

San Isidoro Schools in Padul, Granada, Spain

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Abstract. The small and unique building of “Las Escuelas de San Isidoro”, erected in Padul at the beginning of the 20th century, is a clear example of the new architectural type of the innovative educational model created in Granada by Father Manjón. That model supposed a radical change for the methods of the Spanish teaching and it was the origin of the current educational system. Andrés Manjón y Manjón (1846-1923), priest, jurist and pedagogue, broke with traditional pedagogy and revolutionized the old-fashion model of education that was in vogue until that moment and universalized and socialized education. That pioneer model promoted an education based on aptitudes and faculties, using games and practice, addressed to all ages and social classes, in conjunction with nature. Outdoor education should be used wherever possible. In a historical context of profound social changes, this typology was the answer to the new educational needs using a “spearing” architectural language based on a constructive system that was both efficient and economic: Spanish Regionalism. It was a new style from the first third of the 20th century that recreated historical forms. It was far from the breakthrough modern movement that, at that time, it took place in central Europe. However, the model of the Manjonian School runs away from historicist models and remains in the simplicity of brick-faced walls or brick-wrapping walls and masonry drawers, with no more decorative concession that window lintels, jambs and sill jut out. The façades highlight made with simple semicircular arches and some glazed ceramics. Wooden rounded slabs supported on walls and simple wooden cover structures. The steel was barely used in metal structural slabs and brick, and even less on the roof. Architects like Francisco Jiménez Arévalo, Juan Montserrat Pons or Fernando Wilhelmi Manzano will be the architects of this type of architecture that has as a mark of identity the massive use of brick in load walls; and as a way to show the facade creating a modest appearance image but of a certain nobility. Wilhelmi projected the Schools of Padul not belonging to the Manjonian type but following a similar way. Conclusion: The knowledge of this architectural typology is basic to protect these simple buildings for educational use, reinforcing the attachment and identity of the citizens of Padul. For them it symbolizes a time and its economic and social context. Through the dissemination in this municipality of the End-of-Grade Projects of the students of the School of Building of the University of Granada related to this building, the following objectives were achieved: revaluing, strengthening and fostering the sense of identity of a village towards one of its most peculiar buildings, The Schools where many of them began their education. Through its study, the process of preserving its values has begun, and with knowledge, are fully assumed contributing to the respect and conservation of this inherited heritage.



1. Introduction

The building of the Schools of San Isidoro, inaugurated on January 20, 1922, is located on the edge of the traditional centre of the town of Padul, Granada, Spain, on a plot of 951 m², with the main facade on Molino Street, opposite the plot of The House-Palace of the Counts of Padul.

Padul is a town in the province of Granada, Andalusia (Spain). It is in the region of the Valley of Lecrín, in the centre-south of the province. This territory limits with the Vega of Granada to the north, the Alpujarra to the east, the coast to the south and the region of Alhama to the west, being the municipality more populated of this region, with 8.442 inhabitants according to the census of 2016. (Spanish National Statistics Office, 2016)

The Schools of San Isidoro (Figure 1c) occupy a singular building of the early twentieth century, which is influenced by a new way of making architecture for a new innovative educational model opposing the educational tradition maintained for centuries. It supposed a 180 degree turn in the way to understand teaching, origin of the current educational systems.

Among the main objectives we have first of all is to reach the maximum knowledge of the building, both typologically and constructively for the citizen revaluation and, second, to deepen the existing connection between the building, its contemporaneous buildings of equal use and its relationship with the new architecture at the service of an innovative system of education. The figure of Andrés Manjón and Manjón is the inspiration for this idea. Also of the architects of the time who worked in this philosophy and, in particular, in this building the Architect Fernando Wilhelmi Manzano author of the project and of the Count of Padul, Isidoro Pérez de Herrasti and Pérez de Herrasti, benefactor of the construction of these schools.

2. Historical context

In Spain, with some delay in comparison to other European countries, the Decree Law of January 18, 1869, carried out a first attempt to implement a national school construction program that would meet the needs of the primary school, during the democratic six-year term (1868-1874). This first attempt (because of the financial shortage) did not have the expected practical results, but it was the starting point that would pick up a series of later renovating currents. Hygienic principles, imposed throughout Europe and influenced by the functional typological scheme adopted in France, led to the definition of a series of basic characteristics that were to be adopted by buildings intended to be schools. These should accommodate rooms for classrooms, room for the teacher, library room, garden, and establish the pupil / place / volume ratio. All this "with all the hygienic conditions required by a building of this kind," finally collected in the Technical-Hygienic Instruction on the construction of schools on April 28, 1905, the first attempt in Spain to regulate this type of buildings.

2.1. Andrés Manjón y Manjón. Ave María Schools

In this context, Andrés Manjón (Figure 1 a) y Manjón (1846-1923), was a priest, jurist and educator who, became aware of the educational and moral poverty of the most disadvantaged children of Granada of this time. He broke with the traditional pedagogy and provoked the evolution of the old educational model towards innovation, universalization and socialization, which is the idea of pioneering education at that time. This doctrine seeks the education of skills and faculties, through play and practice, for all ages, without rejecting anyone and next to nature, educating outdoors, whenever possible. In 1889 he founded the Ave María Schools along the Sacromonte road, beginning here his pedagogical work with children of lesser resources and humble families.

He soon found his pedagogical idea spread out in Spain, provoking interest and visits to his work by leading personalities from the country at that time, including King Alfonso XIII. Internationally there were constant visits of personalities, teachers and pedagogues of diverse nationalities, French, Irish, Colombian, Argentine, etc. (1).

This ideology will be followed by these new schools. Andrés Manjón makes a clear reference in his writings to what the buildings should be. For him, they must be in an environment of pure air, with running water, sunlight, healthy and free play. Isolated schools in the country. He did not want a school buried among neighbour houses, among narrow streets and tall buildings. He said that the square school

or barracks, the "zaquizamí" school, like an attic or barn, the "pitimini" or ladies' room, or the monumental, bureaucratic and theatrical buildings are the ideal against Ave-María's. (2).

The architects from Granada, the ones in charge of translating this educational philosophy to the architecture were Francisco Jiménez Arévalo and Juan Monserrat until 1906 when the School of the Vistillas was created in Molinos Street in Granada. Designed by the architect Fernando Wilhelmi Manzano (Figure 1 b), it will set the pattern for the buildings designed to house these schools. It follows the French models that had been done from the middle of the 19th century. They were developed in a very simple plant design, in "H", "T" or Latin cross, composed by an axis of symmetry that may be seen on the main façade with the advance of the central body (3), and that finally will be those picked up by the Instruction of 1905.

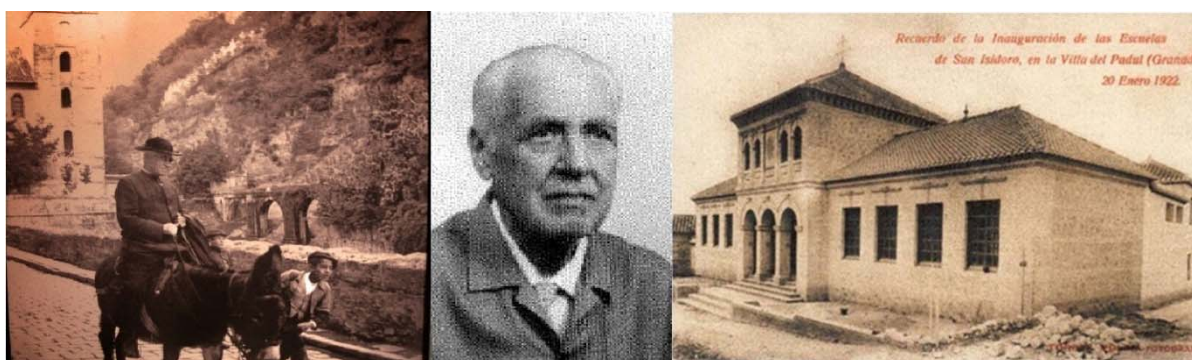


Figure 1 a-c. Left to right. Andrés Manjón, <http://i61.tinypic.com/2vxoms6.jpg>. Fernando Wilhelmi Manzano, in Vistillas, One hundred years welcoming and educating: 1907-2007, Andrés Palma Valenzuela. (Granada, 2007). San Isidoro Schools (Padul). Photographer: Manuel Torres Molina (1883-1967)

2.2. *Fernando Wilhelmi Manzano. Architect.*

Fernando Wilhelmi Manzano (1889-1960), of German origin, is an accomplished architect of the early 20th century, born in Granada. His most notable works will be contemporary. His works are regionalist in Eclectic-Historicist style, style that will have its boom in Spain during late nineteenth and early twentieth century. Open to influences and European models of that time, mainly French, from his extensive work, the Padre Suarez High School (1904-1919), the Hospital of Charity and Refuge (1919) and the Palace of the Yanguas, on the street Grace 48 of Granada stand out (1920-1925) (4). In his maturity he evolves towards a modernist architecture based on the European urban expressionist movement, being an example of this the building of the Grenadian Company located in Alhóndiga street of Granada (1933-1942) (5).

In 1906, Wilhelmi contacted Andres Manjón. He built the School of "las Vistillas" in the Molinos street of the city of Granada. The third school group that the congregation carries out and in which the architect projects the idea of a building that includes all the principles that govern his educational philosophy and assumes the principles of the new Instruction of 1905, but with stylistic regionalist imprint.

The School of Vistillas (Figure 2) is designed with two bodies clearly differentiated by their functions. The stairs of entrance to the building by its main façade have load bearing walls composed of rigid brick and framed drawers, joined with mortar of lime and sand. Pilasters made of solid brick. Separation from one level to another by a brick strip. Vain bowed arches and brick rigging as well as jambs. The sill made of bricks placed horizontally on one of its edges "a sardinel" and ornate lintels with highlighted keys on its posterior face. Staggered ledges with brick strands. Gable roof made by structures of wood and covering of double Arab tile. The main façade is symmetrical in front of its transverse axis. Its centre is emphasized, adding a curved pediment like the one of superior top of the facade. In its tympanum it is the shield of the family donating the grounds, underneath it is the label of the foundation "Ave Maria". (6).



Figure 2. Vistillas School. Lateral facade, main facade and detail of building access

It will eventually be the constructive pattern of the many school buildings that will be realized not only in the city of Granada, but throughout its province and even at the national level in the following years.

2.3. Isidoro Pérez de Herrasti y Pérez de Herrasti. Benefactor.

Isidoro Pérez de Herrasti and Pérez de Herrasti, (1866-1935), got a degree in law from the University of Granada, honorary canon of the Cathedral, President of the Royal Maestranza of Cavalry of Granada and patron of the Schools of the Ave María (7). For this last situation he knows Wilhelmi's works in Ave Maria Schools.

The municipality of Padul asked Don Isidoro Pérez de Herrasti to build some schools for boys, in a plot that was next to a side of the "House-Palace" of his property. Isidoro, aware of the educational lack historically suffered by the people, promised to make schools and the house of the teacher. This work is known to have begun in 1920 and inaugurated on January 20, 1922, San Sebastian festival, patron of Padul, celebrating that day in the town the two events with solemnity, according to the chronicles of the newspaper, The Defender of Granada, South Gazette, Granadino News, La Voz de Granada. (7)

For these Schools inspired by the "Ave Maria" pedagogical model, Isidoro Pérez de Herrasti entrusts the project to the architect Fernando Wilhelmi, who designs a similar building with the rest of his work. There was an open gallery and a large open space (patio) for students' recess, with toilets and washbasins, on the ground floor of the lobby, a teacher's office, two large classrooms. On the second part, a library area which was used as classroom and also as assembly hall. And attached to the schools it was the house of the Master. The price of its construction at the time was more than 100,000 pesetas.

As a result of this and other benefactor facts towards the village, the whole of Padul Council called for the title of Count of Padul, it was granted to him by King Alfonso XIII in 1924.

3. Typological-constructive analysis of the schools of San Isidoro

The schools of San Isidoro (Figure 3) have three volumes clearly differentiated in its facade, a central body with two floors above ground level, it is the most monumental, and two volumes arranged symmetrically to this central one with only one floor.

Stylistically they continue with the design line of the architect author of the project and have a marked eclectic - historicist character in coexistence with the strong current regionalist line at that time.

The use of materials or other elements at this time is conditioned by a series of factors: economic, production trade, possibilities of prefabrication and sale in series, speed of the construction process, available or specialized labour, local tradition, respect for the environment, customer taste or architect's style will. The result is an architecture that is based on materials and techniques typical of Spain, where brick, plaster, stone and wood abound. The glazed clay is also a national art, and the masons are, by

secular teaching, very clever and intelligent. The constructions are economic but of elaborate and rich appearance.



Figure 3. Current image San Isidoro Schools, main facade, inside courtyard

Constructively, the building rests on a foundation buried in the ground, consisting of strip footing of ordinary natural stone joined together by lime and sand. On top of them, masonry walls are erected at their corners with brickwork. Their joints consist of a mixture of lime and sand. The structure of the load-bearing walls is brick factory in the central body of the building and mixed factory in all other load-bearing walls and consists of brickwork and masonry drawers, between two brick lines "verdugos" for greater security of the construction. The type of all the walls of the building is English. It is typical of some significant constructions in the municipality of Padul, indicating that there were groups of workers specialized in that type of brick factories. In the hollows of the building, the lintels of the windows and arches are composed by solid brick and wooden logs combined in some of them.

Following the postulates of teaching outdoors, at the back of the building a porticoed gallery stands formed by nine pillars of solid brick symmetrical all of them in height and width. Between the pillars it is possible to observed that the cornice is formed by a lowered arc. Above the arch, canes made of wood with an ornamental heel, supported on the bed of the canes, the wooden panelling that serves as a base for the inclined cover of double Arab tile (Figure 4).

Further attention deserves the main facade where the main ornaments of the building are displaced. They are built with solid brick and their sores are joined with mortar of lime and sand. The central space is reached by stairs, where a portico of three arches of half a point rises. On the first level, the two central columns are lined with their mortar and lime mortar pedestals, and their capitals imitate the Dorians with prominent strands, as well as the two attached to the wall. The arches in its posterior face have formal elements, as the overalls that manifest a remarkable protrusion with respect to the front in all the back part. The key of the bow is highlighted and protruded on its back.

The passage from the first to the second level is ornamented with brick strips that protrude and sink. on the second level there are four symmetrical semi-circular arches, with a proportion of two arches on each side and in the middle a tile plate with the coat of Perez de Herrasti. It is the most ornamented level and is formed by four pilasters with its staggered base with respect to the bundle of the wall. The capitals are protruding. The two pilasters that hold the shield are of greater proportions than the others. The window sill is made up of bricks placed on its edge underneath a recessed drawer whose centre has another brick panel of small dimensions that stands out.

The semicircular arches are recessed with respect to the main vertical wall. They are adorned with half basement recessed with respect to the base of the main and semi-arched pilasters, half shaft and capital with protrusions, in the imposta the arch of half point rises with a molding protruding as a cornice or eave on its rear face. The key is flown on its front and its back face highlighted as on the first level, with the difference that there are two flown layers that go from one capital to another of the main pilasters.



Figure 4. Details of Schools of San Isidoro

The two lateral bodies are offset from the central part of the facade. In their hollows, lined arches highlight the windows with ornate lintels. The key of the lintel protrudes in the front and also in the rear face. The highlight of the arch is two stepped cantilevers to divert rainwater or to protect the architectural element from dust. The sill is made of bricks placed horizontally on one of its "sardinel" edges.

The cornice of the lateral facades is composed by several layers of brick. The first from below is a solid brick course placed so that the smaller face is seen "tizón". Above, we find two overlapping yarns, on the same plane above the first, one of them just like the previous "tizón" and on top of this one in which the longest face of the brick is seen "soga". On the two strands a third strand turned 90 degrees so that a triangle appears in a vertex and is called sparrow's beak "pico de gorrión". And lastly a row highlighted on the others on which the tiles are seated. It has a measure and shape of brick different from the others, it is a solid brick of greater dimensions than the common one of the building. The cornice of the central space around its perimeter is conformed looking from bottom to top with a row of brick highlighted with respect to the main vertical wall for its shorter face "tizón". It rests a yarn that protrudes slightly where the brackets of three rows of edge brick with a moulding in the form of Doric top. On these three levels a fourth row of brick is set for its shorter face. Finally, a strip which is the most prominent part of the cornice that forms a hard line with a brick of greater dimensions than the common ones in the building.

The building has two types of sloping roofs, in the main body with a hipped roof and side bodies to roof of three slopes. The hipped roof is formed by pairs of wood as a structure, supported by covering materials, wood panels and above a small layer of lime and sand that serves as a waterproofing, and for the placement of tiles, in this case double. It also has a piece of horizontal wood, which joins the feet of the pairs to prevent the trusses open, called wooden braces. It is a log of wood. A little higher of these straps, others formed by cables of steel of great thickness. In addition, it was more than half of the pair, in its upper part, two crossed knuckles or bridges, assembled centrally. At the corners of the deck we find quadrats, to reinforce the bracing action at the corners. The other two roofs of the lateral facades, are three slopes with double tile, covered with pairs of log wood supported on the stirrups with wooden straps on the feet of the pairs. The knuckles are situated one-third from the upper ends. The cover layers that are supported in the pairs are the same as those already described in the central cover. (7)

4. Results

It is demonstrated that the Schools of San Isidoro in Padul adopt the pedagogical model of the Ave Maria schools. Not only this, but also through the figure of the architect Fernando Wilhelmi, they also adopt a stylistic and constructive typology. This was a model serving in both facets as patron and was expanded not only to the province of Granada but to many areas of Spain and other countries.

The interrelation between the pedagogue Andrés Manjón and the architect Fernando Wilhelmi and the Count of Padul, Don Isidoro Perez de Herrasti, is confirmed. This connection produced the Schools of San Isidoro for the town of Padul.

The "Manjonian" buildings were designed to house new forms of education: in nature as much as possible. They follow a common, simple and economic construction pattern but always considering the compositive richness in its ornamentation, which marks an own imprint in these buildings, deserving a deep analysis.

5. Conclusions

The small and unique building of the Schools of San Isidoro, erected in Padul at the beginning of the 20th century, is a clear example of the new architectural type built by the innovative educational model created in Granada by Father Manjón. This model represented a radical change in the methods of Spanish education and was the origin of the current educational system. In a historical context of profound social changes, this pattern of architecture was intended to be the reflect of those educational needs and the era when they were developed, with a clear style inheriting the historicist regionalist current that began in Spain in the nineteenth century reaching its maximum level of development, in the early years of the XX.

Caballero Guerrero, Daniel; Typological and constructive analysis of San Isidoro Schools. University of Granada. Higher Technica School of Building Engineering. Final Project Degree. (Granada, 2016).
Tutor: Lafuente Bolivar, F. Javier

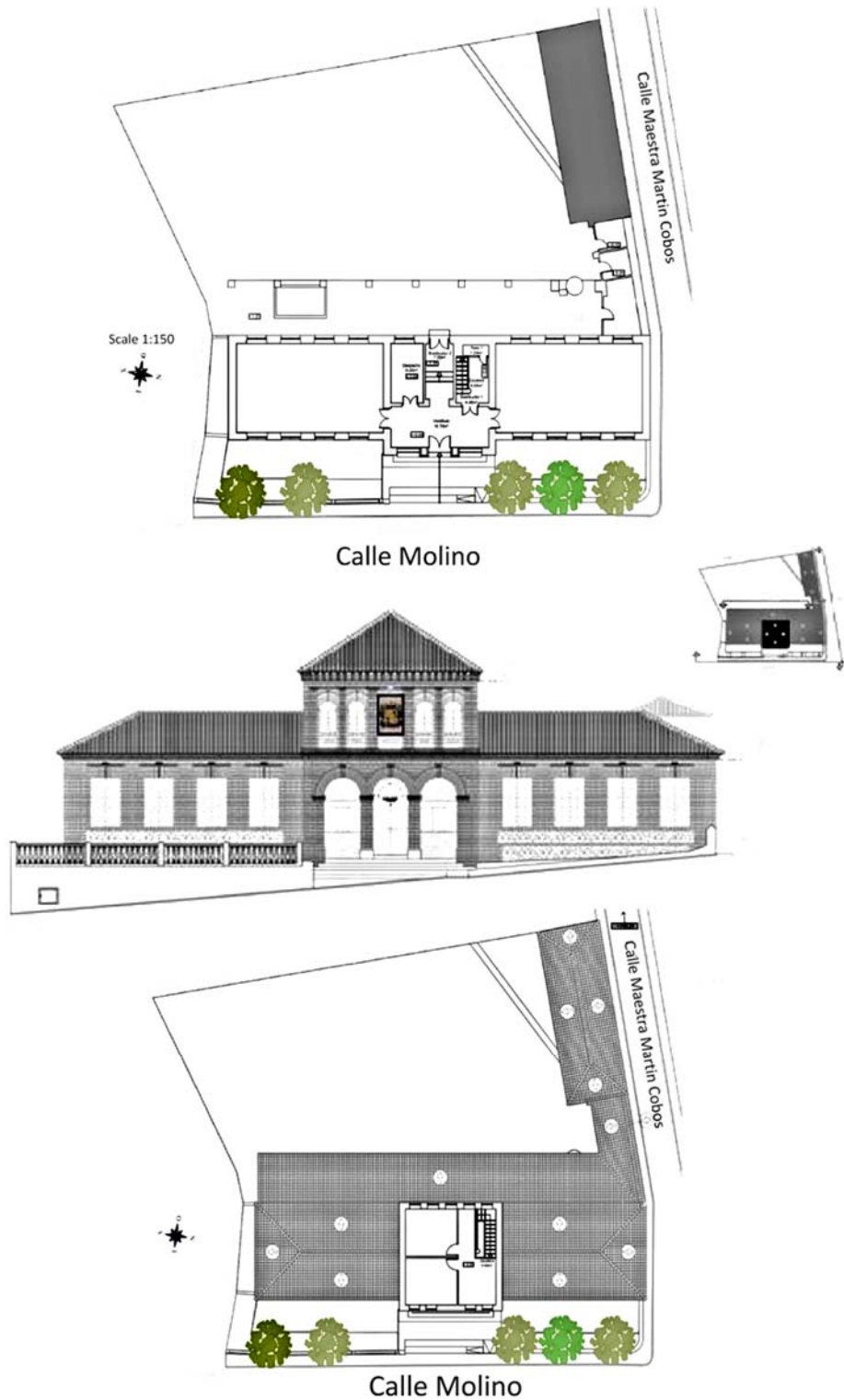


Figure 5. Graphic documentation. Daniel Caballero Guerrero

This style seeks to recover the architecture of older times, focusing its attention on the traditional sources of national and local history, worshipping the architectural forms received from history. Architects like Francisco Jiménez Arévalo, Juan Montserrat Pons or Fernando Wilhelmi Manzano were the main architects. It had as an identity the use of brick as a material and as a technical-constructive system, as well as the exhibition of other materials in their own nature and in the real way of being used; modest as well as noble.

School sites are places of social and individual memory of a community. The knowledge of this architectural typology is to be protected, thus reinforcing the attachment and identity of the residents of Padul for whom it symbolizes a time and its economic and social context.

The Final Project Degree students (Figure 5), achieved the main objectives: to revalue, consolidate and enhance the sense of identity of a town to one of its most peculiar buildings, the Schools where many of them began their education. This work has begun the process of preservation of those values that now, with knowledge, are fully assumed.

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