

Francesco Tizzani  
- 弗朗西斯科 吉扎尼 -

PORTFOLIO

.02 MVA

.04 AA- SHANGHAI

.06 INDESEM'11

.08 EX CASERMA MONTI

.11 LIVING & WORKING ALONG THE CENTER

.13 WINDING RIDGES

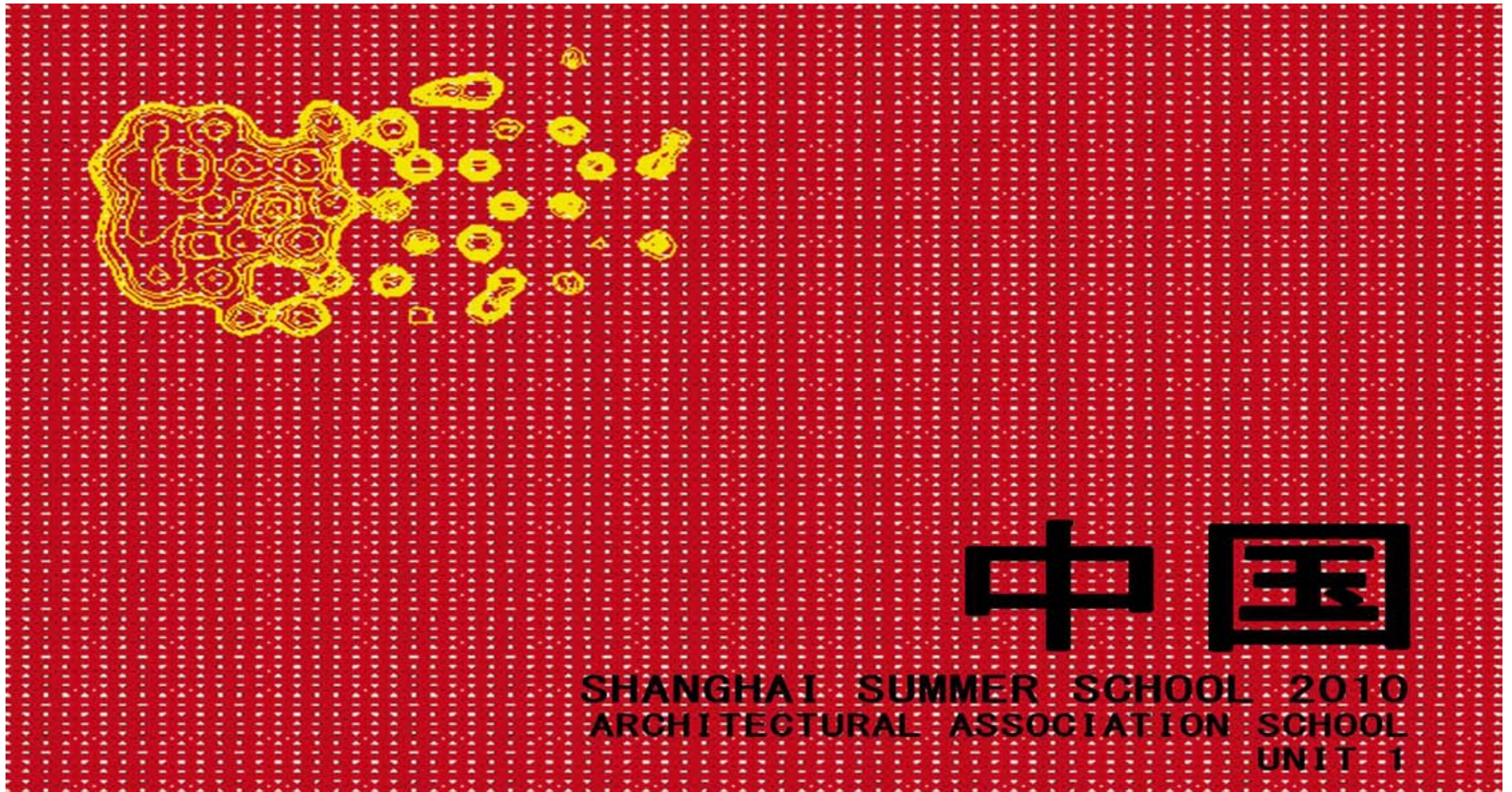
# SUMMARY



3D modeling, rendering and light analysis for the exam of Modellazione Virtuale per l'Architettura.

January 2011  
with Luca Pedrielli





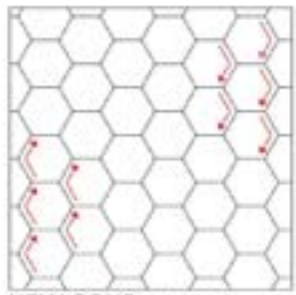
The topic was the 5.3 sqkm site developed for the Shanghai Expo 2010 and focused on proposals for the site after the six month event. We approached the limitations of the short-term historical legacy and context of the expo by engaging in the complexity of urbanism as a life-like, dynamic and evolutionary process. Over the first three days, computational design systems were introduced in a series of 'tooling-up' sessions as the basis for investigating associative design concepts and methodologies. The aim of these design exercises was to introduce expertise in generative, algorithmic and parametric approaches. In the second stage of work, these new design and production tools targeted the creation of dynamic architectural scenarios and urban models generated in relation to the Shanghai Expo site. Students applied simulation and fabrication techniques towards multiple prototypes for a range of new cultural and civic facilities, driven by scenarios of future incremental growth and change.

August 2010

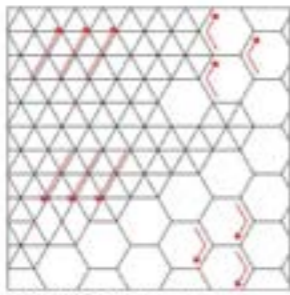
Shanghai, China

with Tanja Dubbelaar, Suzhao Kao, Fabrizio Furiassi

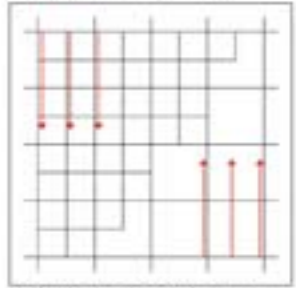
**SPEED ANALYSIS ON DIFFERENT GEOMETRY**



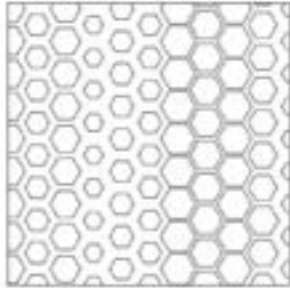
HEXAGONS LOW SPEED



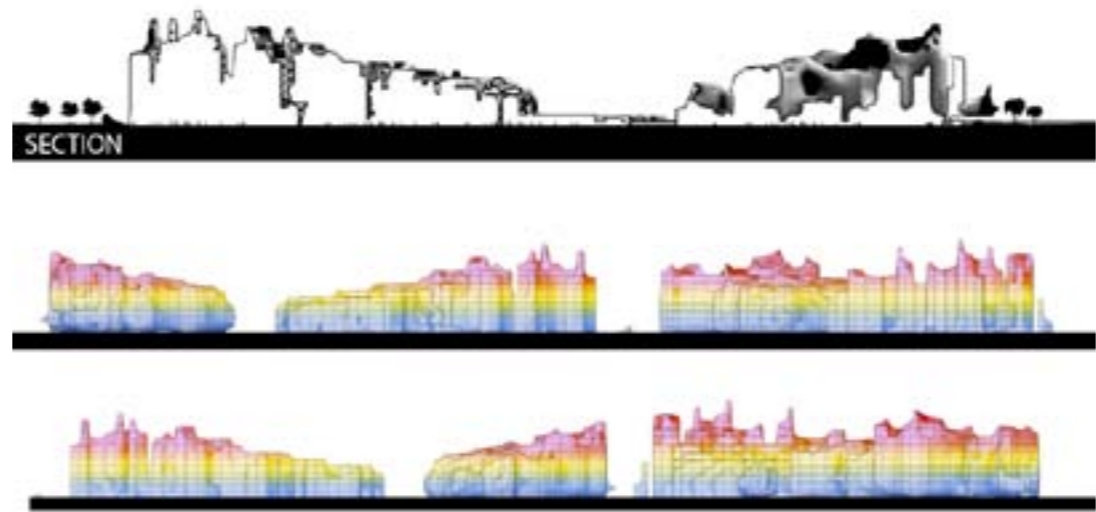
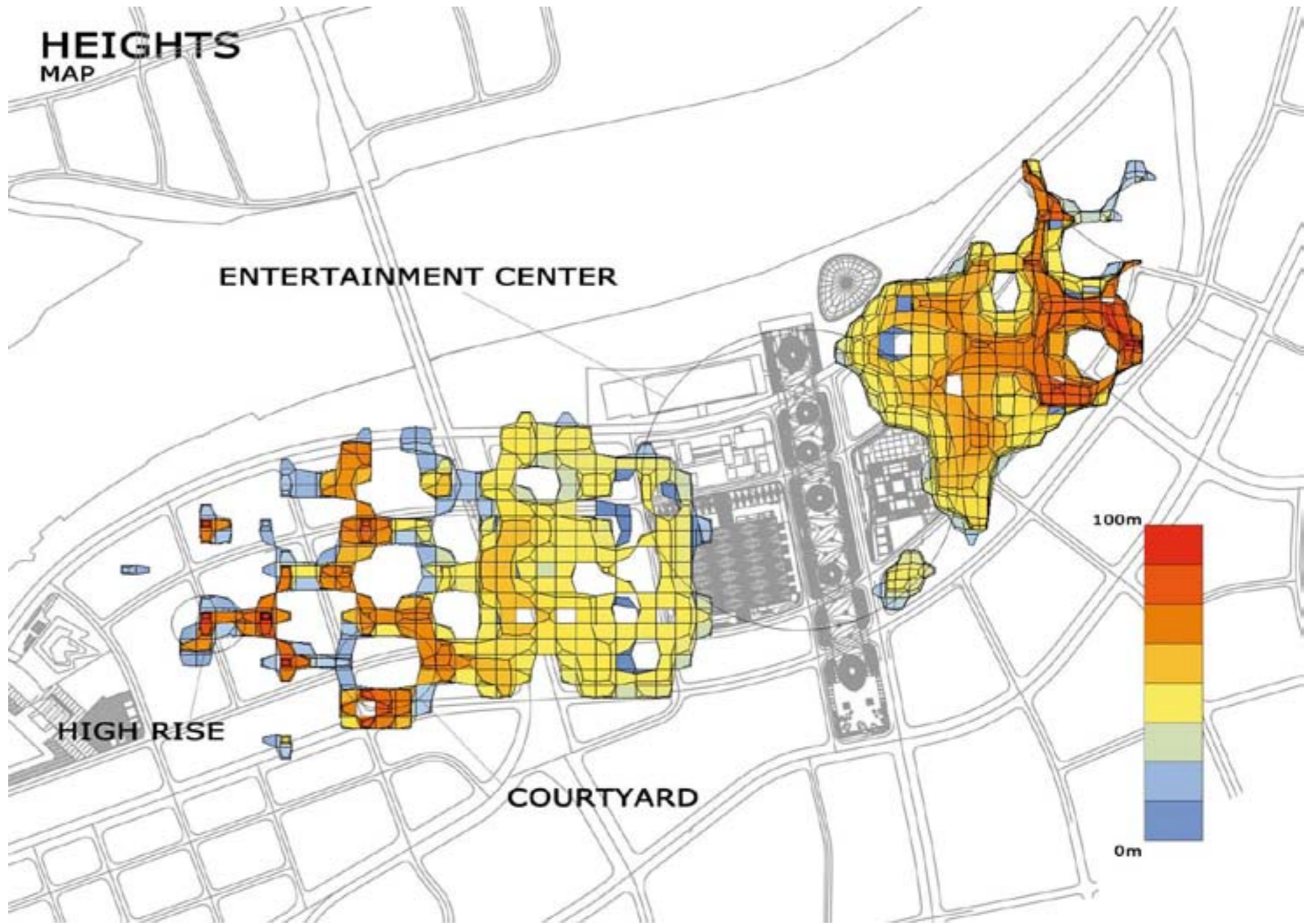
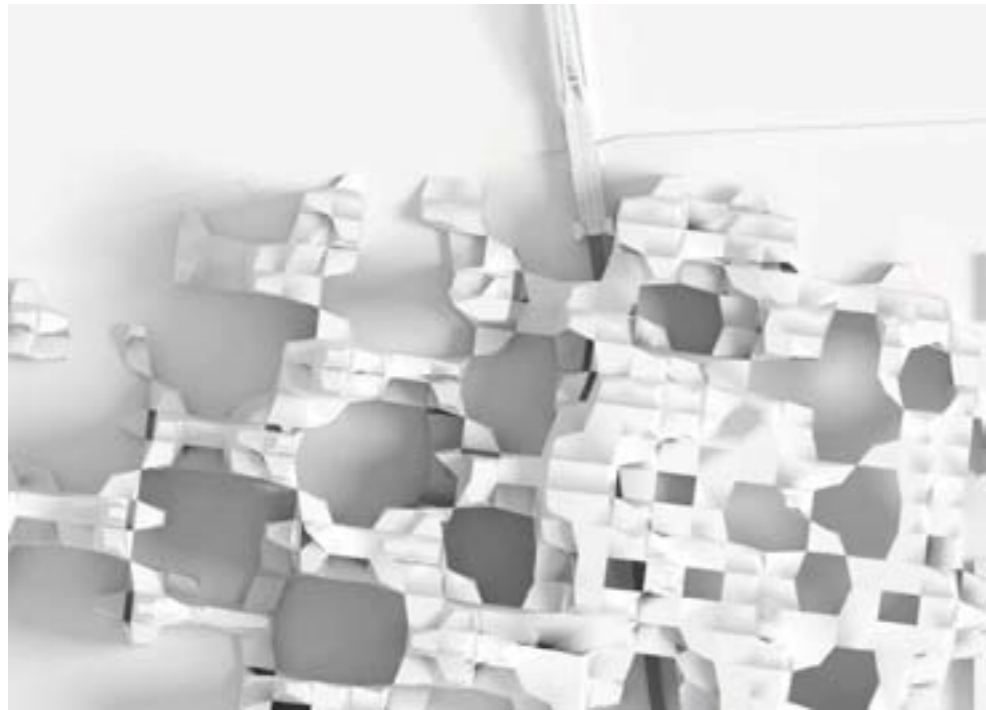
TRIANGLES MEDIUM SPEED



SQUARED GRID HIGH SPEED



MIXED GEOMETRY VARIABLE SPEED



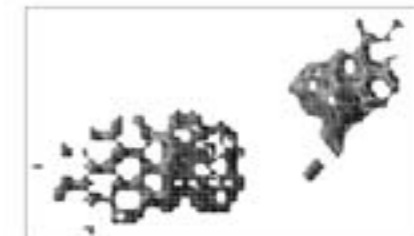
**FORMATION PROCESS**



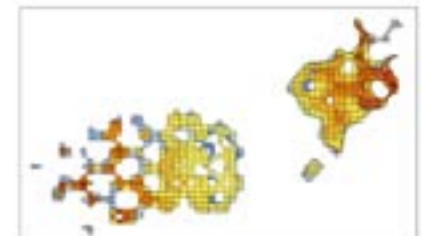
METABALLS



BOX CLOUD



METABALLS + BOX CLOUD



HEIGHT ANALYSIS

## ARCHITECTURE 2.0

### THE NEW SOCIAL REVOLUTION

This is a quick work I made for the application of InDeSem 2011. The concept is about a not so far future where the physical and virtual world are connected, where the public space in our cities could create or contribute to social interaction, and where, using the most advanced technologies, we can help architecture move towards this future.



Imagine a world where everything is connected to the network, the bus always knows when you are waiting for it and it can display all the information in a comfortable touch screen to make you stay updated about the traffic conditions, weather forecast, last news from the real world and your friends from the virtual one. Imagine a world where you will never be alone anymore, a safe place where your friends are always around you. Its a resolution: the world will no longer be your center, you will become the center of your world!



Imagine any public space feeling at home, with all its comfort, space and stuff. You always have home with you, because the network supplies you with data, notifications and news wherever you are. Interact with your network, participate and take your virtual world always with you. Let start again walking around the city, be part of the city and live it as if it were from your home desk.



New technologies are changing our daily life and the way we interact with the real world. Today we are part of a network and we are the receiver of thousands continuous feedbacks from any object or person around us. Thanks to the virtual world we can collect, organize and filter all this input and generate our own output to send it back to the net. A real global system of information exchange exists, and because of it we can enrich our lives and move towards a better future, that is recursion.

In this panorama, information is the real power engine of our XXI century existence, the access and distribution of information is crucial to human existence. Some countries even have this as a human right.

Being part of such a network, we should access it whenever and whenever we want in order to satisfy our thirst for knowledge from looking up the nearest Pizzeria, to the bus stop's map, or the semantic research in an online encyclopedia. Our needs changed and now we need to be connected full time to stay close with people, using E-mail, Skype, Facebook, or any other system.

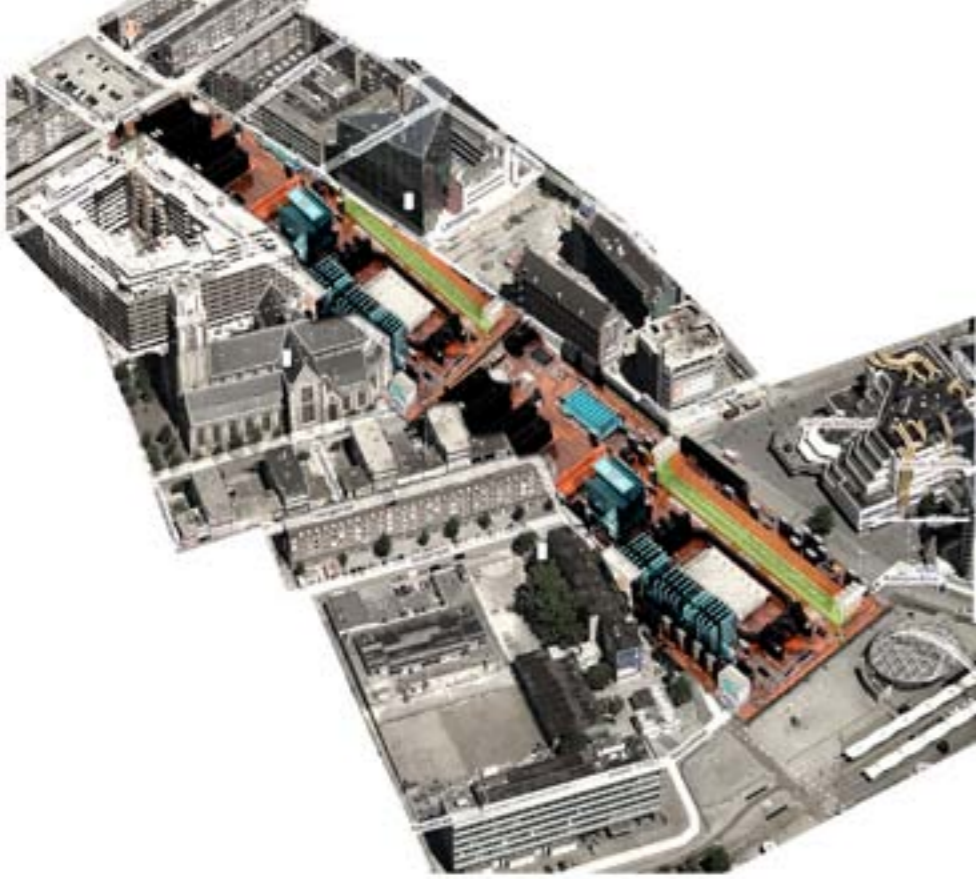
Architecture 2.0 is coming, a revolution to change our real world making a bridge between 7 billion real lives with the virtual one. We are here for architecture architecture and architecture is here for us to help us lead a better life, resolving our problems with good and efficient solutions, and so it will be.



Binnenrotte is the birthplace of Rotterdam. Situated at its center, the square is an integral part of the network of the city. The essential characteristic of Binnenrotte is its ability to transform across history. It has been a river, a train-line and now it is a marketplace. It is rather mixed in its use but it is more a place to pass by rather than a place to stay at. On the other hand, although this space is rather empty physically, it has a very intense virtual life. So the strategy developed was simple: we transform this static, non-interactive template into a fluid interactive platform. This intervention had to be democratic, flexible, connective and social. We used the metaphor of the motherboard where all the components were already there, what was lacking was the connection between them. Human input connects all the components of the system and allows it to physically express its inherent qualities. The project proposes a hexagonal module to be repeated through the square forming a three dimensional grid. The physical presence of its visitors shapes it and defines its use. It has a 24h response rate so if the activities change daily, the square will look differently every day.

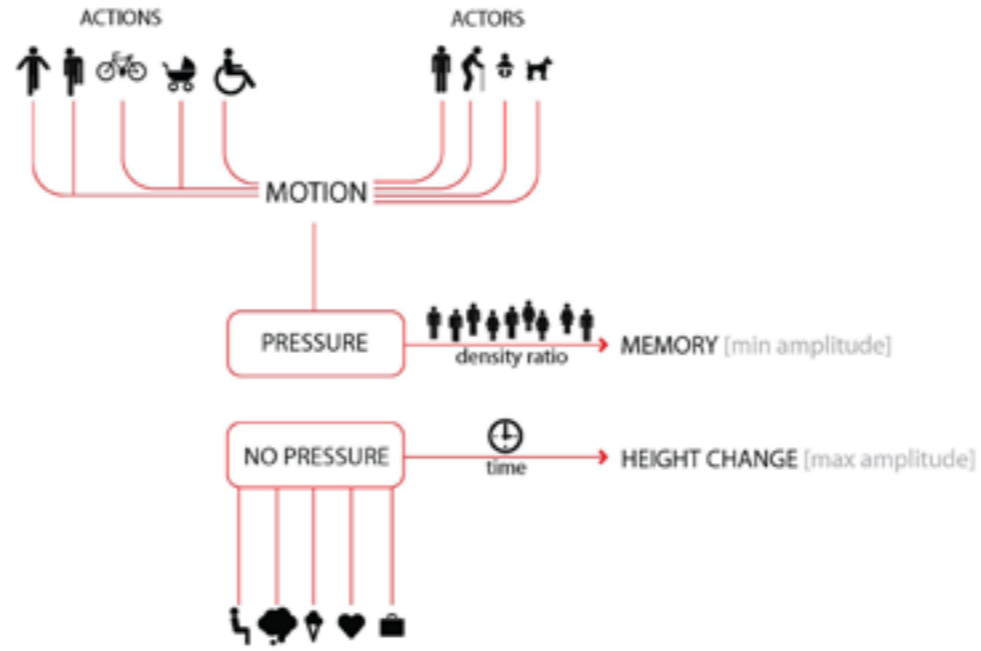
May 2011  
Rotterdam, The Netherlands  
with Mareye van der Laag, Alexandra Berdan, Dasha Spasojevic, Rares Dragoiu, Mohammed Mehdi Ghiyaei, Teun Verkerk, Mohammed Ashadad

# INDESEM/G



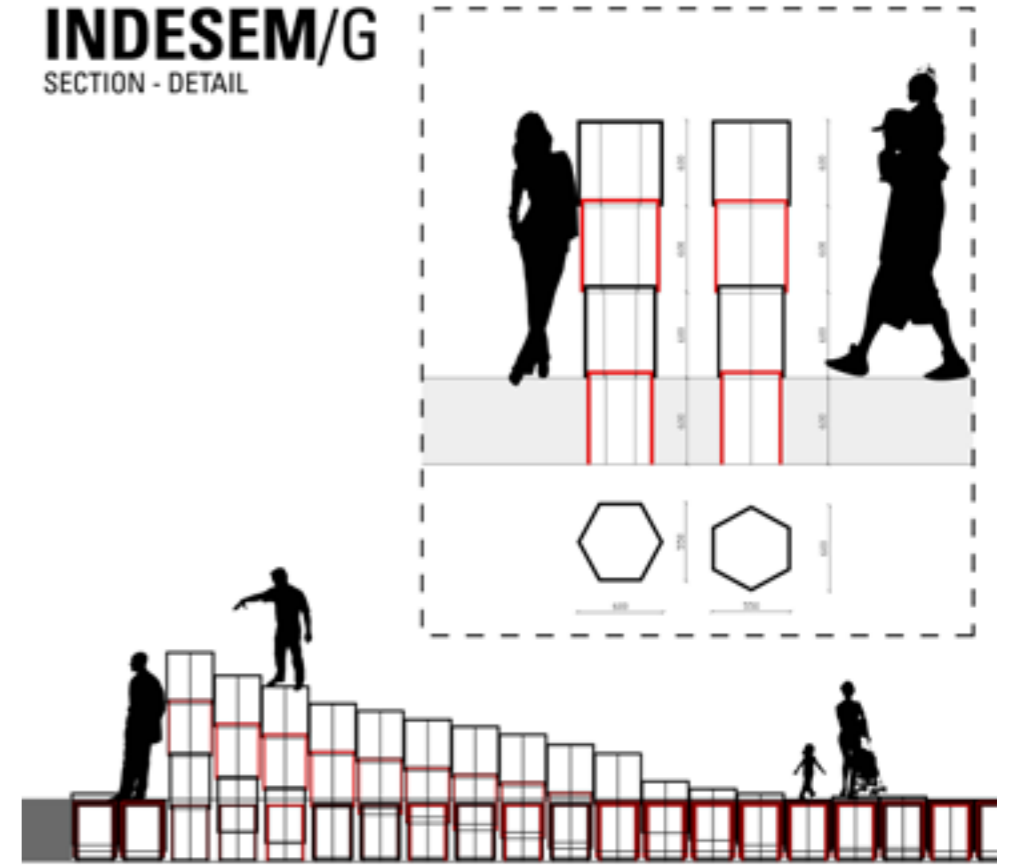
# INDESEM/G

SPEED/TIME/MOVEMENT OF THE SQUARE



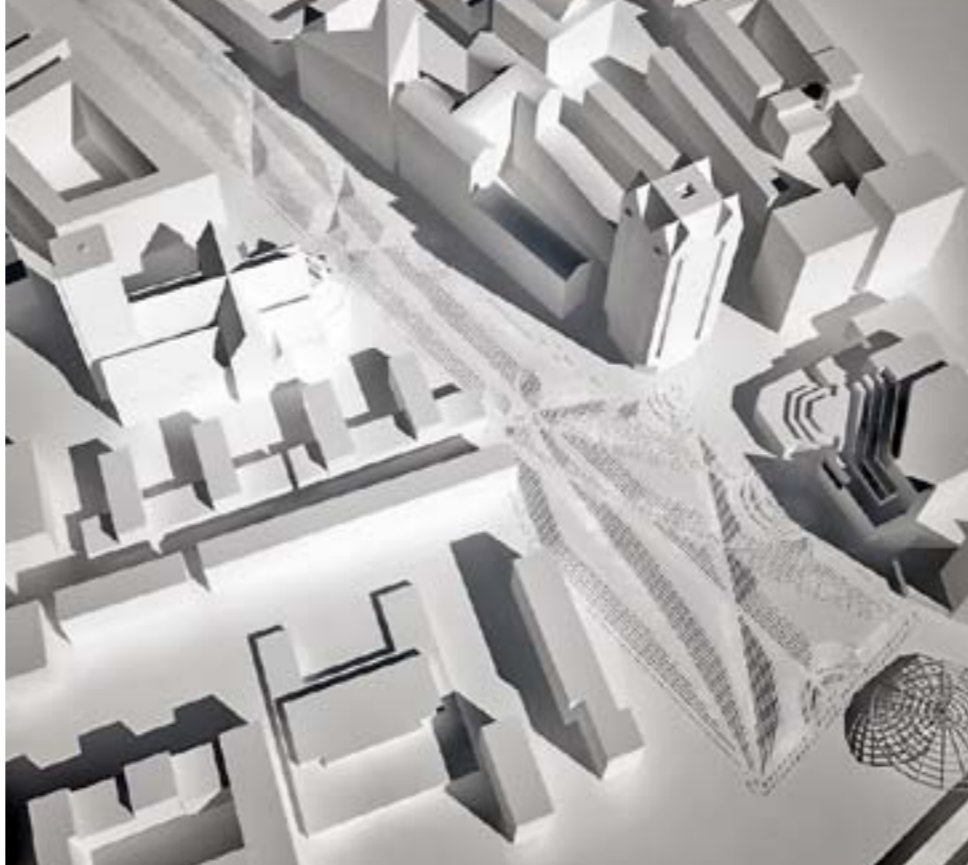
# INDESEM/G

SECTION - DETAIL



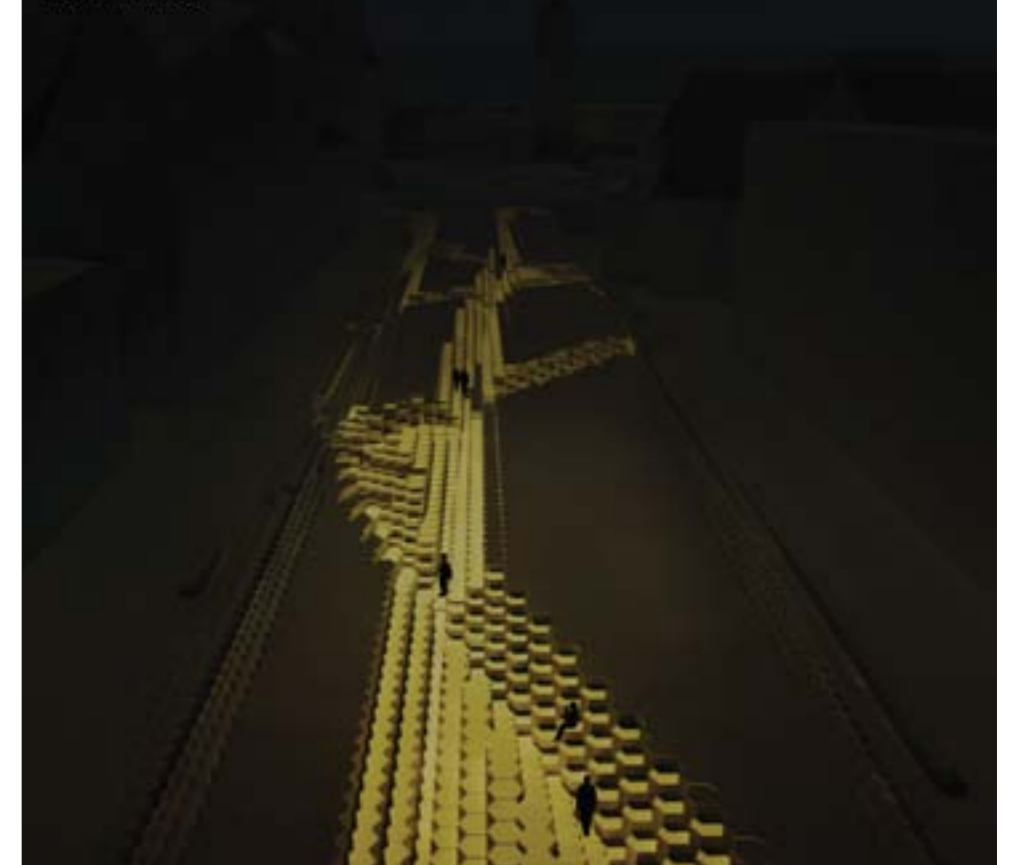
# INDESEM/G

PROPOSAL



# INDESEM/G

LIGHT IMPACT

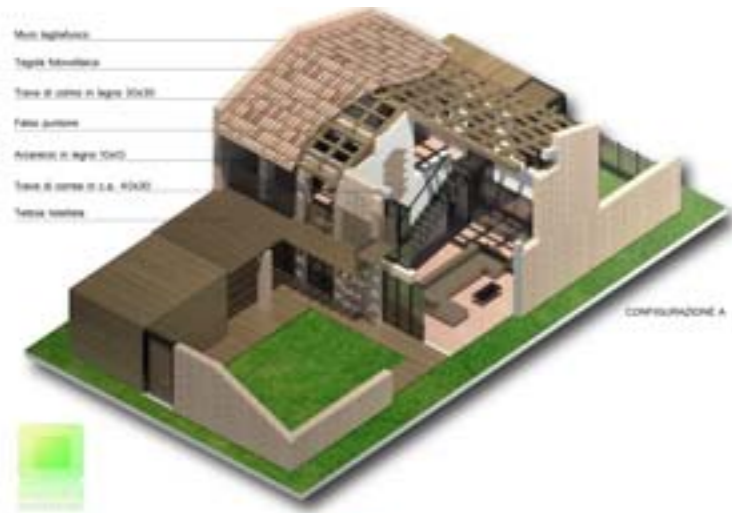




In cooperation with the Municipality of Forlì, the topic of this project was the recovery and re-use of the Ex Monti's Barrack. After redesigning the interior into a Hotel and Spa, we focused on the construction ex novo of a pedestrian/residential area with new housing typology adjusted to the new generation of families without children.

June 2010  
Forlì, Italy  
with Five Core & other students

# EX CASERMA MONTI

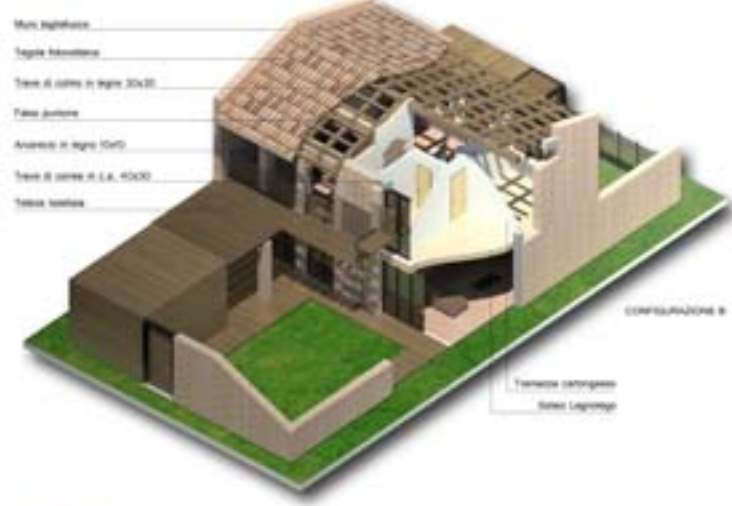


### Solaio in legno a secco - LEGNOLEGO

Il sistema LEGNOLEGO è progettato per facilitare l'assemblaggio con il minimo numero di elementi. Il sistema è composto da tavole in legno a secco, che possono essere assemblate separatamente, formando un unico sistema di solaio. Il sistema è composto da tavole in legno a secco, che possono essere assemblate separatamente, formando un unico sistema di solaio.

**PROFESSIONE DEL SISTEMA**

Tutte le tavole e i pannelli per il sistema LEGNOLEGO sono realizzati in legno a secco. La struttura del sistema è progettata per essere assemblata in un unico sistema di solaio. Il sistema è composto da tavole in legno a secco, che possono essere assemblate separatamente, formando un unico sistema di solaio.

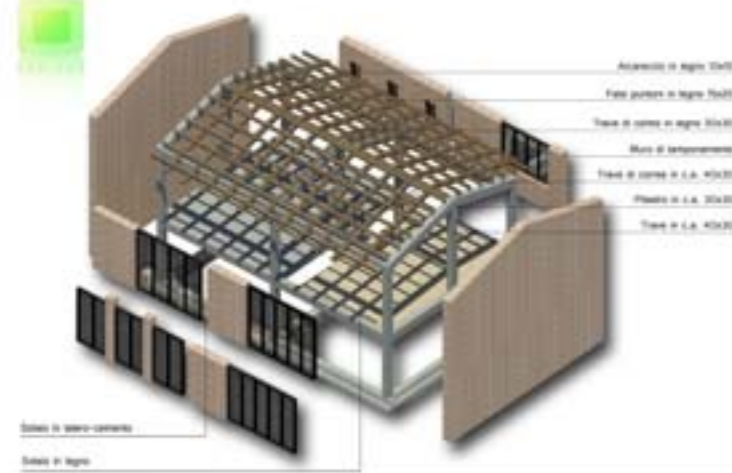


### Tegola fotovoltaica - TECHTILE ENERGY

Il sistema TECHTILE ENERGY è progettato per facilitare l'assemblaggio con il minimo numero di elementi. Il sistema è composto da tegole fotovoltaiche, che possono essere assemblate separatamente, formando un unico sistema di tetto. Il sistema è composto da tegole fotovoltaiche, che possono essere assemblate separatamente, formando un unico sistema di tetto.

**PROFESSIONE DEL SISTEMA**

Tutte le tegole e i pannelli per il sistema TECHTILE ENERGY sono realizzati in legno a secco. La struttura del sistema è progettata per essere assemblata in un unico sistema di tetto. Il sistema è composto da tegole fotovoltaiche, che possono essere assemblate separatamente, formando un unico sistema di tetto.



**PROFESSIONE DEL SISTEMA**

Tutte le tegole e i pannelli per il sistema TECHTILE ENERGY sono realizzati in legno a secco. La struttura del sistema è progettata per essere assemblata in un unico sistema di tetto. Il sistema è composto da tegole fotovoltaiche, che possono essere assemblate separatamente, formando un unico sistema di tetto.



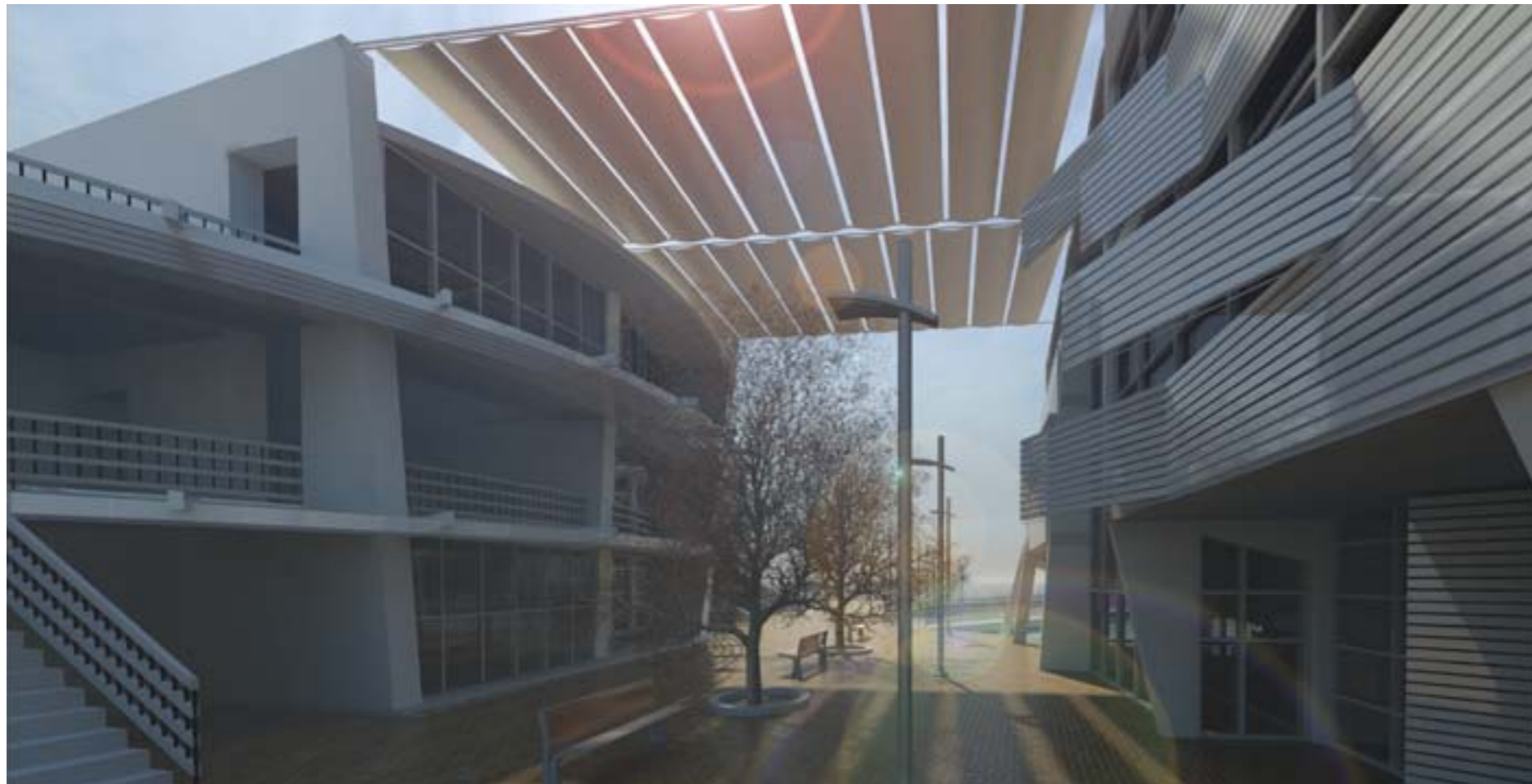


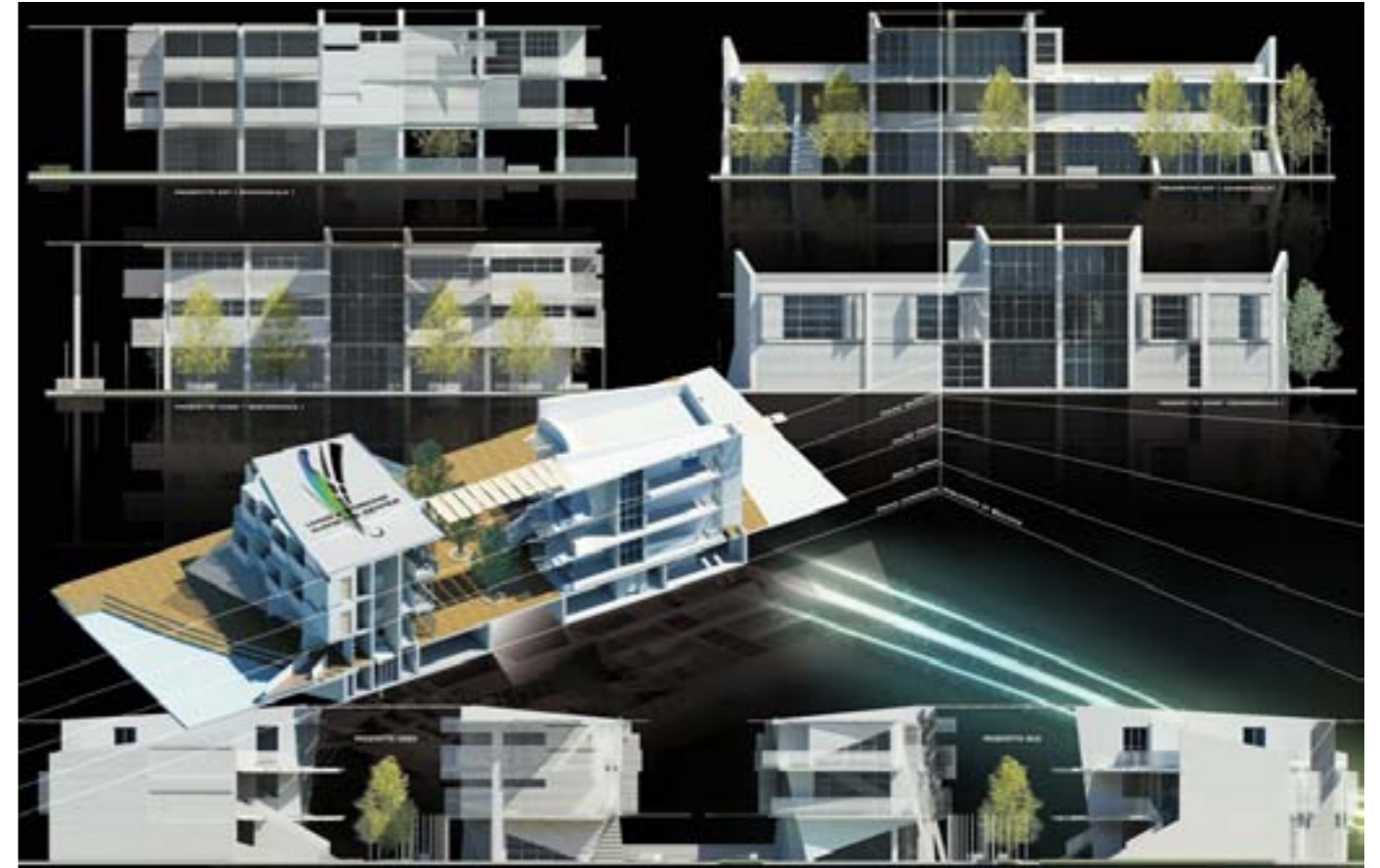


In cooperation with the Municipality of Formigine (near Modena), the issue concerned the definition of a new centrality and public space for Casinalbo (suburbs of Formigine). We designed a new urban plan with the idea of generating a non static public space with the creation of a big shopping street that runs through the project area, through which you can access the residential area, the public park and the library.

From the urban masterplan we started the specific study of two buildings facing the shopping street, investigating the architectural quality and functional mix of residence, commercial and public services. Particular attention was paid to passive design strategies like solar radiation and summer shade.

June 2009  
Casinalbo (MO), Italy  
with Five Core



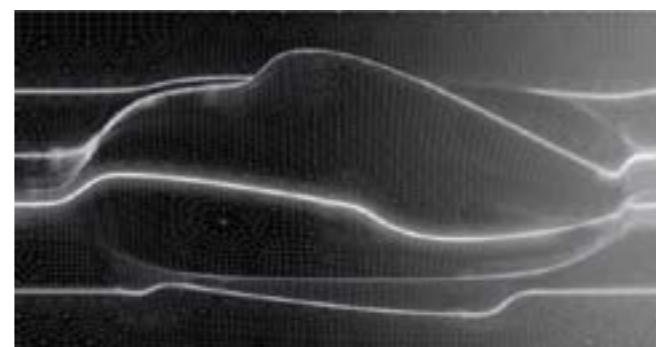
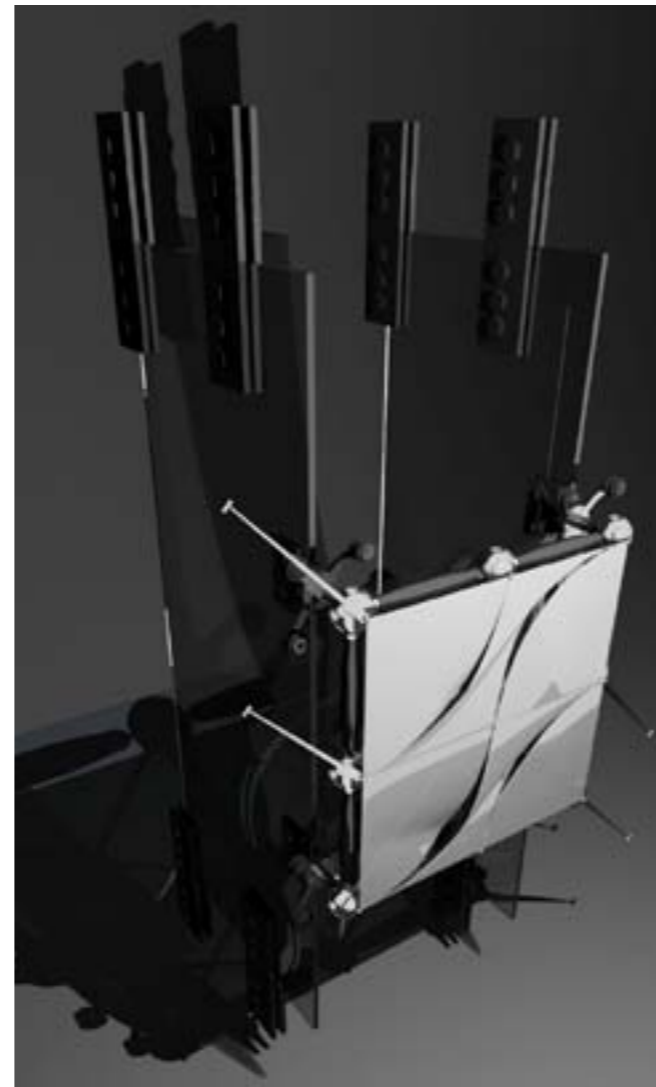
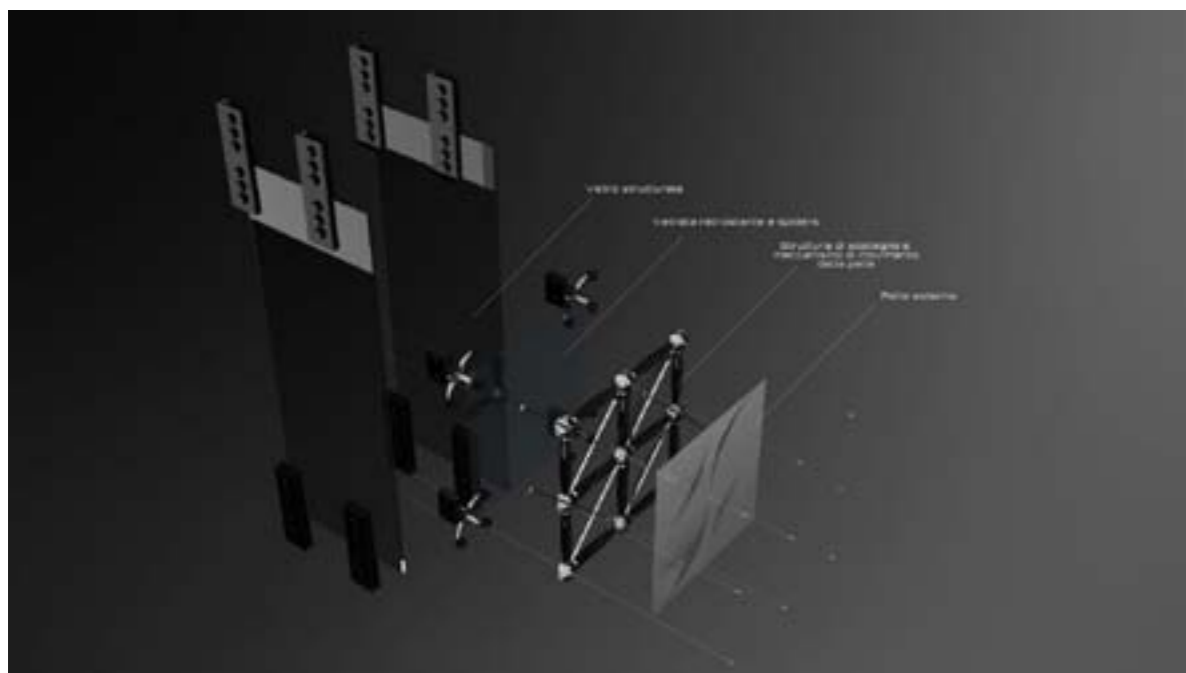
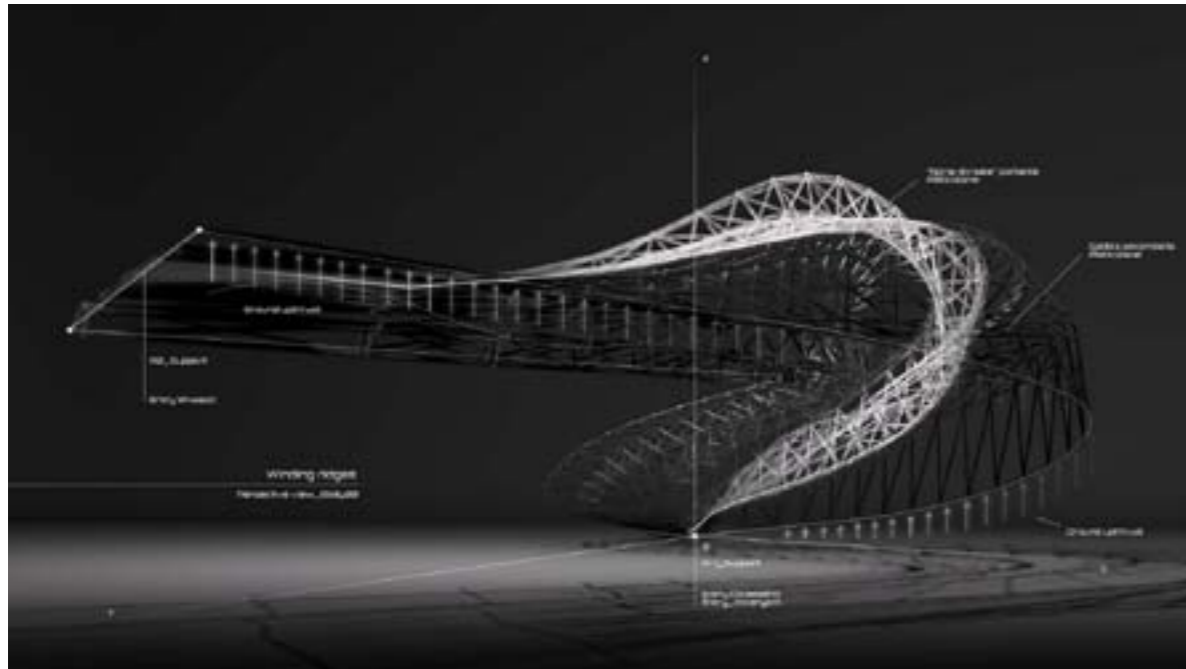
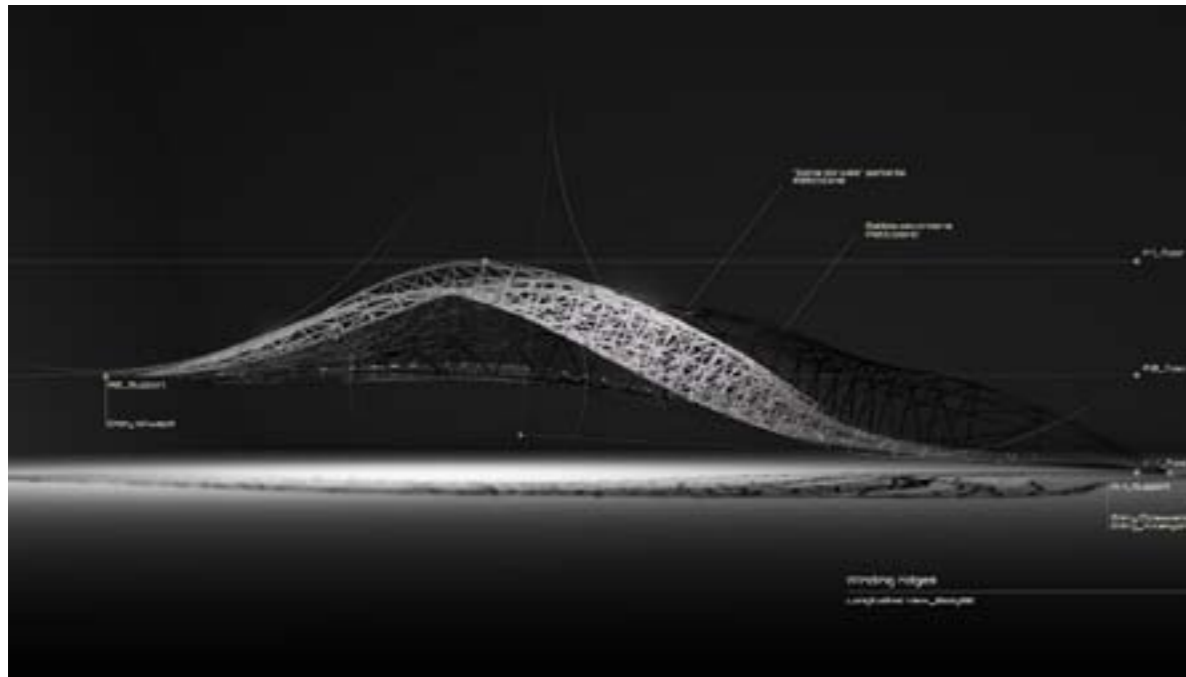




The study will investigate, using environmental pressures as a culture medium, the aesthetics of environmental mediators (clothing, body suits, prosthetics) to promote the exercise of personal feeling against the potential emerging in the form of complex-process-performance: sensitivity which is then applied to a system of generation of architectural forms and spaces as models of integration with physiology, culture, patterns of social life, environment.

Work in progress  
Bologna, Italy  
with Five Core and Gianluca Tabellini

# WINDING RIDGES



### Pattern structure

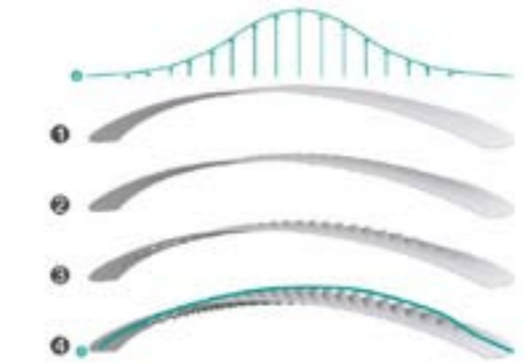
Pattern generation



The pattern consists of transversal cuts in the surface, these are extruded normally to the surface itself, following curves in two directions so that it is completely integrated but still providing an efficient solution for light and air to get into the building.

The green diagram shows the gaussian variation in the extrusion of the hole pattern surface, the red one, instead, illustrates how the profile of each single curve varies gradually from the beginning to the end of the surface.

Longitudinal profile



Transversal profile



Layers composition

