

SV Villa

by Jofre Roca arquitectes



La Chambre Claire
Architecture Communications

SV Villa: Constructive tradition and contemporaneity.

Location > Barcelona, Spain.

Program > Detached single-family house.

Architects > Jofre Roca arquitectes.

Awards > DNA Paris. Category Architecture / Housing 2020

> A'Design 2020

> GADA. Global Design & Architecture Design Awards 2019

> Architecture Masterprize. Category Residencial Architecture 2019

Publications > Hispalyt (Brick and Tile Architecture Award Catalog)

In an unbeatable urban environment, on the hillside of Tibidabo, with incomparable views over all Barcelona, we find SV Villa. This house enjoys the advantages of the city with the privileges of a country house. A project in which traditional production methods have been used (tile roofing, the use of stone, manual bricks, selected and treated solid wood beams, etc.). Likewise, energy-passive solutions were used, taking advantage of local resources. As well, materials to generate an authentic, pleasant and natural space.



Program

The SV Villa distributes its more than 1,000 square meters on three levels. On the ground floor, there are the common areas, living room, kitchen and dining room. On the basement floor is the service area with independent access from the ground floor. As well the guest bedroom, a multipurpose room, bathrooms with access to the garden and the garage. On the upper floor are the children's bedrooms sharing bathrooms, a library in the larger modules and a suite at the opposite end.



The unity of the brick and its dimensions determine the size of the spaces and the modules of the metal frames that rest on top of the brick walls. This metallic grid modulates the project in an elastic way according to the needs and desired limits. It is a flexible systematization that gives an implicit order to the entire project.



Connection with the environment

The spaces of the house are open to the outside. On the façade, the perpendicular walls and the planters cross the limits. The relationship between the interior and the external areas blurs the limits of the house. It is also reinforced by the relationship with the flight of the great cantilever on the southern façade. The external elements take part in the internal order of the project.



Energy efficiency. Passive construction systems.

Passive energy solutions are used. The spaces are oriented and the cantilever on the southern façade provides a shade that regulates the entry of the sun's rays in summer and allows direct thermal gain in winter. A continuous skylight on the top floor of the house supports the natural ventilation system, which is practicable and in summer uses thermal circulation. Thus the whole house has a good natural ventilation system. Also, it allows natural lighting throughout the entire floor. This skylight is oriented so it does not receive the direct incidence of solar radiation. The house enclosures provide thermal insulation and the installed air conditioning equipment is efficient.



Attention to details. Design and choice of materials

The House SV project is unique. All the elements have been designed with the utmost attention to detail at all scales. From the construction system to the furniture. Each part of the project has been considered to establish order and coherence in the whole. Also, taking into account the needs of the owners.

The bricks handmade in a local factory were produced by master craftsmen and designed by Jofre Roca arquitectes. The measurements of the bricks that determined the dimensions of the spaces were decided, while allowing specific wall solutions. For which special molds were built for the project. A special sludge mix provided the corresponding flexibility and hardness. Following an artisanal process, they were baked by burning crushed olive stones for ten days and depending on their exposure to the flames. Each unit acquired a more or less reddish hue, achieving the whole the desired texture. Although this procedure was manual, its cost was lower than if you would have buy a special-sized bricks of a manufactured, with industrial processes.



The oak wood beams were chosen and sawed by a local sawmill and allowed to dry in the sun for three months to stabilize their movements. Once they were manipulated, specific fittings were made to make them flush with the metal profiles. These elements are part of the structural and aesthetic system, interesting textures and finishes in both interior and exterior spaces.



Photos by @ Adrià Goula

Jofre Roca arquitectes

Architecture, Urban design & Landscape

Architectural firm based in Barcelona that focuses on contemporaneity, sustainability and sensitivity to the environment. The constant investigation of materiality, light and the coherent use in a given context is a fundamental factor in architecture. Its efforts concentrate on developing strategies and rigorous methods to create high-quality projects, providing services which add value and for the users' wellbeing.

Jofre Roca arquitectes is a multidisciplinary group involved in research and teaching that together with practice we can aim unique results, taking into account even the smallest detail. The studio has proven experience and technical capacity to deal effectively with complex architectural projects. Its portfolio spans a broad range of scales and typologies, from private houses, offices, restaurants, retail and landscape interventions, a cemetery and urban settlements.

All tasks are developed in a coordinated network formed by external collaborators proactively completing the comprehensive range of professional services, which provide global solutions and the operative capacity for designing, developing and building projects.

Their work has received several prestigious distinctions and it has participated in some international exhibitions as the Venice Architecture Biennale or the European Landscape Biennial. Jofre Roca arquitectes aims to be a creative workshop for architects open to share experiences and knowledge. The firm, Jofre Roca arquitectes, was founded in 2007 by Jofre Roca Calaf, architect by the Technical Superior Architecture School of Barcelona (ETSAB) and also trained at the Kungliga Tekniska Högskola (KTH) in Stockholm. He has Advanced Studies Diploma (DEA - Doctorate studies) for the Doctorate Studies by the Architectural Projects Department within the Polytechnic University of Catalunya (UPC). He has been Guest Lecturer in numerous European universities

Bioclimatic / Low energy consumption architecture - nZEB

Our planet is sick and it demands architecture to be created in a sustainable way. We need to take advantage of natural resources and reduce energy consumption. It is all in our hands. Jofre Roca arquitectes focuses its design on energy efficiency. By prioritizing the use of renewable materials, we aim to design buildings so they can produce their own energy. The projects developed take into account the relationship with the environment. Ecological footprint and energy efficiency are inherent characteristics. This results in architectural and urban proposals with a clear bioclimatic nature. The studio is committed to design buildings with low environmental impact, minimal or zero energy consumption and equipped with easy maintenance systems. Also, we take into account the whole life cycle of the buildings. Jofre Roca arquitectes offers the possibility to certify its buildings according to sustainability certificates such as Passivhaus, Leed, Bream, Green, Well or DGNB. Its philosophy promotes high energy performance and a minimal ecological footprint.