Politecnico di Milano Scuola di Architettura e Società Dipartimento di Architettura e Studi Urbani

Thematic Studio "Edgelands and Urban Agriculture" Corinna Morandi, Fabrizio Leoni, Andrea Rolando,

Tutors: Matteo Paracchini, Paola Sturla



Urban Design studio

### **Edgelands and urban Agriculture**

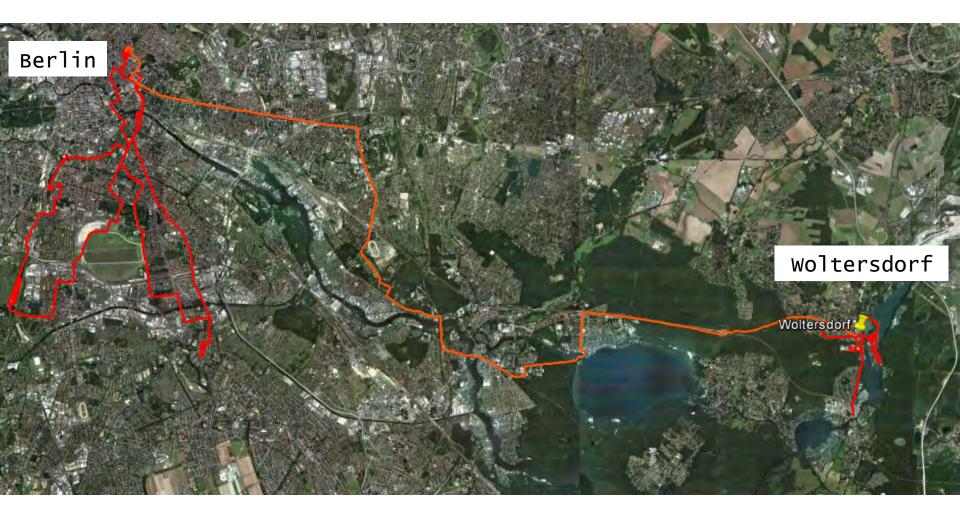
Berlin, April 29th – May 3rd, 2013 ANCB AEDES NETWORK CAMPUS\_Berlin



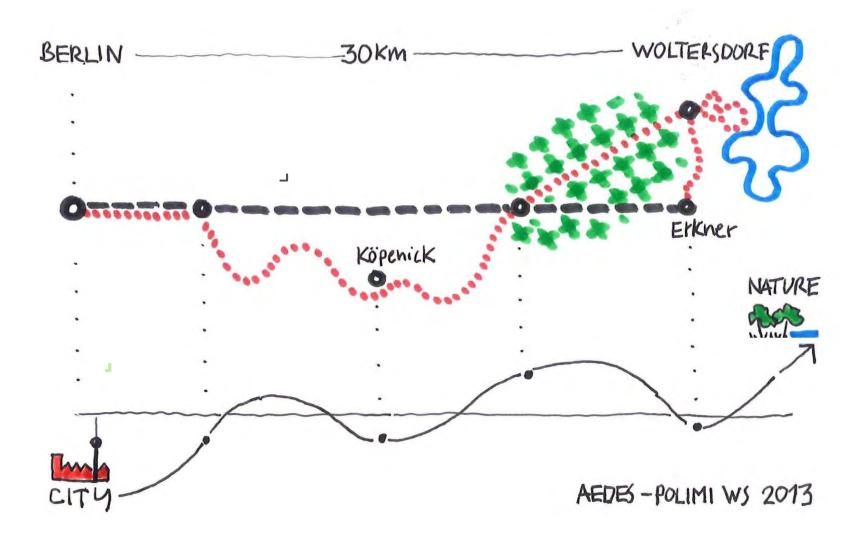
# Learning from Berlin

1 studio
Edgelands and Urban Agriculture
27 students
12 nationalities

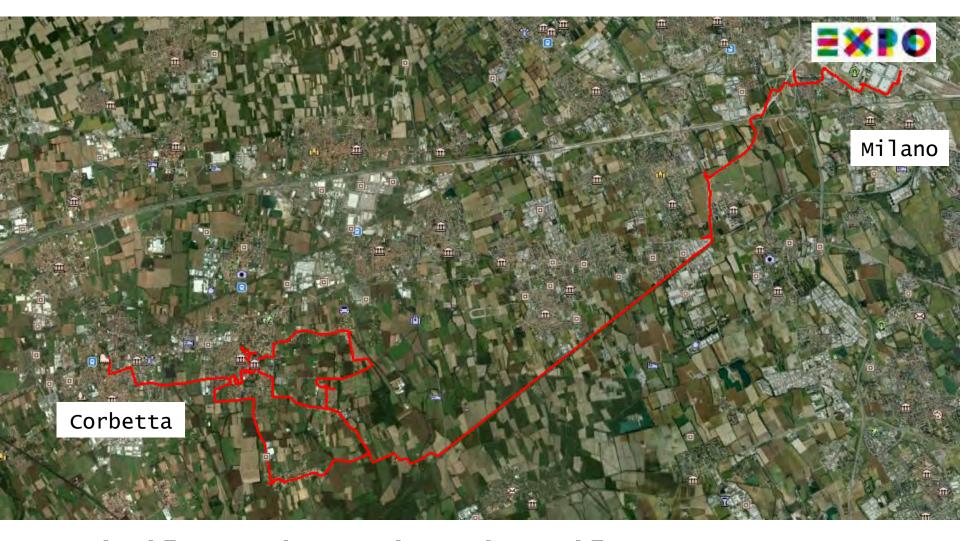
The emerging of the themes of edgelands and urban agriculture, focused on a new consideration of the role of the spaces in-between the urban and the rural, and on the relationships city/agriculture or production/ consumption/leisure, draws the attention of planners, urban and landscape designers towards a specific interest in those open spaces, which play economic, spatial, ecological and social roles.



Experiencing urban and territorial scale



Experiencing urban and territorial scale: Carl Marx Allee, Köpenick, Rahnsdorf, the forest, Woltersdorf



# A similar situation in Milan







# Productive landscape





# Woltersdorf





Woltersdorf, the town center



Corbetta, the town center



## Erkner, the railway station



## Corbetta, the railway station



From Woltersdorf to Rahnsdorf through the forest along the tramway



From Corbetta to Milano through the countryside along a canal



# Woltersdorf

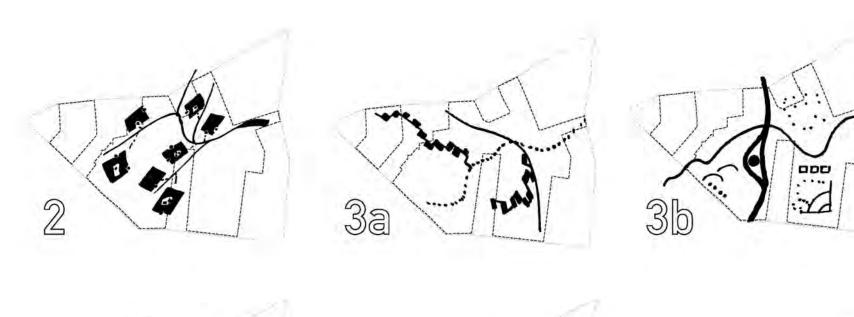
# Working in Woltersdorf

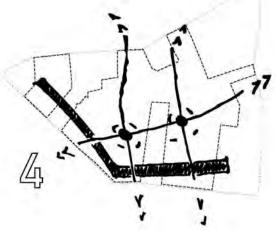
- Experiencing the territorial Relationships
- Readig the topography of the site 🖌

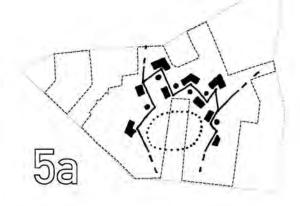
• Interacting with each tree

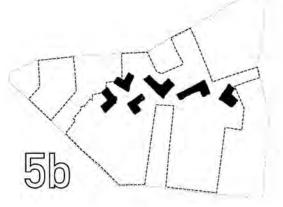
• Thinking about social life, leisure and urban agriculture

• Understanding what **typologies** may be suitable

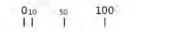








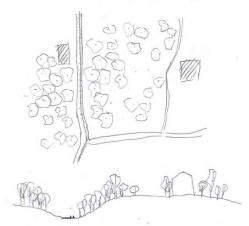


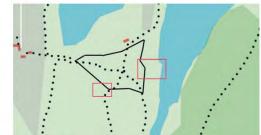






lake's dwelling

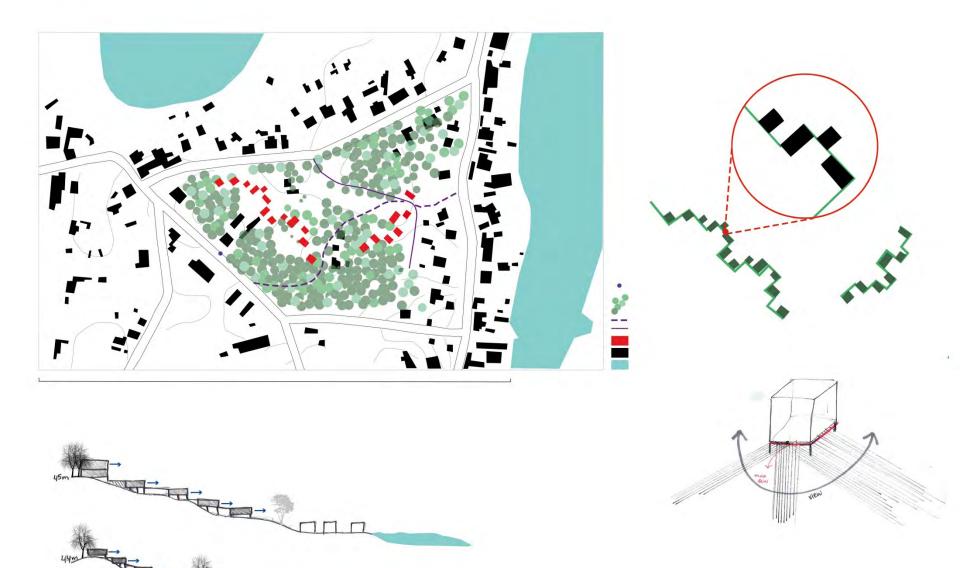






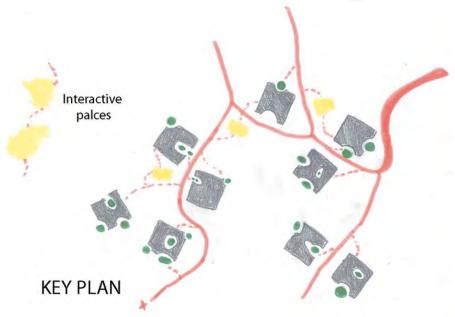
#### **MASTERPLAN 1**

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#### **MASTERPLAN 2**





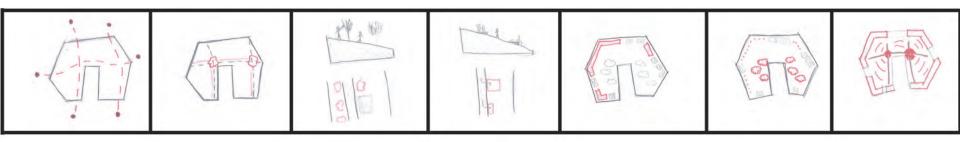


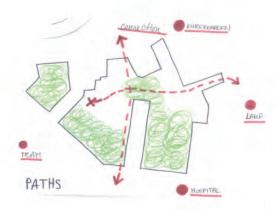


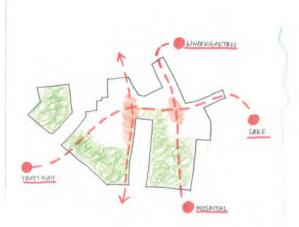


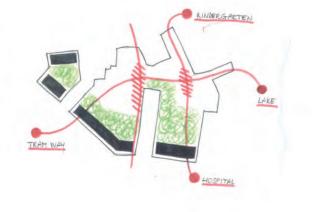


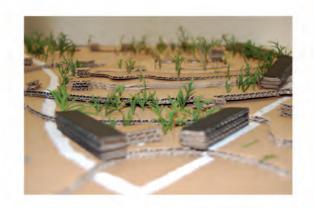




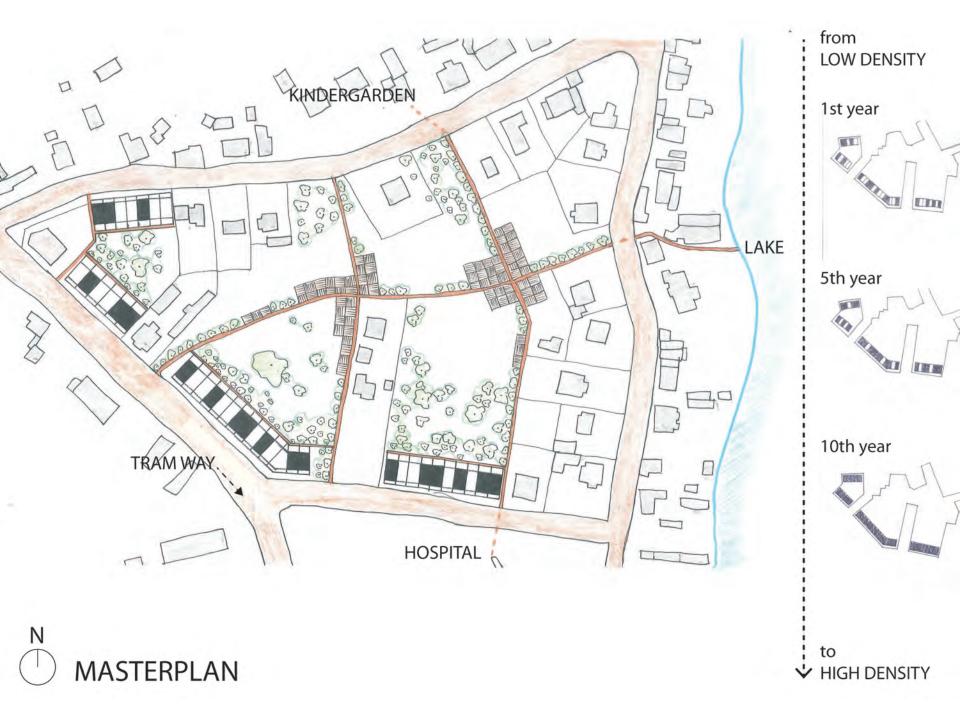












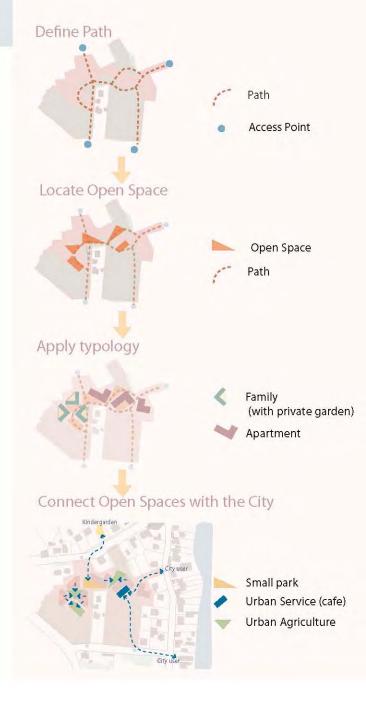
#### Master Plan (Low Density)





#### Master Plan (High Density)





# SEEGARTEN GEHAUSE spontaneous living, informal design and urban agriculture

A proposal for the Community of Woltersdorf in the outskirts of Berlin

Arezoo Akbarvand and Cecilia Ricci



Prof. Andrea Rolando

POLITECNICO DI MILANO School of Architecture and Society Masters Degree in Architecture A.A. 2012/2013

# RURAL OR NOT?

How is going to be our life in the next 20 or even less years?

The conflict between agricultural and urban territories is changing in a dialogue, finding again a dimension of coexistence and collaboration.



G. Berengo Gardin, Asciano, Siena, 1961.

# WHAT IS NEEDED?

People need to be re-linked with the natural features, a replacement in the ground.

Urban Agriculture plays a key role in two global challenges: urbanization and food security.

It can make an important contribution to a sustainable urban development and creation and maintenance of multifunctional urban landscapes.

During the past years this process happened spontaneously from people's needs and demands.



Prinzessinnengarten, Berlin, 2012.

## WHAT IS NEEDED?

"The garden doesn't belong to anyone, we manage it, but anyone who wants to, can participate, because the goal is to provide locally produced organic vegetables to the people who live in the district, and promote community work and the revival of organic agriculture traditions which have been forgotten in cities like Berlin."

Robert Shaw, Prinzessinnengarten's founder and coordinator



Prinzessinnengarten, Berlin, 2013.

# URBAN SPACES AS A PLATFORM FOR THE HAPPY DEGROWTH

"the Decrease is the reduction of the production and the consumption of the goods, which don't have utility - also called as "junk goods"..it consists in the reduction of the energetic and non-energetic wastes. The achievement of this objective depends very much on technologies' development, aimed to both a reduction of materials' and energetic waste during the process of production as well as to the reduction of the products that are wasted when they fall into disuse."

Maurizio Pallante



Baby eating a homemade yogurt with mummy in front of a laptop.

## EDUCATION AND HORTICULTURE THERAPY

"To live together in the world means essentially that a world of things is between those who have it in common, as a table is located between those who sit around it: the world like every in-between, relates and separates men at the same time."

Daniel Kemmis

"These commons are the spaces that expand and deepen cultural and ecological vision and mold citizenship"

Brian Donahue



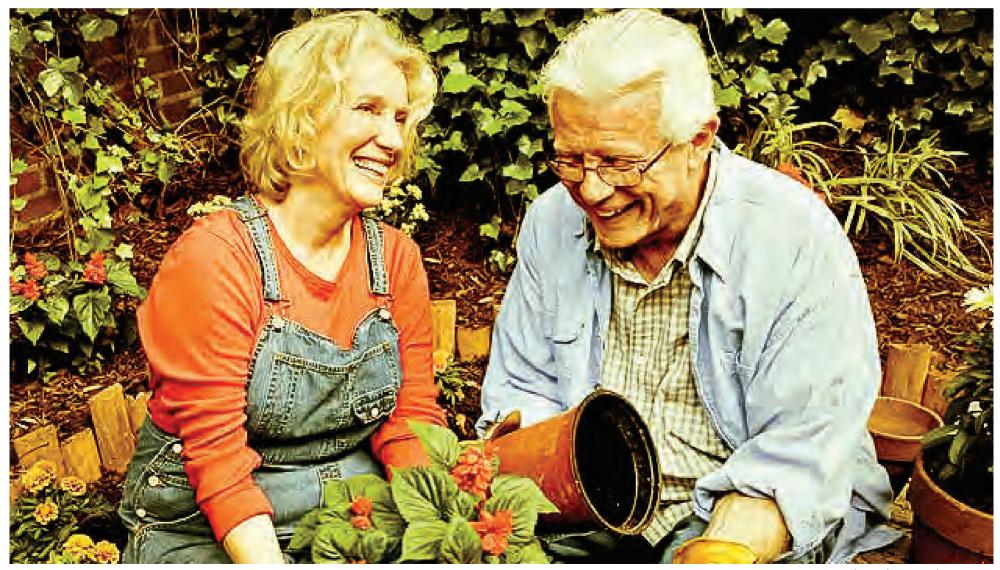
Baby playing in a garden, 2013.

# EDUCATION AND HORTICULTURE THERAPY

Therapeutic or healing gardens and green spaces of many kinds are becoming key elements in the design of hospitals, assisted living facilities and nursing homes.

Horticultural therapy is a time-proven practice. The American Horticulture Therapy Association defines horticulture therapy as, *"a process utilizing plants and horticultural activities to improve social, educational, psychological and physical adjustment of persons thus improving their body, mind and spirit."* 

The use of place in educational contexts not only provides students with knowledge and understanding of a particular place, but also communicates that the land has value, that students' experience outside the classrom have value, and that students' own personal knowledge has value.



Couple in their garden, 1998.

# HUMAN SCALE AS A UNIVERSAL STARTING POINT

"Cities are the places where people meet to exchange ideas, trade, or simply relax and enjoy themselves. A city's public domain — its streets, squares, and parks — is the stage and the catalyst for these activities. Jan Gehl, the doyen of public-space design, has a deep understanding of how we use the public domain and offers us the tools we need to improve the design of public spaces and, as a consequence, the quality of our lives in cities.

Everyone should have the right to easily accessible open spaces, just as they have a right to clean water. Everyone should be able to see a tree from their window, or to sit on a bench close to their home with a play space for children, or to walk to a park within ten minutes. Well-designed neighborhoods inspire the people who live in them, whilst poorly designed cities brutalize their citizens. As Jan says: "We shape cities, and they shape us."



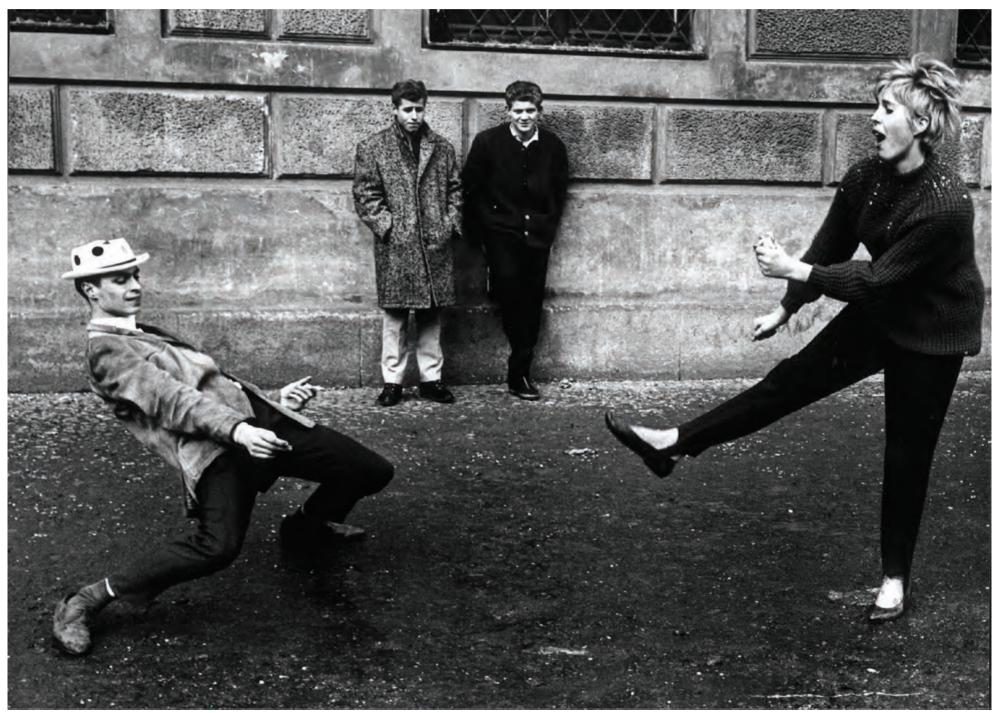
Lord Richard Rogers, from introduction to Cities for People by Jan Gehl

Marc Riboud, Shangai, 2005.

# SHAPING THE CITIES TO SHAPE US

The close connection between people's use of city space, the quality of city space and degree of concern for the human dimension is a general pattern that can be shown at all scales.

Just as cities can invite city life, there are many examples of how the renovation of a single space or even change in furniture and details can invite people to a totally new pattern of use.



G. Berengo Gardin, Monaco, 1965.

## SPONTANEOUS LIVING

Venice has everything: dense city structure, short walking distances, beautiful courses of space, high degree of mixed use, active ground floors, distinguished architecture and carefully designed details – and all on human scale.

"How can I design if I do not know what the end results will be like? Is a frequent complaint. Why would you need to design if you already knew? Is my response."

John Habraken in Spontaneous Cities by Urhan Design



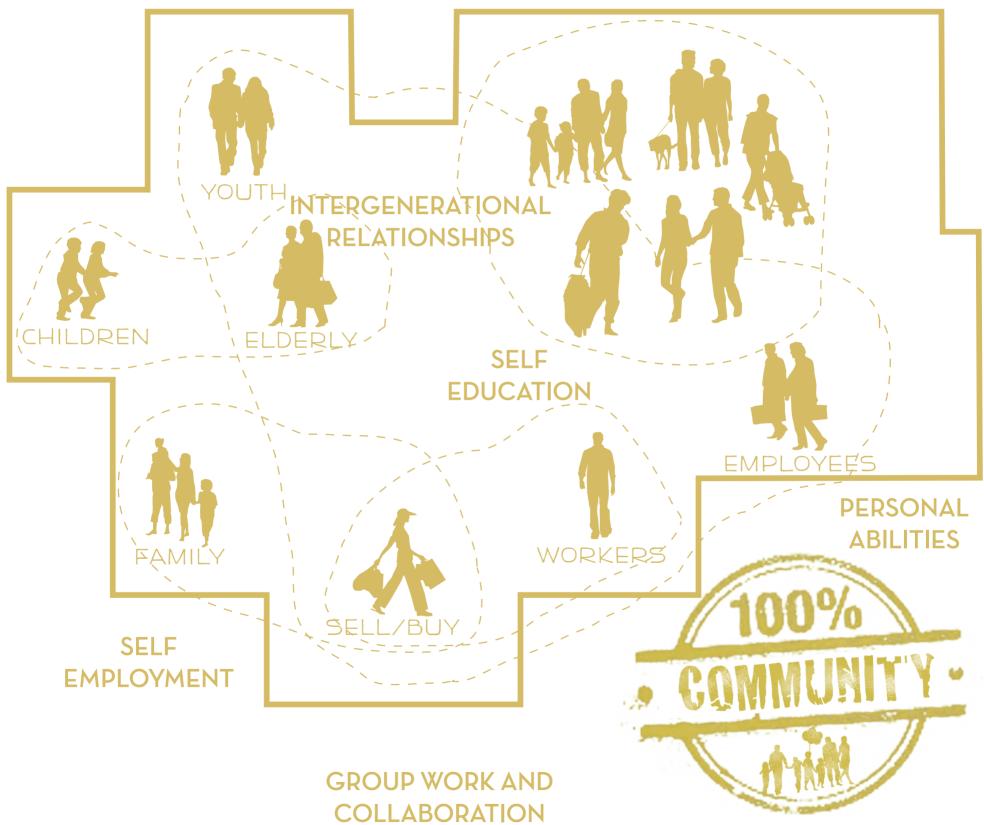
Giovanni Nardi, Venezia, 2010.



## INDIVIDUAL CREATIVITY AND INNOVATION

# CULTURAL EXCHANGE





INDIPENDENT OF LARGE PROVIDERS OF ENERGY, WATER AND WASTE TREATMENT.

> GREEN AND GARDEN TO IMPROVE LIFE QUALITY

NETWORK OF ENERGY, FOOD, JOB, SKILLS EXCHANGE.

SELF MENAGEMENT OF RESOURCES

**FOOD PRODUCTION** 

uuuuuu



## CONCLUSIONS

'Cities have the capability of providing something for everybody, only because, and only when they are created by everybody'

Jane Jacobs

With the aim of shaping a spontaneous city we need to consider four important principles: ZOOM IN SUPERVISE OPEN DEVELOPMENTS CREATE COLLECTIVE VALUES

## BE USER-ORIENTED

With those premises we present our project, that it's more a proposal for a FLEXIBLE URBAN PLANNING, grafted onto the POWER of PRIVATE INITIATIVES.

Our answer to the instant city and the economical crisis is the **SPONTANEOUS CITY**.

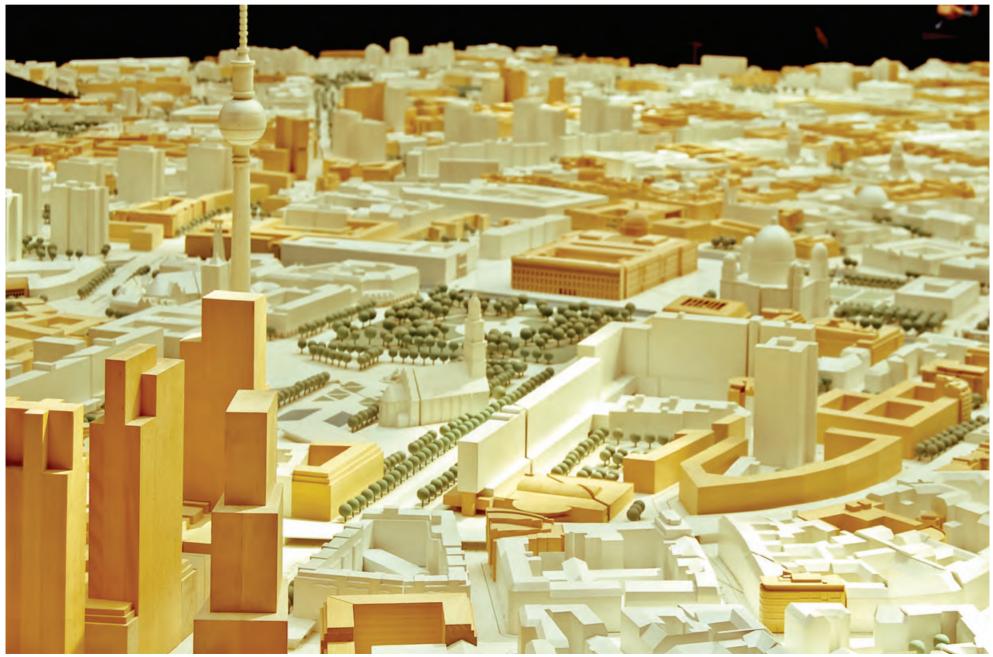
# This is an opportunity for another practice with a new investment logic: **A CONCEPT, OPEN TO INDIVIDUAL INTERPRETATION**.

In reaction to the current economical crisis, we need to scrutinise our planning strategies. Instead of just making cut-backs or deducing cost, we should be focusing on weighing the value of the environment and on mobilising **SMALLER BUDGETS** on a **LARGER SCALE**.

# BERLIN AND GARDEN SENSIBILITY

Berlin will host the 2017 'Internationale Gärten Ausstellung' (IGA), Germany's world horticultural exhibition that will be held at the site of Berlin's former airport Tempelhof.

The expo is set to become the engine behind the future development of the Tempelhof park which will become known by a wide audience and will make Berlin even greener and more attractive.



Berling maquette of reconstruction, 2013.

# LIVING A RENEWING CITY

From the water garden to the urban farm, from forest to park: 2017 Berlin becomes an international showcase for the diversity, beauty and transformational power of contemporary garden and landscape design.

This can be the right occasion to sensitise the people about this topic and the perfect scenario to the project and policies proposed in this research.



# WHAT ABOUT THE COUNTRYSIDE?

Schöneiche, Rüdersdorf and Woltersdorf are three towns just outside the eastern city border of Berlin, in the Landkreis of Märkisch Oderland, which is part of the state of Brandenburg. Together they have a population of approx. 35,000.

These towns are linked to Berlin S-Bahn stations via two tram lines that are independent from the Berlin tram network. The town of Woltersdorf an der Schleuse, it's become popular for being Germany's smallest town with an own tram.

Passing by the forest and cultivated lands, the journey from the town to the city offers a complete view of the outskirts of Berlin throw the countryside.



Connections from Berlin to Woltersdorf

# THE TOWN OF WOLTERSDORF

The town was founded in 1240 by 14 farming and sailors families.

Rich in natural and built interesting features, the town struggles to become a place to live rather than just being an habitat for people working in the metropolis, it has potential on many levels: it has a protected landscape (a dune, two lakes, national park...),sites and empty buildings for development, growing population and excellent infrastructural equipment. It is also part of a "Ortsverband" which is a regional community network of four townships to strengthen inter-communal strategies on political and planning levels.

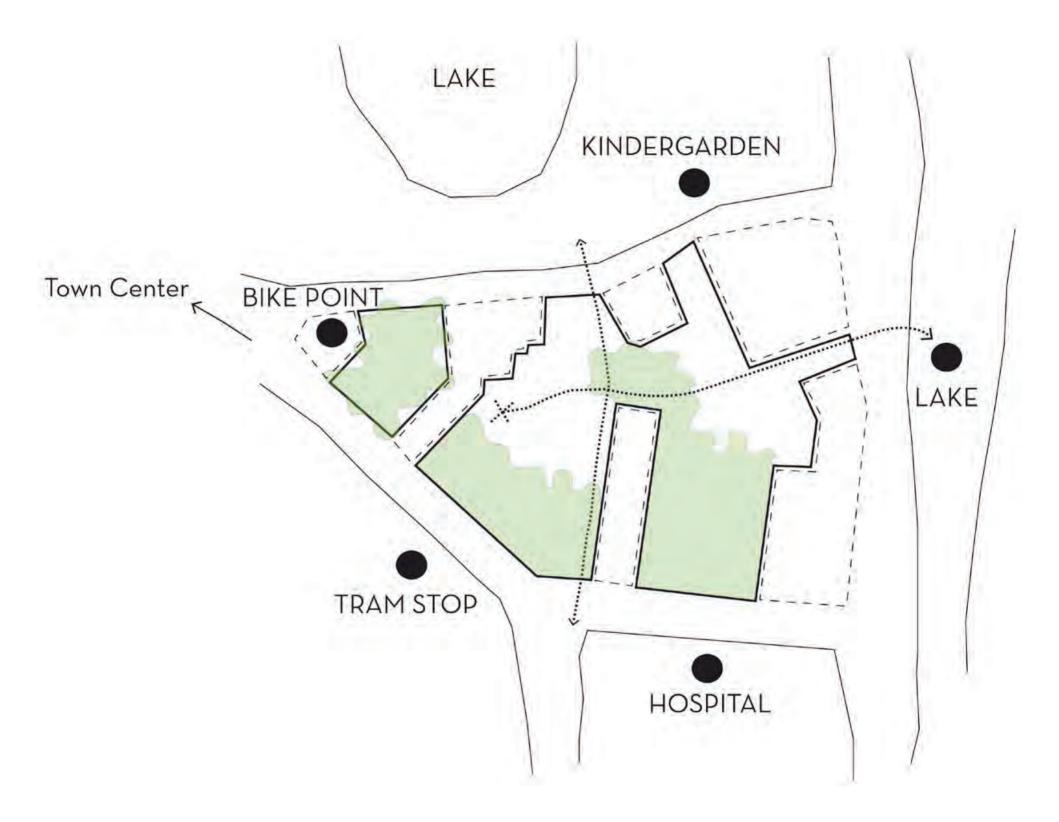
The community itself asked to the Architecture Forum Aedes a new proposal for a residential area, requiring a change inside their town especially in terms of people relationships.

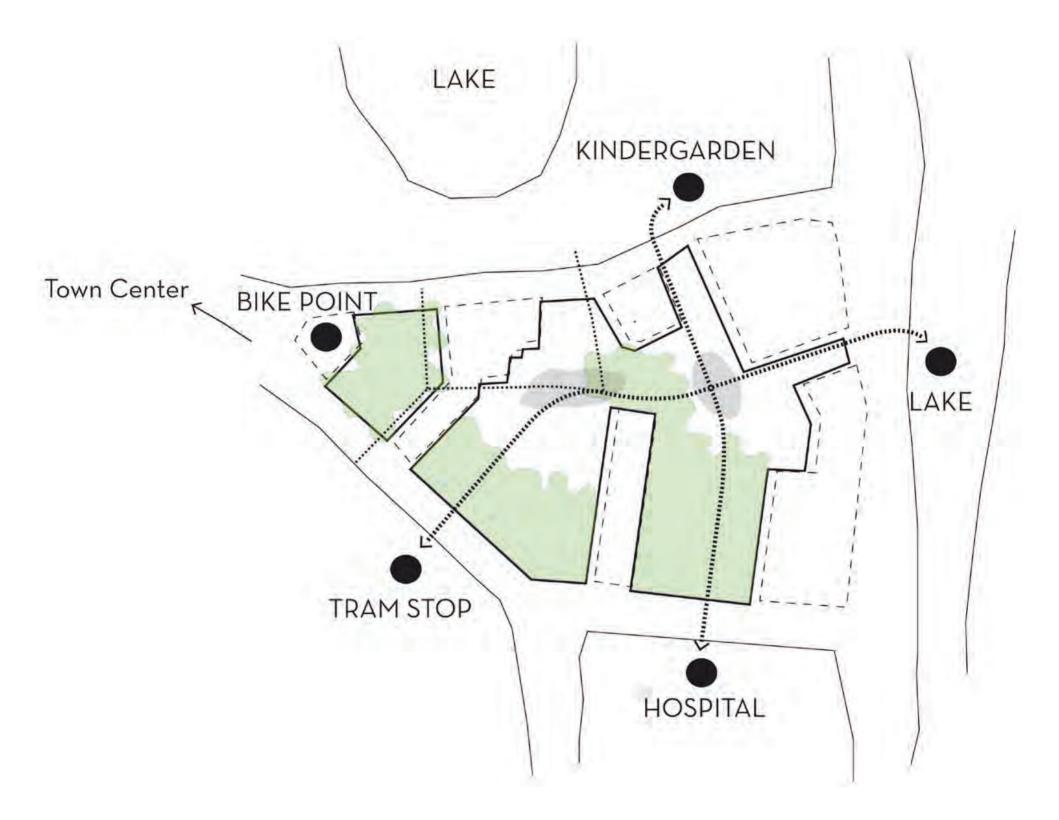


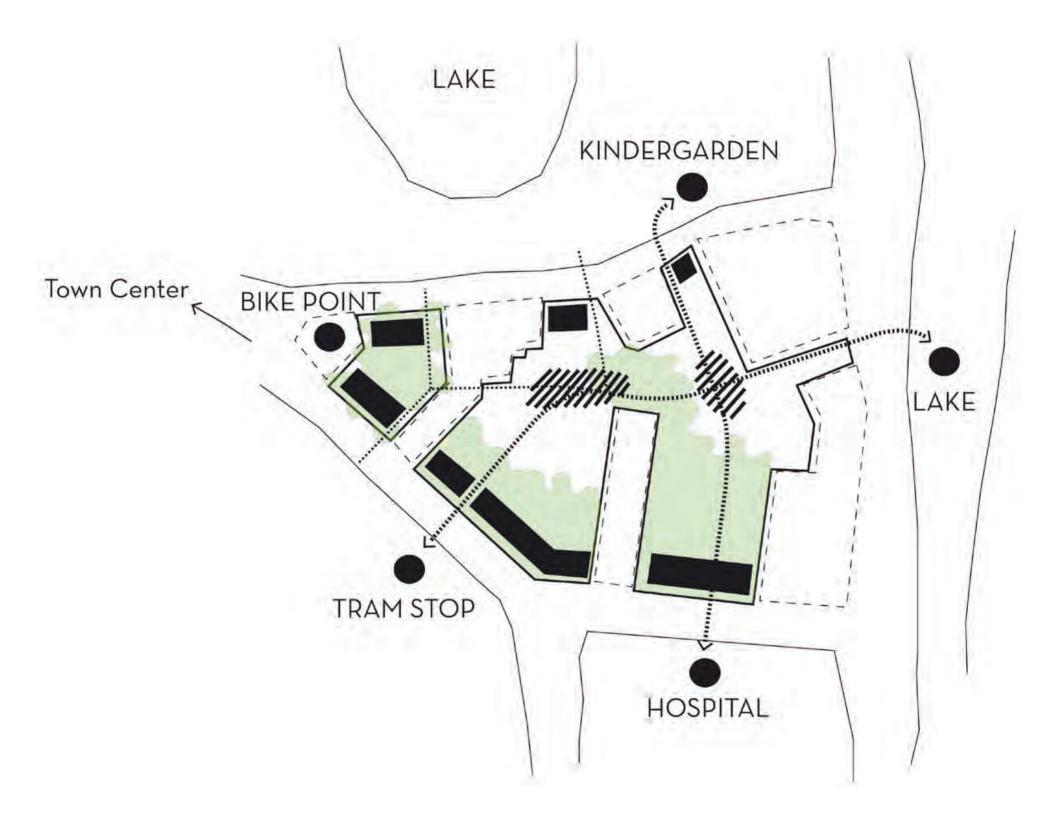
Woltersdorf top view, 2008.

## PROPOSAL FOR A NEW MODEL OF LIVING













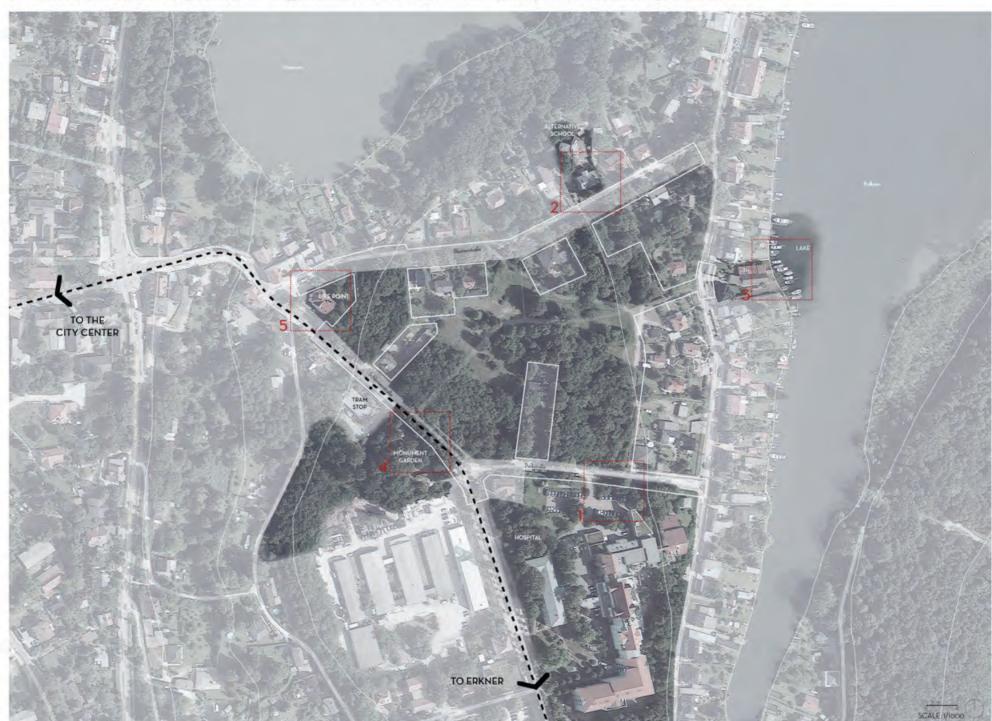




## MASTER PLAN

DESCRIPTION AND HISTORY:

The town is settled down on a HILL and was founded in 1240 by 14 farming families between Schöneiche forest and the fishing village of Radensdorf. The original inhabitants were mostly FARMERS or SAILORS. In the last 20 years, the CITY CONTINUED TO DEVELOP into an attractive residential address so that the population curve with currently about 7,730 inhabitants. Today Woltersdorf offers its residents and guests all the ADVANTAGES OF A SMALL TOWN, the opportunity for recreation and PROXIMITY to the city of BERLIN. Rich in NATURAL and BUILT interesting features, the town struggles to become a PLACE TO LIVE rather than just being an habitat for people working in the metropolis.





Evangelisch-Freikirchliches Krankenhaus, one of the main hospitals of the region, located on the south of the project area



#### LAKE and SAILING CLUB

In Kalksee which has a direct access from the site. and also from its perimeter. located on the north of the project area



MONUMENT GARDENS TRAM STOP



In which it is possible to rent or buy bicycles. located on the north of the area.

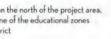
**BIKE POINT** 

5



Located on the north of the project area. which is one of the educational zones of the district

KINDERGARTEN



Kriegerdenkmal 'Fidus-Denkmal', a war monument in one the parks of the region. located on the south



## HOSPITAL

Evangelisch-Freikirchliches Krankenhaus, one of the main hospitals of the region, located on the south of the project area



## KINDERGARTEN

Located on the north of the project area, which is one of the educational zones of the district



## LAKE and SAILING CLUB

In Kalksee which has a direct access from the site, and also from its perimeter, located on the north of the project area



### MONUMENT GARDENS TRAM STOP

Kriegerdenkmal 'Fidus-Denkmal', a war monument in one the parks of the region, located on the south



### **BIKE POINT**

In which it is possible to rent or buy bicycles, located on the north of the area.

5

## MASTER PLAN | YEAR

THE LOCATIONS POTENTIALS: The old **TRAM** which passes by an adjacent street **BIKE POINT** where is possible to rent/buy bikes Accessibility to the SAILING CLUB in Kalksee directly from the site and also from its surrounding area KINDERGARTEN on the nord, and Evangelisch-Freikirchliches Krankenhausone, of the main HOSPITALs of the region, on the south. Kriegerdenkmal 'Fidus-Denkmal', a WAR MEMORIAL in one of the PARKs of the town.





#### "SPEED-REDUCTION SLOPES"

Which are considered at the borders of the project area to increase the security and safety of the pedestrian.



"COVERED MARKET" the Tram Stop and the Lake,

#### Located on the main access that connects which is open to the vehicles as well. and gives the possibility to the farmers to sell their own products.

#### "EDUCATIVE and THERAPY GARDENS"

Connecting the kindergarten and the hospital, which gives the chance of an intergenerationa exchange between the children and the elderly. Close to the "Organic Cafeteria and Info Point"

"PUBLIC GARDENS"

"PICK YOUR OWN"



#### "The STRUCTURE, as a GUIDELINE"

rather than a fixed elemnt, that would be filled and developed during the time. related to the inhabitants, usage and needs, with the front access to the main street for the vehicles. and back access for pedestrian.

5



Which provides everybody the possibility to cultivate their own products. Fruitful trees along all the paths, so the passengers can pick up their own fresh fruits passing by.



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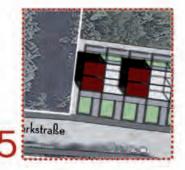
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## 

DESIGN CRITERIA OF THE CONCEPT: Potential of the **KEYPOINS** Main EXISTING ROUTS

Connecting the zone both physically and mentally to be ACCESSABLE FOR EVERYBODY Designing the space as open and FLEXIBLE as possible, so the COMMUNITY can change it based on their needs Proposing CIVIC AGRICULTURE to the people as a tool for EDUCATION and THERAPY





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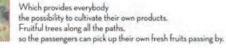


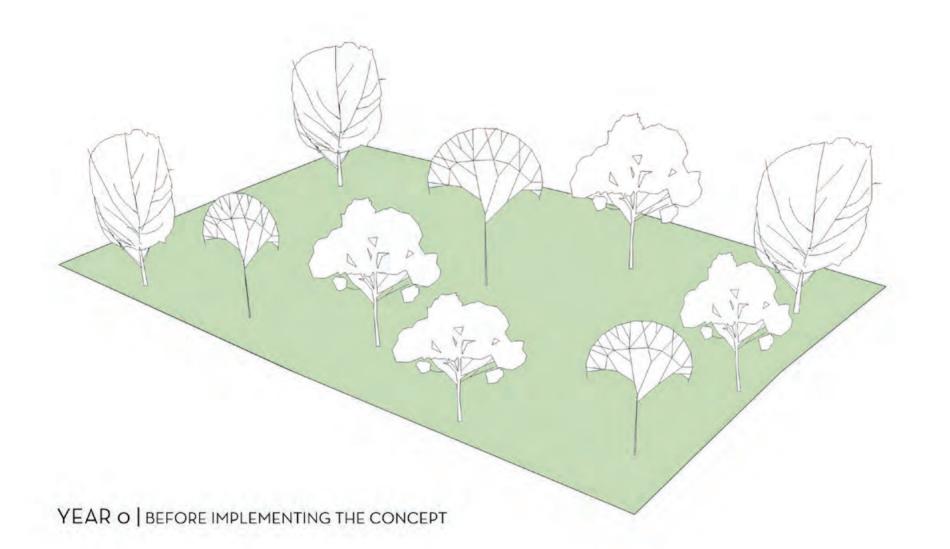


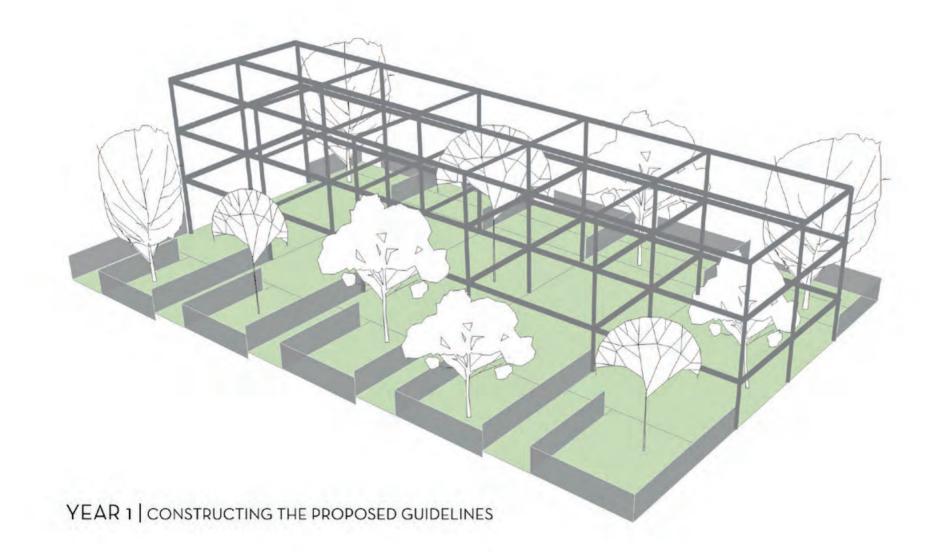
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## MASTER PLAN | YEAR

WHAT ABOUT THE FUTURE?

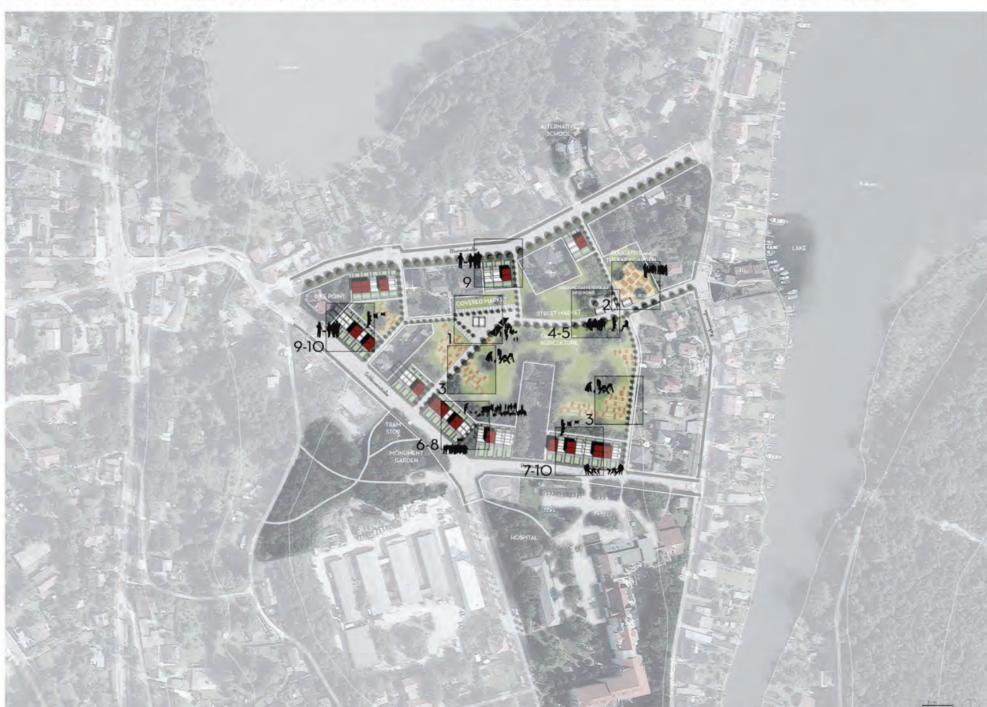
The project is an EXPERIMENT which would shape based on PARTICIPATION and SHARING of changes, implementing by the INHABITANTS already settled.

A FLEXIBLE design and more responsive layouts, to the EVER-CHANGING NEEDS.

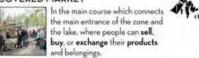
As flexibility corresponds to a FREEDOM in terms of not only TIME , but also Space.

Seen in a light of the "POSSIBLE" donated to the community with the ability to MANAGE SPACE by creating a PERSONALIZED AND UNIQUE SPACE for every single or family

An INFRASTRUCTURAL SUPPORT FOR HOUSING UNITS, as a BASIC GRID, with different sizes and shapes, featuring a lightweight autonomous, flexible and ADOPTABLE to different configurations.

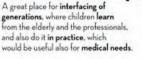


#### COVERED MARKET



EDUCATING AND THERAPY GARDENS



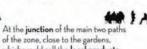


#### PUBLIC GARDENS

CAFETERIA

3

Along the different paths of the area, where people can cultivate and produce different agricultural and handmade products, pratice mwork and communal living.



of the zone, close to the gardens. which would sell the local products, where the people could relax, take their tim socialize and interact with each other.



the main two paths of the zone. where would inform tourists

#### and also local people about the available services. OUTDOOR CINEMA

440 F A



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#### PLAYGROUND TAKY TAR

K

Where you can find a tree or your cosy corner. just let your fantasy grow, and create a space for yourself or for the ones you love.

#### F. MALIMA LAUNDRY

The backyard also could be an ideal space for the children to take care of their own pets and learn how to raise animals, not only the plants.

#### NEIGHBOURHOOD GATHERINGS

SCALE: 1/1000

In the backyard, or unbuilt part of the structure between the neighbours, you can organize your feasts, or afternoon teas 9 together and let your family grow.



common space with your neighbour, our neighbours, you can do your





while getting to know better laundry and let your clothes dry.



5

#### COVERED MARKET



### PUBLIC GARDENS



In the public zone, along the main course

their PRODUCTS and belongings.

Along the different paths of the area, where people can cultivate and produce different AGRICULTURAL and also HANDMADE products, and pratice TEAMWORK and COMMUNAL LIVING.

which connects the main entrance of the zone and the lake

where people can SELL, BUY, or EXCHANGE

### INFO POINT

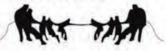




At the JUNCTION of the main two paths of the zone. where would inform tourists and also local people about the SERVICES AVAILABLE in the area.

### TREEHOUSE AND PLAYGROUND





Anywhere in the zone, where you can find a TREE or your COSY CORNER. just let your FANTASY grow. and CREATE A SPACE for yourself or for the ones you love.

### NEIGHBOURHOOD GATHERINGS





In the BACKYARD. or also in the UNBUILT PART of the STRUCTURE between the neighbours. you can organize your FEASTS, gathering, afternoon teas ot dinners together, and let your family grow.

### EDUCATING AND THERAPY GARDENS



In the public zone, along the main course which connects the kindergarten and the hospital, a great place for INTERFACING OF GENERATIONS. where children LEARN from the elderly and the professionals, and at the same time can cultivate and do it IN PRACTICE. which would be useful also for MEDICAL NEEDS.

#### CAFETERIA





At the JUNCTION of the main two paths of the zone, close to the gardens. which would sell the LOCAL PRODUCTS. and where the people could relax, take their time, SOCIALIZE and interact with each other.

### OUTDOOR CINEMA



# In the public and also the private zone of the area,

like the UNBUILT PART of the STRUCTURE as a COMMON SPACE for the neighbours. or even the private gardens, where people could ENTERTAIN themselves

and their children performing a movie.



The BACKYARD also could be an ideal space for the children to take care of their own PETS. and learn how to RAISE THE ANIMALS. not only the plants.

LAUNDRY



In the BAKCYARD. or the COMMON SPACE with your neighbour. where the STRUCTURE is still UNBUILT. while getting to know better your neighbours. you can do your LAUNDRY as well and let your clothes dry.







## YEARO

Min. Housing Area per Person = **30** sqm Min. Services Area per Person = **25** sqm Each Plot Area = Garden (100sqm) + House (75sqm) = **175** sqm

Territorial Area (St) = **28000** sqm Net Area of Land (Sf) = n. plot x area = 35 x 175sqm = **6125** sqm Services Area = 28000 - 6125 = **21875** sqm

## YEAR 5

Built Houses:

2 floors = n.8 built area = 75x2=150 sqm 3 floors = n.8 built area = 75x3=225 sqm Inhabitants:

2 floors houses = 150/30 = 5 persons 3 floors houses = 225/30 = 7 persons total = (5x8)+(7x8) = 96 persons

Building Space Area (Sed) (Slp) = n. persons x 30sqm = 96 x 30 = **2880**sqm

Index of tot Building Space Area (ET) = Sed/St = 2880/28000 = 0.10 sqm/sqm minus of 0.5 sqm/sqm

Index of Net Area of Land (EF) = Sed/Sf = 2880/6125 = 0.47 sqm/sqm

**Density** = n. persons /St = 96/28000= **0.003** 

Services Area = n. persons x 25 = 96 x 25 = 2400 sqm minus of 21875

## YEAR N

### Built Houses:

2 floors = n.17 built area = 75x2=150 sqm 3 floors = n.18 built area = 75x3=225 sqm Inhabitants: 2 floors houses = 150/30 = 5 persons 3 floors houses = 225/30 = 7 persons total = (5x17)+(7x18) = 211 persons

Building Space Area (Sed) (Slp) = n. persons x 30sqm = 211 x 30 = 6330sqm

Index of tot Building Space Area (ET) = Sed/St = 6330/28000 = 0.23 sqm/sqm minus of 0.5 sqm/sqm

Index of Net Area of Land (EF) = Sed/Sf = 6330/6125 = 1.03 sqm/sqm

Density = n. persons /St = 211/28000= 0.007

Services Area = n. persons x 25 = 211 x 25 = 5275 sqm minus of 21875

## WHAT ABOUT THE FUTURE?

"I do not even know if these jobs really have to do with architecture... Risking rhetoric, I state that the imagery which emerges from this work, with its overflowing vitality and painful, it seems to me to indicate a research's perspective much more fertile and friendly of those, too arid and formatted, currently architecturally official jokes. I would be honored to consider myself a student of the Asinitas school."



Model, Ecomostro Addomesticato, Studio Albori, 2008.



Renzo Piano, Thomson Factory, France, 1988-1990.

