

_URBAN SUSTAINABILITY

DATES:
COMPETITION _ Viva Arquitectura _Vivienda protegida de vanguardia: Octubre 2006
Basic project _ 2007
Implementation project _ 2007-2008
CONSTRUCTION _ 2010-2012

ARCHITECTS:
Abu Amann Alcocer, Andrés Cánovas Alcaraz, Nicolás Maruri González de Mendoza

COLABORATORS:
COMPETITON: Ana López, Patricia Lucas, Rafael Palomares

PROJCT: Beatriz Crespo, Ana López, Patricia Lucas, María Mallo, Rafael Palomares, Antonio Rodríguez, Roberto Rubio, Pablo Sigüenza, Vicente Solano.

CLIENT
OCA, Construcciones y Proyectos SL / Ministerio de la Vivienda

QUANTITY SURVEYOR:
José Javier Rodrigo García

ESTRUCTURES:
Ingeniería José Cerezo / Pentia Ingenieros

PHOTOGRAPHERS:
David Frutos

SURFACE:26.768,08m²

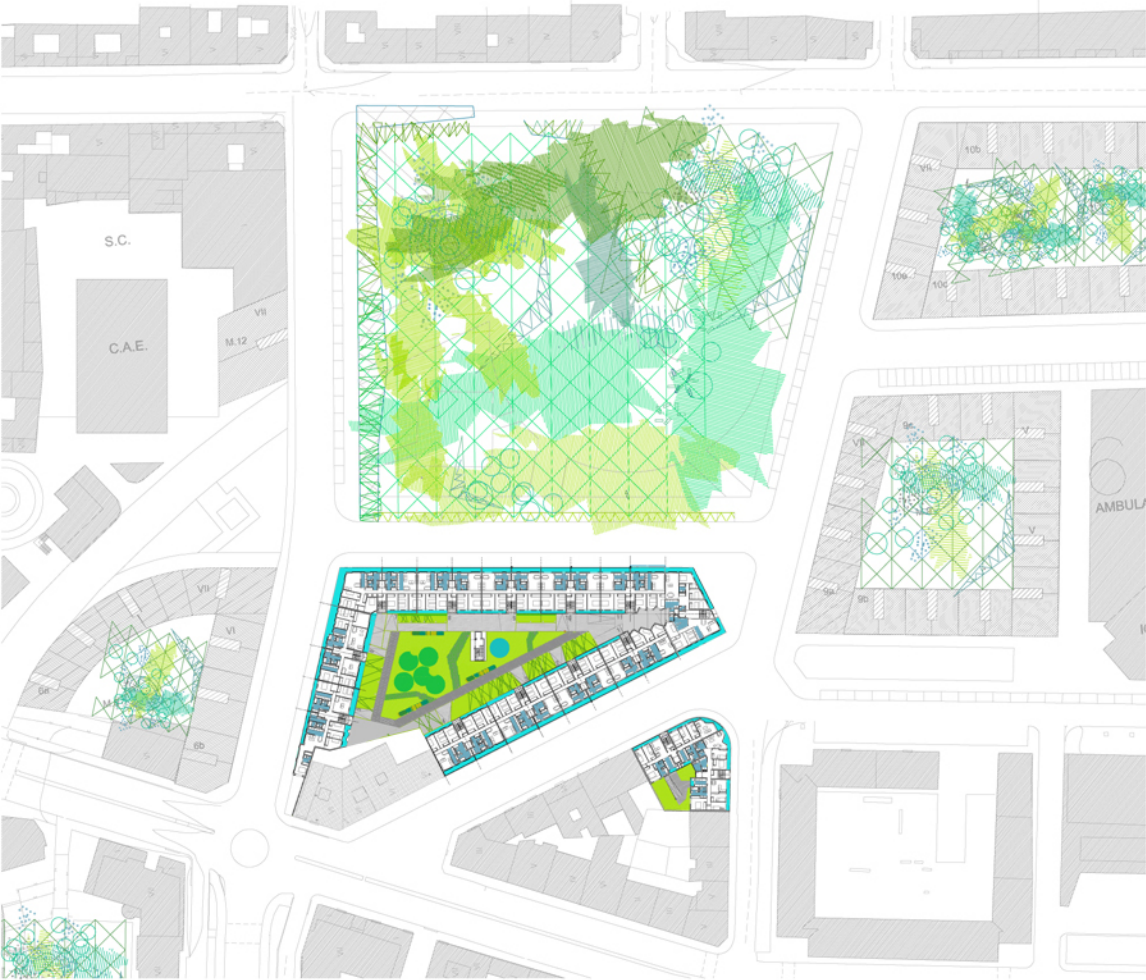
CURRICULUM VITAE
Abu Amann, Andrés Cánovas and Nicolás Maruri, architects by the School of Architecture of Madrid, associate in 1987. Since then, they teach at the ETSAM (Madrid School of Architecture) in Bachelor and Master.
They have focused their work in searching new housing types and housing blocks, according to contemporary public space and urban issues. But also they have worked in different programs, as museums or health centers, and urban issues in Cartagena and Murcia, in Spain. They have received more than seventy national and international awards, such as, Best State Subsidized Housing Block by Government of Madrid, Best Architectural Proposal by the Government of Murcia, First Prize Biennale Zaragoza, National Housing Award and National Award for Preservation of Archeological Heritage 2012.
Exhibition of their work have been held at the AA in London, NAI Rotterdam, IIT Chicago, Arizona CAPLAN, the Venice Biennale, at the Cervantes Institute in Rio, Sao Paulo, Paris, Rome and New York, AEDES Gallery in Berlin, at the RIBA in London, and in many schools and association of architecture in Spain.
Their work has been published in more than three hundred magazines and books worldwide and is included in the Phaidon Atlas of SXXI architecture.

MEMORY
This project is produced in a context where the volume of the building is previously strictly define by urban regulations so the exterior form is not a problem to be considered, - thanks! - For this reason it is possible to concentrate the design energy in other conditions. In this case in [the specific study of the functional variables of housing: type](#).

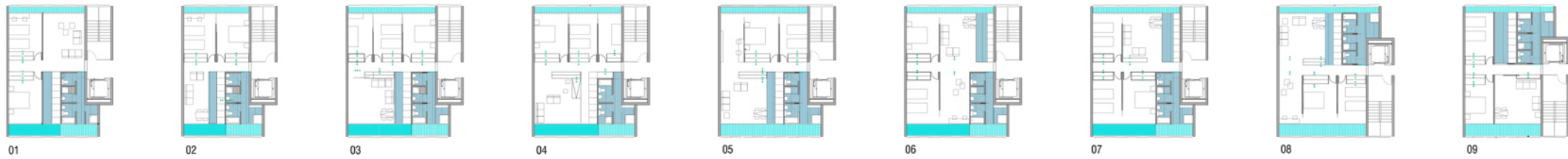
The proposal is a building protected by two galleries, that has a interior dwellings space released of the presence of the structure. The mechanical and wet spaces are concentrated around a "technical wall". This decision allows: [cross ventilation, free disposition of storage and flexible spaces](#).

The galleries are configured as an [intermediate space between the inner housing and contact with the city](#). They are warm in winter and cool in summer. They are a thermal insulation space for the building and a same time a in-between space for different uses. [The dwelling is thought around natural regulated thermal condition](#), the space in-between defend from noise and seeks diffuse light, and protect from exterior views, to provide the best living ambience. The use of galleries is very traditional in the North of Spain, where rain and clouds are common every day, and reduce the use of heating in the winter. The summers are very humid so easy cross ventilation is an important necessity. The interior patio is place for some trees that help to protect the views and the noise between different dwellings.

The urban facade is solved with a polycarbonate skin located on the front of the continuous terrace, on the first level, instead of polycarbonate, the facade is made of perforated steel sheet. This skin is opened by a sliding system, which solves the relationship of the dwellings with the outside. The second front of the gallery is lined with ceramic tiles of various colors. The system allows [a intermediate location between the outside temperature and the internal working climate condition](#) . [The interior color of the ceramic is in contrast with the gray skies of the area](#).

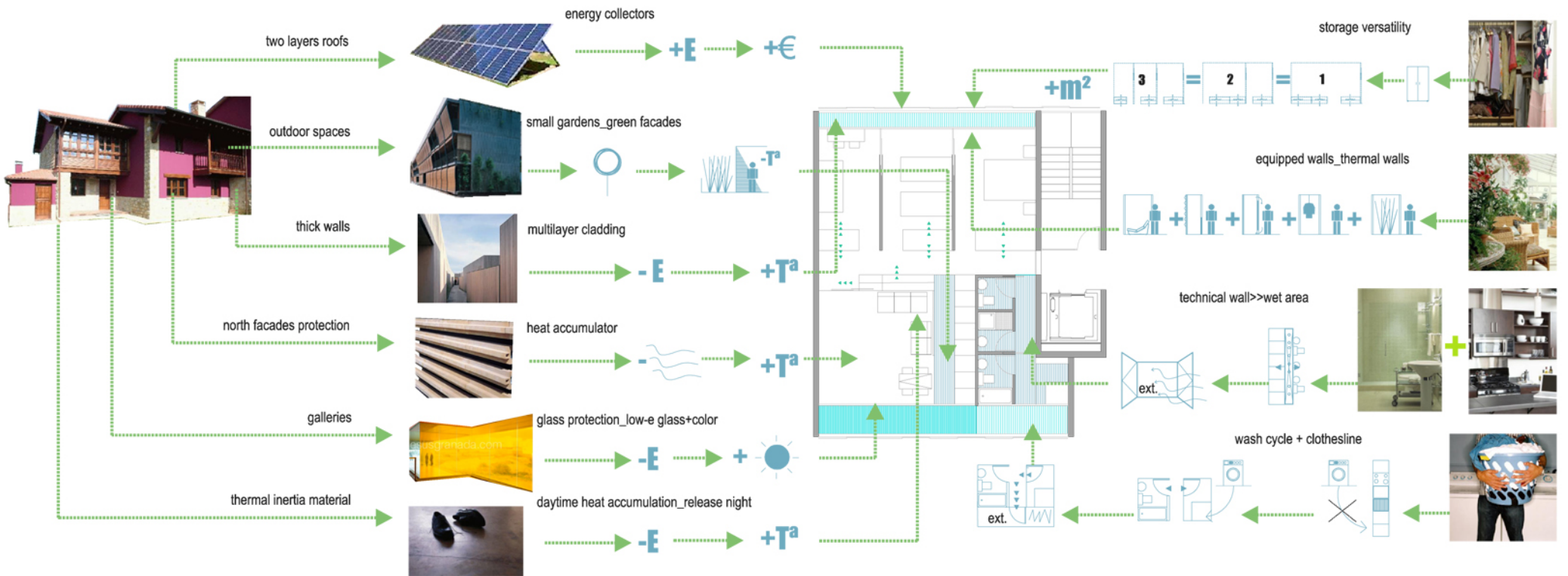


_SOCIAL SUSTAINABILITY: flexibility>>housing variations

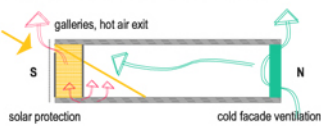


REINTERPRETATION OF TRADITIONAL ELEMENTS OF LOCAL HOUSING

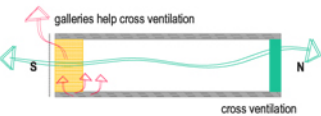
ADDED TECHNOLOGY VALUES



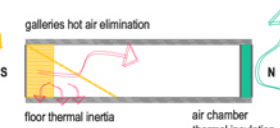
SUMMER DAYTIME
The double layer generates flows on the south facade dragging the hot air and cause the air flow from the cold facade.



SUMMER NIGHT
During the night, the cross ventilation helps to eliminate the hot air accumulated and to renew the air.



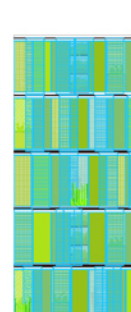
WINTER DAYTIME
The double skin creates a hot air protection that acts as a cushion against external weather conditions.



WINTER NIGHT
Overnight energy accumulated through inertia is released, while the double skins act as isolation chambers.



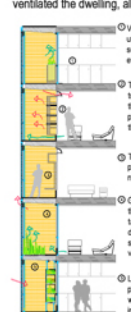
NORTH FACADE
clima restrictions
40% openings maximum
60% wall



SOUTH FACADE
clima restrictions
50% openings maximum
50% wall



SOUTH FACADE
WINTER: The protected gallery works as heat collector, reducing the consumption of energy.
SUMMER: The gallery opens and keeps well ventilated the dwelling, allowing exterior life.



NORTH FACADE
WINTER: The gallery works as an insulation space that protects from the north winds.
SUMMER: The gallery is a cold exterior space for the dwelling.

