FOUR WINDS APARTMENTS

LOCATION
Molewa, Plot number 14, Residential category - Apartment blocks.

SIZE OF THE PLOT
10,456 m²

TOTAL BUILT AREA
15,897 m²

RESIDENTIAL PROGRAM
11,044 m², 103 apartments.

COMMERCIAL AND LEISURE PROGRAM
3,252 m², ground floor and first floor, double height spaces.

COMMUNAL GARDEN
4,931 m² as a green roof of the garage.

UNDERSTANDING OF THE DESIGN PROBLEM

Housing in density has become one of the most important issues in the contemporary City; it is the cell that makes it work. We believe that all our efforts must be focus on providing a high quality of life, in many different scales: the urban, the architectural, the interior and even in every single detail. The aim of providing a contemporary quality of life on each housing unit makes possible to give a new strong identity of this block, as a significant part of the new city.

In that sense, we understand the whole block as a unique unit that provides a better lifestyle for all the people who either, will live on it or pass through it. This unit is designed by refreshing the idea of the traditional Chinese masonry, with a clear system that works like the layout of a brick lattice wall.

In the urban scale, the masonry is read as a permeable façade that superposes each apartment as if it were a piece of brick in the urban wall. In architectural scale each housing unit is sheltered by a permeable wall, a masonry lattice that allows introducing the concept of patio-house of a single family house, into different density and height.

In a smaller scale, all the housing units have a courtyard or a balcony on both sides of the apartment. On the street facade, the courtyard fluctuates between a patio and a balcony intercalating in heights in order to allow natural light coming in, while promoting an intimate open but private space for the unit.

In a bigger scale, the urban block is divided into four separate apartment buildings, creating an enclosure for the communal garden. But at the same time, those blocks allow some strategic pedestrian connections between the city and the "flower garden" because those buildings are not connected on their corners, so, visual and physical flows can be possible.

The urban image of the building has a straight façade that relates more with the consolidated city. The courtyards move in and out of the façade to offer more privacy while maintain the views to the street.

The interior façade enclosing the park plays a more dynamic balcony layout; this façade opens to the park and invites the sun and the nature to enter to it. All the housing units enjoy both some views to this central park, and also to the city.

In detail scale, the lattice walls combine their own pattern, following some traditional Chinese references that are different between one unit to another. As a general approach, the idea of working in different scales allows us to emphasize the concept of masonry either as a façade urban wall, as a housing unit as a brick or also as the permeable enclosure material.

In the urban tissue, each of the four buildings can be read as a brick, with its space joints in between. In the architectural skyline, each apartment works as a brick that fits in the general layout of the lattice pattern of the building. In the tectonic concept of a very small texture, the brick is the element that gives shape, texture, transparency, breathability, protection, language, etc. to the interior and exterior atmosphere. In other words, the simple concept of a brick is the material that unifies and gives identity to the whole building structure.
FUNCTIONS AND MODES OF USE OF THE BUILDING
The general set up of the proposal is thought as a smooth gradation of programs from the most public to the most private one.

In ground floor there are located the public facilities as leisure, retail (as bars, shops, offices), communal programs (as polyvalent spaces, kindergarten, day care center, etc.), distributed along the streets. Those spaces are arranged into two stories, with a mezzanine. In between those spaces there are distributed the accesses to the parking garage, which is located directly in the inner ground floor plot. On top of it, on first floor, there is the main open space, the communal garden. The mezzanines of the retail spaces are directly connected with this garden, so they can extend to it.

The communal garden is conceived as a mixture of green spaces. Some of them intended to be playgrounds for children, areas for kiosks or terraces for leisure, but also some are designed as orchards, aromatic gardens and flower orchards, where the tenants can work and contribute with a natural eco-system for their own community. The kiosks are incorporated in the inner garden to work as an open coffee, working terrace, leisure observatory, etc. taking part of the landscape design.

This garden is accessible to everyone, and takes part of the natural consciousness of the neighbor. One day of the week could be possible to host a “green market”. From all around is possible to see it, every flat has views to it.

In the upper levels, there is mainly housing units, the most private space, alternating with some interstitial green spaces and some other possible programs like gym, library, multifunctional room, etc.

The buildings are composed by four different housing typologies. As the motto of this project, each typology achieves four winds. That means that all of them are totally oriented at least to two sides. The fact of introducing the courtyard into the housing unit enhances the possibility to reach the other two sides.

The four typologies are always oriented to south, and they have views to the interior garden and to the “flower city garden”.

All of them depart from the same scheme, the day area is in one side and the night zone in the other divided by the water elements.

The smallest one, is just in one direction, the others are like an “L” that matches with its mirror in order to complete a more regular profile in the building.

Some of them, depending on its location, can extend its views and space to the immediate terrace or funnel courtyard.

The typologies combine single houses with 3 dormitories and one duplex with 4 dormitories. All the rooms have natural ventilation and light. The units organized on the east and west sides are over protected by the lattice that has a tighter pattern. But the courtyards find their easily openness always to the south. Those features enhance the idea of natural cross ventilation, excellent solar capture, combined with an efficient sun protection.

Anticipate critical issues or special needs that may impact the construction phase

The construction is thought to be built in phases. It is possible to build each building apartment separately, because there is a modular construction system. Also, considering that the parking area is on the ground level, it could easily be built whenever is necessary.

Strategically there are only 4 types of units combined with 8 types of courtyards or balconies. They are layout in a variable way in the overall structure in order to give dynamism to the whole construction, but also to systemize the way of building it. The material proposal is designed in a way that even it looks almost handicraft, it is systematic and guarantees durability and energy efficiency.

Less is more, and with only 4 elements arranged in an alternated way, it is possible to create a very expressive and variable urban image.

KEY TECHNOLOGIES - SUSTAINABILITY FEATURES
The proposal has the will of a Self – sufficient building. In order to fulfill that condition it takes care of:

WATER: Collecting rain water for a domestic use and also for watering the greenery of the interior park

GREEN: The communal Garden in the middle of the plot is a green roof of the parking below, which has apertures in order to introduce natural light to the parking garage space. It is a public space, mainly green with pedestrian paths connecting the city and the “flower garden”. The green is graduating from public to intimate-private space, and it is also potentiating the floral concept of the city. Green roofs as semi – public terraces are in use of all the inhabitants of the apartment blocks. The proposal also has sun collectors on the roofs, taking advantage of the slope on some of them.

Interior gardens are in use of specific living units, between the neighbors. Circulations are compacted avoiding the typical air corridor in order to minimize the overheating and providing necessary natural light to all the apartments. Green balconies are in private use. The perforated brick walls are used as vertical surface for vertical gardens.

MATERIALS
All the tectonics of the building is design in a way that it is possible to incorporate recyclable materials as glass, stone or wood, but also materials that guarantee durability in terms of maintenance, like brick.

The proposal combines natural and durable materials, with good considerations like cross ventilation system, facade protection for bad orientation through a lattice wall, promote best orientation like south, and use under floor heating with sensor system in order to optimize the energy used.

CULTURAL MESSAGE INTENDED IN THE DESIGN AND ITS ASSOCIATION WITH FEATURES
The proposal intends to propose a traditional but contemporary construction, based on the local technics, but also on an update way of living. Resonances of culture, patters of life and construction are some of the basic motifs to give a new identity to the project. So, even everything is new you can get some glimpses of what is possible to build in China nowadays. One of the elements that helps to reinforce the identity of the proposal is the emphasis on continuing of the urban “flower garden” into the most intimate space. On each courtyard the flower theme is present. This idea lets have a very changeable image of the overall building every season of the year.
01. LAYOUT PLAN

02. THE COMMUNITY GARDEN
12. INTERIOR VIEW TO THE FLOWER GARDEN

13. BRICK WALL PATTERN STUDIES
MX_SI architectural studio is an internationally recognized architecture firm, that has won important international architectural competitions, such as Cultural center Federico García Lorca in Granada, in which Rafael Moneo was the president of the jury in 2005, and Serlachius Museum Gősta Pavilion in Finland, one of the most crowded competitions in the history of Finland (579 entries) in 2011. The work of MX_SI has also been recognized with the Spanish International Architecture Award 2013 by the CSCAE, Plecník gold medal for architecture 2015 by the DAL Slovenia and recently nominated for Finlandia Prize For Architecture 2014 by the Chamber of Finnish Architecture (SAFA).

It is a creative studio of architecture, an international team of architects based in Barcelona. The studio was founded in 2005, received the first prize for the construction of Federico García Lorca Granada Center - their first together. Since then, their work has focused primarily on the development of public competition, either with a cultural program or in relation to the historic city centers. Gradually, their inventiveness has won numerous awards in consolidated national and international competitions. They have been invited to participate in numerous congresses, lectures, conferences, exhibitions, publications nationally and internationally.

MX_SI architectural studio moves on the basis of continuously exploring architectural essence as a dialogue between logical and harmonious structure, geometry, context, spatial and visual expression. Their work is marked for its versatility in solving complex programs understanding the needs of the user, context and materiality as a whole. They show a significant sensitivity to time, in order to integrate the new with the existing highlighting the plastic qualities of their projects and the environment.

Mara Partida combines her professional activity with academic work, teaching and researching at the School of Architecture since 2008 in the Department of Architectural Design. She has been visiting professor at foreign universities such as the School of Architecture at Drury University in the United States.

Héctor Mendoza teaches at the School of Architecture since 2008 and is currently teaching and researching Architectural Design at the Visual Representation Analysis Department. He has been visiting professor in United States, at the School of Architecture of the University of Drury, Missouri.


Olga Bombac is an architect in MX_SI architectural studio from 2010 and she forms a part of an international team of architects working on international projects and competitions. Before working with MX_SI architectural studio, she received several awards and mentions in architecture competitions in Slovenia like Student campus in Nova Gorica, Rowing center Zaka in Bled, Primary schools in Kamnik and Primary school Bonifika in Koper, all in 2008.
Serlachius Museum Gösta Pavilion

Location: Mänttä, Finland
Client: Serlachius Fine Arts Fundation
Budget: 19.000.000 €
Area: 5.700 m2
Completed: June 2014

A rich dialogue between contemporary architecture and heritage monument is mediated on an impressive and unique landscape.

The project strategy is to establish a dialogue between the new and existing through the placement of the new building as Joenniemi continues to take center stage, and at the same time, the new museum does not lose the opportunity express his character and contemporary presence. The solution was to organize the new volume parallel to the axis established between the house, the garden and the lake. It created a place for access to the building where the House Joenniemi still dominant views in the area, and in accordance with the topography descends and approaches the lake the new building increases its height and more prominent. The project is conceptually abstract and dense forest. A forest represents and translates into a series of parallel wooden frames that define the geometry and structure of the new building. The frames are built with structural plywood spruce, which is abundant in the area and, in turn making a historical reference on the local industry.

CPB House

Location: Guadalajara, Mexico
Client: Private
Area: 360 m2 house + 105 m2 terrace
Completed: 2013

The house potentiates a cheerful, open and luminous atmosphere, by emptying its center in order to create a spatial courtyard. This Patio works as the heart of the house, a dynamic center that organizes, connects and blurs the sequence of living spaces around it, giving new and flexible alternatives to what seemed to be a very restrictive site.

In a sculptural way, a tectonic serpentine folds and unfolds in order to create a wide range of scenarios between outside and inside. A spatial gradation from outdoor to indoor spaces goes from an open Zen Courtyard with a fountain, to a balcony that opens up into a double-height porch.

The house shows its tectonic essence by its complex geometry and plasticity. It is all made up with black and white concrete that resembles an artificial stone with natural volcanic appearance. Inclined big walls, great cantilever elements dialoguing in an open plan, are the main spatial concepts that blend harmonically structure and space.
Cultural Centre Federico García Lorca

Location: Granada, Spain
Client: Federico García Lorca Foundation
Budget: 18,500,000 €
Area: 4,500 m²
Constructed: June 2015

The boundary between urban historic context and architecture spaces blurs extending the threshold on a dynamic concrete construction.

The building establishes a natural and continuous relationship with the center of the city of Granada through different scales of intervention. Urban space in the Square “The Romanilla” integrates with the help of the main hall, a unique and continuous. The boundary between the outer and inner urban areas are blurred in the high threshold of entry. At ground level, the building takes on a smaller scale domestic helper to complete the existing urban fabric.

The proposal avoids geometric carved a prominent architectural form. The image comes from the formation of urban sculpt the gap, instead of iconic object. The entrance to the center is just a door, a threshold where shadows and darkness draw new three-dimensional spatial relationships.

Serlachius Gösta Bridge

Location: Mänttä, Finland
Client: Serlachius Fine Arts Foundation
Budget: 750,000 €
Area: 150 m²
Constructed: June 2014

The boundary between urban historic context and architecture spaces blurs extending the threshold on a dynamic concrete construction.

Once the expansion of the Gösta Museum and landscape intervention in the park located on the shores of Lake Melasjärvi had begun, the opportunity arose to connect this park with the small island of Taavetinsaari located in the southeast area of the park.

The main purpose of the design of the new bridge has been to integrate the structure into the landscape in a particularly sensitive manner and that its geometry responds to its structural logic.

The geometry of the bridge, in addition to seeking the landscape integration, is a direct result of efficient structural design. The section of the bridge does not change in its longitudinal part, being thicker at the base rising from the ground and thinner in the part that simply settles on the island, but also in the cross section where steel folds were studied to achieve the required stiffness. It is a section with four folds with just enough space left at the end to attach a balustrade on one side and a bench on the other.