

THE RESTORATION OF LLOTJA DEL CÀNEM

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ABSTRACT: *This article attempts to transmit the complexity of the architectural restoration work done on a historical building like the Llotja del Cànem in the city of Castellón. This building is a reference of not only the formal construction of this city, but also the collective imagination of its inhabitants who have grown up with its arcades, which have remained with this building, located on the Colon and Caballeros streets; for the younger citizens, this classicist corner on which an enigmatic building was erected until its restoration, is where the remains of some old frescoes were seen, which Joaquín Oliet originally painted and Vicente Castells restored at the start of the 20th century. The complex history of this building over time started at the beginning of the first decade of the 17th century as a public space. It was constructed by Francesc Gaiança to house the commercial transactions of Renaissance Castellón. With time, the building went from being public premises to become a town house with shops on its lower levels, and this domestic calling continued over the last two hundred years. Today, it has returned to its original status, and has proudly become one of the most representative public buildings in the city of Castellón.*

KEYWORDS: restorariion, architecture, Renaissance

PERMANENCE AND TRANSFORMATION THE ARCHITECTURE OF THE LLOTJA DE CASTELLÓ

Restoring a building is always a complex undertaking, but also an attractive one when it is a building such as the Llotja del Cànem, a referential building in the construction of the image of the city of Castellón and in the collective imagination of inhabitants who have grown up with these arcades, who have lived alongside the building, between Colon and Caballeros streets; the classical corner on which stands, and until the time it was restored, for the youngest citizens an enigmatic volume, where remains of the ancient frescoes could be seen which were painted by Joaquín Oliet at the beginning of the nineteenth century and restored by Vicente Castells at the beginning of the twentieth century. A building with a complex history, which dates back to around the beginning of the first decade of the 1600s as a public space built by Francesc Gaiança to house the commercial transactions of a Renaissance Castellón; a building which, with the passage of time, lost its status of public entity, to become a bourgeois house with a shop on the ground floor, a domestic vocation which it has maintained over the last two hundred years. Today, once again, it returns to its original scale, to become, with pride, one of the representative public buildings of the city of Castellón with a noble content, housing the central offices of the University Jaume I in the city.

In our architectural work one of the issues which has most interested us has been to analyze the process which has brought the building to its current shape, this has forced us to take a stance on the value of the different moments of its architecture. Generally this is the common task in all restoration projects, although we must point

out that in this case the Llotja del Cànem presents us with what we could conceive as work *in progress*. A work which may be divided into several stages, each one of them with its own consistency and over which the traces that time has left on it are perceptible. Although the domestic character which the building has had over the last two centuries of its existence enabled us to understand that it had not finished its journey in history, even its metamorphosis, so that we were able to take the whole up again as a starting point which would allow us to give it back its lustre and the scale that the original stages of its architecture offered.

In our intervention we enjoyed perceiving the building more as a structure and live architecture with a formal consistency over which history had accrued, rather than as an ancient object worthy of veneration. The value of the intervention must be conceived from the point of view of the consistency of the formal and constructional elements, having a particular bearing on the spatial, architectural and even iconic qualities of the whole as well as from the parts which the building to be restored contains. Thus the interest and the attractiveness of the restoration process, since each experience is a unique act.

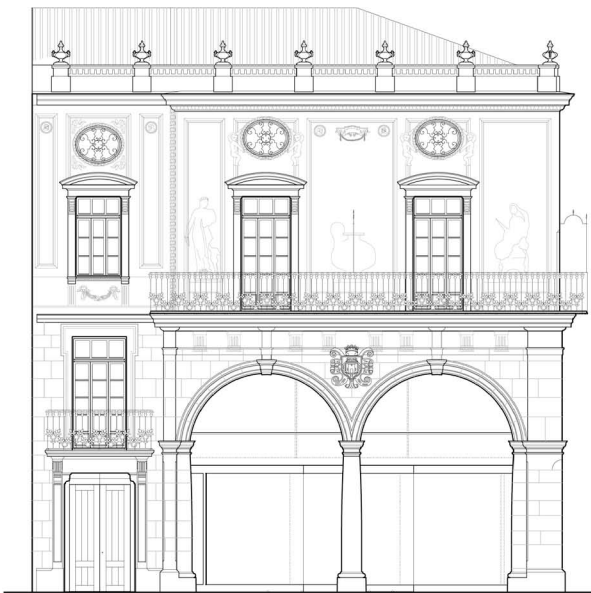
The complexity involved in restoring a historic building comes in part from the relationships which its architecture sets up between time and space, enabling us to approach it from very distinct aspects and positions. We learn about the building in great detail by analyzing its stonework and the building techniques employed when it was erected; the materials and form enable us to understand the architectural object linked to an era of history, to compare it with



Figure 1: View of the Llotja del Cànem from the old Yerba Square



Figure 2: Details of the arcade and its new glass enclosure



ALZADO CALLE COLÓN

Figure 3: Facade of the Llotja on the Colón street



ALZADO CALLE CABALLEROS

Figure 4: Facade of the Llotja on the Caballeros street

other similar buildings of the time. We can enter into a dialogue with the shapes, colours and textures of past epochs, reproduce them, contrast them, enhance their value, observe the object in its entirety, or either focus on certain aspects, making fragmentary readings

possible. Having an influence on the building from its restoration, reveals the result of a group effort which allowed the erection and conservation over the centuries of a particular kind of architecture. On contemplating the historic building as part of the city, we can



Figure 5: Curtail on the stairs

learn how the city, through its forms and volumes, has gradually been built up. It all belongs to time.

The space offers us its dimensions, its perceptive qualities, its positive forms, the built solid parts, the empty interiors, the great rooms, but also its negative spaces; those which are defined beyond its limits by the exterior planes of its facades, demarcated by its cornices and confined by the planes and solid structures of the neighbouring and facing buildings: thus the streets, the squares, the urban spaces may be defined...., those empty spaces full of the life of historic cities, of cities such as Castellón. We can analyze the capacity of the solid mass as a container of shapes, of activities, etc... And the Lonja is a beautiful space, a space to be enjoyed, to be experienced, seen from the outside, but also from inside it to see outside -Santa María takes on a new dimension when being viewed from the austere arches of the lonja-. The building has had the balcony that goes round the most typical corner of historic Castellón restored. The balcony is a projection located on the Renaissance cornice of the lonja or exchange for the house that the French merchant Juan Matheu had built when he bought the building rights from the City Council. Eclectic extension with a difficult syntax, fortunately resolved by superimposition, without any compromises, where two worlds meet: classical austerity and gallant traditionalism, Pompeyan, where the gold and ochre shades, from the nineteenth century, contrast with the dryness of the grey stonework of the basement arcade section.

The restoration attempts to be faithful to each and every one of the moments of its history, by accepting that idea of process on which the building is embarking. A mixture which enables us to intervene from modern postulates which enhance any of the historic sections, but without rejecting the capacity of contemporary techniques and materials. We cannot refuse to value its most attractive moment and even its most brilliant architectural element, the Renaissance facade

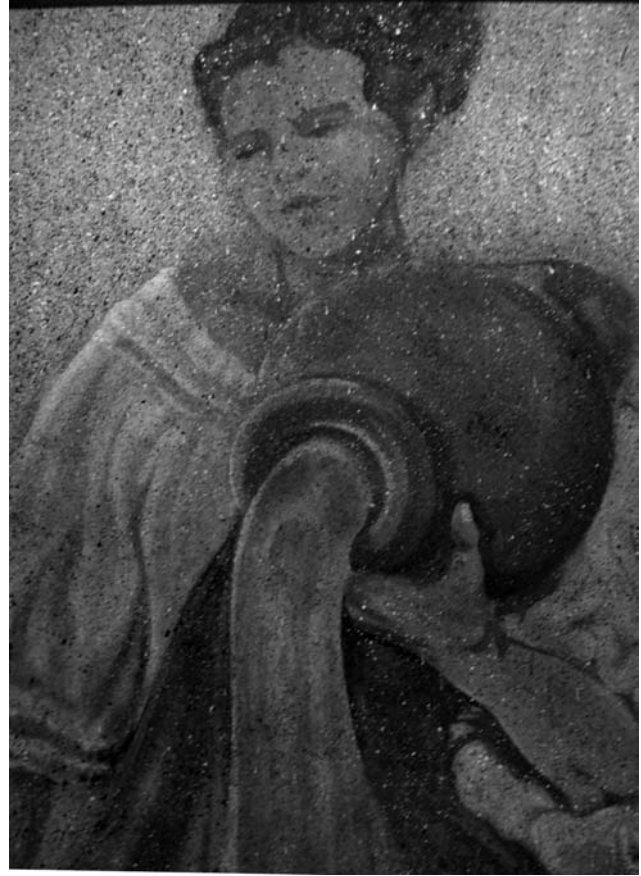


Figure 6: Details of the paintings on the facade. Allegory to Spring

of its original construction. The twin arches built on both sides of the street and the corner itself, an elegant example of the triumphant architecture of the House of Habsburg at the height of its splendour, being perhaps the purest example of this historical moment in existence in the city of Castellón. When we assess the facade and the iconic image of the building we do so consciously, because we are aware that these elements are more valuable than the overall structure, because we find in it uncertain moments, both because of the poor quality of the build of the party walls and perhaps because of the tenuous structural solution of the central space, as we shall see later, covered possibly by no longer extant vaults and supported by a system of cross beams and a central pillar of which no vestige whatsoever has been found, on which perhaps those vaults rested on, of which the remains of plaster are evident on the party walls. The project supports the assessment of the arcade structure of the facade and its formal and constructional interest, developing from these elements an open, diaphanous public architecture, on which the style and materials are in keeping with one aim: to build an urban space in keeping with the dignity of a seventeenth century public building. Proportion, moderation, austerity, solidity, classicism, are, in short, the key elements of a building capable of continuing to construct the city and housing the new advances from the public sector.

A second section is superimposed on the classical Llotja, a different type of architecture, closer to the senses, more golden, polychrome, descriptive. Almost the antithesis of that Llotja of abstract values on which it has been built. It is, perhaps, this tension which makes the building ever more thought-provoking. The nineteenth century proposal is convincing and solid, its openings perforating the mass of the wall tell of a baroque past which is merely hinted at. The frescos lead us through the changing seasons toward an unending cycle of rebirth and death, and the syntax between both languages is perhaps the most attractive aspect of that nineteenth century intervention.



Figure 7. Image of the facade from Colón street

The dwelling built offers a joyful image of an ascendant merchant class.

The traditional shape has a particular formal condition: the austerity of the hollowing out of the walls on a angled balcony, some polychrome walls painted in fresco by the painter Joaquín Oliet in a two storey configuration and a series of vertical partitions which house a representation of the four seasons, plus decorations which are close to Pompeyan tastes and colours.

A remodelling of the facade and new extensions of small adjacent buildings carried out with historicist finishes will give a new dimension to the form. Its pseudo-classical language does not manage to link us to the power of the Renaissance arcade, it is perhaps, from our point of view, a moment of a certain weakness in form; a moment which does not measure up to the previous configurations of the building over time, each one of which, interesting in itself and valiant within its genre. It must be stressed that its construction, by varying the shapes of the windows and also the appearance and the forms of the original paintings, deprived us of the opportunity of restoring to perfection the frescos of J. Oliet, and made it impossible to consider the nineteenth century layout as a possible alternative, since it would have been incompatible with the restoration of the current frescos, which V. Castells remade, rather than restored, on the previous theme of J. Oliet. Polychrome paintings which match the proportions and shapes offered by the dimensions of the window frontons which force a different proportion on the quarters and the canvases on the walls. Consequently the reading of history and the degree of freedom in the intervention were determined. Our project is along these lines and with tight-fitting fullness.

2.- A place in the city

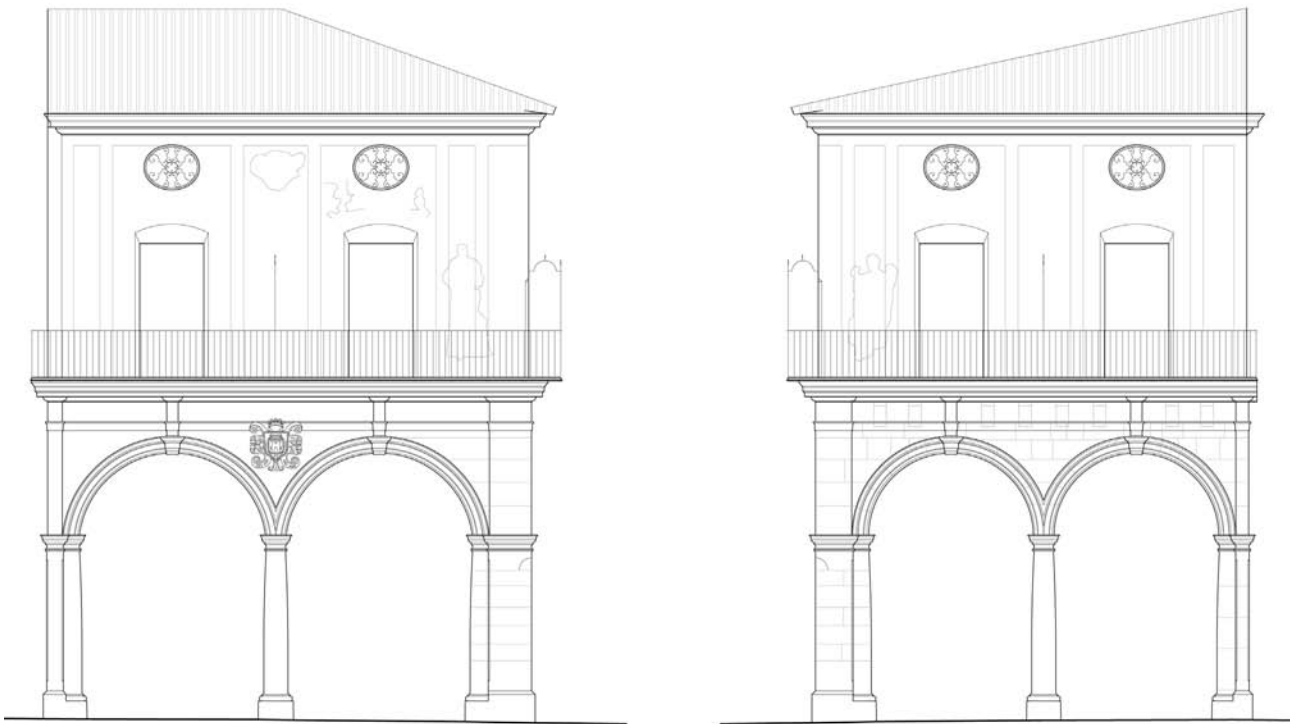


Figure 8 View from the outside of the Llotja del Cànem

The Llotja occupies and creates a special place in the city, where the designs and the volumes of Santa María, the emergence of Fadri, the Town Hall and Market squares, the Casa de la Vila itself, the former Yerba square, the appearance of Colón and Caballeros Streets, makes its location one of the major landmarks of the historic centre of Castellón. The Llotja marks part of this original geometric layout of the newly built city, just at the point where the great public spaces distinguish this place from the rest of an undistinguished building fabric and drawn out on a grid layout.

It is precisely the very character of the open space of the Llotja, its design and dimensions, these aspects which links the building to the *res publica*, a civil building well executed on the design of the city and in the great tradition of Mediterranean Exchanges, of those spaces for commerce so typical of the culture of the Crown of Aragon, and of which Cati, Sant Mateu and Morella are singular examples in the Castellón region, not forgetting the Llotja in Valencia, the paradigm of this type of fifteenth and early sixteenth century architectures en Valencia, one of the most important examples of architectural culture. In 1606, in Castellón, the "jurors" of the city requested that a space be built, "*ab arcades a modo de llonja y ques fasen entorn banchs* (with arches by way of exchange and that banks be placed around), following the tradition of spaces for trade, although in this case on a corner, in the Italianate style, resolved with dignity with the classical language of its epoch.

The relationship between the inner space and the outer one in this type of architecture, the diaphanous nature of the arcades, on the corner of two streets so characteristic of the layout of Castellón, are an important conditions when working on the building; so, the project encourages the prolongation between the inner and outer space; thus the unity of the materials and textures of the floors, the



Figures 9 and 10. The Llotja del Cànem's eighteenth-century elevations

spatial and visual openness of the whole space, in such a way that only the shade and the projection of the solidity of its architecture are what separates the interior from the exterior.

The superimposition of the two volumes which historically have made this resulting solid must be able to be read, albeit discreetly, to place on record the building process over time. Thus, we can reveal, for those who are interested, the different stages of its history. Its early design, the enlargement carried out when the City Council allowed it to be built up, raising the height of the cornice of the houses of the city. We can appreciate the stylistic differences, the shapes, the subtleties of colour and texture of the materials of the different epochs; for this reason, an attempt has been made not to tone in a unitary manner the whole, keeping certain differences between the grey of the bush-hammered Borriol stone as it was originally, perhaps to make it look like the Castilian granites, like the stonework of Guadarrama so typical of the splendour of the Habsburg epoch, whilst on the upper part the shades are warmer, the golden and sanguine tones cast our eyes towards the Mediterranean.

From here we propose the restoration of the former square of Plaça de l'Herba, situated around the Llotja, the north-western gate of the Cathedral and the front of what was the former Casa de la Vila, now a built up bank building. Proposals were put forward in their day and there is still a commitment to join these squares, by way of a rosary of public spaces concatenated on a regular layout. Perhaps an august and slightly matching paving might be the best solution, abandoning "specialized" lanes and carriageways. A paving where pedestrianization predominates, always allowing access to service vehicles. In the Llotja there is a commitment to it, as we have already mentioned, and therefore the paving of the Exchange is limestone, of generous proportions and thickness with a machined somewhat tough finish, similar to public flooring. Dimension, texture, shape, material quality are the characteristics of a service plan for a public space, moving on to a more friendly and warmer solutions in the inner spaces on the upper floors.

3.- Consolidation process of the current building

One of the most interesting issues in the work process tackled by the authors of the project has been to analyze and assess the consolidation process of the existing architecture and to decide which have been the most important stages of its development. This work, in the hands of qualified professionals, has resulted in the selection of three key moments, which must always be highlighted and taken into consideration, appraising, according to historical, formal, structural, budgetary aspects, the parts being assessed, the extent of their importance in the overall project, what elements we have at our disposal, what are the variables we can have an influence on, etc. So that we always ensure an historically clear solution, correct from a constructional point of view and technically possible, where we place on record the passage of time and the traces that have been left on the building, in order to stress the most remarkable and characteristic moments of the architecture which over 400 years has been built and transformed alongside the city of Castellón.

We understand that there are three developmental stages within the building, in which the main arguments to be taken into consideration are as follows:

1.- **Seventeenth century (1606-1617).**- Construction of the original structure of the commercial Llotja or Exchange of the City of Castellón. A building on a public scale which presents us with the most marked classicism to be found in the city. A twin archway on each of Caballeros and Colón streets, with a central column with a very clear entasis and whose shaft is not excessively long, on each of the facades and their pilasters on the ends, with a charming corner comprising double semicircular pilasters on the intrados of the arch and a twin-storey straight pilaster, assuming the total arris of the original building. The coat of arms of the city carved in stone on the facade opposite Santa María is the only element on the webs of the arches. The fascias, archivolts, capitals, keystones, bases, etc., are resolved with an austere, classical, beautifully-proportioned



Figure 11: Remains of the old facade on an interior wall of the Llotja



Figure 12: Exterior view of the Llotja

language, with an elegant fascia line prior to the powerful cornice.

The Borriol limestone is skilfully worked, but not polished, left rough, possibly intentionally, evoking the granite stonework of the Madrid sierra, and in this way approaching the desired language, the language of the Empire that the Habsburg Court imposed on all its kingdoms. Let us not forget how, in the Kingdom of Valencia, the Viceroy himself, the Patriarch San Juan de Ribera, in this epoch erected Corpus Christi College in the street called la Nave and there, as in Castellón, proceeded to officiate with the classical language one of the most important Renaissance works in Valencia around the beginning of the seventeenth century, a disciplinary work which the Viceroy himself attended to with especial interest.

The work, according to the references in the “Castellon Architecture Guide”, (Castellón 1996), was erected under the auspices of Francesc Galiança de Lancha, the stonework being built by Roberto Sala, together with craftsmen in carpentry, ironwork, bricklaying and tiling: Miguel Borda, who carried out the centring of the arches, Pere Rey, Tomás Moliner and Antoni Rogera, who completed the work in 1617. Being a noteworthy building in the history of Castellón, let us recall the reference of D Vicente Traver Tomás in his book “Antigüedades de Castellón de la Plana” (Castelló 1958) and those of Sánchez Adell, J. Rodríguez Culebras, R and Olucha Montins, F. in their work “Castellón de la Plana y su Provincia” (Castellón 1990). Authors all of whom highlight the Italianizing style of the original work and the “neoclassical” character of the upper part. Our interest focuses on returning the Llotja to its former splendour, by demolishing the mezzanine built at the beginning of the twentieth century and opening up the spans of the arches right to the top. Restoring the capitals severed by the wrongs of former interventions and achieving the right texture for the beautiful stonework of the arcades.

The interiors of the Llotja, both the interior perimeter walls and the flooring, have been restored by achieving in the first place their consolidation and attempting to find original elements, these have been very difficult to restore due to the high degree of ruin of the stonework and the poor quality of the same, very different to that of the facade. The foundation level, very shallow and the great number of interventions carried out on the subsoil, would not allow us to restore part of the desired foundation level. The underpinning of the walls and the foundations, essential for the solidity of the restored work and the consolidation of levels to those approaching – 5 metres, filling with concrete potholes and holes created by uncontrolled erosion over time and traces of shelters from the Civil War, have been jobs carried out in order to guarantee the stability of the works.

The internal design of the Exchange is less convincing than the stonework facades. Vestiges have been found of some dubious vaults, not structural ones, not joined to the stonework planes, perhaps supported by small internal pilasters on capitals and finished off with two rings of bricks. Their existence is only evident in the design of the fragment of the northern party wall of the old exchange: there we found remains of where they meet the wall. There are no remains of the possible central column, instead there exists a modern cast iron column, belonging originally to the beginning of the twentieth century, resting on a superficial foundation, with no remains of a deeper foundation. From the vaults we can only determine that phrase from the beginning of the project: “ab archs i bòveda a modo de llotja” (with arches and vault by way of an exchange), of which the wish and the memory remained in the internal shape of the space, which has been laid out according to the second description of the project: “ab arcades a modo de llotja i ques fasen entorn banchs

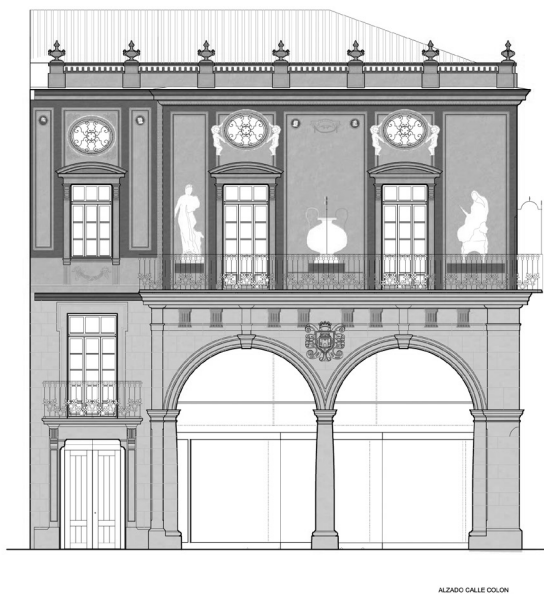


Figure 13: Elevation on Colón street



Figure 14: Elevation on Caballeros street

(with arcades by way of an exchange and that banks be placed around).

2.- End of the eighteenth century -Beginning of the nineteenth century- This stage represents the first major architectural transformation of the building with important structural changes. The building stands two floors above the structure of the Llotja by superimposing a compact solid on it where a middle-class dwelling was to be built at the end of the eighteenth century, adding at the same time two small adjacent houses on either side of the Llotja, houses typical of the late medieval plots of Castellón. The balance of the masses of the resulting solid, particularly of those erected over the traces of the Llotja, the scale of the volumes of the adjacent houses and the shape of the elements of which they are built, create a system of great quality which endows a new scale on the city.

The transformation of the cornice into a balcony, and the correspondence of the arches with spans in the form of excavation of the wall provides a special solidity to the whole. The polychrome facade is one of the most characteristic elements of this new shape of the architecture. So are the proportions provided by the graphic representations on the pilasters on a golden background, creating a new upper order, in two layers -recalling to some extent the scale of the classical pilaster on the corner of the Llotja- and where its coronation in this case is the upper cornice itself. A two layer order on the upper floor includes both the opening of the ground floor and the oculus of the upper floor. In any case it is a new order which contrasts with the classical order of the plinth, and offers us a late Baroque reading of the system.

Old pictures and photographs provides us with this nineteenth century configuration of the building; the restoration work has given us a deeper insight into the facade painted by Joaquín Oliet and brings us closer to its appearance, perfectly linked to the forms of the architectural elements. The twin pilasters were arranged on either side of the window spans and in turn were set out symmetrically with respect to the corner; among them were to be found the allegories of the Seasons. They were large windows with plain jambs and a recessed segmental arch, thus lacking the current semicircular pediments built at the beginning of the twentieth century. Similarly, neither does the ornamental crown of the roof coincide with the current sill; the nineteenth century solution was resolved with

eaves which was constructed by a corner gabled curved-tile roof. The original shape of the staircase possibly dates from this time, to which without doubt alterations were made to its current finish in the twentieth century.

3.- Beginning of the twentieth century, (around 1910).- The shape of the building as it comes down to us now dates from this period, a middle class house upstairs and a shop downstairs, occupying the Llotja, on which an important refurbishment of the facade was carried out. The intervention belongs to a late academicist architectural eclecticism which affects both the finish of the facade and that of the interiors.

On the facade it incorporates a historicist decoration on the fenestration, with pediments and pilasters; it creates a sill on the eaves with a balustrade crowned by terracotta amphoras and comprises the lateral sections of the adjacent buildings, forming part of a new stylistic whole with the main building as the reference motif. The large windows are furnished with semicircular spandrels, reminiscent of those of the Teatro Principal in Castellón, designed by Godofredo Ros de Ursinos, resting on corbels also present on that emblematic building. This reorganization of the spans involves a remodelling of the pictorial decoration, influenced by the neoclassicism of the epoch and the work of local artist Vicente Castells, who created the new facade by reusing only figures from the Allegories of the Seasons, chipping the rest and applying a new proposal. A proposal which is recoverable, which has come down to us more or less complete.

This intervention, eclectic in taste, with a fascia on the nineteenth century spans, is very important in the iconic transformation of the building and in its possible restoration. The new width of the architecture of the windows is introduced on the pilasters drawn by J Oliet, such that the proposal of V Castells does not allow his designs to be maintained and proposes in turn a conceptual change: the former graphic representation on the pilaster of the facade becomes a frame for rectangular soffits on which to redraw the themes by Oliet. A proposal which perhaps loses part of its freshness, but which, by its very nature, makes it impossible to restore the nineteenth century facade.

The grillwork of the row of balconies is reinterpreted according to

the modernist taste, although timidly with discreet plant motifs, without straying from the prevailing eclecticism in Castellón, which is expressed in the same way on the cornice with roe and the ornamental crown of the balustrade with pinnacles.

Inside we find again signs of a modernist style typical of the middle class houses of the time, but of a low budget kind, on the staircase handrail with plant elements and on the Nolla-type stoneware paving tiles, combined in turn with cement encaustic tiles.

Given this background, a methodical archaeological intervention is carried out which studies in depth the whole of the wall and subsoil structures, such that, by following its findings, a restoration strategy for the subsoil, the stonework and the interior and exterior finishes of the facades is proposed.

4.-Intervention criteria

The intervention attempts in particular to fit out the building as a space identifiable with the University in the city of Castellón; by achieving a balance between use, reversibility of the interventions on the dominant historical elements and the architectural and historical value of the monument.

In the first place an assessment of the whole and of the sections that have been added on over time will be focused on to guide the restoration which will make the building fit for purpose, adapted to the historical interpretation and visually attractive on the urban scene of which it is part. To do so, the project restores the architecture of each of the parts, it consolidates its stonework, returning the building to its condition of a public space, by attempting to restore its former splendour and making it suitable as the headquarters of the University in the City of Castellón. At the same time, an attempt is made to leave an imprint of the passage of time, by keeping certain vestiges of the different configurations it has had over its history.

As we have all ready mentioned, there are two basic elements to be considered to enhance the value of the building: The Renaissance Llotja, well designed and creating a strong impact on the urban scene, and the nineteenth century volume erected on it.

The particular nature of the frescos, their process of transformation over time and the condition they are in for restoration, obliged us to consider the shape of the 1910 facade and the reconstruction of the paintings by Vicente Castells as the best option and perhaps the most consistent proposal for the pictorial and architectural restoration, definitely the most efficient and technically possible; a solution capable of being recognised as their own by the people of Castellón, which at the same time allows fragments of previous interventions to be kept.

Once the most attractive moment has been chosen and a technically possible proposal for the project has been selected, the project must be accompanied by a rereading of the building which gives it back its public character and distances it from that domestic condition which invades both the inner spaces of the top floor and the restructuring of the lower floors, after their redistribution in the twentieth century. The domestic division of the spaces of their house will be eliminated, keeping only fragments of the previous configuration and of the materials of which they were built, but maintaining the party walls of the former historical distribution of the plot, so that the former traces of the plot of the late medieval house which were added to the original Llotja plot will be legible, in this way allowing the correspondences of the party walls with the divisions of the facade, the fenestration, but also the site of the staircase and its elements, such as the cast iron hand rail, and also the remaining fragments of Nolla mosaic on the ground floor, etc.; fragments laid out in a special way in the new spaces and on the new scale of the exhibition rooms, keeping the historical memory of the transformation process and the material value of the object, aspects which a worthy public building can perfectly assume, where history



Figure 15: View of the woodwork on the first floor

takes up a new course.

To attempt to return to a different configuration of the facade frescos, for example the original proposal of the frescos by Joaquín Oliet, would involve the removal of the main parts; for example, the removal of the spandrels above the spans of the facade and the pilastered jambs which at present form the facade. This new early twentieth century configuration removed the possibility of restoring the late Baroque configuration of the windows, the deep openings, the woodwork of the interior trusses, recessed headers and segmental arches in the construction of the spans, besides being almost technically impossible to restore the paintwork, that of Oliet, chipped away to build this 1910 configuration. To go back in time trying to restore nineteenth century frescos would involve having lost for ever the frescos of Castells, frescos which it has been possible to restore in almost all their splendour. Thus, any other alternative would affect the whole, it would not guarantee historical fidelity in the restoration, nor would it allow a clear and technically accurate return to the previous state, and by proceeding to substitute or change one of the elements, we would loose another one of particular value. This obliges us to respect, conserve and maintain the cumulative process which the architecture has built up to the current state. This process is evident in the very volume of the building, in its facade comprising superimposed elements from different epochs, a condition which makes the building recognizable by the people of Castellón and constitutes the very image of the monument.

The architecture of the building is defined by the formal structure of the load-bearing walls of the facade and party walls, both of the former Llotja and of the adjacent annexed houses in their day, plus the roof shell of the existing building, generating a compact and heterogeneous solid in which the architecture of the Renaissance Exchange facade and the upper academicist proposal can be distinguished. From the restored and upgraded structural walls, the

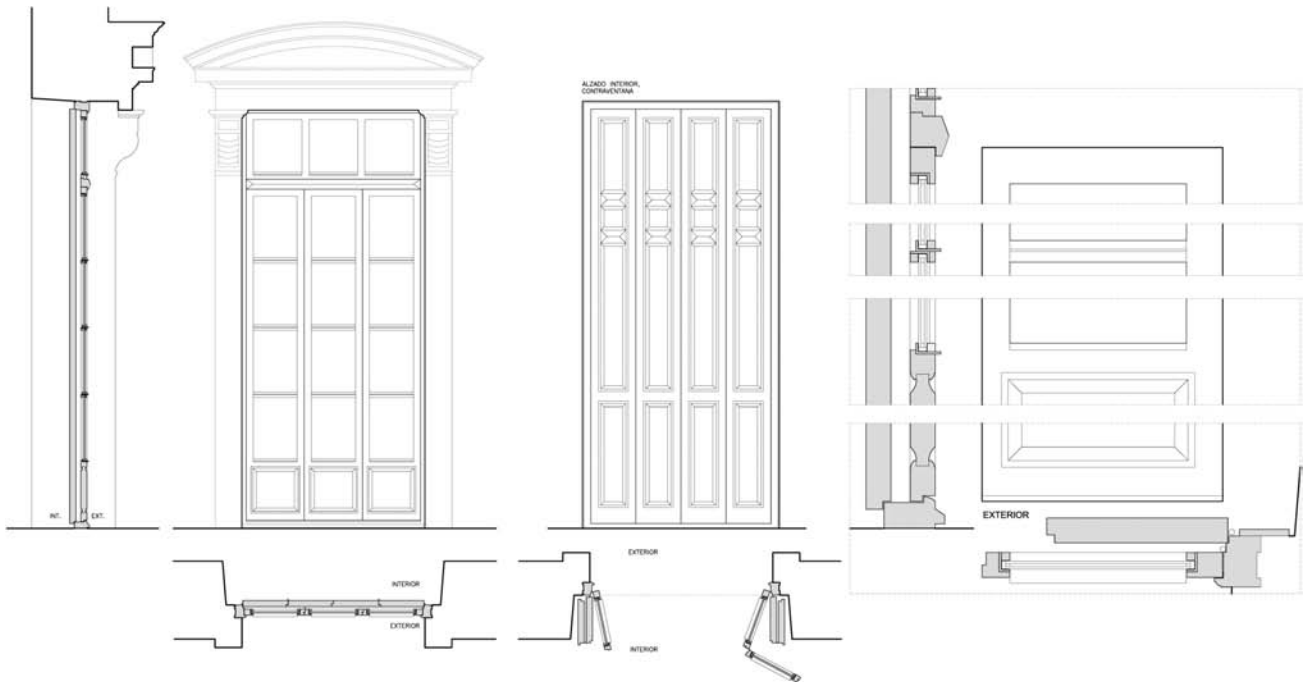


Figure 16: Details of the woodwork

flooring has been replaced and lightweight concrete slabs put in, which as we shall see in another chapter, are supported on the central spans on a steel crossbeam resting on the shafts of the columns and on the perimeter walls.

The woodwork on the upper floors has been reconstructed based on the original form, but introducing quality criteria into the design, in order to do so the windows have been constructed with sections of the same width as the original ones, but much deeper, by so doing allowing better quality in the behaviour of the wood and guaranteeing the watertightness of the woodwork itself, without lessening the exterior look of the woodwork itself which maintains the same breakdown and the same dimensions in the transoms; so, in this way, the nature of the wood has been improved, using teak, and the inertia of the transoms, allowing the use of better quality glass that ensures proper insulation of the rooms. The design has been completed with the inclusion of small stainless steel profiles in the construction of the gutters of each of the partitions of the door and window leaves.

The closings of the public spaces of the exchange have merited a special treatment using steel suspension elements allowing two levels of glazing to be kept. An upper fixed level, plus another lower sliding one. These large extents of glass allow different configurations of the space and give us the possibility of perceiving the internal space from the outside without intermediate transoms.

THE RESTORATION PROJECT. USED SPACES AND THE ARCHITECTURE.-

La Llotja.-

Perhaps the architectural element which gives character to the building and from which it takes its name is the arcade of the Lonja, for this reason its restoration is one of the special conditions, together with the space it houses and to which it allows access.

One of the most important project tasks is to restore the classicist arcade, to consolidate its foundation structure, to repair its architecture. In order to achieve this, work and repairs are being carried out to the limestone, masonry, fascias, cornices, columns,

plinths, pilasters, shafts, springers, keystones, capitals and archivolts, restoring the stonework of the ashlar with its joints, joggle joints and corners, returning it to its original texture of the stone itself. Freeing the columns from the vestiges of stonework which closed the former shop premises which occupied it during the twentieth century, but also repairing the structure, piling foundations and stabilizing with struts which ensure proper work on the structure and allow the ashlars to work to their load capacity given current demands.

The interior space of the exchange is configured as a single space with all the height its architecture permits, leaving on the walls the few remains that previous interventions have left us, but we can still read part of that phrase from the original console:

--]Ro[i]. Δ SIN^{DICH} Δ P^{ER}E Δ IO^{AN} Δ MAR^{TI} Δ CIVA^{DA} Δ ESCRIVA
Δ [M^{SOR}]Δ SALVA[DOR]

The covered space of the Exchange must be an open space, as clear as possible. The enclosure which facilitates its use should be located on an internal plane, being as unobtrusive as possible. As was mentioned earlier, to this end a plane of glass in two sections with the edges revealed, hung from a light steel structure, with a fixed upper section and a lower one comprising three sliding leaves of glass on each of the two facades; the sliding leaves can be stored one on top of the other, all of them remaining behind the central column. This solution permits perfect transparency both visual and for entry purposes, when the premises are open, providing in this way the desired reading of a covered square, of a covered public space.

The proposed flooring of the Llotja is of limestone slabs from the quarries at Borriol, similar to the facade, with a rough dressed surface finish, 5 cm. thick and laid in a Roman opus pattern in uneven width strips always greater than 60 cm., with lengths varying between 45 and 120 cm.; in such a way that it allows it to be assimilated into the public paving, similar to that outside the premises which must in turn be re-furnished as a square, as we indicated in the second section of this report.

The foundations are inspected and stabilized, as can be seen in following chapters, consolidating in turn the sub soil, severely damaged by several substantial perforations which have been

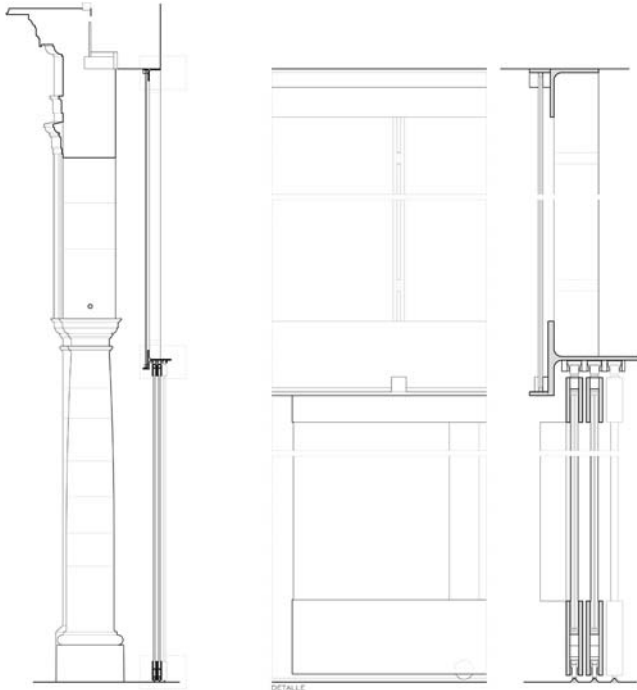


Figure 17: Section and details of the glass lamina of the enclosure behind the columns



Figure 18: Interior view of the corner intersection

undertaken over the years, either due to intentional openings – shelters in times of war- or to fortuitous faults in the terrain which have led to radical consolidation work to be carried out. The absence of quality foundations on the back walls and the annexed houses have required new support foundation to be dealt under the whole building.

The load-bearing walls are restored following the logic of such walls on which large openings have been made over the years. These walls are stabilized by restoring their stonework and mortars. When seriously damaged, support walls are built and joined together, matching the work plane of their stonework and the materials from which they are made, these being very diverse due to the countless interventions and jointing carried out over the years, with spaces opened, closed, reopened in different places, etc. walls which are repaired, by removing damp. To this end a complete drying out is proposed by means of ventilated chambers made by drilling at skirting board level, approximately 20 cm from the floor, to be filled with siliceous gravel surrounding a hydroconvector placed with sufficient gradient to allow for drainage.

Once the walls have been repaired and restored, stucco is applied to the substantial parts of the building, leaving fragments of wall with former architectural remains, such as the vestiges of the side fenestration found in the party wall of the first house on Caballeros Street; these remains are finished off in lime mortar and plaster; whilst in the Exhibition Rooms, the walls are left as useful planes on which the appropriate graphic material may be exhibited. Screeding and finishing on painted mat provides us with a suitable solution for these uses.

The restoration process is carried out after an exhaustive study of the archaeological remains uncovered, taking a stratigraphic reading and undertaking surveys, which can be seen in the section on archaeology. All the historical and archaeological information is assessed and checked against the value of the architecture itself, thus having a clear guideline from which to proceed with the drafting the project and modifying it at the works stage, by enhancing the value of those remains of interest found, such as for example the aforementioned calligraphic strip discovered inside the Llotja, of

which we can distinguish a fragment of the original inscription that surrounded the seventeenth century premises, and *graffiti* from a later era, perhaps the eighteenth century, where possibly city proclamations were posted on the column situated in Colón Street.

The air conditioning system and other general installations are located in the building, as we shall see, inside a prism which goes through all the floors of the building. From there the conduits are passed above the false ceiling to each of the rooms of the upper floors, whilst on the ground floor the conduits run under the floor, using grids as diffusers around the perimeters of the hall of the Llotja. A curtain of air completes the air conditioning system in this huge space

Lighting of the space is achieved with a longitudinal fitting over the customer service counter that will enable several environments to be lit, plus a system of ceiling light fittings, with the possibility of maintaining the arch jambs lit by means of a system of lamps built in to the floor. Similarly a system of electricity and data outputs for connecting digital work stations in certain areas of the hall will be installed

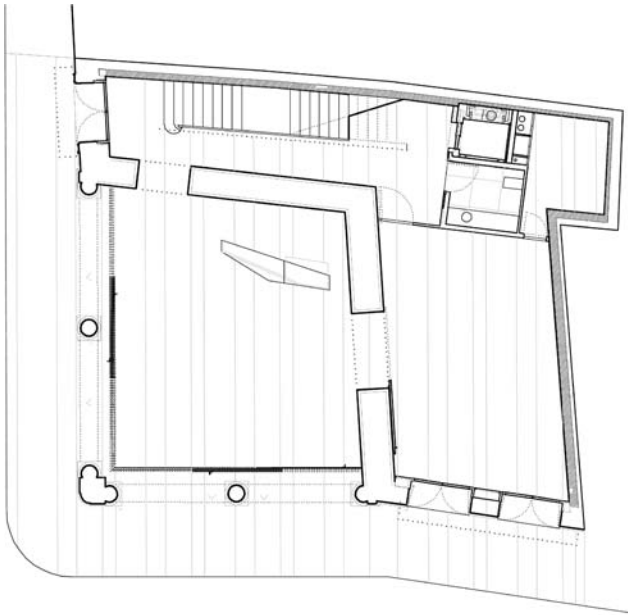
Other spaces of the Ground Floor and the layout of the staircase.-

Room annexed to the Llotja.-

This will be subject to the same structural restoration and floor and wall finishes as the main hall. Access from the Llotja through an already existing wide opening with lintel, which once restored and stabilized will be closed by a large wooden sliding door. The room will be fitted out for versatile use as a classroom, a space for press conferences, postgraduate courses, exhibitions, etc. A lighting system on the sides of the room will allow various ambient lighting configurations, plus a system of automatic digital or slide projectors, connected to the speaker's console.

The staircase.-

It has been decided to conserve the original location of the staircase and to maintain some of its elements, in particular the handrail



PLANTA BAJA

Figure 19: Ground level

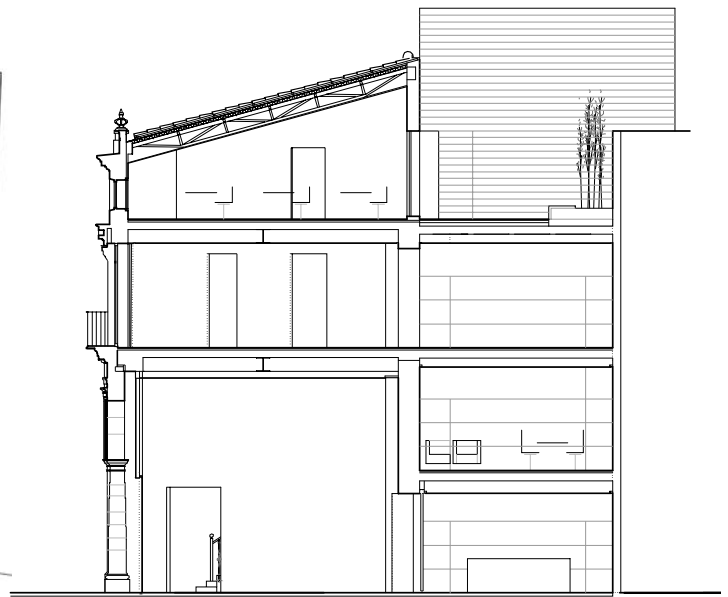


Figure 20: Main section of the Llotja



Figure 21: View of the curtail on the stairs



Figure 22: Development of the stairs

balusters, early twentieth century cast iron balusters which, together with the white Macael marble, bestowed a special character on this staircase. The resulting building after intervention requires a new layout for the staircase, of different dimensions and appropriate for public use, but nonetheless a relic of the former staircase should not be lost, therefore the white marble and the iron balusters will be the defining elements of the new directional staircase built on a concrete slab. It will run parallel to the western party wall and enables us in two sections to ascend to the mezzanine and first floor levels, facilitating access to all the rooms and offering the possibility of a single emergency exit for the whole building.

The communications and installations hub.-

The installations hub is defined as a compact unit built behind the staircase and includes a lift, a toilet and a machine room or storeroom on each floor where furniture and equipment, etc., may be stored. In this room the installations and their inspection hatches are located, and through them run the ventilation, air conditioning and electricity and data network systems. This section is raised in height and hides the adjoining party walls, offering us a consistent and well-built volume, housing the air-conditioning and lift machine rooms, etc... The technological nature of this section gives



Figure 23: Example of an office on the mezzanine

us a special reading, for this reason it is proposed to install wooden panelling on which the doors to toilets and storerooms will be hung, defining a continuous and unified plane. Panelling which in the interior of the building is complemented by the build of the frontage of the toilet and the lift.

Mezzanine

The two storeys of the Llotja permits a mezzanine level to be made in the limits of the second house on Caballeros Street. A mezzanine which converts into a well-proportioned room for the institutional office the building is to house. An office where the Vice-Chancellor can receive visitors. A representative room with easy access.

A room which conserves part of the original beams of the old house which stood there, which has been restored and finished with the polychrome of the epoch. The woodwork has been installed following the shape of the former first floor windows, in teak and using slender profiles, with the same dimensions as the original, and with a stainless steel core and double glazing. The floors of the room are of jatoba wood laminate in 129 mm. wide and 200 cm. long boards, with a thickness of 22 mm., as in the rest of the building on the upper floors. By way of carpeting for the floorboards, remains of the former early twentieth century Nolla flooring, a flooring in very attractive shapes and colours.

The First Floor.-

It has two Rooms, called the Oliet Room and the Castells Room. They are ample, diaphanous spaces. Room A has a continuous balcony, a clearly "institutional balcony". The rooms are conjoined, but each of them has different entrances which allow both to be used independently.

These rooms have strip wooden floors which include fragments of the old Nolla mosaics, by way of *kilims* which have been dropped in, arranged outside the coordinate axes of the flooring itself. Their

tranquil architecture, the uniformity of the flooring and the layout of the openings, permit them to be used for exhibitions. The height of the ceilings allows us to enjoy an ample spaciousness, which in the case of Room B, with one part covering two storeys, permits the exhibition of three dimensional objects of considerable height. The walls have a system of high-strength sliding plasterboard panels, capable of offering a continuous wall surface across the window spans thus facilitating different configurations of the exhibition space or when slid back, enabling the presence of the windows, the views and natural light to be enjoyed. The dimming mechanisms of Room B are electric and allow various mood lighting configurations to be created, providing the most neutral possible space which enables the most suitable ambience for exhibitions.

The Castells Room allows multi-use; since as has been mentioned, it can be used as a themed exhibition space, with specific spatial conditions; but it can also be used as a teaching space, a classroom for specific courses. As indicated earlier the installation rooms complete this floor.

The Second Floor.-

The last level is a covered ground floor. On this floor a patio has been introduced which enables the different rooms to be brought together around it, providing them with light and visual perspective.

The floor has a spacious rectangular work room under cover, with elliptical oculi which open on to the facade, with access from the staircase vestibule; a room whose main attraction is the spatial appropriation of the patio. The jatoba wooden flooring, with the same characteristics as the rest of the building, guarantees the spatial continuity of the whole. The room could house any function, but in principle it is set aside as administrative space, it could also be used for teaching purposes. The edges of the planes under cover that adjoin the facades, are covered with a inertia-type system which offers us the possibility of cupboard or space for installations, being operative from 2.10 m headroom.

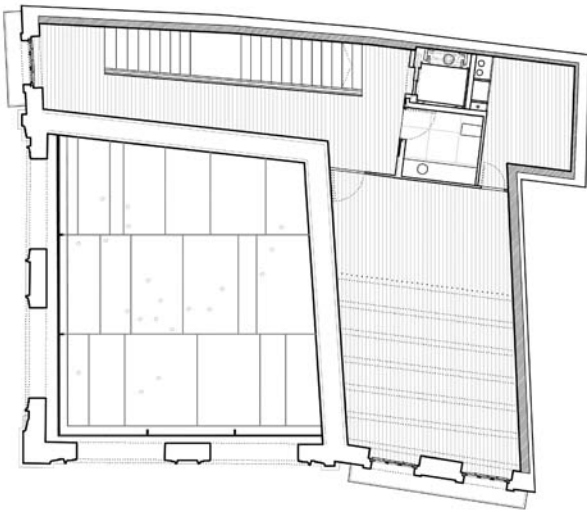


Figure 24. Mezzanine

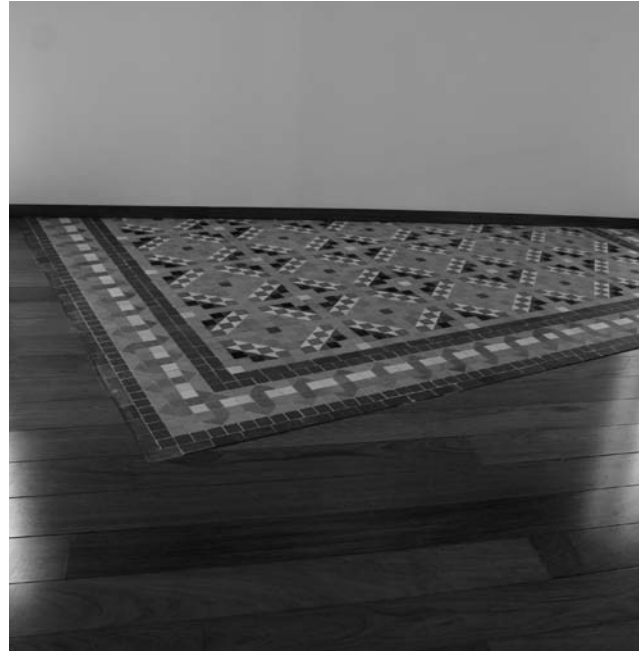


Figure 25: Details of the reused old paving mosaics

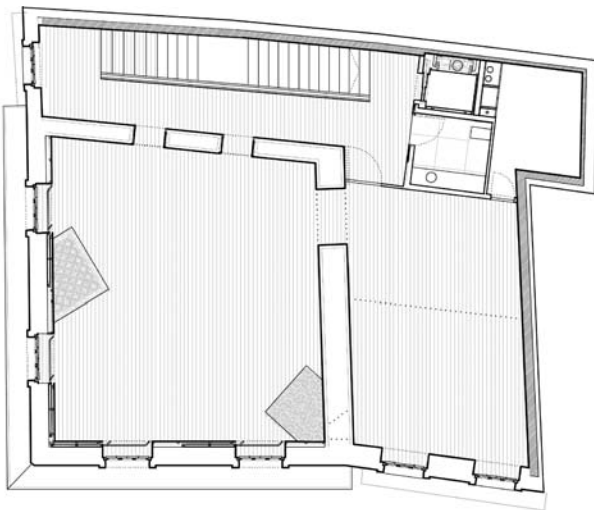


Figure 26: First level



Figure 27: The main hall on the first level

The patio, conceived as a spatial extension of the Work Room is built with the same basic materials: Wood and Glass. The wooden strip flooring takes on a special prominence, by building a dihedral which breaks down the space on extending the wood through one of the walls of the patio itself, the highest one to be precise, the one which closes off the installation section and extends beyond the roof, such that this prism is visible from the outside and is shaped as an autonomous wooden volume. A flower bed is set at the end of the patio and defines the view from the work room, it is a continuous flower bed with abundant bamboo canes. This patio opens on to Exhibition Room B with a large thermal window which allows,

from the lower floor, to take over spatially this visual expanse, being equipped with an electrical dimming facility should this be required.

5.- Realization of the programme.-

One of the premisses in respect of the restoration of these buildings is to endow them with sufficient quality to fulfil their functions with dignity, always within that ambiguity required for undertaking other missions in the future without having to convert the spaces, nor disfigure their architecture, given that it is intended that the



Figure 28. View from the main hall on the first level towards the stairs



Figure 29. Double height of the exhibition hall on the first level

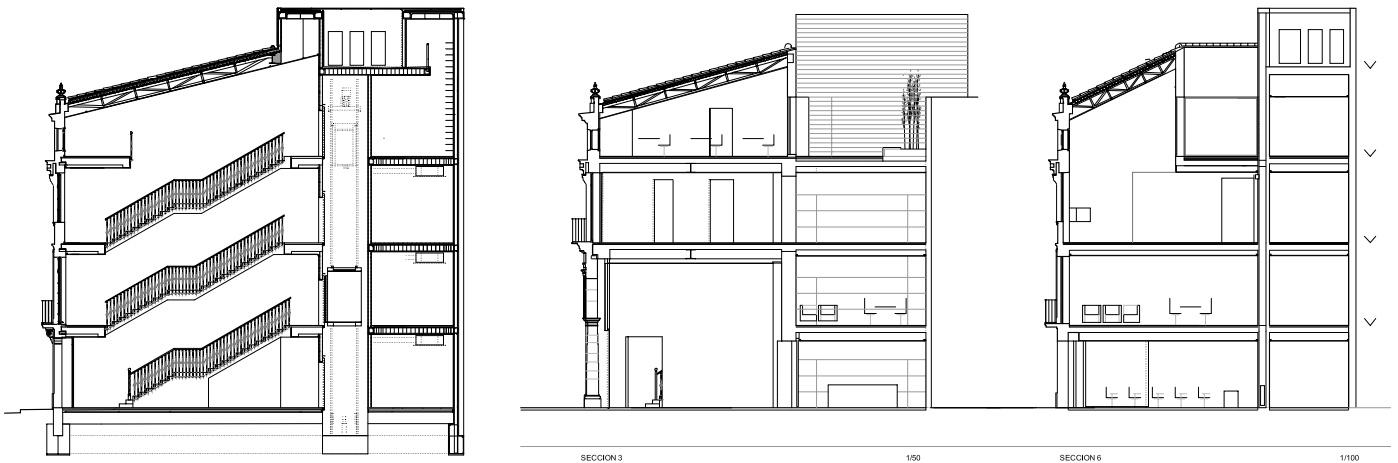


Figure 30. Descriptive sections of the Llotja

building should outlive us and should always serve as a refuge for activities befitting a landmark in the history of Castellón. For this purpose installations will be put in place which will allow versatility in its use without conditioning the resulting space. Electrical and data installations, as well as air conditioning, must be concealed, consequently sections will be provided with finishes and materials suitable for this end.

In all cases complementary uses are planned for all the rooms, as is the case of the rooms for educational activities, compatible with exhibition rooms, maintaining continuous flooring and furniture capable of being stored in the areas set aside for this purpose on each floor, equipping them in turn with possible dimming systems in the openings of said rooms.

The multi-use nature of the rooms is a condition of the project; but

as a base proposal, the programme is structured via the following activity packages on each of the floors:

6.-USABLE AND BUILT SPACES

DESCRIPTION	S U R F A C E AREA M2	LOCATION ON FLOOR
1.-Information point and telematic space. Occasional exhibitions	79.35 m ²	Llotja Room
2.- Lectures, presentations, postgraduate classrooms..., press conferences, presentations of lecture series	42.15 m ² 31.63 m ² 12.16 m ²	Llotja annexe room
3.- Staircase and vestibule 4.- Toilets + machinery room and storeroom		
5- Institutional activities 3.- Staircase and vestibule 4.- Toilets + machinery room and storeroom	43.47 m ² 32.64 m ² 13.19 m ²	Mezzanine Room
6- Exhibition and Cultural Activities. -Room A. Oliet Room -Room B. Castells Room 3.- Staircase and vestibule 4.- Toilets + machinery room and storeroom	72.57 m ² 41.23 m ² 34.97 m ² 13.42 m ²	First Floor
7- Administrative area 8 - Outside patio 3.- Staircase and vestibule 4.- Toilets + machinery room and storeroom	67.15 m ² 18.40 m ² 35.12 m ² 12.57 m ²	Second Floor
8- Covered installations	11.00 m ²	Covered Floor
Total usable space Built space	561.42 m ² 743.81 m ²	

MATERIAL EXECUTION BUDGET

2,164,902.68 €

CONTRACT EXECUTION BUDGET

2,988,431.66 €

CONTRACT WITH REDUCTION IN AWARD:

2,681,433.28 €



Figure 31. View of the patio on the second level

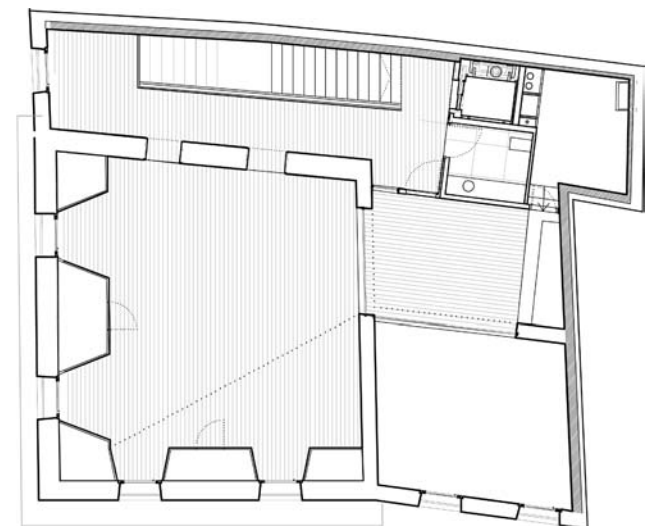


Figure 32. Second level

ACTIVITY PACKAGES OF THE FLOORS

Ground Floor.-

- 1.-Information point and telematic space.
- 2.-Training activities. Lectures, presentations, postgraduate classrooms..., press conferences, presentations of lecture series
- 3.- Staircase and vestibule
- 4.- Toilets + machinery room and storeroom

Mezzanine.-

- 5- Institutional activities
- 3.- Staircase and vestibule
- 4.- Toilets + machinery room and storeroom

First Floor.-

- 6- Exhibition and Cultural Activities.
- Room A. Oliet Room
- Room B. Castells Room
- 3.- Staircase and vestibule
- 4.- Toilets + machinery room and storeroom

Second Floor.-

- 7- Administrative area
- 8 - Outside patio
- 3.- Staircase and vestibule
- 4.- Toilets + machinery room and storeroom



Figure 33. View of the interior in use



Figure 34. View of the interior in use

By way of an epilogue.-

We should like put on record that the restoration of the building has been a difficult task and carried out with great deal of effort; a task which would not have been possible, in its entirety, or the levels of finish and execution undertaken, without the collaboration of those persons and companies who have taken part in the execution of the works. Neither would it have been possible, without the goodwill, support and enthusiasm of the University of Jaume I, its technical and management team, because we believe that in part

the quality of a work of architecture is attributable to a good commission, a development which knows what it wants and puts its trust in sensitive experts. But above all it trusts in the social effort which the construction of the architecture itself involves, and hence in part the grandeur of the architecture: the work of people and the collective effort which any built work entails. After all the effort, the reward, the satisfaction of a great reception on the part of the people of Castellón.

Versión española

TÍTULO: *Restauración arquitectónica de la Llotja del Cánem*

RESUMEN: *LEl artículo pretende transmitir la labor compleja que implica la restauración arquitectónica de un edificio histórico como es la Llotja del Cánem de Castelló de la Plana: un edificio referencial en la construcción formal de la ciudad y en el imaginario colectivo de unos habitantes que han crecido con esas arcadas, que han convivido con el edificio, entre las calles Colon y Caballeros; la esquina clasicista sobre la cual y hasta antes de su restauración, para los más jóvenes se levantaba un volumen enigmático, donde se percibían restos de los antiguos frescos que en su día pintó Joaquín Oliet y restauró Vicente Castells a principios del S XX. Un edificio con una singladura compleja en el tiempo, que comenzó su andadura allá por los inicios en la primera década de 1600 como espacio público construido por Francesc Gaiança para cobijar las transacciones comerciales de un Castellón renacentista; un edificio que con el paso del tiempo perdió esa condición de lo público, para pasar a convertirse en vivienda burguesa con tienda en los bajos, vocación doméstica que ha mantenido en los últimos doscientos años. Hoy, de nuevo, vuelve a sus escalas de origen, a ser, con orgullo, uno de los edificios públicos más representativos de la ciudad de Castellón.*

PALABRAS CLAVES: *restauracion- arquitectura - Renacimiento*