Densify!
    3.2. Catalog of conflicts
    3.3. Catalog of sharing strategies

4.0. Conflict solver
A negotiation tool
(5 weeks)

    4.1. Negotiation Rules: Scenarios
    4.2. Negotiation Modes: Urban Typologies
    4.3. The slider effect: Real-time Negotiation
    4.4. Negotiation outputs: Users satifaction
    4.5 The referee: Winners and Losers

5.0. Clients meets developers
A user friendly invitation
(3 weeks)

    5.1. Physical Models
    5.2. Publication
    5.3. Software demo

6.0. Post-production
Back to Chicago
(+1 week)

    6.1 Final Report
    6.2 Physical Models

1.0. Dream Home Trends
The Housing world heritage

1.1. The Catalogue
During this intensive phase, and all along the semester, students will focus on the production of an Atlas of housing typologies. By analysing several "trends" in Chicago, Rotterdam, London, etc., we aim to draw a comparative catalogue of "Dream Home trends". This analysis will be based on the production of axonometric drawings as well as the definition of parameters such as density, m3, view and openings, structure, accessibility… Examples will be graphically compared exhaustibly.

1.2. Chicago expanding trends
During the first two weeks in Chicago, students will study the "Chicago expanding trends". Several site visits will be organized to focus on existing examples (ie, Mies Van Der Rohe, Frank Lloyd Wright, Bertrand Goldberg but also successful offers from the market). Through the production of axonometric drawings, students will be asked to develop an understanding of expansion strategies.

2.0. Dream Home Maker
A customization catalogue

2.1. User Profiles
Students will produce a collection of potential user profiles. This collection will be as diverse as possible. Based on different wages, lifestyles and cultures, this collection of user profiles with their desires will serve as our input for the definition of "dream homes".

2.2. Parametric Neufert
Based on our collection of user profiles, students will translate their hypothetical desires into 3d. A collection of dream home elements will be produced. Through this exercise, we will explore the potential flexibility of housing elements such as kitchen, bathroom, bedroom etc. The "voxel" as a 3d unit of measurement will be then introduced. With the support of Rhinoceros3d and Grasshopper3d, this exercise will lead to a parametric understanding of spatial housing organization.

2.3. Combination
Based on our previous exercise, and with the support of Rhinoceros3d, a series of different Dream homes will be produced exploring different configurations.

1.

2.

3.

4.

5.

6.

3.0. Meet your Neighbor
No Compromise!
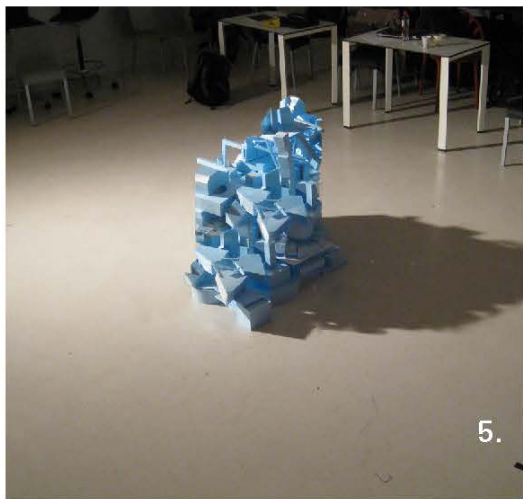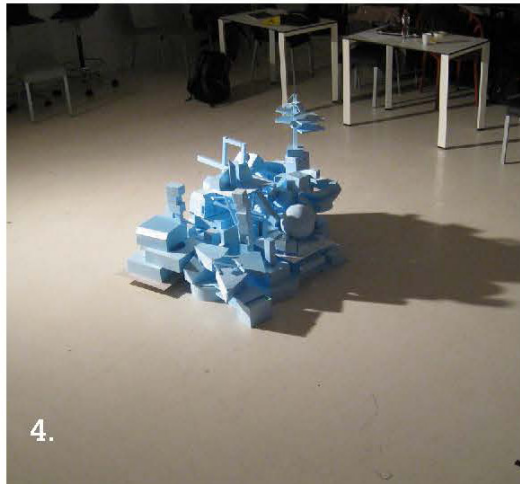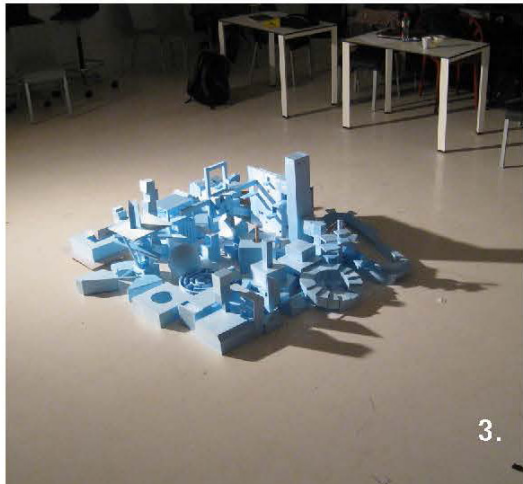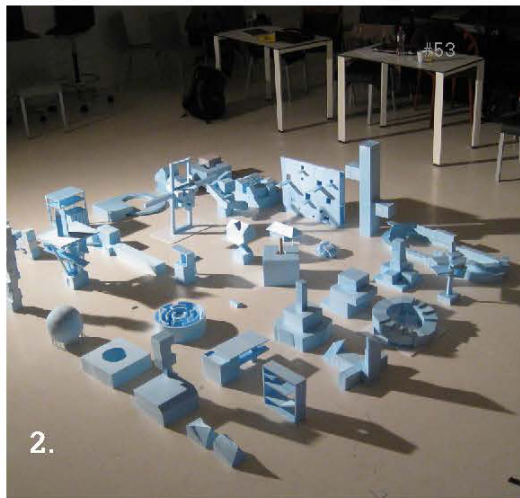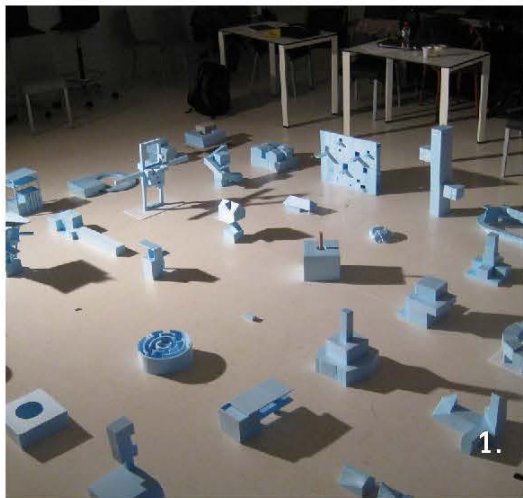
3.1. Densify urban typologies
We will then test the combination of those desires and different Dream Home typologies in different contexts. This part will start with the encounter between two neighbours. It relates back to our initial question: "can we include our desires in high density?

3.2. Catalogue of conflicts
How to fit our desires inside a predefined bounding box? Without compromise, conflicts immediately start to emerge. Conflicts may range from noise, space, view, accessibility and so on. We will draw a catalogue of potential conflicts.

3.3. Catalogue of sharing strategies
How to overcome those conflicts? We will then evaluate those conflicts as potentials for sharing strategies. In this phase, we will define a catalogue of negotiation strategies.
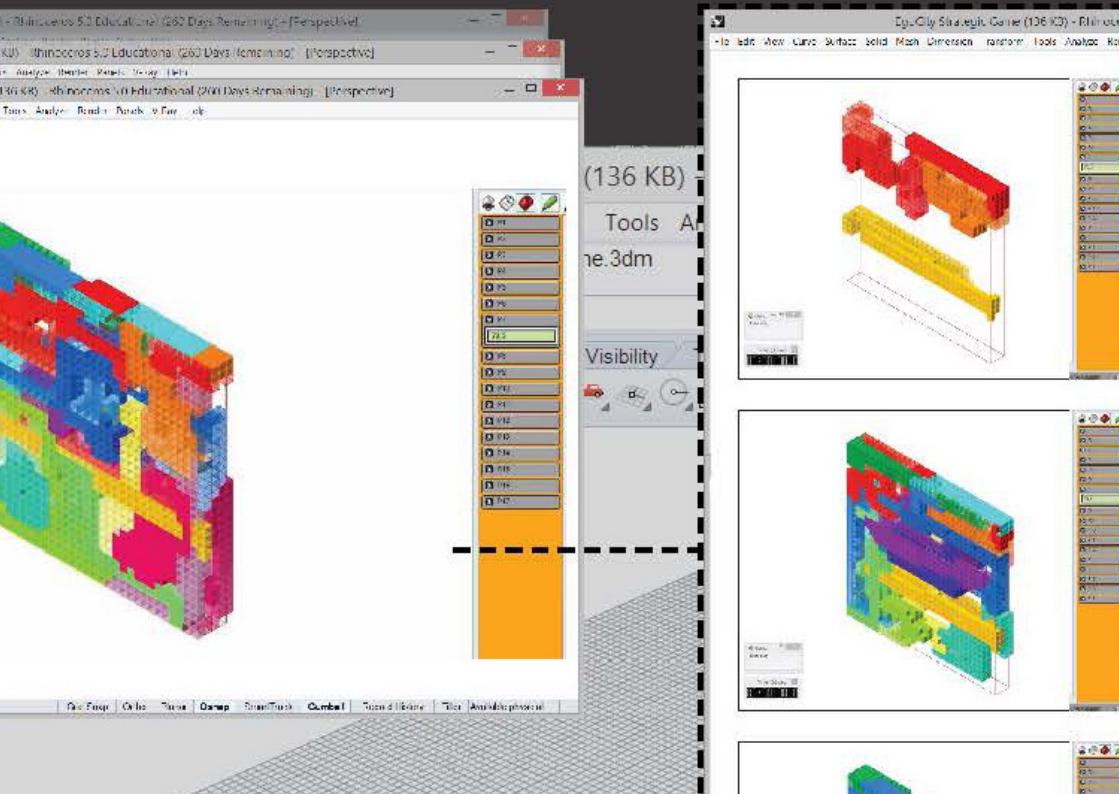
4.0. Conflict solver
A Negotiation Tool

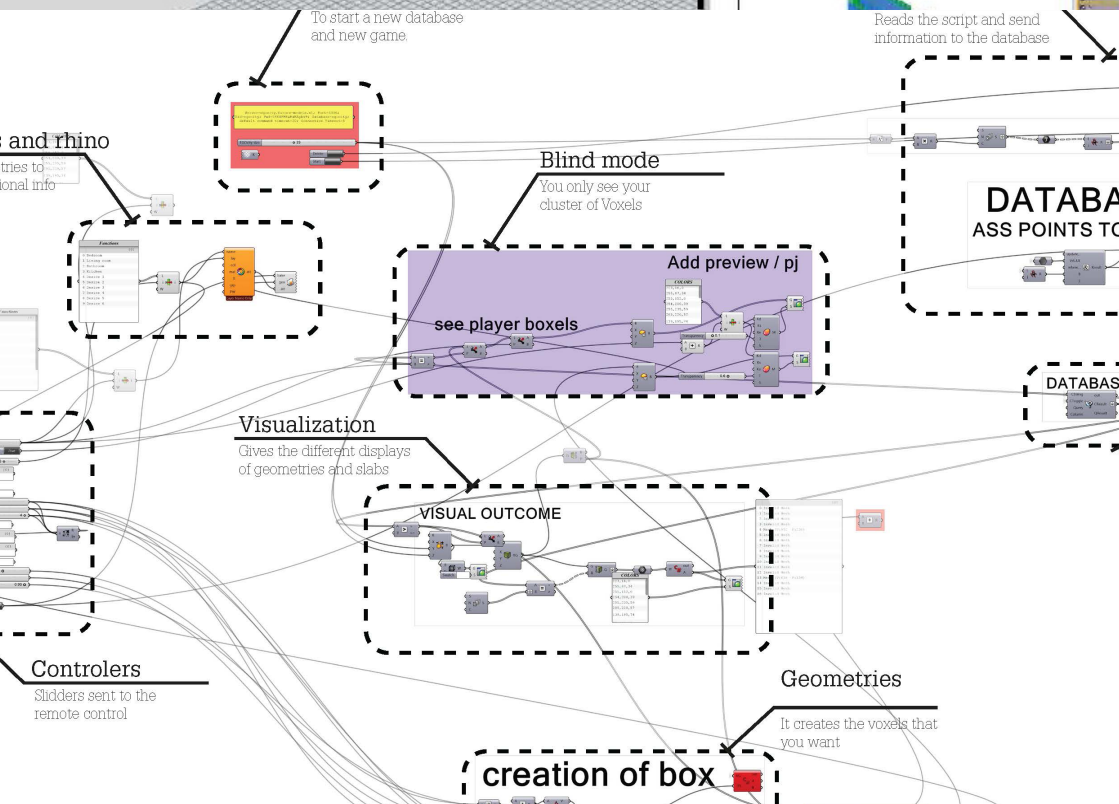### 4.1. Negotiation Rules: Scenarios
In order to solve conflicts, we will develop a tool allowing users to fight for their desires in the fairest possible way.
The tool will take as a point of departure our previous development during the Egocity studio. It will allow the testing of different scenarios based on rules, selling strategies, regulations and densities.
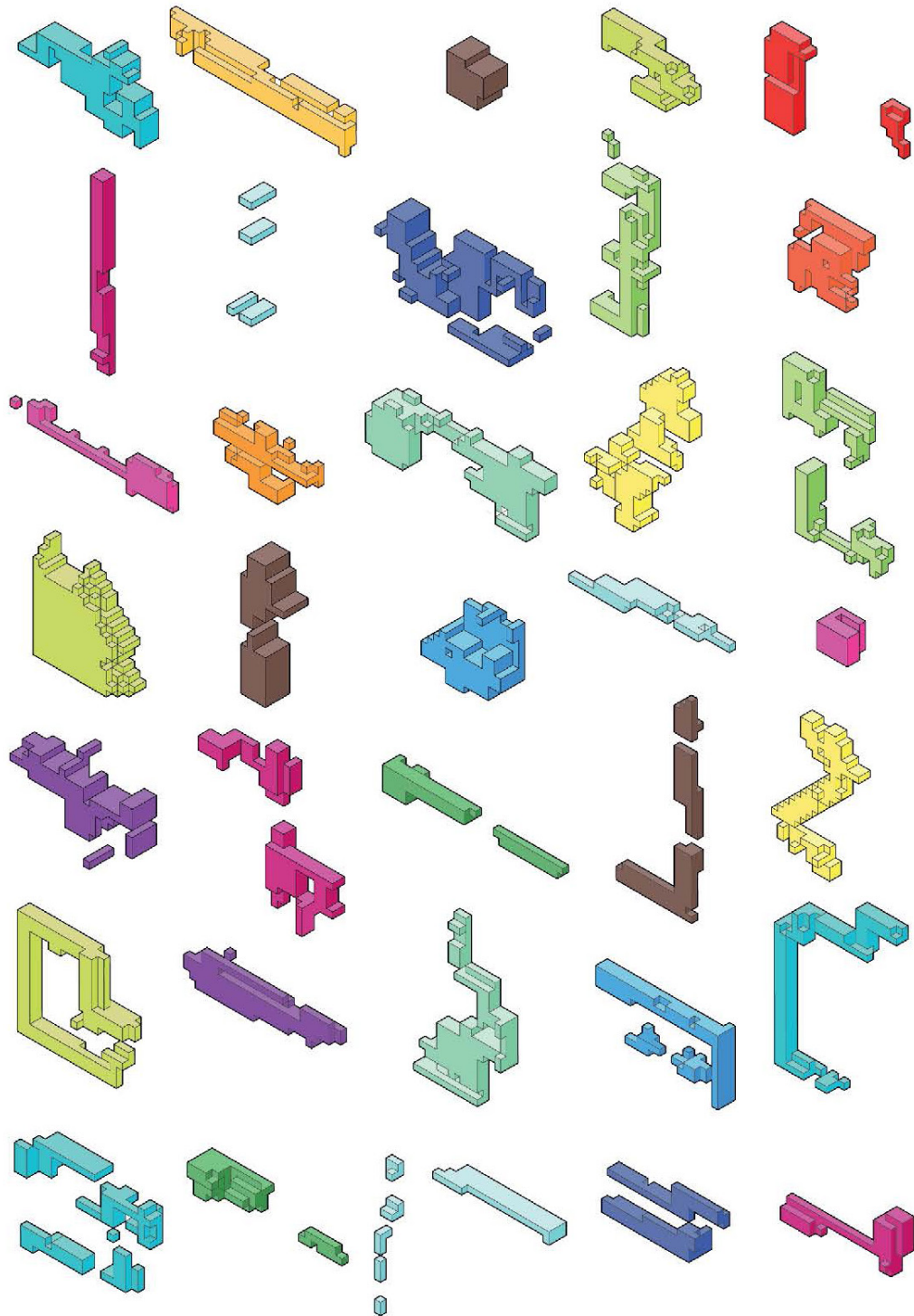
4.2. Negotiation Modes: Urban Typologies
We will test and challenge "the conflicts solver" by exploring different urban typologies ranging from block, slab, tower, patio and low-rise typologies.

4.3 The slider effect: Real-time Negotiation
This part of the studio will be supported by the scripting seminar Future Models. We will use Rhinoceros3d, Grasshopper3d and scripting to develop and improve the "conflict solver" based on different strategies. In this part, we will challenge the resistance and flexibility factor allowing for possible reconfigurations.

To start a new database
and new game.

Reads the script and send
information to the database

and rhino

tries to
ional info

Blind mode
You only see your
cluster of Voxels

DATABA
ASS POINTS TO

Add preview / pj

see player boxels

DATABAS

Visualization
Gives the different displays
of geometries and slabs

VISUAL OUTCOME

Controlers
Slidders sent to the
remote control

Geometries
It creates the voxels that
you want

creation of box

4.4. Negotiation outputs: Users satisfaction

In this part, we will develop evaluation parameters to compare emergent typologies. The studio aims to quantify the spatial proposals and revising in every stage their financial consequences. The studio will contemplate the aspect of currency across all designs to make sure comparisons between solutions are possible.

The spatial scheme will be tested in structural terms, constructive systems can also play a role in achieving the best result in terms of client's particular demands. The way each house is exposed to sun, wind or rain will affect the ultimate design. Energy demands depending on the client wishes need to be reflected in the final solution for energy efficiency.

The ultimate wishes of a client most make sure that all spaces comply with the comfort standards as defined not by regulations but by the client itself. A method to keep track of these specificities is needed.

4.5 The referee: Winners and Losers

Based on this analysis, will later reflect on the emergent qualities and on the degree of users satisfaction.
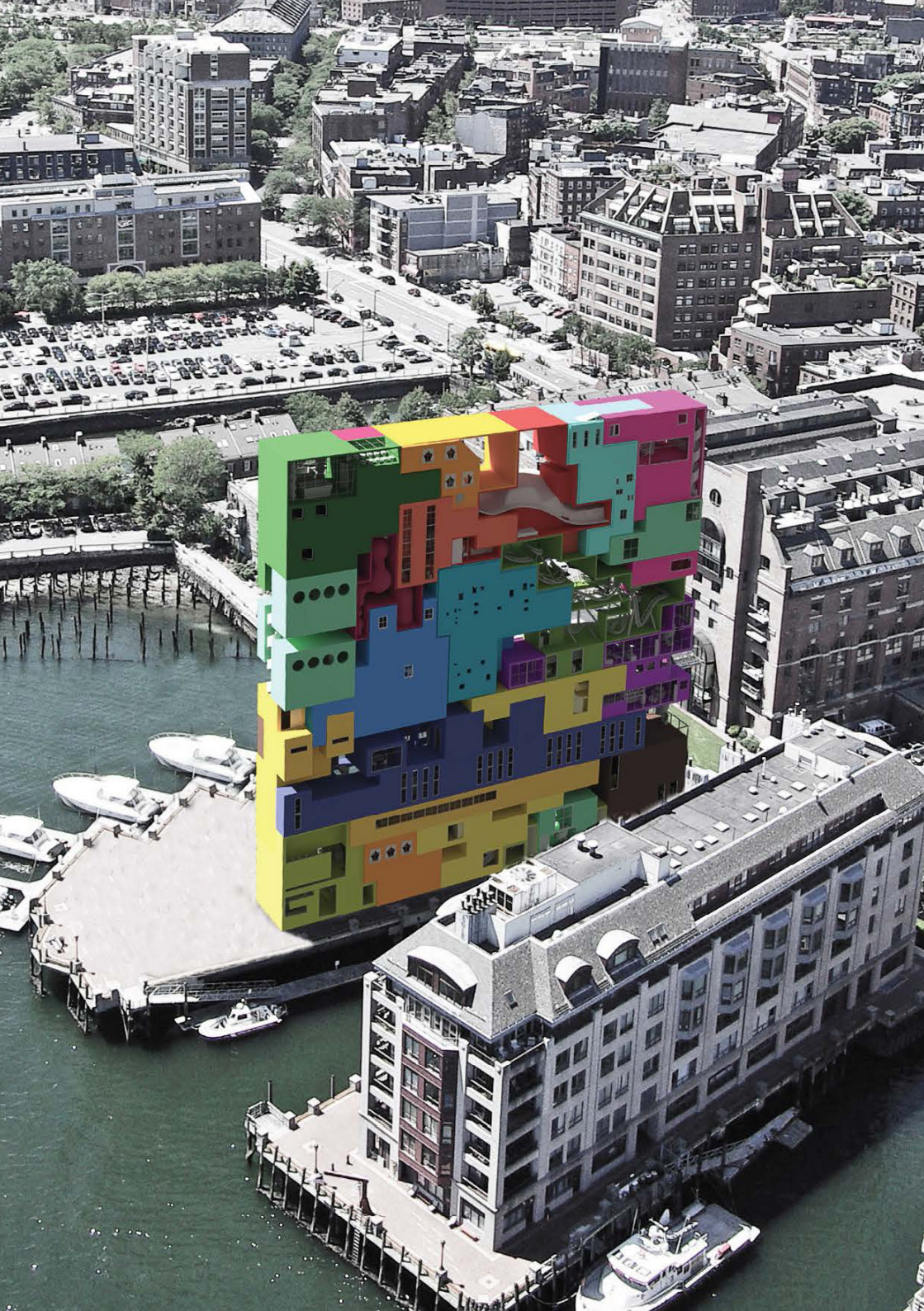
5.0. Clients meet developpers
A user friendly invitation

Future Models
Scripting Seminar

The Future Models seminar is directly related to the design studio (w)egocity, tailor-made housing. This seminar is only available in combination with the design studio.

In the design studio, the project is developed and the necessary scientific research is defined. In the seminar, the research is executed in the form of calculations, simulations, modelling or scripting.

During this seminar, we will explore tools, processes and representation for the development of a negotiation tool - a multi-user, interactive 3d model.

The course will start with an introduction to Rhinoceros3d and Grasshopper3d. Later, we will support you in specific scripting for your project.

Reader
Togetherness vs Going Solo

Together

The Rituals, Pleasures and Politics of Cooperation

Richard Sennett

Yale University Press 2012

The Ego and his own

The Case of the individual against authority

Max Stirner

Verso Radical Thinkers 2014

Going Solo

The Extraordinary Rise and Surprising Appeal of Living Alone

Erik Kilinenberg

Gerald Duckworth & Co LTD 2014

The Burnout Society

Byung-Chul Han

Standford University Press 2015

Non-Plan

Essays on Freedom

Participation and Change in Modern Architecture and Urbanism

Jonathan Hughes, Simon Sadler (Editors)

Architectural Press / Routledge 2000

The Why Factory

The Why Factory is think tank on urban futures and is led by Prof. Winy Maas. It is located at the faculty of architecture of the Delft University of Technology, where it offers design and research studios and graduation projects in the Master of Science program of the faculty. Research and education are closely related in this chair.

The work of the students forms an integral part of the ongoing research of the Why Factory: The Future Cities project. In this project, the Why Factory explores the possibilities of future urban development through production of scenarios, models and visualizations.

Master students enrolled in the program are challenged to creatively explore the potentials of urban life in the future.

They design visionary cities and fantastic architecture.
The range of topics addressed in the studio varies per semester and is always announced a week prior to the enrolment 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.

The Why Factory's findings are communicated to a broad public in a variety of ways, including exhibitions, publications, workshops, and panel discussions.

The (w)Ego city studio is a collaboration between the Illinois Institute of Technology, College of Architecture and The Why Factory, Delft University of Technology in the framework of the Cloud Studio Abroad.

The studio will be hosted by Prof. Winy Maas, Felix Madrazo and Adrien Ravon (studio) with Arend van Waart (scripting seminar)

Please visit our website for more information:
www.thewhyfactory.com