

# INTERVENTION PLAN FOR THE RESTORATION OF PALACE ARRUABARRENA, CONCORDIA, ENTRE RÍOS, ARGENTINA.

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## ABSTRACT

By the 1920s, in the city of Concordia, Entre Ríos, livestock was a source of foreign exchange and the Rural Society was founded. It is this landowning class that gives rise to residences whose maximum expression is this so-called Palace. The residence of the family of Arruabarrena, was erected between the years 1916 and 1919 by the builder Luis Pepey according to the project and direction of the architect of French origin Gabriel Dulin. The facade is solved in the proper language of the French eclecticism, emphasizing the angle with a significant access and a greater height in the crowning by the attic. From this body, the composition rotates and is completed in what appear to be two complementary wings. Two important sculptures make of patella. The access is materialized with a carrara marble staircase that reaches a sort of gallery that runs almost the entire body. The residence has four floors: the semi-basement, the main floor, the first floor and the space under mansard. In the ground floor access hall there is the main wooden staircase leading only to the upper floor. The hall of distribution of upper floor balconea on the ground floor, giving rise to a double height crowned by a skylight on the deck. The interior ornamentation is eclectic, with suspended suspended ceilings, moldings and bas-reliefs and the large window with vitreaux that runs all the height of the main staircase. When he died in 1926 Don Juan Bautista Arruabarrena and years later his wife, Doña Dominga de la Cruz,

his sons decided to sell the house. This happens in the hands of the Army and later, in 1973, is about to be demolished. This Palace, currently the headquarters of the Municipal Regional Museum, was the first to study the pathologies that cause and cause deterioration, problems of water entering the building and serious deterioration in the building. In the ceiling, facing later the survey of the pathologies in the interior and exterior ornamentation, as well as the coatings of walls and enclosures, to maintain the original image with the least possible intervention. In particular, the analysis of wood elements and biological growth on the surface of materials is considered. For the above, we proceeded to design an Intervention Plan that includes the actions, the sequence and the times to perform them.

**Keywords:** heritage, palace, pathologies, restoration, Intervention Plan.

## INTRODUCTION

Towards the 20s, in the city of Concordia, Entre Ríos, livestock was a source of foreign currency and the Rural Society was founded, becoming the second in order of importance after Palermo. It is the landowning class that gives rise to residences whose maximum expression is this Palace. The residence of the family of Arruabarrena, was

erected between 1916 and 1919 by the builder Luis Pepey according to the project and direction of the French architect Gabriel Dulin.

It is removed from the municipal line and strategically takes advantage of the corner, which faces the open space of the square. The facade is resolved in the language of French eclecticism, pointing out the angle with a significant access and a greater height in the crowning by the mansard. From this body, the composition rotates and is completed in what appear to be two complementary wings. Two important sculptures act as a kneecap. The access is materialized with a carrara marble staircase that reaches a sort of gallery that runs almost the entire body. The residence has four floors: the basement, the main floor, the first floor and the space under the mansard. In the entrance hall on the ground floor we find the main wooden staircase that leads only to the upper floor. The hall of distribution of high floor balconea on the one of ground floor, giving rise to a double height crowned by a skylight in the cover.

The interior decoration is eclectic, highlighting the decorated suspended ceilings, the moldings and bas-reliefs and the large window with vitreaux that runs the entire height of the main staircase. When Juan Bautista Arruabarrena passed away in 1926 and his wife, Dominga de la Cruz, years later, his children decided to sell the house. This happens at the hands of the Army and later, in 1973, it is about to be demolished. This Palace, currently the headquarters of the Municipal Regional Museum,

For the proposal of Valorization and Restoration, it must be considered that the pathologies that cause and cause the deterioration must be addressed first, namely, solution of the water intake problems in the building and serious problems in the roof, for later to face the restoration of exterior ornamentation, maintaining the image and with the minimum possible intervention.

## HISTORICAL BACKGROUND

The residence of the family of Mr. Juan Bautista Arruabarrena Leyba, known as "Arruabarrena Palace", was erected in the city of Concordia between 1916 and 1919 by the builder Luis Pepey

according to the inspired project, according to consulted sources, in which outside lodging of the owners in a trip made to France in the first decade of the 20th century, under the direction of the architect of French origin Gabriel Dulin.

The building stands on a quasi hexagonal floor, exempt, in a lot of dimensions equivalent to a quarter of an block located at the corner of Entre Ríos and Ramírez, in front of Urquiza Square. Consisting of 4 levels, it is developed surrounded by gardens delimited by a fence and providing three of its fronts to the public space of the city. The first level (- 1.50 and +0.10m with respect to the land) was destined to kitchen, pantry and service rooms (Figure 1). In the "piano nobile" or main (+ 2.90m) were, around the central hall, the desk, the main dining room, a dining room, the service staircase and freight elevator that communicated with the ground floor of services, an ante- bathroom and bathroom, niche for the elevator (never installed), the main staircase to the 3rd level and a secondary staircase to the mansard, the music room, the living room and the "blue room" (Figure 2). The 3rd level (+ 8.20m) contained, around the empty space above the central hall, a small bedroom, a cloakroom, the master bedroom and bathroom, three more bedrooms and two bathrooms for the couple and their daughters, (Figure 3) . Under the mansard, six rooms and two bathrooms were reserved for the guests (Figure 4).

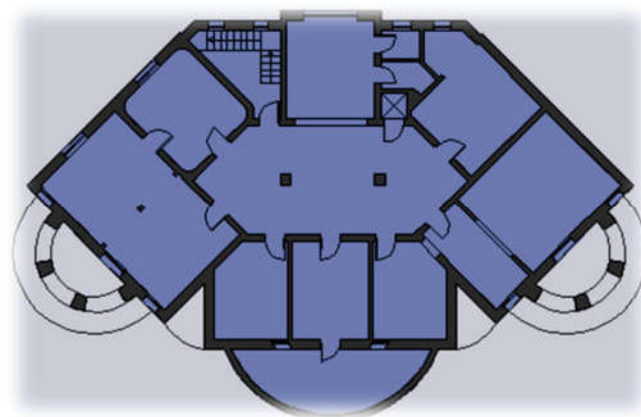


Figure 1.

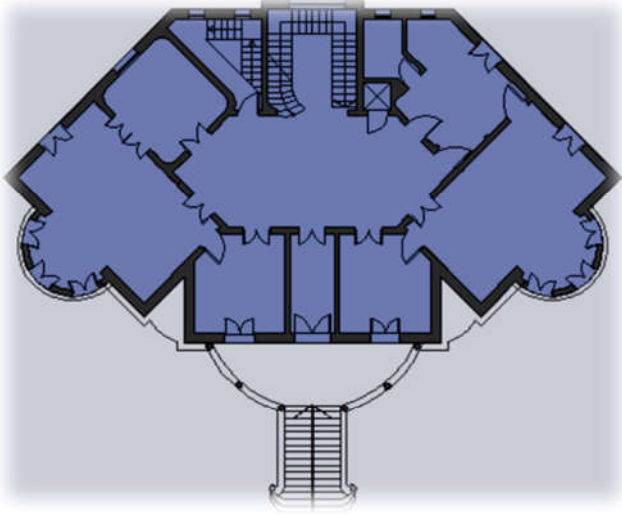


Figure 2.

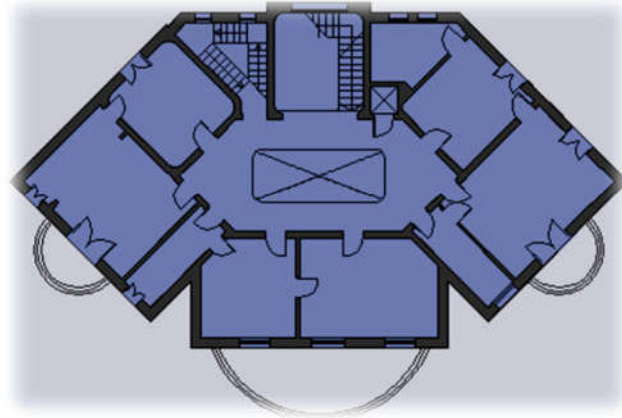


Figure 3.

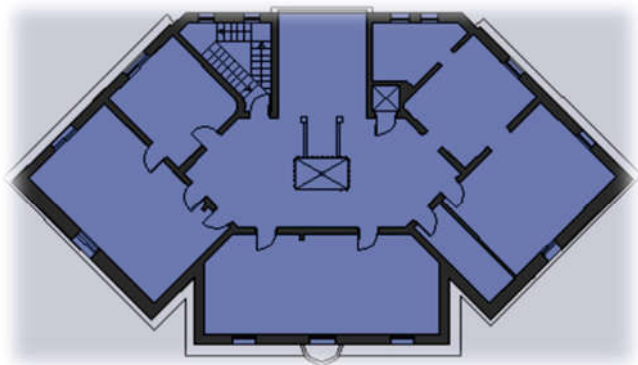


Figure 4.

The main access, in the block facing the corner of the corner and axis of symmetry of the composition, is a semicircular “loggia” consisting of five lowered arches supported by columns with Corinthian capital which is accessed by a wide marble staircase of carrara. (Figure 6) It is framed by two sculptural pieces and the bow windows of the lateral bodies parallel to the streets, with identical stylistic and topped treatments, loggia and bow windows, on balconies / terraces with wrought iron railings (Figure 8) that recall the Art Nouveau. (Figure 7). The padded walls, the profuse ornamentation, the vitreaux and the mansard of slate topped with pinnacles, among other aspects, fit in with the language of French eclecticism (Figure 10), an architectural style adopted by the upper classes of the society of that time. (Figure 5).



Figure 5.

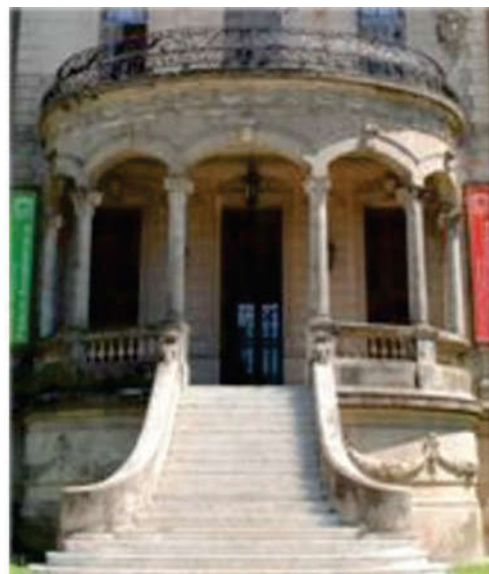


Figure 6.





This Palace, currently the headquarters of the Municipal Regional Museum, was sold by the heirs of Don Juan Bautista Arruabarrena and his wife Doña Dominga de la Cruz -e / 1943 and 1944- to the national government that assigned it to the Commando of the 2nd Cavalry Corps, an institution who occupied it until his transfer to the city of Paraná. Towards 1973, before the risk of its demolition, the citizenship and local authorities initiated the managements for their conservation and incorporation to the municipal patrimony.

### INTERVENTIONS CARRIED OUT

The intervention carried out so far, at the Arruabarrena Palace, can be listed in the following points:

- Comprehensive photographic survey
- Survey of pathologies and location in plans
- Preparation of files with registration of pathologies and modes of intervention
- Quantification of affected area

### RELEVANCE OF PATHOLOGIES

It can be stated that during the inspection performed no signs were observed attributable to poor structural behavior. It should be mentioned that the existence of pathologies attributable to leaks of water coming from the roofs of the domes, which have caused landslides, alterations and stains in the ceilings and walls covered in plaster,



Figures 8, 9 y 10.

was verified inside the Palace. The cause can almost certainly be attributed to movements of the slates that make up the roof and the state of conservation of the storm drain system.

Also, modifications have been observed with respect to the original design, which at the time of the inspection were carrying out intervention and recovery tasks of original design. Another modification observed was the placement of a tank reservoir of water in the last level, the placement of polycarbonate plates in the open patio of the second floor in order to avoid the accumulation of rainwater on the slab as well as the replacement

of one of the original stairs developed in wood by a reinforced concrete retaining the original railing.

Regarding the state of conservation of the wood elements of the openings and the structure of the roofs, an alteration was observed by the contact with rainwater, which in some cases, particularly in the shutters, is more severe. Visually no signs have been observed due to the attack of insect species that degrade this type of material. The pathologies are observed in the photographs: (Figure 11 - 12 - 13 - 14 and 15)



Figure 11.



Figure 12.



Figure 13.



Figure 14.





**Figure 15.**

Regarding the exterior, the most serious pathologies have been observed in constructive elements (cornices, corbels, etc.) and ornaments (statues and shields, etc.) that have led to the detachment of plaster and in some cases, such as that of a shield the total loss of the element.

The detachments and fissures in these elements have been caused by the corrosion process of the metallic bars and reinforcement plates.

### **PLANIMETRY WITH LOCATION OF PATHOLOGIES**

After making the survey of pathologies, we proceed to locate them in planes, with the objective of quantifying the damages for the subsequent repair, (Figure 19 and 20) and a list of identified deteriorations, (Figure 21).

### **STATE CONDITION STAMPS**

In order to identify the deteriorations for their subsequent intervention, State Status Sheets were made, these allow obtaining a panorama of each one of the situations and proposing constructive solutions. It is exemplified with 2 State Records (Figure 22 and 23).



**Figure 16.**



**Figure 17.**



**Figure 18.**

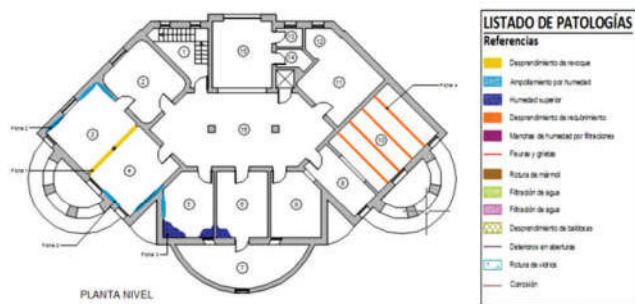


Figure 19.



Figure 20.



Figure 21.

## CONCLUSIONS

To address a COMPREHENSIVE RESTORATION PROJECT, it is essential to solve the causes that cause the pathologies, so that the causes do not have a negative effect on the behavior of the repair materials:

a) Rainwater leaks must be solved immediately, for which a periodic maintenance of the gutters,

drains and storm drains of the entire building must be scheduled, in the pipes their state of conservation must be verified (corrosion)

b) To intervene the roofs of the domes, it is advisable, given the size and height of the Palace, that the tasks are carried out by companies specialized in the subject.

c) Regarding the most difficult problem such as repair and / or replacement of exterior ornaments, it is also advisable that the tasks are developed by specialists in the subject, given that in some cases, such as the absence of one of the shields, you must use a photographic record to obtain information about the original design in order to replicate it. It is advisable to proceed to the fixation of those ornaments that are half-formed by the use of epoxy resins and stainless steel bolts.

d) For the wooden elements it would be necessary to carry out a sampling in particular in the elements that make up the structure of the domes, in order to carry out studies and observations that allow to determine the existence of a biological attack caused by insects, as well as to proceed the preservation of wood through the application of suitable products.

e) It is recommended to proceed immediately to the elimination of invasive vegetation that grows on the walls of the building, by means of the technique of injection of herbicides that cause the plant to dry and then proceed to root eliminate without risk of landslides, masonry.

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