

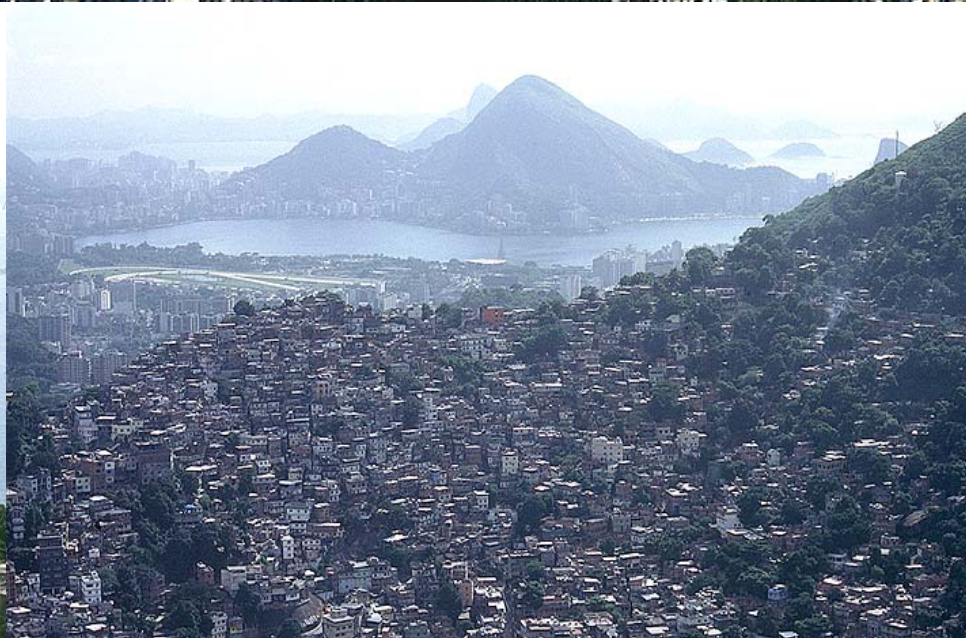


Celula Urbana

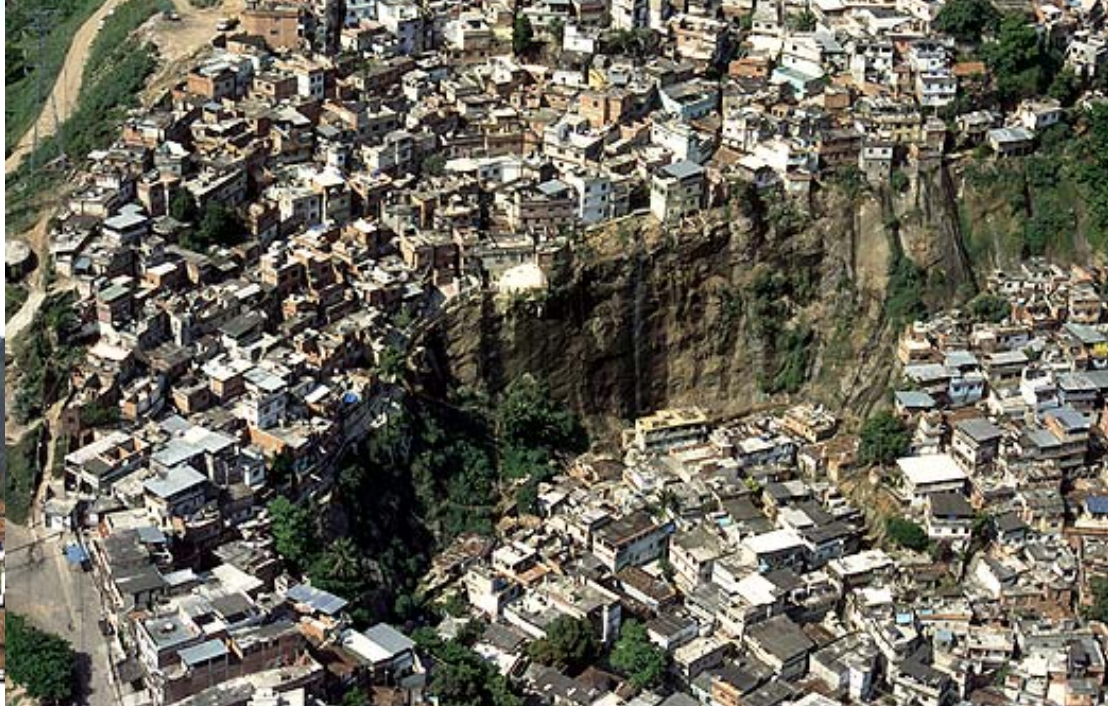
Model Project of Bauhaus Dessau Foundation: Favela Jacarecino, Rio de Janeiro, 2000-2004



A quarter of the world's population today is living in "slums" or "squatter" settlements. *Most built on illegally occupied land. The people have no claim on "their" plots and on regular urban supply of water and power. The slums, apparently inevitable elements of urban agglomerations, became one of the largest problems of the present with unpredictable political and social risks.*

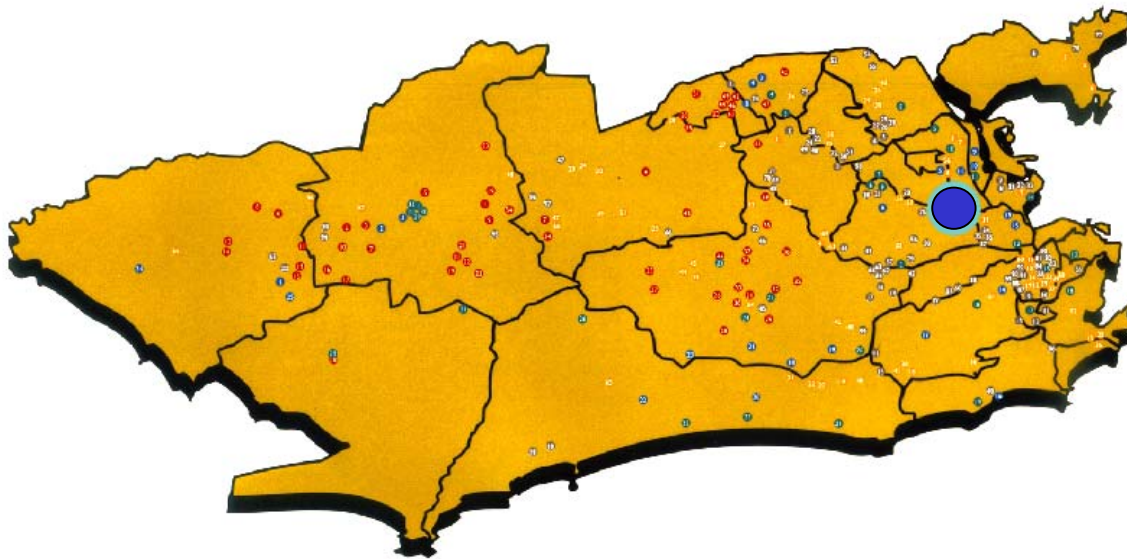


*In 2000 the Bauhaus Dessau Foundation was invited by the city administration of **Rio de Janeiro**, to develop a project within the context of the Favela Bairro program. The goal was to turn one of the misery accommodation boroughs into a model project for one of the 500 Favelas in the Brazilian metropolis. This international cooperation on a Favela project represented an innovation.*





Favelas - outside of urban control and established on mostly illegally occupied ground. Today approx. 1,2 million people in Rio de Janeiro are living in Favelas. For the past 10 years Rio de Janeiro has been operating on a new policy with the Favela Bairro for the integration of Favelas into the total urban connection. Besides a legalization of the ownership and opening the Favelas, the program introduces new infrastructures and urban services into the disadvantaged quarters and places.



Rio de Janeiro with Jacarezinho, the second largest favela and the interventions concerning town construction in poverty areas



The **Favela Jacarezinho** is a "city within the city", which increased in the last 70 years to today 58,000 inhabitants. The 35 hectares large area is limited by industrial sites and railway lines.



Public attention *Jacarezinho has been added to the land register of Rio de Janeiro as late as in the 1990's.*



Blackplan for the approx. 350 by 1000 m large Favela - with 58.000 inhabitants, only about 6qm are available to each inhabitant. Only few constantly passable roads exist, so that urban services, such as rescue, fire brigades and police remain hopelessly stuck in a tangle of lanes.

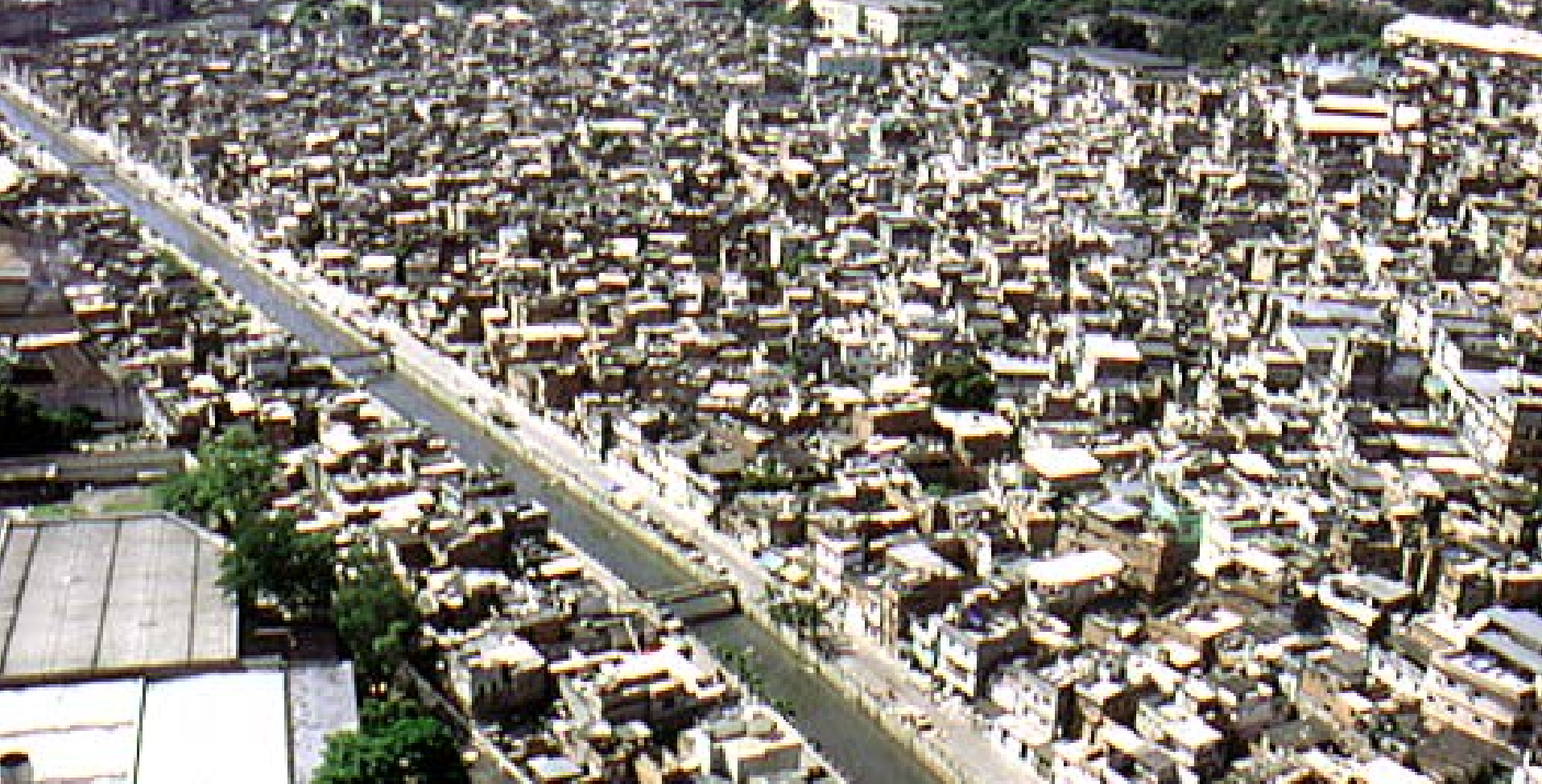


A vital city culture and a complex and almost autonomously city mechanism, has developed from these condition with a comprehensive and informal service structure. There are business quarters, bars, restaurants, dentists, attorneys, shops, churches and schools.

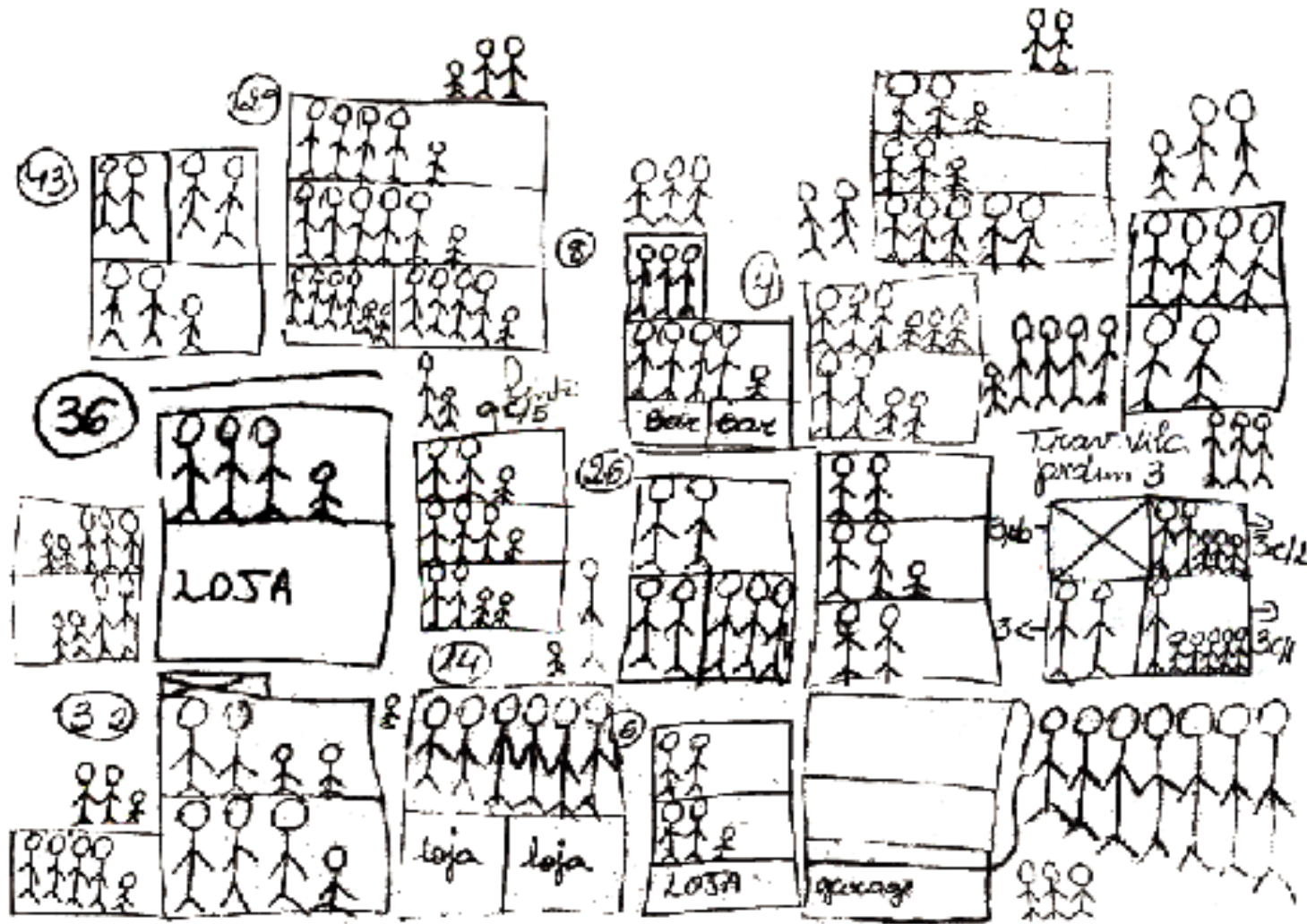




Borders and entrances - town development within walls. Trade and business are concentrated along the entrances and the few drivable ways. There is hardly any public area and open spaces. Approx. 50% of the inhabitants are less than 30 years old. No more building possibilities are available for coming generations.







Housing conditions: looking at the extreme residential density, Jacarezinho brings out completely unique compensation forms. The roofs replace free space, playgrounds, street cafes or also gardens, stables and storages. Roofs serve at the same time as development land in the informal property market in the Favela.





How to plan, if the concern is to improve housing conditions, open new building options and economic perspectives for the inhabitants and to open the "city" for an exchange with the metropolis?



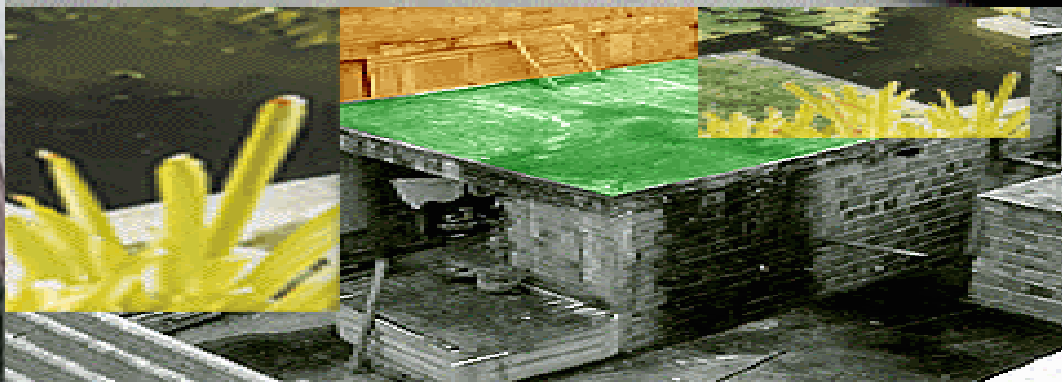
The draft and planning work was preceded by **artistic ideas and actions**, developed within the 1. international Bauhaus Kolleg ComplexCity in 2000 during a visit in Jacarezinho. The group - media artists, architects, computer scientists, designers and historians was influenced by the prejudice of the Favela as a dangerous and criminal place. It was not its only concern to develop an architectural and townplanning concept in the sense of a spatial and infrastructural integration into the entire town. above all stood the beginning of an integration process to realize experimental interventions and actions which could open the Favela for communication.



Building “recording” in the broadest sense: interviews document the living situation of the inhabitants. For the presentation and discussion a storage hall was covered into a media workshop and information center for Jacarezinho.



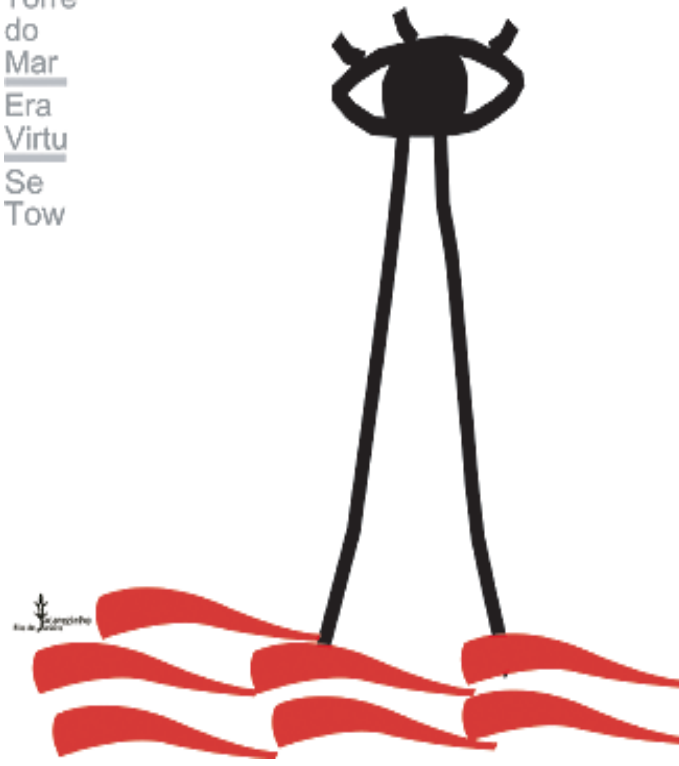
Art and communication workshops with children, young people and also adults opened new communication levels and revealed the large interest in education of the inhabitants.



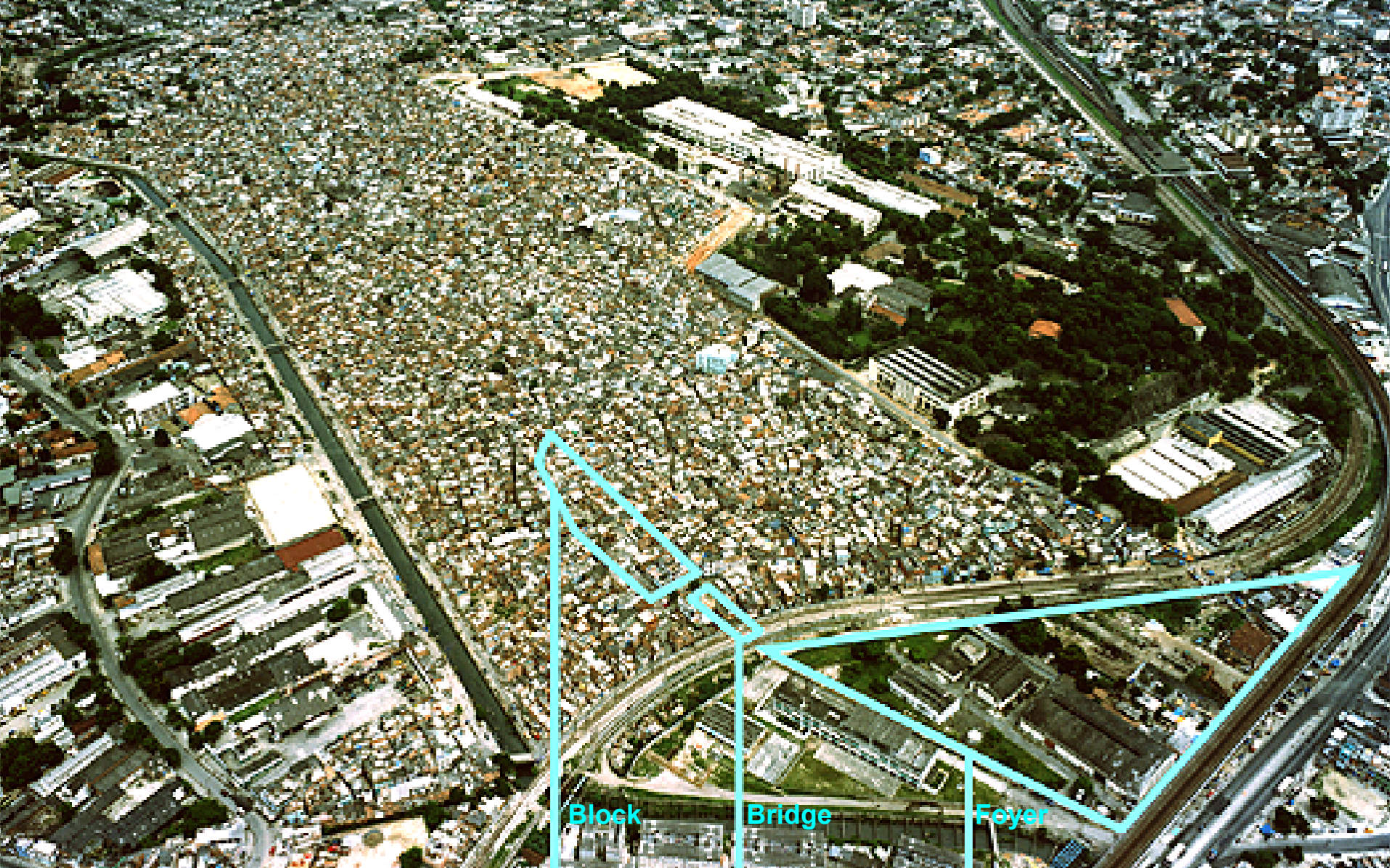
Transformation of art and architectural elements in the city center / downtown.



Torre
do
Mar
Era
Virtu
Se
Tow



Virtual architecture – an "observation tower" made the view into the metropolis possible - and for the first time on the own town. It was a sign of the presence and the self consciousness of the inhabitants of Jacarezinho. The art actions led to a discourse, not only with and among the inhabitants of the neighbourhood, but also between them and the metropolis. Jacarezinho was noticed for the first time positively by the broad public and as place with its own qualities and specific potentials. From this experiences ideas for drafting and the transformation of the architectural-spatial structures were developed.



Block

Bridge

Foyer

The Bauhaus Dessau Foundation continued the plan for the model project **Celula Urbana** and accompanied it up to the realization. In the context of Favela Bairro a special urban development policy was pursued: spatial-social structures grown inside the Favela as well as the Favela architecture as something evolved are actually recognized and serve as basis for planning. The city development was to consider the individual life perspectives of the inhabitants. Above all it was to initiate a lasting and self-dynamic processes by cultural, technological and economic interaction with the urban surrounding and to create a new image for the Favela .



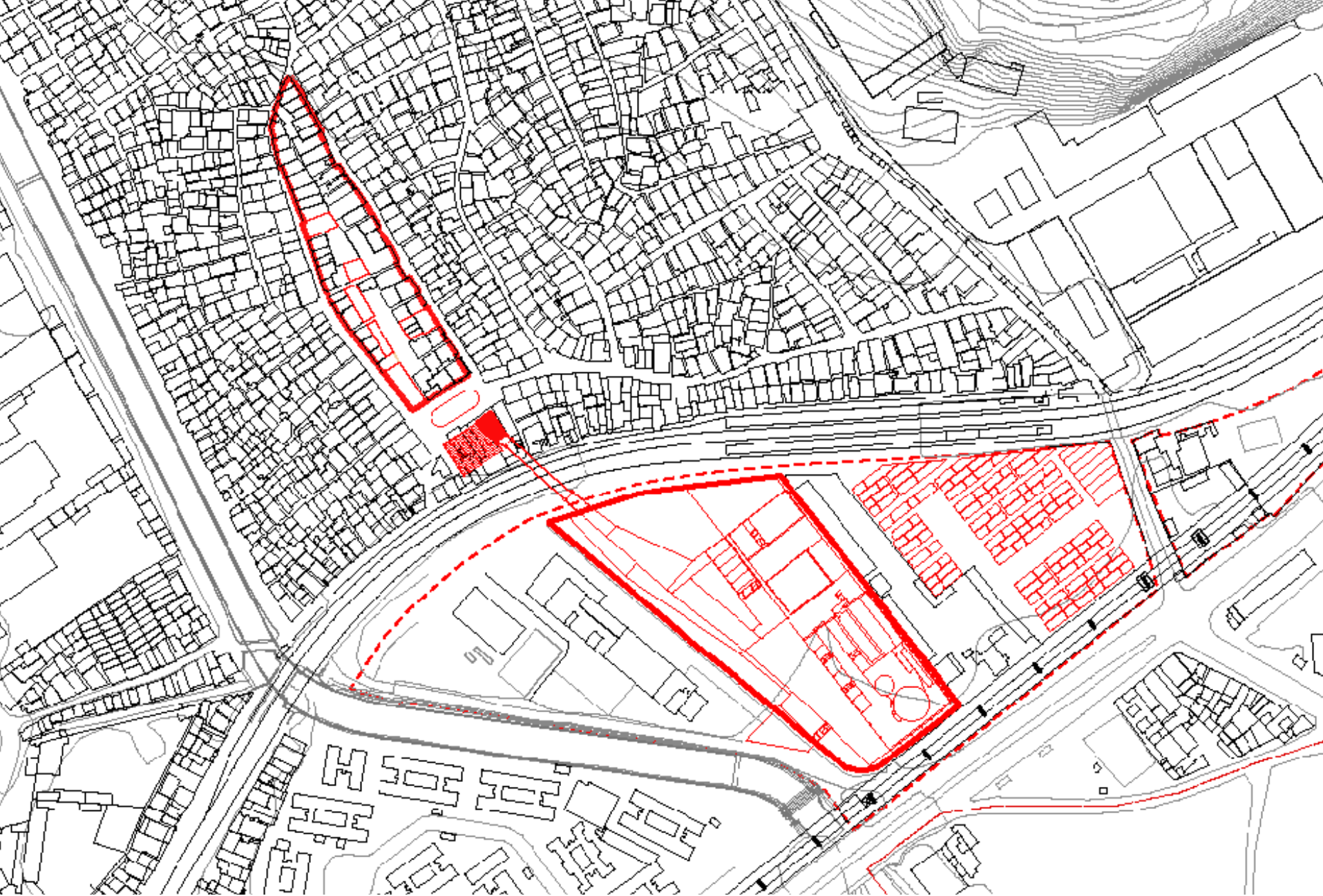
Renovation

Public spaces

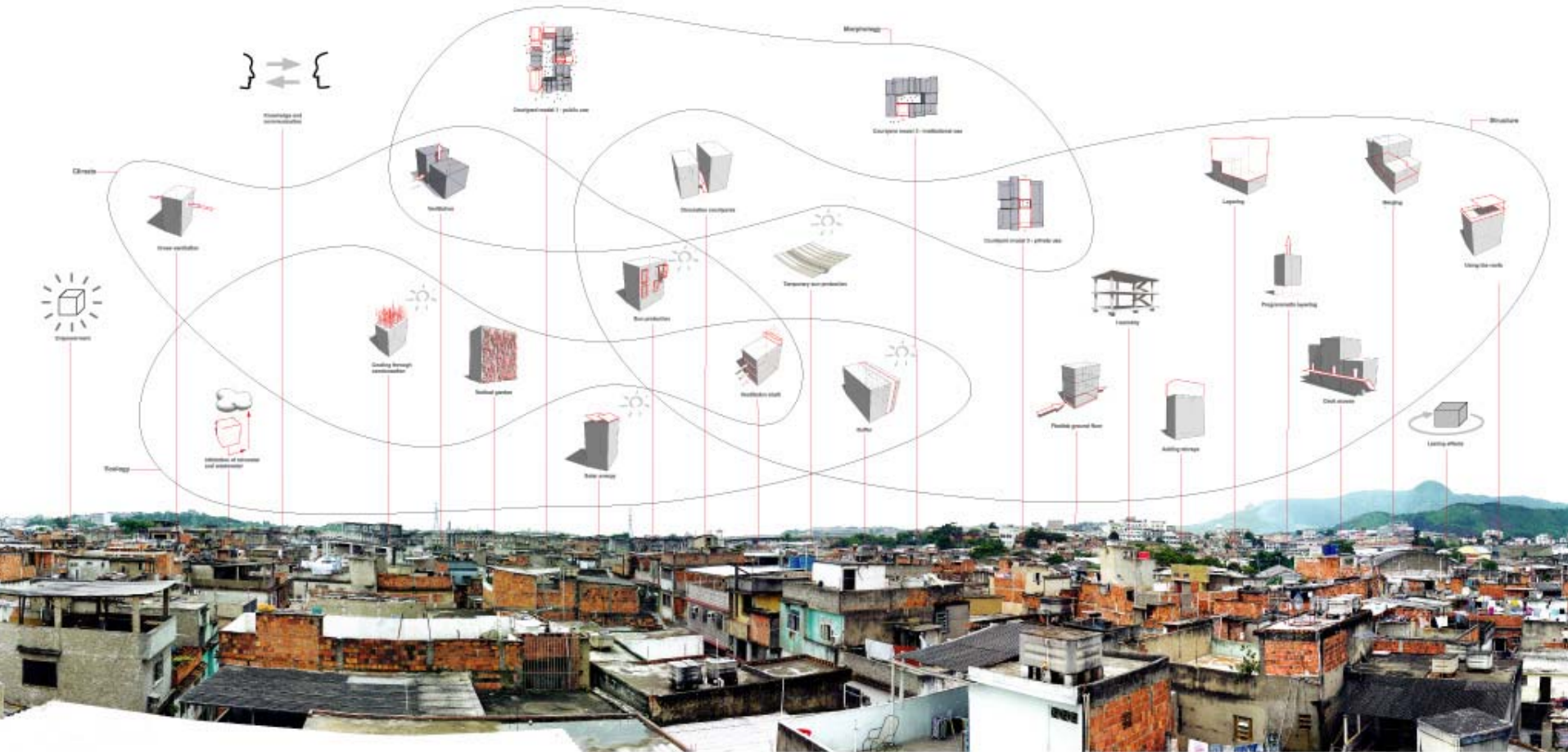
New development

Communication

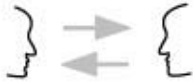
Core of the project is a **model block**, the "urban cell", in which solutions for prototyping, for the entire Favela are suggested which are applicable to city development and architectural solutions.



Block, bridge and foyer with campus formulate a new entrance, as well as the content and spacial interaction of city and neighbourhood.



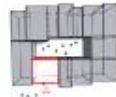
An extensive set of **tools** of possible measurements, methods and principles, applied prototypically in the first project phase the "Block", allowed the inhabitants, business people and institutions during a process of self organization to make punctual interventions for the reevaluation of the residential environment and for the development of their own life perspectives - independently of superordinate city planning. The suggested interferences in building structure and property organization gradually stimulate an economic, social, building-climatic and ecological development of Jacarezinho - to an open and equal quarter of Rio de Janeiro.



Knowledge and communication
During the process of *Calula Urbana*, a high construction standard and the passing on of professional know-how make experience transferable and open up new business opportunities. Education and culture thus contribute to the improvement of economic prospects as well as to the promotion of creativity and self-confidence. Space for communication and interaction is hence created in a dual sense.



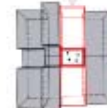
Courtyard model 1 - public use
Creating a series of voids used as courtyards within deep building structures (made up of small units). Sharing owners run the courtyards and define the use, building form as well as respective compensations.



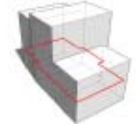
Courtyard model 2 - institutional use
Creating a series of voids used as courtyards within deep building structures (made up of small units). Communal or commercial institutions run the courtyards. The interests of the adjacent parties will be given consideration. Conflicts will be managed with compensating measures.



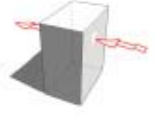
Layering
Combined circulation for gained usable areas on the roofs over several existing buildings.



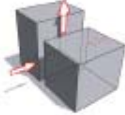
Courtyard model 3 - private use
Creating courtyards within two deep adjacent plots by removing the cores. A shared ownership is established. In this way an potential communal use of the courtyard or the roof terrace as well as a shared business on the ground floor is made possible.



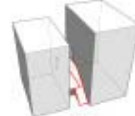
Merging
Enlargement of urban plots by way of combining the circulation areas in order to gain flexible sites for business and trade, as well as residential uses.



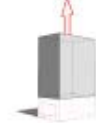
Cross ventilation
Air movement and air exchange in the upper floors by openings and both the windward and leeward sides of the building.



Ventilation
Replacing walls and blinds between buildings with ventilation grids.



Circulation courtyards
Ventilation and gained spaces achieved by a communal circulation within the deeper building units (also supported by the development of appropriate typologies like maisonettes and single family dwellings.)



Programmatic layering
Continuous usage of the ground floor for service and manufacturing industries by way of shifting the residential use to the upper floors: new and old.



Temporary sun protection
Reducing incoming light and creating new temporary spaces.



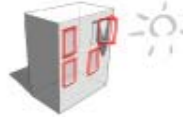
Flexibility
Flexible buildings allowing for interaction and change in the Favela.



Empowerment
Enhancing the status of the single buildings as structural and social core elements of the city by legalising ownership, introducing construction standards enhancing the quality workmanship and user friendliness. The re-evaluation of existing urban spaces as a separate culture is the foundation for constructive social and economical development. This supports a sense of identity for the population and promotes broader public acceptance.



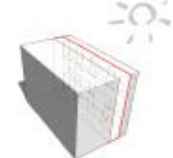
Cooling through condensation
Cooling of the roof areas by way of rainwater storage and extensive greenery.



Sun protection
Reduces room and surface temperatures and incoming light. Ensures privacy and air circulation.



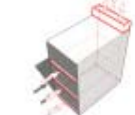
Vertical garden
Improvement of the outside microclimate by way of cooling of the exterior surfaces.



Buffer
Temperature buffers differentiated microclimates and functional zoning through introducing open spaces and accessory spaces as well as circulation in front of the private spaces.



Utilization of rainwater and waste water
Reducing the wastage of drinking water and improving the internal microclimate.



Ventilation shaft
Creating air movement and exchange including the lower parts of the building by way of air suction, convection and mechanical ventilation.



Solar energy
Saving fossil energy using sun collectors and photovoltaic cells.



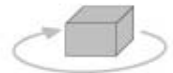
Flexible ground floor
Shifting the residential usage thus creating a continuous space for service and trade industries on the ground floor.



Adding stories
Densification by means of additional stories. Structural solutions: Reinforcing existing structures, new independent structure, reducing the weight of existing building or using lightweight structures.



Using the roofs
Quality of life increased by using the roofs as private recreational spaces.



Lasting effects
"Calula Urbana" initiates the creation of an auto-dynamic and independent economic development, whilst establishing and supporting spaces in which business, cultural and residential uses can develop. This will be supported by co-operative, institutions and private initiatives.

One goal was also to improve, apart from optimizing the floorplans and the realising of minimum standard of space and dwelling sizes, the climatic protection. The shade-giving qualities of the dense building structures will be connected with elements for the aeration of the buildings, e.g. by openings, yards or ventilation shafts. Sun protection elements on the roof and at the front prevent from too much heat inside the rooms. Front and roof greening produces shade and at the same time evaporation surfaces. Like the water-storing layers on the roof, this will cool the rooms below.



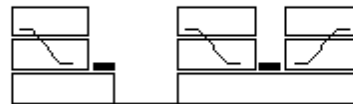
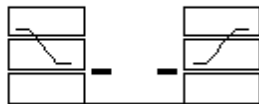
Bestand



Parzellenzusammenlegung



Entkernung und Hofbildung

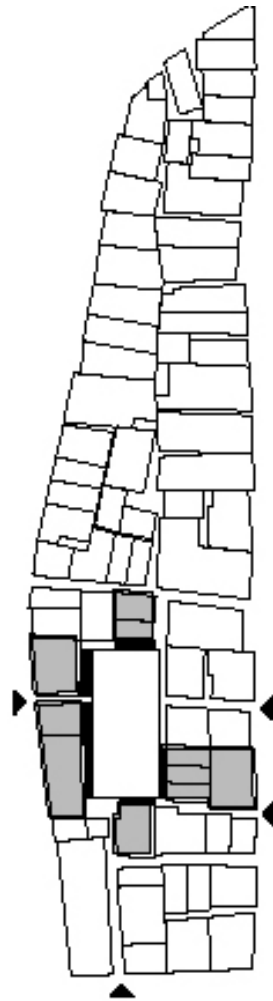


Anheben der Wohnlagen und Erschließung über Gassen zum Hof und vom Hof ins Haus

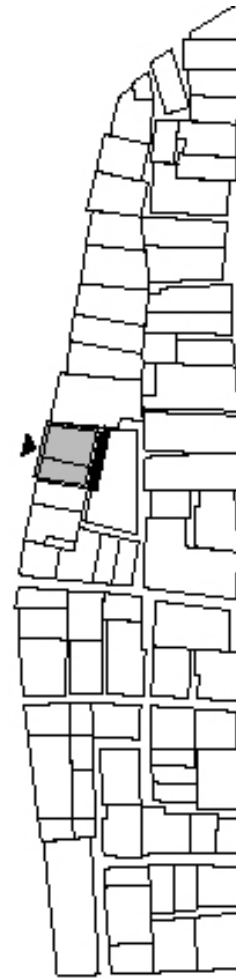
First in the sense of a careful urban redevelopment a **new plot structure** was suggested, which permits an enlargement of the tiny plots to economic size. Each plot can be attached by this re-organization to at least one access road. On the one hand this makes an optimization of the floorplans possible and on the other hand it gives the chance to produce flexible and economical units, i. e. constant service or trade uses in the ground floor. The usually bad dwellings in the ground floor are "raised" by a separation and a misalignment of the access into the first floor level. Maisonette flats are reached from their own entrance.



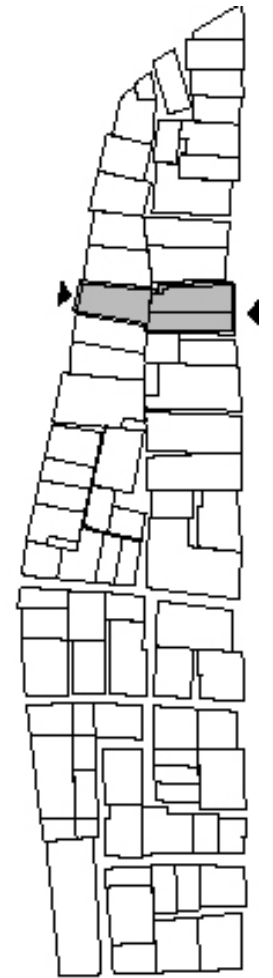
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Modell 1

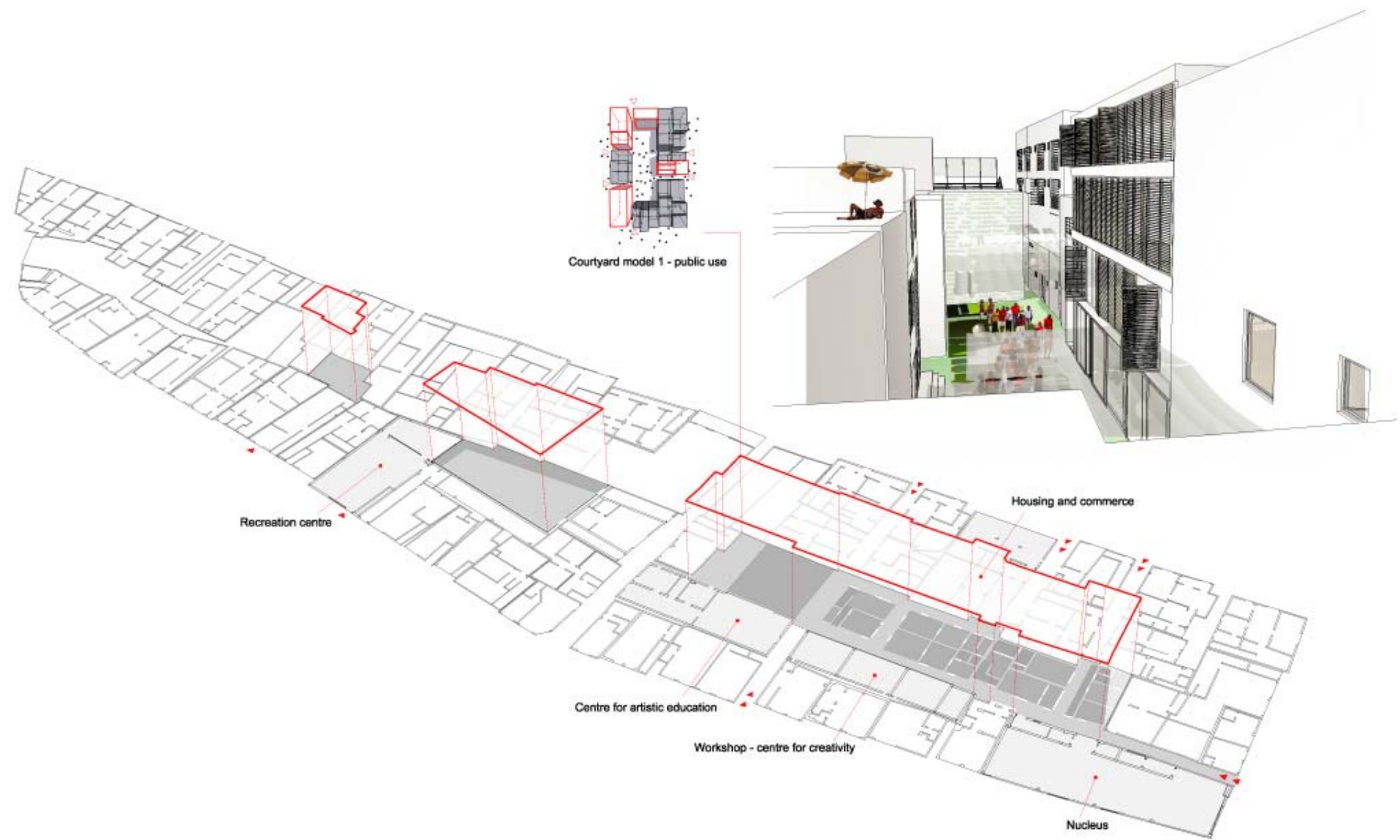


Modell 2

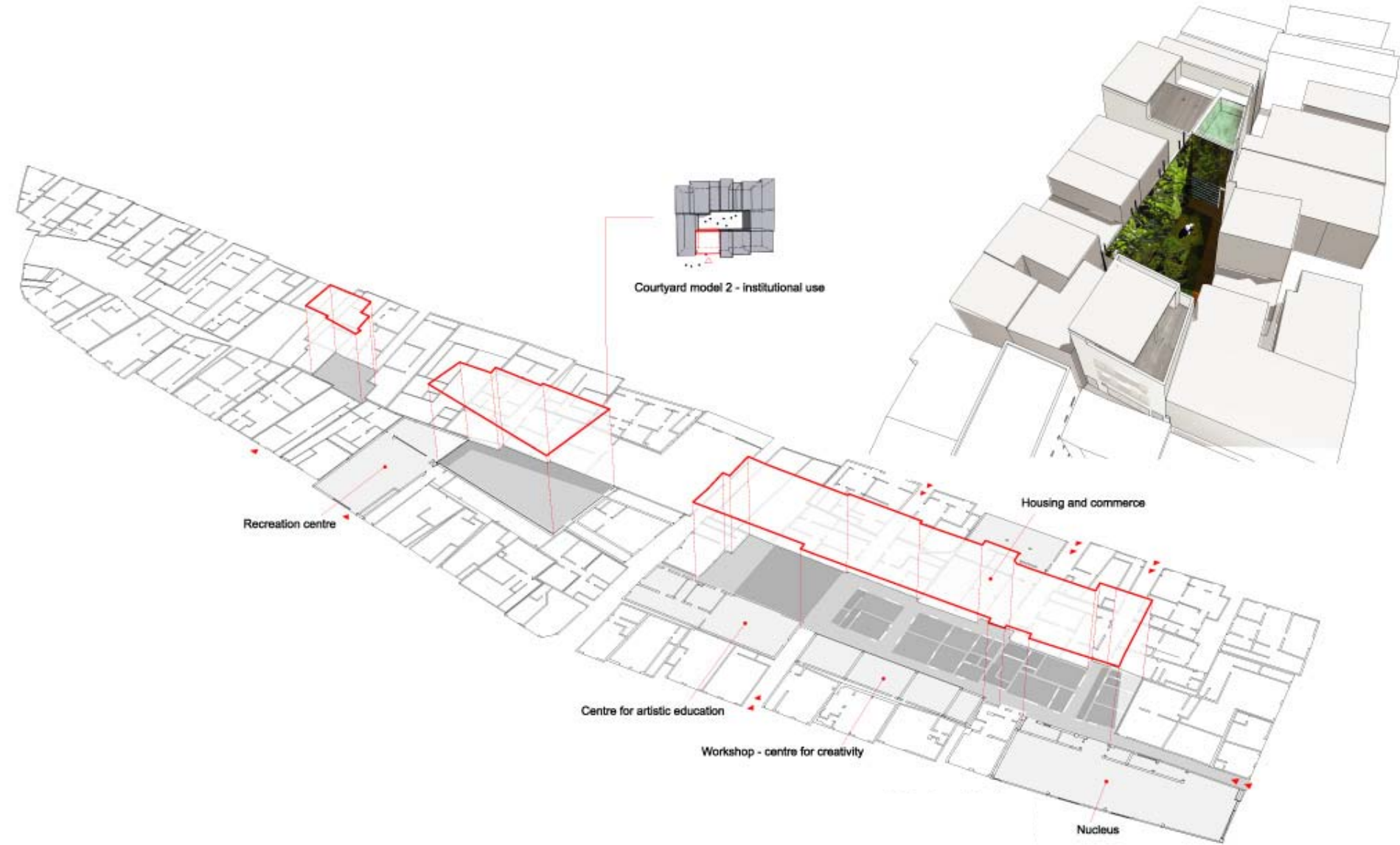


Modell 3

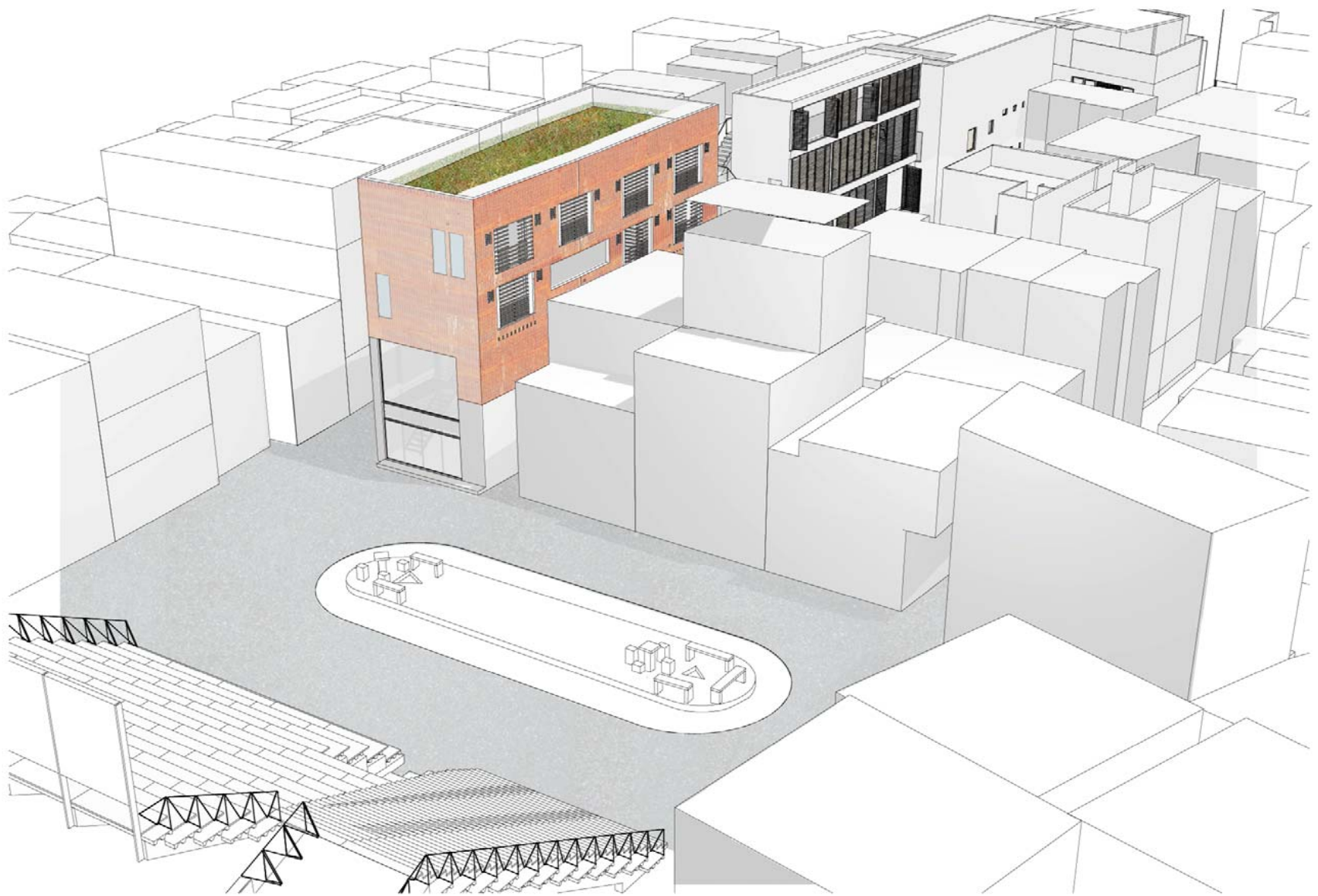
Courtyards will be inserted into the interlocked building structures by core removal. This improves the living and the trade conditions, creates open space and contributes to enriching the urban structure.



Courtyard model 1 - public use *The model presents a first prototype for the emergence of a new typology of yards in connection with the reorganisation of the plot- and access-structure: within the deep plots core removal takes place. In favor of greater building units and for trade and service constantly usable, flexible groundfloor zones, plots are connected and the access is arranged again from the yard. Within the yard cultural, commercial and service functions are concentrated, which creates an important point of attraction and communication area for Jacarezinho together with the use as place of event.*



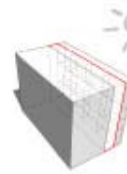
Courtyard model 2 - institutional use (as center for recreation) With this model a second prototype is presented, where an institution or also a tradesman is buying and manages a building with a connected plot within a deep plot structure, chosen for demolishing. The owner regulates a reconciliation for the torn down flats i.e. by remuneration, by replacing buildings and/or by adding floors at the site. A sale of health and body care articles, massage, fitnessroom, swimmingpool with the attached garden yards, is offered in the center for recreation. The peace and closed character of this area and the special climate by a watered vertical garden, will be a counterpart to the extroverted and lively urban culture of Jacarezinho.



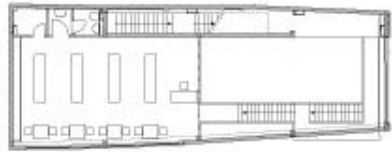
View on the place **Praça Concordia** with tribune, nucleus and the buildings at the courtyard 1



Flexibility
There are no structural walls within the building. Secondary functions, loggias, circulation and the shafts are all concentrated in the narrow parts of the building.



Buffer
The different layers in the exterior south wall create a buffer zone that prevents the warming up of the spaces behind. It also conveys an impression of depth and spatial diversity.



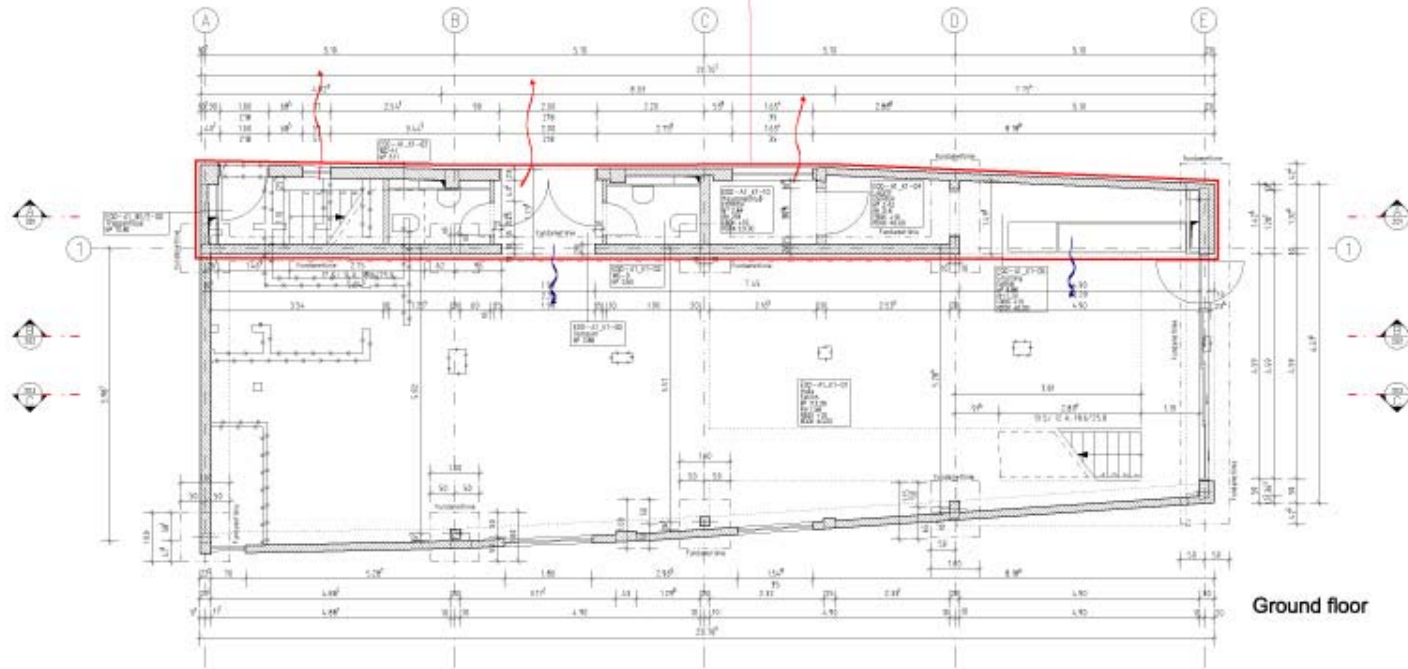
Library (Gallery)



Guest apartments (2nd floor)



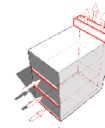
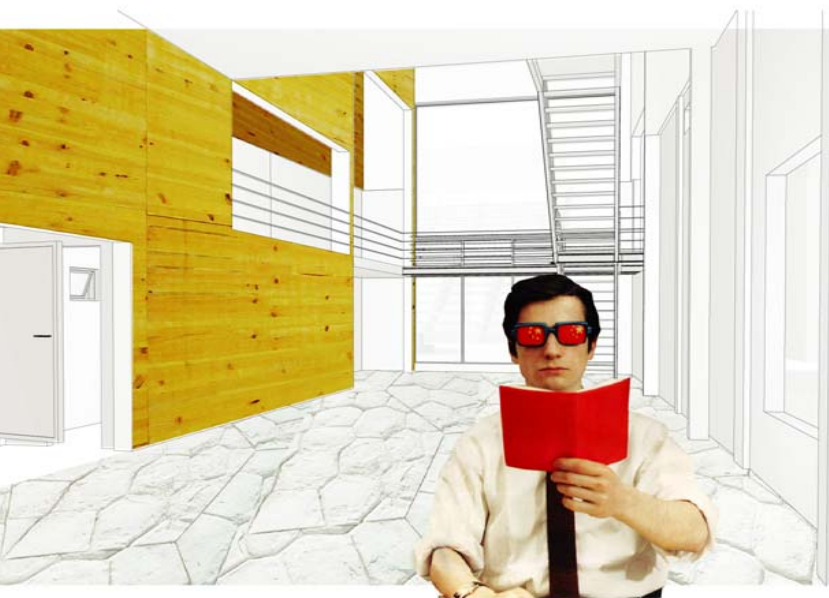
Studios



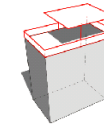
Ground floor

Nucleus initial project of the Celula Urbana and use as media- and information-center. An existing storage hall is supplemented around three floors. Within the building are no bearing walls. Secondary functions, loggias, access and manholes are arranged concentrating within a narrow area of the building. A buffer zone From results in this layering of the outside wall on the sunny side, which prevents from heating of the rooms behind it. Thus not only the impression of depth, but also more space variety is developed.

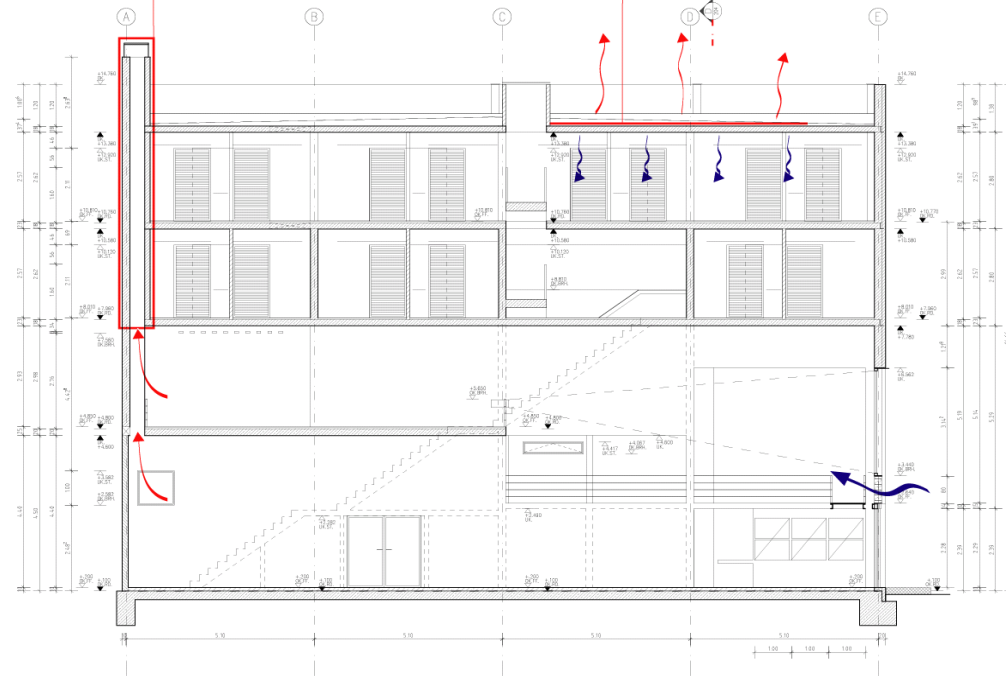




Ventilation shaft
The ventilation of the exhibition and gallery level is achieved by installing a ventilation shaft on the gable wall. The entrance front on the opposite side of the building has vent openings to ensure constant air movement.



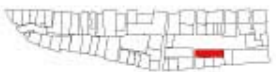
Using the roofs
The roof level provides communal terraces and gardens. The planting creates special recreational qualities. Depending on the floorplans of the upper floors the division into several private gardens is also possible.



Section A-A

Additional storeys
Three storeys are built on top of the existing warehouse by means of an additional structure. The conversion of the warehouse enables the multi purpose use of the building and allows the running of a gallery.





Workshop *creativity center – view from the yard*

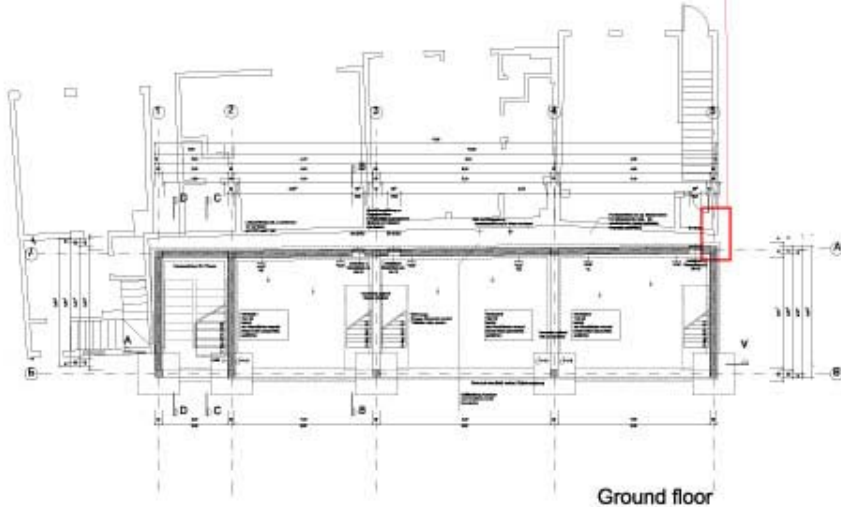
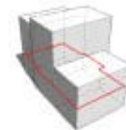
Ventilation

The shaft-like space between new built and existing building will be closed off with a grill for phase 1 ventilation.

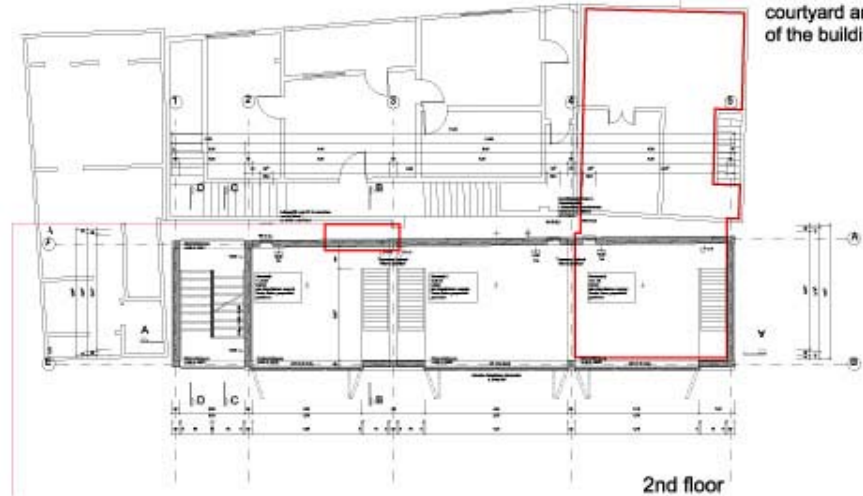


Merging

During phase 1 the plots of three demolished buildings are merged in order to erect a new workshop building. The floor heights correspond to those of the planned annex to the buildings towards the street in phase 2. This considerable extension of the plots, that is of the commercial areas and the thus gained flexibility and economic viability is further enriched by the circulation from the courtyard and street side of the building.



Ground floor

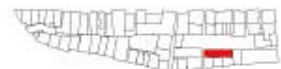


2nd floor



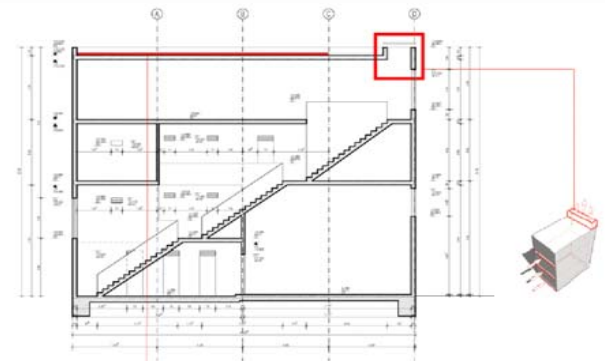
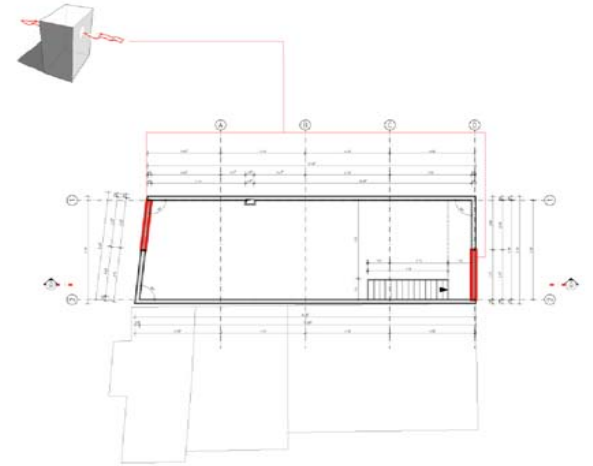
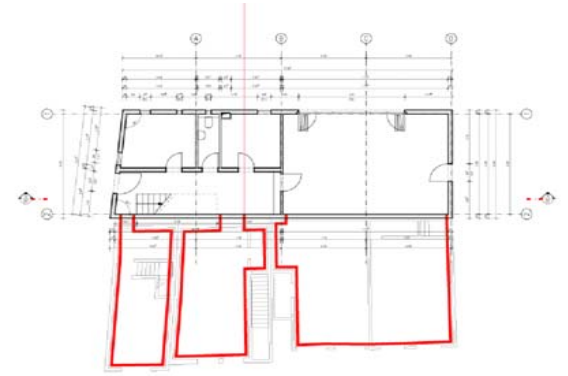
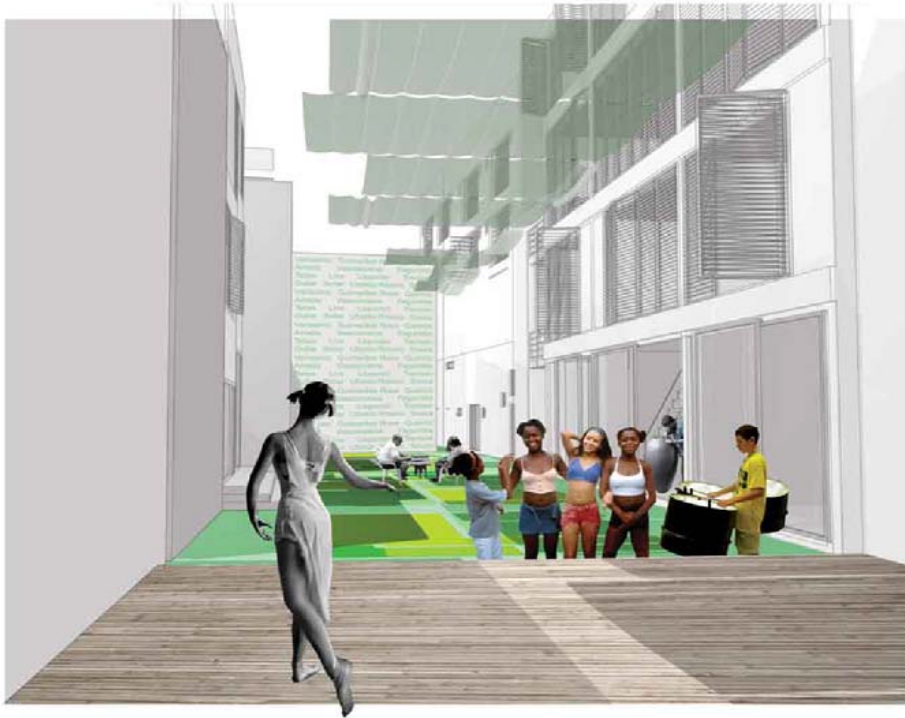
Ventilation shaft

Thermal lift (convection) in the shaft-like space between the buildings creates the ventilation of the first three floors during construction phase 1. It is possible to temporarily install a mechanical ventilation system in this space.



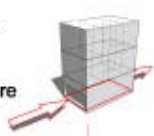
Workshop *example for a plot pool*

Partial demolishing and new building prepares the connection of buildings in a second building phase.



Dance school *view from the courtyard*
connection of buildings in a second building phase

Flexible ground floor
The residential uses on the ground floor of the buildings orientated towards the courtyard are relocated to ensure a continuous space for workspaces.



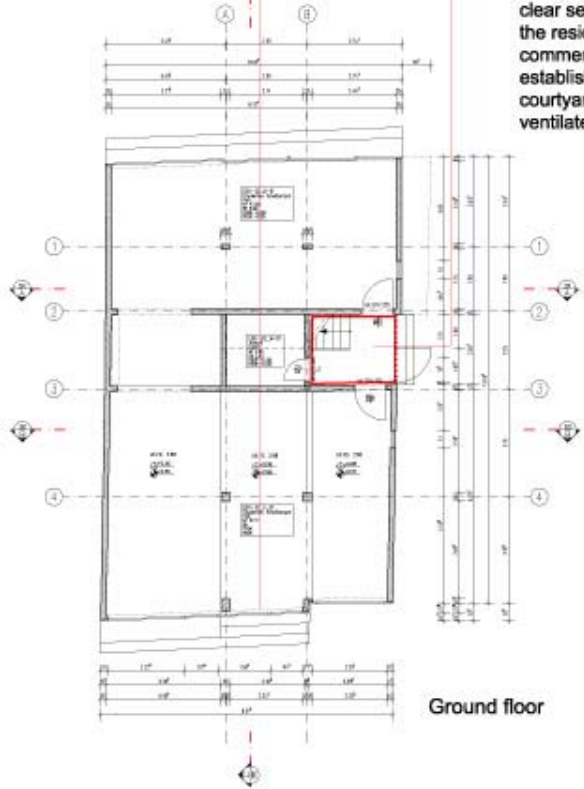
Circulation courtyard
The 3 maisonettes within the deeper building units are accessed from a so called circulation courtyard on the first floor, which in turn is accessed via a single flight stair; a clear separation between the residential and commercial is established. The courtyard also helps to ventilate the flats.



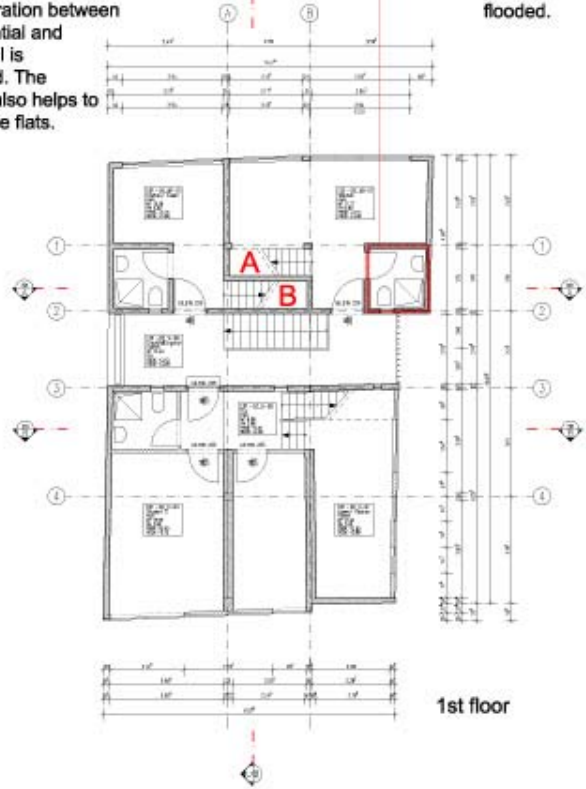
Rainwater and wastewater utilisation
Rainwater and treated wastewater are used to flush toilets and clean the buildings and streets in order to save drinking water. In particularly dry periods the roofs can be flooded.



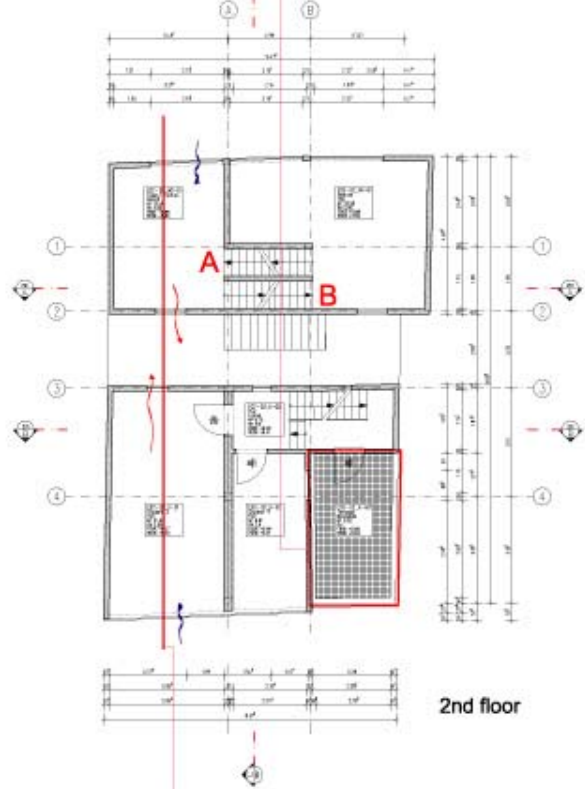
Using the roofs
All maisonettes have roof terraces at their disposal.



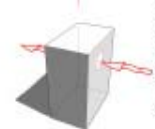
Ground floor



1st floor



2nd floor



Cross ventilation
Crossventilation only happens on the top floor due to obstructions around the lower floors.

Housing and commerce connection and rebuilding of 5 buildings from the existing structure for commercial use of the ground floor with upper level maisonette flats, accessed from the yard.



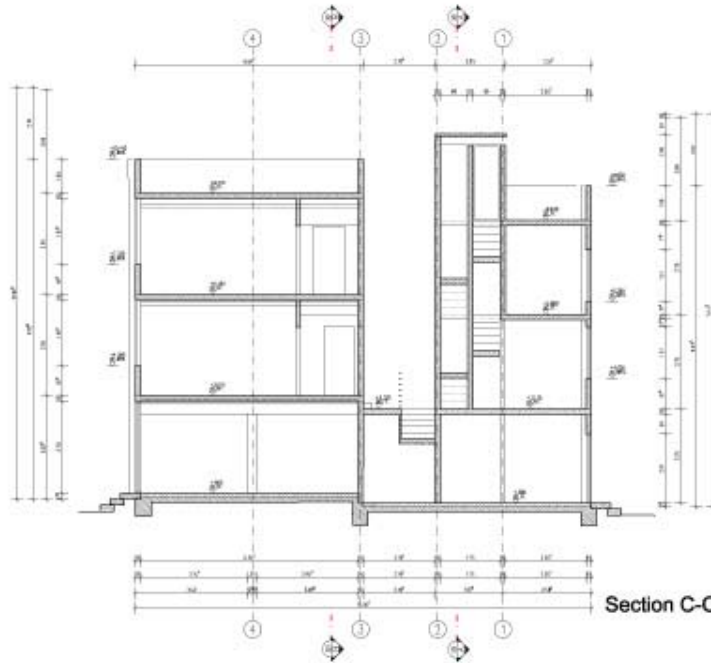
Ventilation shaft

A shaft from the courtyard provides further ventilation for the workspace on the ground floor. The courtyard itself becomes a ventilation shaft that contributes to the ventilation of the adjacent flats via convection.



Ventilation shaft

The maisonettes are ventilated through the internal staircases that lead up to the roof via convection.

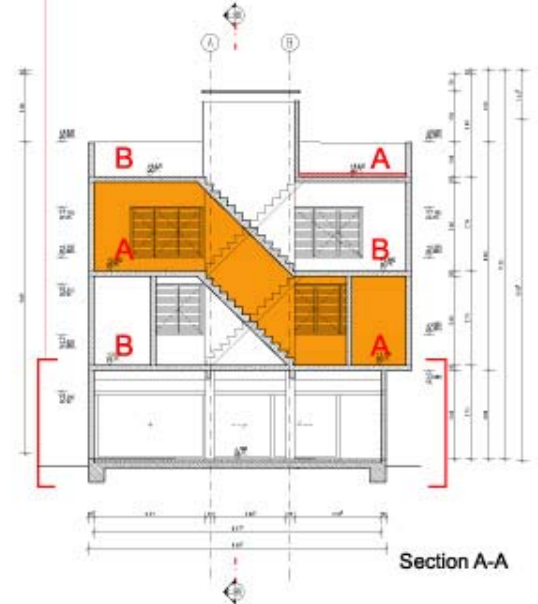


Staircase section

Section C-C

Programmatic layering

Continuous usage of the ground floor for service and manufacturing industries by way of shifting the residential use to the upper floors; new and old.



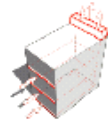
Section A-A



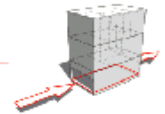
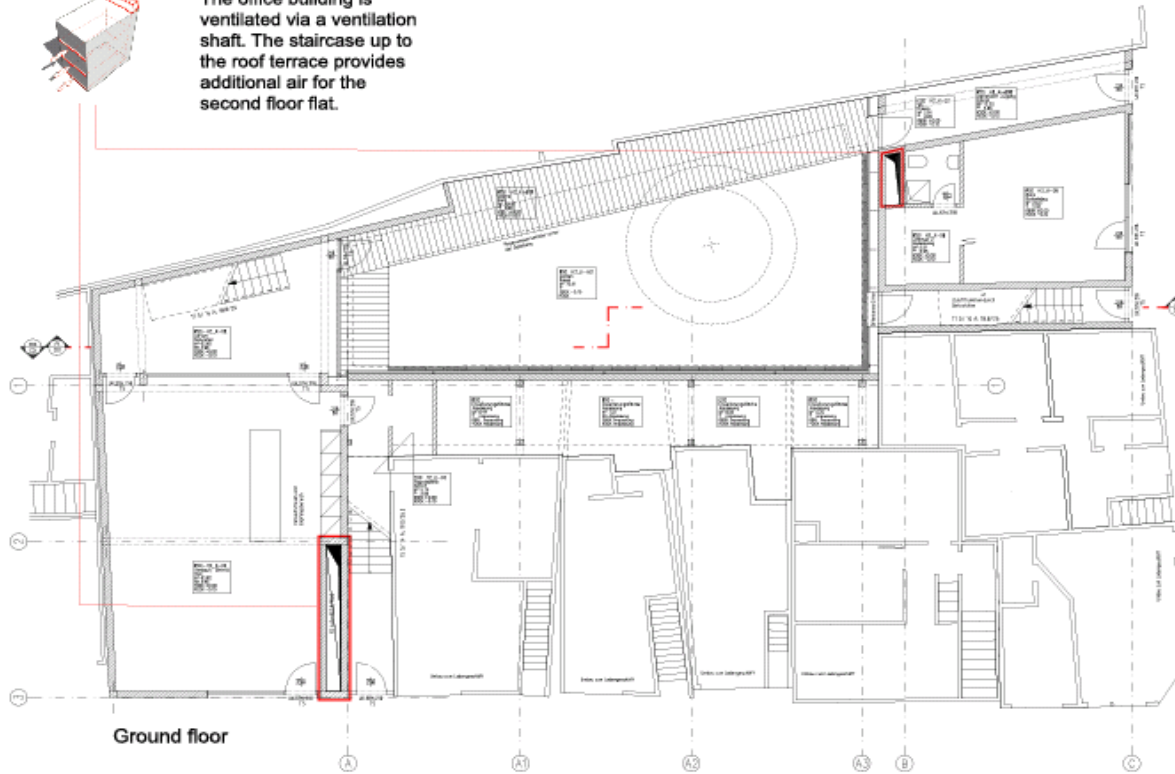


Recreation Center *view from the second inner court*

Ventilation shaft
 Convection and air suction in the ventilation shaft provide ventilation for the recreation centre. The staircase creates further possibilities for ventilation.



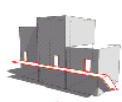
Ventilation shaft
 The office building is ventilated via a ventilation shaft. The staircase up to the roof terrace provides additional air for the second floor flat.



Flexible ground floor
 The residential uses on the ground floor of the buildings are relocated to ensure a continuous space for service and trade industries.

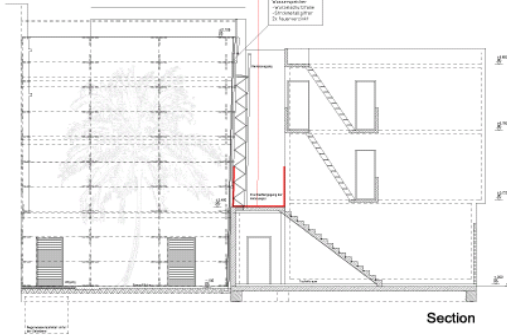
Recreation Center *building with garden yard and legal advice - core removal, new building and integration of 5 existing buildings.*





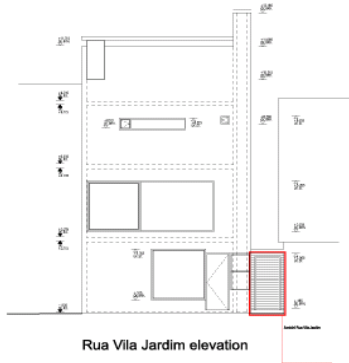
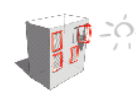
Deck access
In order to access the flats on the first floor and to ensure a continuous commercial use of the ground floor, a deck access is installed. The deck access also enables a slight enlargement of the commercial areas.

Vertical garden
with integrated
staircase
structure
and
commercial
space
on
the
ground
floor

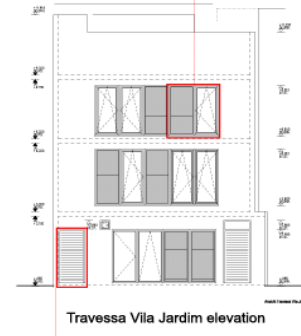


Section

Sun protection
Folding and sliding shutters prevent the warming up of the internal spaces and also protect their privacy. Integrated, flexible slats regulate the air circulation.



Rua Vila Jardim elevation



Travessa Vila Jardim elevation

Ventilation
A ventilation grid with an integrated door forms the access to the residential floors.



Ventilation
A ventilation grid with an integrated door forms the access to the upper floors. This not only ventilates the staircase but also allows airflow through the garden courtyard.



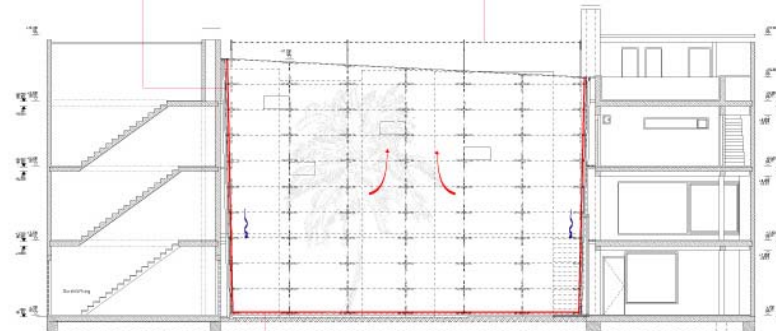
Vertical garden
Plants on the facades in the garden courtyard adjacent to the recreation centre contribute to a special atmospheric quality. Courtyard and wall surfaces are cooled and a special microclimate is created.



Temporary sun protection
A textile sun protection above the garden courtyard and the terrace of the recreation centre reduces the light and heat intake. The courtyard becomes an internal space.



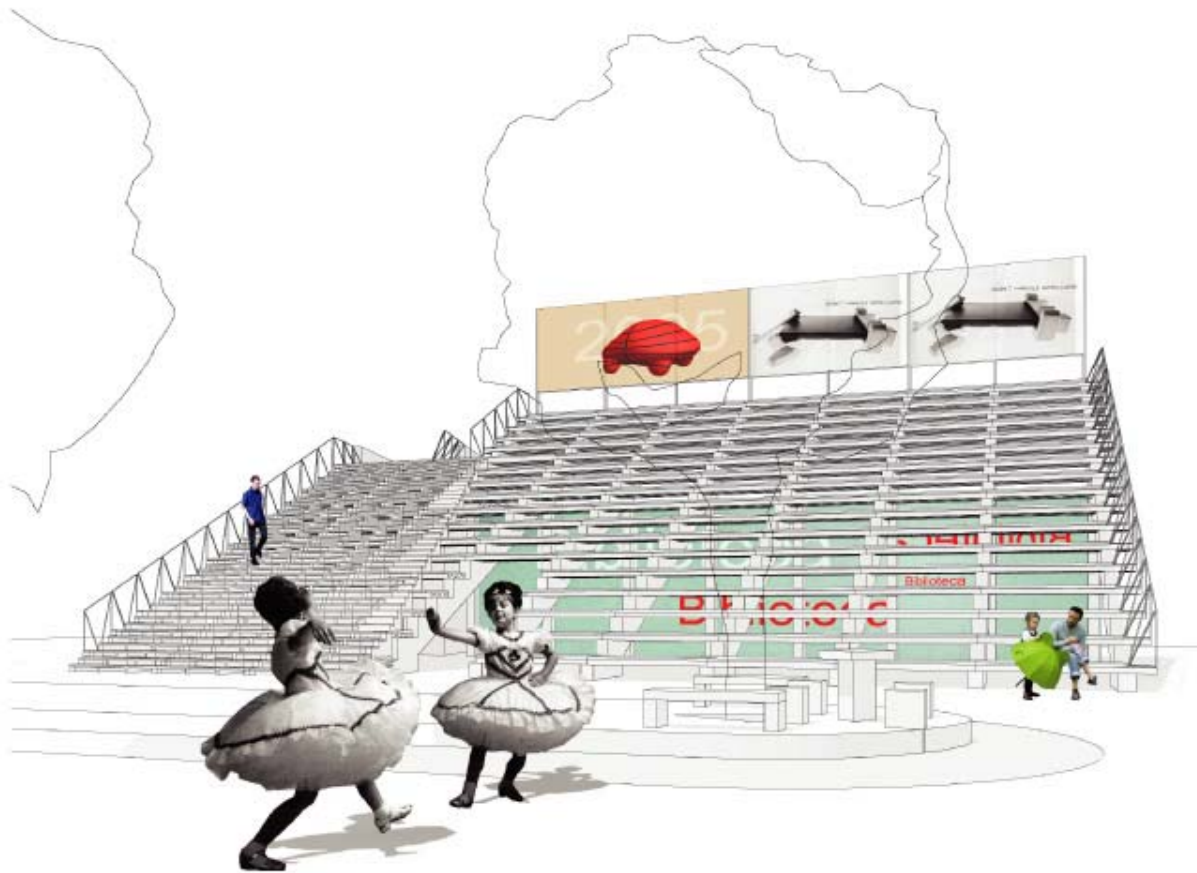
example of vertical garden - 2 weeks after planting



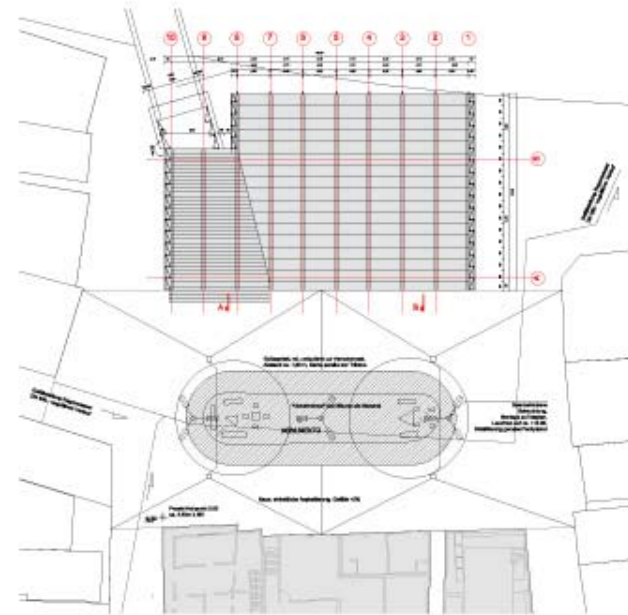
Section B-B

Cross ventilation

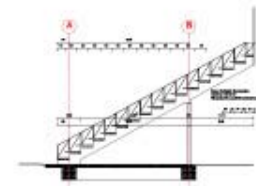




View from Praça Concórdia towards the stand



Square and stand

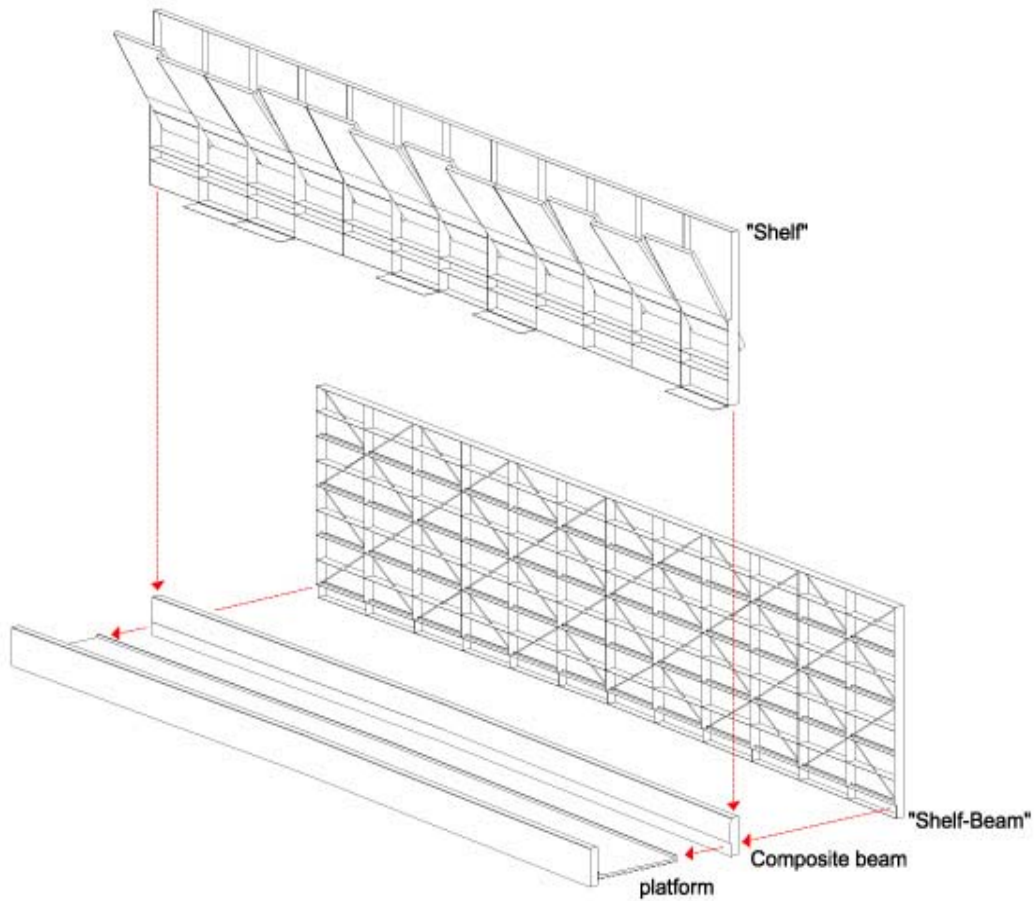


Section

Praça Concórdia

The new entrance into the city quarter of Jacarezinho. The tribune is a staircase, a place to stay, an advertising media and a name sign all at the same time. The space below the tribune can be used as a library and cafe in a further stage of the development.





View from bridge - "Shelf" with solar modules

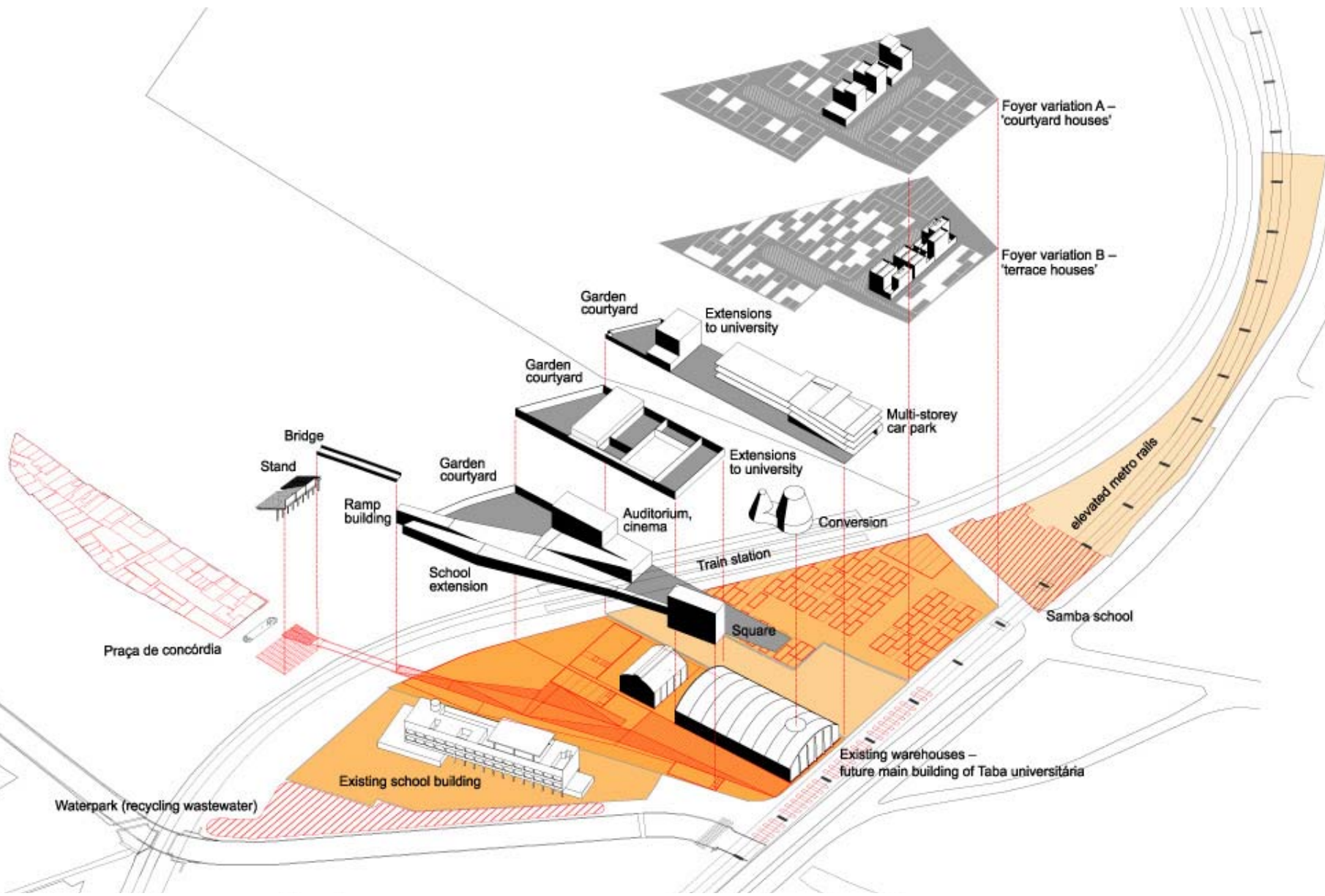


View from bridge - "Shelf-Beam"



Bridge

The bridge is conceived, in the first phase, as a simple footbridge, that, if necessary, can be completed with function furniture and shelf carriers to be used as minimal shops, sun protection and solar modules.



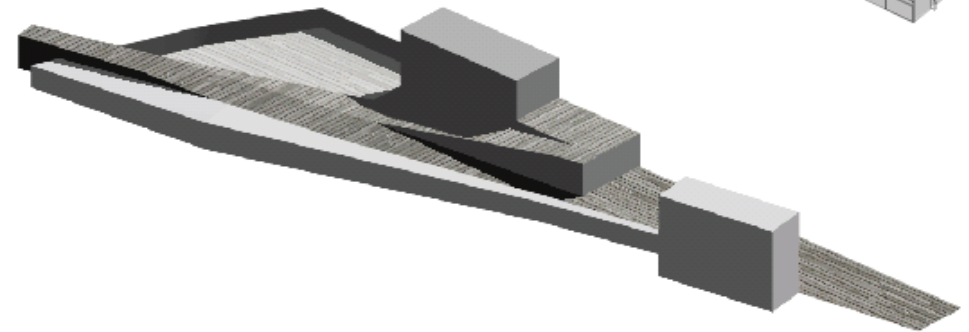
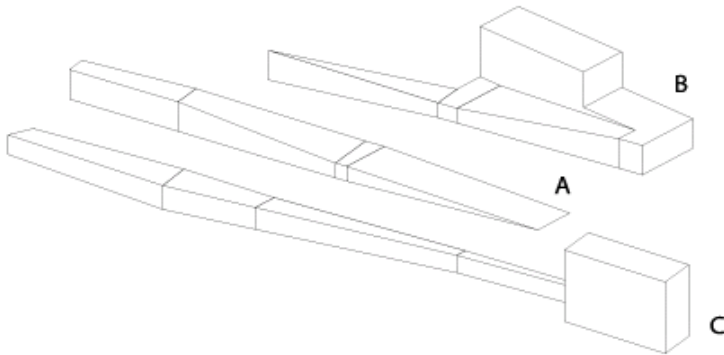
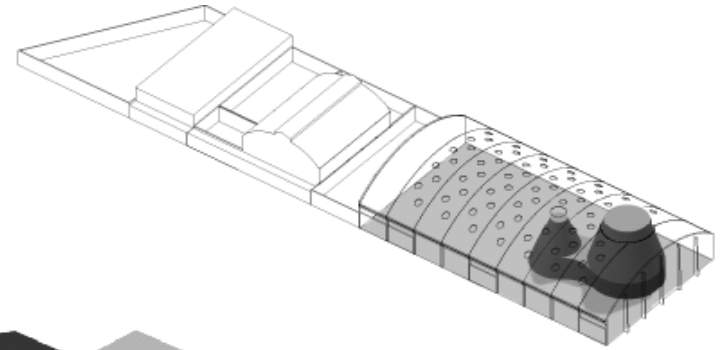
Urban Modules foyer, campus and bridge are designed as "modular", autonomous urban building elements, to contribute to the different development scenarios. The central ensemble is built with the re-used trade buildings, the rampbuilding and the bridge.

Jacarezinho
Laboratory



Taba universitária
Education, research

Bauhaus Dessau
FURB Blumenau
AA London
Emergence Permanente Paris

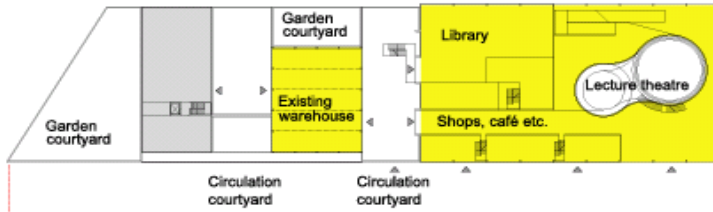


C + A + B = school extension + ramp + auditorium = path + function + view + landmark

*Foyer, entrance and campus of the **Taba universitária**, an international center for projects in poverty areas. By setting fewer volumes, the ensemble of university, ramp, campus and school is defined as a unique place. are defined. The way to Jacarezinho declares itself as an open multi-functional area of interlocked uses.*



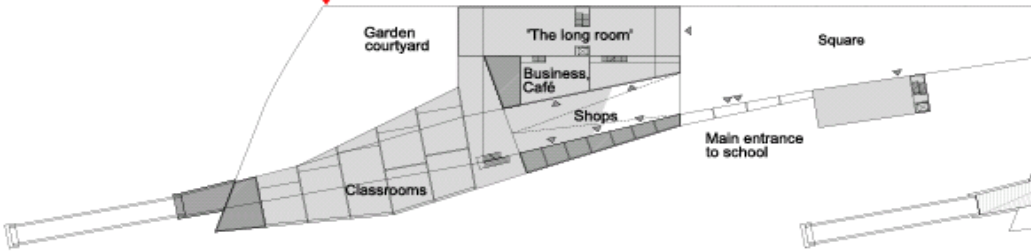
Taba universit ria Ground floor



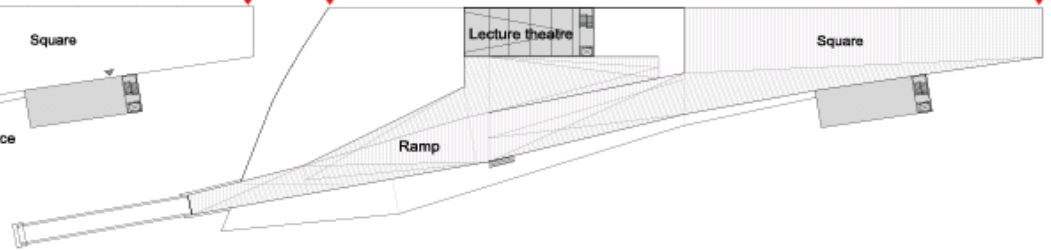
Taba universit ria 1st floor



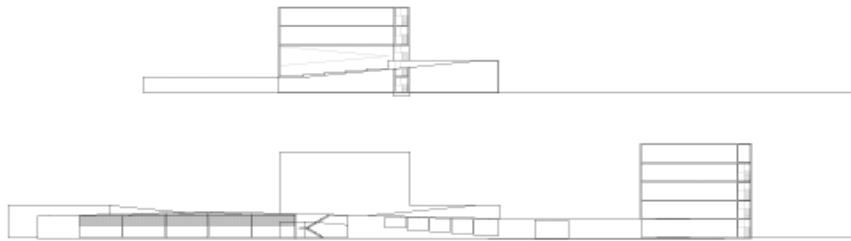
School extension Ground floor

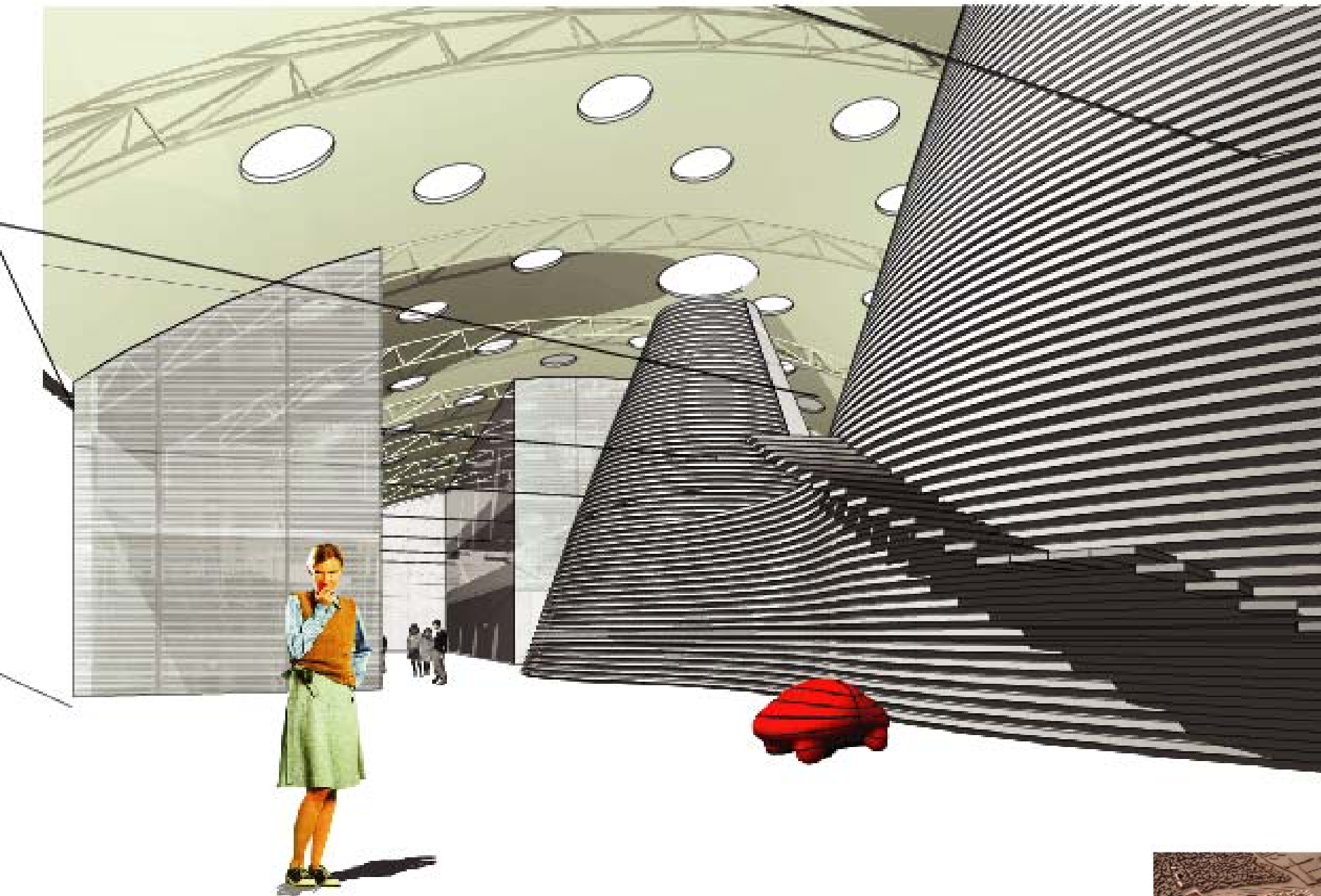


School extension upper floor

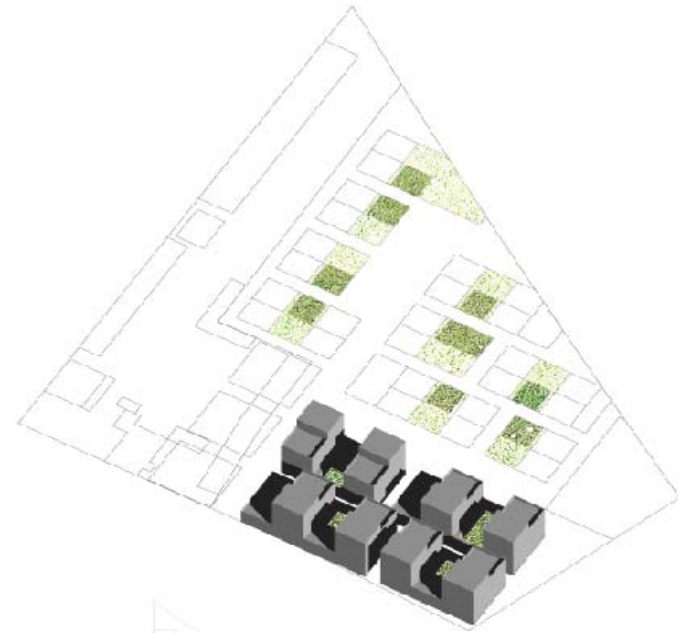
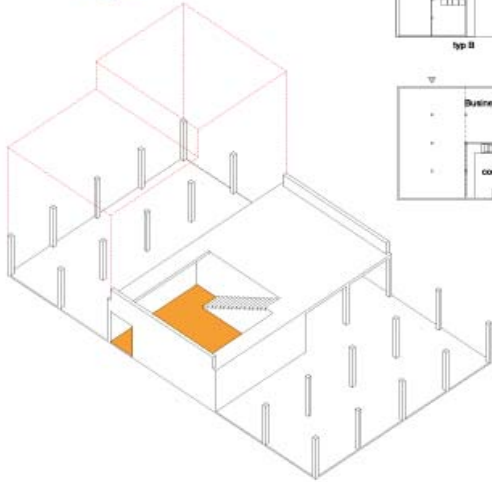
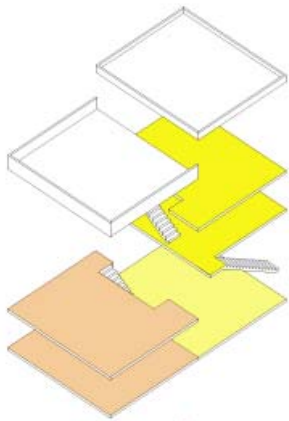


Sections





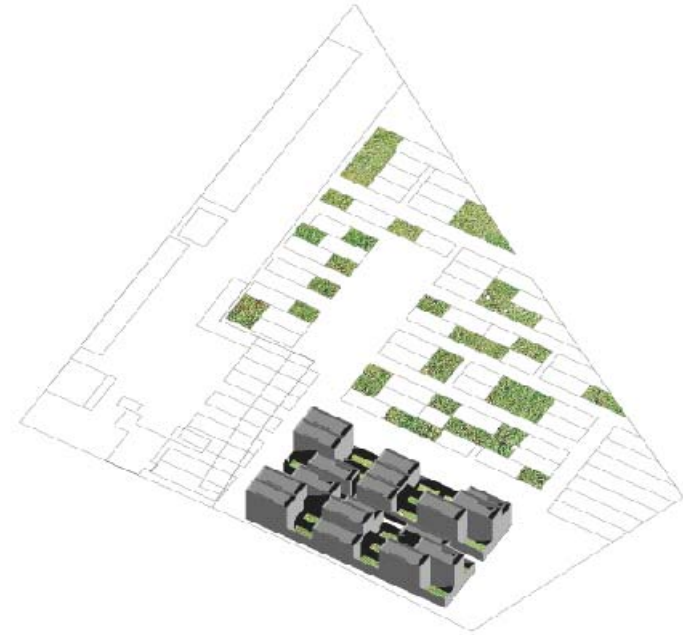
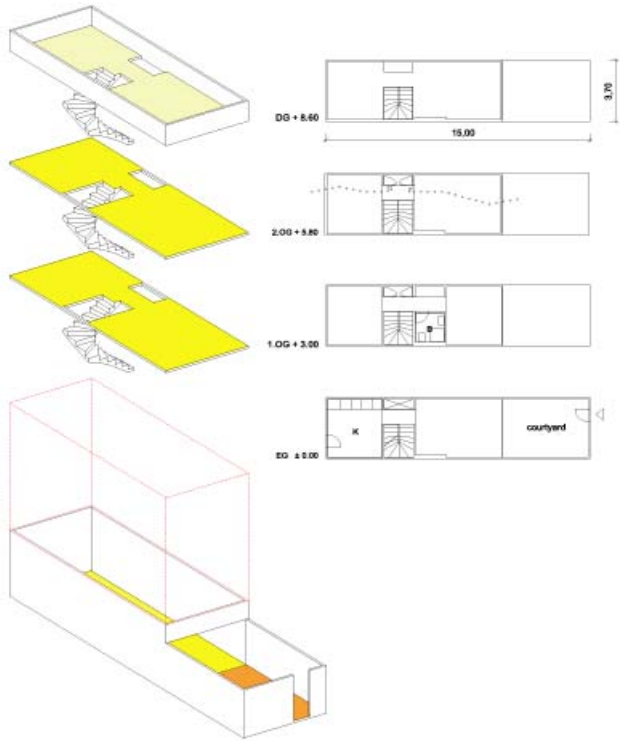
Taba universitaria *Interior of the reused industrial hall*



New Typologies *terraced building*

The varieties for the townplanning re-organization of the foyer, contain different emphasis in their housing typology: this variant of the terraced building organizes combinable flat sizes around a central terrace through a constantly commercially usable ground floor. 2 - 6 flats form a social and economic unit.





New Typologies *courtyard house*

The type of the courtyard-house varies for a uniform plot module type of the single family house. The house is accessible over a small yard, also commercially usable, and covers 1-2 upper floors.





After the delivery and presentation of the planning in January 2002 as well as a further revision together with a Brazilian joint office, the core removal work for the realization of the first courtyard began in November.



First construction work at the Nucleus and laying of new infrastructure for the block in spring 2003



The Nucleus in June 2003 - Completion of the carcass

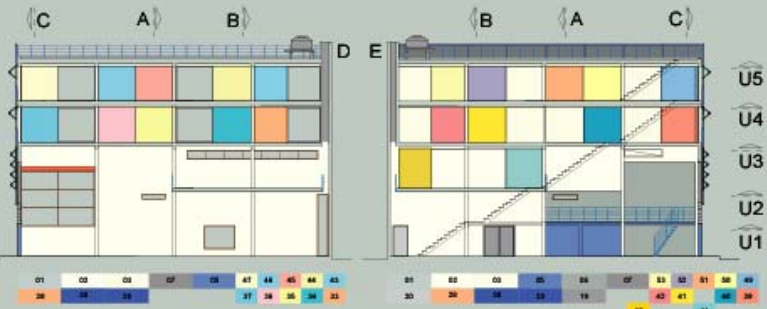
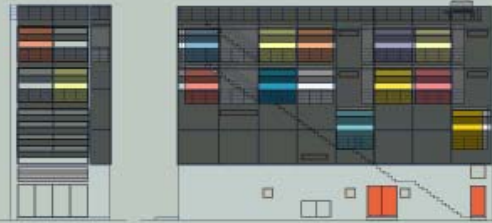
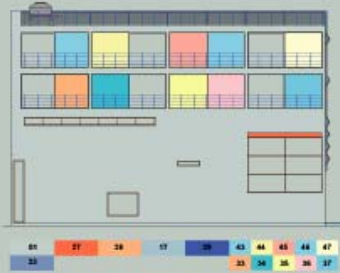




Nearly completely emptied space for the 1. Yard with the carcass of the Nucleus - June 2003 Color suggestion for the ground of the yard and adjacent constructions - January 2002

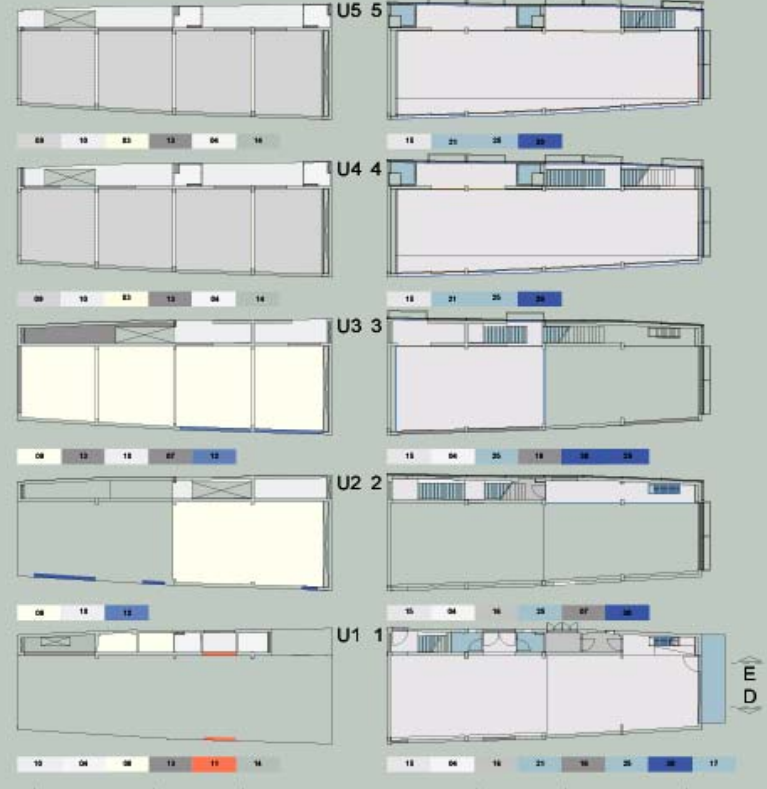
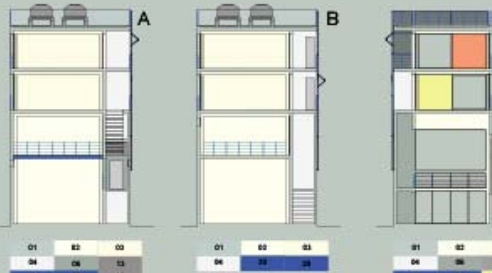
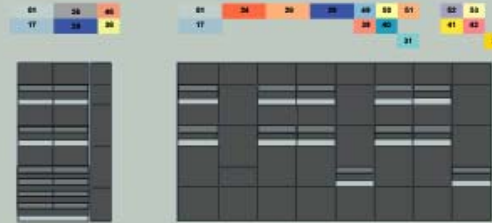
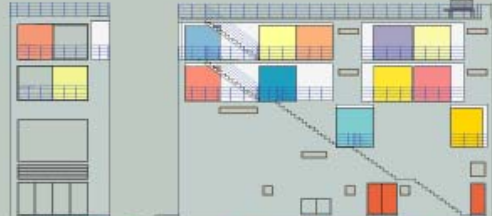


Courtyard – November 2003



U5
U4
U3
U2
U1

Wände	01 Fassade	6.127	
	02 Innenwand 1-5	7.766	
	03 Innenwand 6-6	7.224	
	04 Innenwand Puffer / Decke WC	7.207	
	05 Gewölbte Eingang / Hohlkammer	2.007	
	06 Giebelwand	2.067	
	07 Gewölbte Platz 2-2 / Umklekabine 4-4	7.127	
	08 Deckenwand 1-3	7.966	
	09 Deckenwand 4-4	7.944	
	10 Decke Treppenturm/Lagerraum	6.627	
Decken	11 Gewölbte Decke - Holz	6.600	
	12 Gewölbte Decke - Holz	18.820	
	13 Decke Galerie / Untere Galerie Puffer 3-5	7.128	
	14 Untere Galerie 4-6 / Decke Galerie 2	7.128	
	15 Pufferzone 1-5	7.188.1	
	16 Pufferzone Mittelzone	6.887	
	17 Boden Puffer-Hof	6.708	
	18 Pufferzone - Stosse 1 und 2	7.128	
	19 Terrassen-Hölle	Flächen-Puffer 2 Stahl-Gelb-17-17-27 Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	20 Terrassen		
Aufbauwerkstoffe	21 Bodenbelag WC	6.708	
	22 Glas isoliert - Holz	Stahl	Stahl/Glas isoliert
	23 Glas isoliert - Gestein		
	24 Fliesen - Holz	Fliesen-Stein Stahl-Gelb-17-17-27	
	25 Treppen	6.708	
	26 Fassade/Terrassen - Platz 1/Strasse	Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	27 Laubengangwand - Stosse		23 Laubgang
	28 Wandstosse - Stosse 1-2 / Hof 1-6	Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	29 Giebelwand - Außen		Stahl/Gelb isoliert
	30 Giebelwand/Treppen - Innen		Stahl/Gelb isoliert
Estrichdecken	31	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	32	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	33	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	34	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	35	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	36	Stahl-Gelb-17-17-27 Stahl-Gelb-17-17-27	
	37	Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	38	Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	39	Flächen-Puffer 2 Stahl-Gelb-17-17-27	
	40	Flächen-Puffer 2 Stahl-Gelb-17-17-27	



Katalog 1
Innenwände
Decken
Aufbauwerkstoffe

Katalog 2
Estrichdecken
Estrichdecken

Katalog 3
Estrichdecken
Estrichdecken



Construction work in February 2004











April 2004 - In August 2003 the opening of the Nucleus is planned as a media- and information center with a festival of Ars Electronica.







PREMIUNIA
celula urbana do Jacarepaguá



PREFEITURA Prefeitura Municipal de Jacareizinho
célula urbana do Jacareizinho
bauhaus

CONCERTO: GREGG
Al Condono - 10/11/2007

XTB 5938

Three men sitting on a bench in front of the teal building.









T
A





Bauhaus Kolleg Complex City 1999/2000

Planung 2001/2002

Direction :

Prof. Dr. Omar Akbar

Management:

Ute Lenssen

Koordination:

Neil Gagliardi

Regina Sonnabend

Rainer Weisbach

Kolleg participants:

Bettina Bachem, Germany

Sabine Baumann, Germany

Margaretha Breil, Italy

Oksana Chepelyk, Ukraine

Daniela Engel Aduan, Brazil

Zoran Eric, Yugoslavia

Jens Fischer, Germany

Alehandra Gonsebatt, Argentina

Maria Marcelino, Portugal

Paolo Mulatinho, Germany

Susanne Müller, Germany

Zoran Pantelic, Yugoslavia

Carlos Petersen, Brazil

Vanessa Tamietti, Brazil

Ramòn Villamarin, Colombia

Draft

Direction of the project:

Prof. Dr. Omar Akbar

Architects :

Jens Fischer, Dessau

Wilfried Hackenbroich, Berlin

Rainer Weisbach, Dessau

together with

Ilona Niebel, Dessau

Sabine Schmiegel, Dessau

Direction of the project:

Prof. Dr. Omar Akbar

Architects:

Silvan Linden, Berlin

Rainer Weisbach, Dessau

together with

René Weiszbarth, Dessau

Bernhard von Oppeln, Berlin

The first concept of the Celula Urbana goes

back on an idea of the

planners Lu Petersen and Dietmar Starke,

City administration of Rio de Janeiro

Photo: Rainer Weisbach,

Regina Sonnabend,

Jens Fischer,

Dietmar Starke

Picture composition: Rainer Weisbach