

Análisis compositivo y formal de cinco fachadas singulares en la ciudad de Barcelona, España

Compositional and formal analysis of five singular façades in the city of Barcelona, Spain

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Resumen

Introducción. Al recorrer una ciudad, topográficamente plana, como Barcelona, se develan edificaciones de envergadura que poseen un carácter particular en el perfil de sus fachadas, rasgos de identidad compositiva y formal que los distingue de otros y los vuelve singulares. Es diferente y a la vez compleja, la perspectiva que ofrece la volumetría en los relieves, balcones, pilastras, tribunas, etcétera, frente a una fachada comúnmente plana. **Objetivo.** A partir de esto, se pudo cuestionar sobre lo singular en una fachada, y porque no, proyectar la idea de que en este elemento se puede concentrar toda la arquitectura del edificio. **Metodología.** Para ello, esta investigación surge como parte del trabajo de fin de máster en Proyecto, Proceso y Programación, de la ETSAB, surge de interpretar la fachada como un objeto aislado en toda su extensión y utilizar dos herramientas conocidas y propias del arquitecto, el dibujo y el papel. **Resultados.** El primero intencionado como instrumento de comparación entre el caligrafiado de sus relieves, las partes que la conforman y el remate superior de la fachada, junto a una interpretación básica a través de dos maquetas de papel, para considerar en tres dimensiones lo complejo y profundo del objeto. **Conclusión.** Para lograr concentrar un análisis específico en elementos que componen cada cuerpo de la fachada, lo que permitió revelar similitudes al contrastarlas entre sí, esto permitió desarrollar parámetros que descubren la composición formal de cada uno de los casos. **Área de estudio general:** Arquitectura **Área de estudio específica:** Proyectos Arquitectónicos.

Abstract

Introduction: As one traverses a topographically flat city like Barcelona, monumental structures with distinct characteristics in the profile of their facades are unveiled. These features encompass compositional and formal identities that differentiate them from others, rendering them singular. The perspective offered by the volumetric interplay of reliefs, balconies, pilasters, and tribunes presents a complexity diverging from the typically flat facade. **Objective:** From this, one may question the singularity inherent in a facade and entertain the idea that this element can encapsulate the entire architecture of the building. **Methodology:** Thus, this investigation emerges as part of the culmination of a master's

thesis in Project, Process, and Programming at ETSAB. It details interpreting the facade as an isolated object in its entirety and employing two well-known tools intrinsic to the architect: drawing and paper. Results: The former serves as a deliberate instrument for comparing the intricacies of relief detailing, constituent parts, and the upper termination of the facade. This is coupled with a basic interpretation facilitated through two paper maquettes, allowing for a three-dimensional consideration of the object's complexity and depth. Conclusion. Concentrating on a specific analysis of elements comprising each section of the facade revealed similarities upon their juxtaposition, thereby enabling the development of parameters that reveal the formal composition of each case.

Introduction

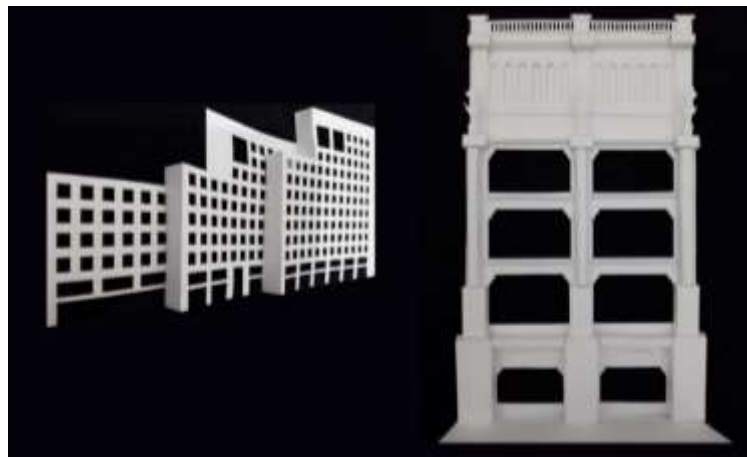
As Solà-Morales (2008) states in his so-called urban experience, “the facades of buildings are part of the city’s journey, its skin is what we see, what we touch, walk or circulate on and through which we understand the rest, and not the other way around, it is the essential” (p. 23), what is made of touch and vision, textures, contrasts and shadows. Barcelona, through its buildings, has a particular vision, a unique personality told through the relief generated by the facade plans of buildings of urban and architectural magnitude, with a deep composition in each of the elements that make up its facades. The vision of reliefs, as if they were urban calligraphy, is confronted with the flat facade panels. Figure 1 shows a first tangible interpretation of the first two case studies, which will be justified in the following lines, which generates from now on the ability to reflect on the deep, expressive and complex design capacity expressed by the thickness of these facades.

Claiming the will to understand architecture, two great masters point out “drawing is the first construction of architecture. The architect, when he draws, is already constructing his architecture” (Cortés & Moneo, 1976, p. 2). Thus, how much can a drawing speak for itself? How subjective can the common representation of an elevation be when shown flat on paper? This generates the need to project sections of the façade that allow us to understand the purpose and extent of its depth. On the other hand, physical prototypes are essential for research; the reflections that paper models give are guidelines for talking about other buildings. The folding of the paper in a model reflects what the verbal phrase of making a façade refers to; it confronts or faces another building to find very logical and apparent relationships in some cases. This duality of investigations reveals

constructive conditions and displays a series of compositional principles that underline the formal singularity of these façades. Thus, from the drawing and its corresponding reflections, a tool is articulated that distinguishes what the facades really are like around their intrinsic complexities.

Figure 1

Paper interpretations of L'illa Diagonal and Can Jorba



What do we mean by Facade?

The idea to define it would depend on the style, dimension or temporal situation to which we would like to refer. And the term facade is directly related as a synonym of architecture, by etymology it comes from *facciata*, face, face or skin that envelops and projects the main visual representation of the building (Portoghesi, 1968). However, the facade goes beyond an enveloping question, it is capable of containing a historical and symbolic value in its transcendence, it represents identity, volumetry and the formal capacity of its composition, it is the tangible reading that people have to see things, in addition to being part of the collective imagination of those who travel through the city.

Methodology

Without establishing ourselves in a temporality, typology, function or tectonics, five are the case studies chosen for this research. However, to achieve a first approximation, assimilating them as isolated objects, it is necessary to give them a connotation of belonging to the city, to understand the horizontal plane where they are implanted (Campo, 2020), and their street will give us the necessary guidelines to think and measure their urban weight. From this and together with a polyhedral vision of the façade, the investigation and confrontation helps to group complexities and similarities in their compositional features, which allow us to understand the reason for their architecture.

Ignoring the intention of an evolutionary or historical look, the order for the analysis is configured from the first conceptualization of the façade and its direct relationship described as a fold, referring to the skin as an envelope and taking specifically the main façades for the analysis.

Figure 2

Five case studies



Walking along the Avenida Diagonal between Numància and Pau Romeva streets, you can see the monumental façade of the L'ILLA DIAGONAL project designed by Manuel de Solà-Morales' team (2008), which is presented to the city as one of the largest-scale buildings in an imposing urban setting. The organisation and mix of its uses, as well as the response to complex road contexts and the connection between the Sarrià, Les Corts and Eixample areas, make it the gateway to Barcelona. The use of straight lines and depth are part of Moneo's formal gestures. In the staggering as the cover folds, resolving the almost 350m on the main façade, the effect of the setback in the volumes on the main surface provides an image that fragments and decomposes the building, allowing it to gain a unique presence on the avenue, as one of the accesses to the Catalan city (Capitel, 1982).

On the other hand, there are the exquisite calligraphed profiles with balconies, tribunes, columns, which configure the incoming and outgoing volumes, as interstices of objects that are projected over the fold of the façade. A clear example is the first large commercial department store in the city, CAN JORBA by Arnau Calvet, dating from 1926. The project responds to a connection between the street and the building by implementing display cases that open like French galleries. Its corner, exceptional in itself, being within

the framework of the old town of Barcelona, is finished off with a cylindrical body with a slate dome typical of its monumental style. Through its lantern tower and together with the tallest buildings that border the Plaza de Cataluña, they configure the Portal del Ángel avenue, as an extension of the square itself. Its ornate and singularly scaled façades are an indispensable part of the city scene.

Under this same argument, where the building's skin reaches an almost decorative meticulousness, the COMPAÑÍA ARRENDATARIA DE TABACOS building, now the National Institute of Statistics, is presented on one of the corners of Via Layetana. Recognized by the city council as a building of artistic and monumental magnitude, which allowed permission to exceed the height level permitted in 1923. The detailed and complex compositional order of its author, Francesc Guàrdia Vial, allows us to imagine each level of the façade with a different cut, its corner also forms part of the formal singularity, by finishing the volume with a dome, which borders the two corners of the building on Joan Massana street.

Along the same lines of composition, but eleven years later, appears the perspective of a block of flats on the Diagonal avenue between Aribau and Muntaner. The CASAS ALMIRALL, also a work by Guàrdia Vial, project a particular elevation that presents greater ornamental sobriety with respect to its previous work. Arranged with a great French influence, its repertoire is accompanied by elements of classical order; pediments, corbels, pilasters, etc., which resolve and configure the faces of the building.

Finally, located on a plot of land on Avenida General Mitre, the fifth and last repertoire with uniqueness in its facades is the MITRE building by Francisco Barba Corsini, commonly characterized as being the first attempt to provide the city with a self-sufficient housing unit. The need to project reduced surfaces in its internal distribution generated the condition of producing an elastic architecture that is reflected in its facades; the glass, the sheets of fiber cement and the protruding volumes in the distribution of the balconies, contrast with the rear face of the building that appears as a clean curtain wall. In addition to having the capacity to project a very unique facade towards its main street, the volume has a different rear elevation, expressed in the words of Barba Corsini himself, as "an absolutely flat facade less concerned than the previous one" (Monteys & Fuertes, 1998, p. 20). The complexity of possessing this accentuated duality makes the MITRE take on great importance for reflecting on the artifices, objects and folds that are shown in the expressive value of the skin of these five facades to be compared.

Why singular, monumental or particular?

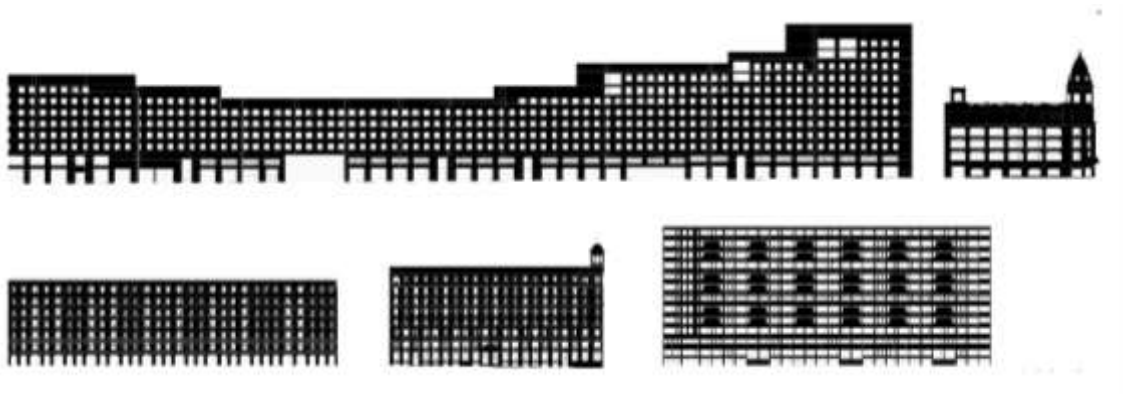
One of the first things that the five case studies have in common is the description given by their authors or by critics, as they are considered monumental buildings. However, this unique way of classifying them does not refer to a simplification of the style of their

architecture. In the words of Oriol Bohigas (cited in Redondo & Moya, 2015), “monumental architecture has always participated in the symbolic order of the city and in its physical configuration. Despite being programmed based on certain functions, they are primarily objects to be contemplated and to add to the representation of the urban breath.”

This architecture has clear gestures of representing a preponderant role, they are isolated objects that are different from their surroundings, they define the weight and delimit the character of magnitude that they have towards the city (Prous & Garrido, 2018). The brief and precise descriptions in the case studies aim to situate and give them a sense of belonging based on their role in the city. It is evident that in addition to possessing particular compositional identities in their configuration, these facades form an important part of the urban influence of the city.

Figure 3

Case studies, categorization that starts from the singularity of a fold to the complexity of the interstices, drawn at the same scale



At this point, it is worth asking how these facades can be delimited. To measure an object, the shape of things is not important, what matters more is the shape between things. For example, a building like L'ILLA next to the others makes them appear as they really are; the scale, their scope and their gestures express the true dimension of these buildings. Thus, by the weight of their scope and the scale they have in the city, these five facades acquire a first approximation, devoid of any external value judgment, and establish a first categorization that starts from the singularity of a fold to the complexity of the interstices.

How is a Facade composed?

The composition of a façade has elements of undeniable interest that should be reflected upon, however, it is first necessary to understand the form and meaning in which they are

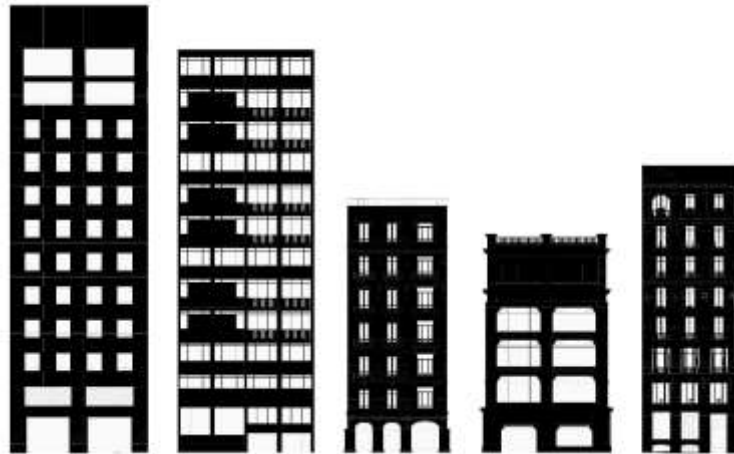
arranged. The five objects that concern us, despite resolving analogous situations, are a priori made up of similar elements deployed in a different way. From an abstract perspective, we could simplify their arrangement through a canvas and the reliefs that project its volumes. A transversal perspective would lead us to imagine the simple idea of the play of openings and solids between the façade plane and its windows.

However, only after having observed all the cases in isolation, under a brief and precise description, can one begin to balance the complexities to be compared. In this way, the need arises to identify the objects as they really are, each one has its own name and identity and must be recognized as such. One cannot reflect on the singular, but rather understand the elemental. The detailed investigation of the elements that make up each façade establishes connections and relationships between each and every one of them. In this sense, a first tripartite disposition can be stated that articulates the façade through: a base, the development and a crowning (Villazón, 2007). Three parts that, in addition to maintaining intrinsic and complex relationships between them, transmit one by one the intentions of their architecture.

Just as the first approach, reviewed in figure 1, established an open view at the scale of all the facades, now it is necessary to propose an in-depth analysis, so it is proposed to appreciate specific parts of each one of them projected in modules lacking the ability to express the scope of their length, but within the same dimension that helps to complement the fragmentation of the bodies and the reflection of their internal and external qualities. However, in many cases these intentions are not always evident and can only be identified by going deeper, both in the graphic analysis and in the collection of information relevant to their history, design and construction, so, in figure 4 a horizontal view is projected, ordered according to its contemporaneity, which gives an inaugural reflection of its complexities.

Figure 4

Categorization by contemporaneity and scale of the modules of the five facades. From left to right: L'illa Diagonal, Edificio Mitre, Casa Almirall, Can Jorba, Compañía



Arrendataria de Tabacos

Results

Basement

The foundation of the building is eloquently expressed, seen from a formal perspective it is mainly intended to resolve the support of the façade, it is also the part that cuts with the street and traces the footprint of the building where one walks, that route that is part of the urban experiences. The alignment with the sidewalk and road in each case is different, the incomings and outgoings of the façade planes configure an intermediate space as a result of the transition between the internal and external, this place, according to the function and conditions of the project, is capable of developing its own urban podium.

However, it is necessary to understand that the street is not completely straight by topography, it has a slope that, for considerable lengths, establishes conditions for the design of a façade. The vertical elevation of the base in the objects of study has a peculiar mission, it is responsible for resolving the inclination of the horizontal plane of implementation. In the first case, the extensive length of the main face of the L'ILLA Diagonal, 349.83m to be exact, generates a difference in level of 2.72m between the two main corners of the building.(Cecilia & Levene, 2005).The setback of volumes, as described above, provides the effect of broken blocks that helps, through the management of depth, to solve the inclination of the overall perspective of the building. The authors' purpose in covering the two ground floors with black African granite, in addition to accentuating the solidity of the building, configures and traces the horizontal line that differentiates the base from the other two parts in the tripartite composition. Repetitive pieces of 1.30m base by 0.80m height are established with two different finishes, a matte

finish for the upper parts and a satin tone for the lower parts, thus achieving a successful continuity of the reflection of the glass in the shop windows.

In a similar way, the plinth of the TABAQUERÍA resolves the slope of the Via Layetana and also configures the projection of the subsoil. The rectangular base of the pedestal on the recessed pilasters increases its height as the slope requires it, however, the moment it meets the turn towards Calle Joan Massana, the base again reduces its height and begins to increase again to overcome the new slope of the road. In this way, the listel moulding of the plinth always maintains the same horizontal alignment that allows the two remaining bodies of the façade to be articulated on a straight axis. This attitude is closely related to the LILLA Diagonal where the steel plates of the plinth, in addition to anchoring and tightening the travertine plates to the supporting structure, hierarchize a horizontal axis that reduces its height as each volume is set back, a gesture that is almost imperceptible when walking along its road, but which undoubtedly forms a transcendental part in the solution of the slope.

The street facing CAN JORBA, as in previous cases, the slope of the main façade is resolved by gradually increasing the height of the base of the pillars, managing to maintain the same horizontal level in its moulding. The base is given a higher status by occupying the entire ground floor of the commercial building, separating and serving as support for the second body of the façade. The pillars initially had perforations in the form of a semicircular arch, acting as small shop windows, while today they are flat and end in an architrave with a cornice of webbing and sober dentilled mouldings.

The influence of Miesian and Bauhaus-style rationalism in Barba Corsini's design was key in the development and execution of the MITRE building (Cecilia & Levene, 2005). The ingenious solution of subdividing the ground floor into a mezzanine and basement, in addition to hierarchizing a horizontal regulating level, configures a symmetrical vertical axis between the two parallel blocks. Its exposed structure of massive concrete beams and columns painted black allows us to appreciate the handling of heights in the basement floors that help to solve the difference in level between its two streets. The widening of the sidewalks at the main entrance is a key strategy to facilitate access with stairs that overcome the difference in level between the entrance and the mezzanine floor. The concrete slab and the perpendicular walls that border the main façade form a large U finished in white stoneware. This body extends the plane of the façade and the structural system, which allows it to act as a dividing plane between the bodies of the façade.

In this instance, the intimate relationship between the work of Moneo & Solà-Morales and that of Barba Corsini is evident; the tone of the foundations operates in a contradictory way with the rest of the parts that make up the façade. A dark tone allows for the development of a clearer and purer composition in the upper parts. The scale of the LILLA makes the notion of strategy necessary; seeing the building from the street and

not from the front, provides the logical meaning and value to the setback in the façade planes (Ferrer, 2017).

The plinth, which a priori is just another element of the repertoire, begins to take on a particular value, although its plane of action is the lower part of the façade, it greatly helps in levelling the base. Guàrdia Vial establishes maximum care in the more than 100m of the main façade where the difference in height goes almost unnoticed, however, the porticos are projected with rectangular Tuscan-style pilasters recessed into the façade plane; large balcony corbels, smooth friezes, and mixed cornices accompany the ornamentation of this first block. A long continuous balcony, supported on these porticos, manages to hierarchize and accentuate the horizontality of the project, this last element acquires the distinguishing feature between the first two bodies of the façade.

However, the original aesthetics of CAN JORBA, inaugurated in the second phase of its construction in 1932, presents a base that takes on a more neutral air; the rhythm that Calvet combines between the ground floor and the initial shop windows has a great influence on the classicist style linked to the French architecture of the time. In the second rehabilitation carried out by the Carlos Bassó studio in 1998, a particular situation stands out; the base is restored while preserving the original tone; on the contrary, the brown colour is used on the upper floors to plaster the more neutral architectural elements, managing to highlight the decorative exquisiteness that extends from its large windows.

For their part, the CASAS ALMIRALL and the COMPAÑÍA DE TABACOS project the stone trusses in their pure state along their base. In the first case, the entire ground floor forms the base of the façade, the entrances and large windows are resolved with the use of a basket-shaped arch that interacts with the rhythm of its radii, in addition to varying the light between the porticos, the shorter arch is decorated with a central voussoir that differentiates it from the larger one. In the second case, the base is gradually perforated until it becomes the windows of the rear façade, again the resource of the basket-shaped arch is used by Guàrdia Vial to support these openings.

Only after having contrasted and reached a first approximation of the five bases in isolation, the clear intention that they have to differentiate themselves from the rest of the body is understood. They are presented with greater sobriety in relation to the upper parts, the use of textures, tones and the difference in height are indispensable strategies to establish the building firmly. This first body that makes up the façade is not always delimited by the ground floor, the mezzanine or the basement of the building, what is clear is that it always has an intention to clarify the place where the building is born and rests.

Development

From a transversal perspective, this second body acts as a central entity that occupies the largest fraction of the façade plane. The unique scale of the objects of study in this research gives rise to the need to think of the module as a way of seeing and interpreting the complex propositional character of its authors. In addition to being adopted as an element of measurement, the module shows the intrinsic nature of repetition as abstraction and compositional clarity. Similarly, the sense of approaching this element aims to reflect on the interstices between objects that make up the thickness and are located along the façade. This variant on a personal conception draws particular features that can be defined as the author's own handwriting.

In the case of L'ILLA Diagonal, one of the most important formal modules is the intentional perforation of equal dimensions on the façade wall. The 2.00m x 2.40m of these openings help to regulate the mass of the building as something anonymous and solid towards the city. As Lluís Tobella (2002) explains in his doctoral thesis “L'ILLA Diagonal de Barcelona. Anàlisi de qüestions del projecte”, the quality response that this building wants to give in relation to the attributes of the site goes through the design decisions on the window and the façade cladding. The French style single-leaf casement window is set back from the façade plane, thereby increasing the clarity of the depth. However, the railing, made of 60mm x 5mm stainless steel plates, is arranged in a coplanar configuration flush with the outer face of the jambs.

The brick masonry is covered with four-centimeter-thick Roman travertine slabs that maintain the same general direction of the project and are arranged through a modulated grid. The subdivision is visualized at a general level in a 0.60m x 1.30m grid for the slabs between the window sill and lintel, while for the separation between the jambs, 0.60m x 0.95m pieces are established. To frame the gap, the façade is divided into pieces with a system of joints that vary their separation between 1.5cm and 0.6cm, thus defining coherence by hierarchizing and coinciding the thickest horizontal joint line with the upper limit of the window sill slab. The strategy of separating the cladding slabs is arranged along the other set-back façade planes. The compositional order between the void occupied by the window and the elaborate proposal in the use of travertine resolve the body of the façade in a compact and continuous way, “the folds in the setbacks align with the blind panels as if these movements of the façade plane were produced by the extraction of its parts” (Tobella, 2002, p. 111).

A similar arrangement is adopted by the architecture of Barba Corsini (2006), with the MITRE the body of the façade has a modulation resolved mainly by the carpentry and the glass of the windows, the combination and contrasts between the transparent and bluish semi-tempered glass composed of two shades of blue, in addition to the white stoneware in the masonry panels, are hierarchized and ordered by the black grid of the aluminum carpentry and the structural iron plates. On this plane elements with a character of artifice

are tested, some floors have balconies and others do not, this in addition to tracing relief, generates a game of limits of intimacy in the façade emphasized even more in the way in which the railings of the terraces are resolved, small slats of fiber cement very close to each other allow a clear view from the inside and prevent the external view. This covering made up of separate elements expresses a different condition, the plane of the balcony folds and is extracted from the façade, acquiring the form of a volume, and at this point it is worth remembering the words of Le Corbusier (1920, cited in Vásquez, 2010) "architecture is the wise, correct and magnificent game of volumes under light (...)", which put into context and justify the strategies of generating depth and relief on the faces of the building.

In the case of CAN JORBA, the development of its main elevation is resolved with an exquisite decoration articulated by six vertical sections delimited by composite-order boxed pilasters. The extension of the columns allows it to acquire a colossal sense by occupying three of the six levels of the building. The particular magnitude of the pedestal makes it appear as a volume that protrudes one metre from the façade plane, its plinth rises above the cornice of the base and is finished with concave mouldings crowned with a bead that give rise to the net. The front face of this last element encloses with a carved moulding a surface in bas-reliefs where the still original and preserved lamps forged with great metallurgical work are centred, a concave mixtilinear cornice with a double bead moulding, accompanied by ovolo mouldings in its lower part, define the upper part of the pedestal. A rectangular base supports the Attic base of the column, which is surrounded by various mouldings typical of its order. A slightly raised apophyx begins the shaft, which is decorated with flutes and fillets, over a pronounced entasis on the column. A large, small bell-shaped capital composed of two Corinthian acanthus leaves with four volutes arranged diagonally crowns the middle body of the pilaster.

A sober architrave arranged with three imposts is completed with a stepped fillet that separates it from the frieze, which is decorated with a rectangular shape in bas-reliefs bordered by a concave listel moulding. The entablature, which, in addition to formally supporting the crown of the building, establishes the boundary between the remaining bodies of the elevation, a long cornice of webbing with mouldings of ovolo and denticles protrudes markedly from the plane of the façade. The impost slab, an element that separates the three openings in each vertical section, is finished off with a thin stepped cornice with oval mouldings. The central plane of this block encloses a rectangular row bordered by a listel moulding that contains, as in previous parts, bas-reliefs. Two concrete jambs form a stage for the large glass windows that were initially completely transparent to connect the building with the street, but which now appear as reflective surfaces of the exterior buildings. A large convex and carved moulding that culminates in a nacelle acts as a parapet for the windows on the first upper floor; on this rest two large stone vases, each one with a rectangular shape. one under the jambs. Finally, the thin thickness of the

black painted aluminium carpentry divides each window in the elevation into three columns and two rows. The dimensions are equidistant, each portico takes on the role of a super module that is repeated symmetrically along the façade.

The last two developments to be investigated, both works by Guàrdia Vial, are closely related to the composition of CAN JORBA. The extension of the façades is resolved with a large vertical module formed by several elements that are also delimited by boxed pilasters, however, the formal gesture in each of them is different. The marked French style in the second body of the CASAS ALMIRALL is initially configured through a long balustraded balcony that extends along all the façades facing the street. A second part contains five horizontal levels clearly defined by the play between railings and doors like galleries, which finally give rise to a large cornice of webbing that acts as a volume like a stylobate for the final body that crowns the building.

On the first floor, in front of the pillars, there is a Tuscan column with its smooth elements lacking any ornamentation other than that of its own mouldings. The body of the column, with the traditional shaft with entasis of its order, is presented in its entire section, unlike the pedestal and the entablature, which, being recessed in the pillars, only show three of their four faces. The three elements that a priori make up the pedestal, both the base, the dado and the cornice, in addition to being the body on which the column is raised, also function as the pilaster itself that articulates the aforementioned balcony in sections. A cut of a quarter of a circle connects the guide section, which is mainly horizontal and parallel to the plane of the façade, with the plinth and cornice of the pedestal. This articulation provides two ways of understanding the balcony, defined between its own pillars or interpreted as a gallery running along the façade.

On the same vertical axis at the level of the fifth floor, an ornate concrete corbel supports a sober pedestal of reduced height that holds a second Tuscan column. In both pillars, the mouldings at the base of the column, its capital, the architrave and the frieze have identical proportions, unlike the cornices which, despite having similar bed mouldings, express two different finishes at the top of their entablatures. The first one continues the frieze with a classic cornice with a right quarter-round between two fillets, the second one ends its pillar with a cornice moulding with denticles. However, on both entablatures rests an impost that, in the lower part continues the path of recesses and projections produced by the balconies, while in the upper part the cantilever unfolds as a rectilinear volume.

The work of the entasis in the column shafts is a special case, the author tries to give the same effect of convexity despite the clear difference in their heights. It is also worth mentioning that, although the pilasters only have twelve centimetres of relief, they have a different tone to the masonry, which allows them to assume their own identity in the composition of the façade plan. The different radii that make up the two types of arch in the porticos of the basement form two vertical sections developed in a similar way, small

cantilevered slabs, railings and a balcony door for each floor level are reproduced harmoniously along the central axis in both spaces. On the other hand, in the longer sections the design of the carpentry, cover strips and certain railings changes noticeably. Two smooth boxed pilasters with a pedestal at the same height as the base of the continuous balcony form a second doorway for a new type of three folding and hinged door. An architrave placed on the Tuscan capital precedes a balcony corbel with a width proportional to that of its pilaster.

Francesc Guàrdia Vial uses a similar compositional system in the TABAQUERÍA building, although it was built eleven years before the previous case, the façade is also resolved by a large vertical section delimited by consecutively reproduced pilasters. However, the elevation presents a much more ornate and delicate layout in contrast to the CASAS ALMIRALL, the classical elements increase their reliefs and thickness. Two continuous balconies surround the three streets that face the building and frame the floors where the highest-ranking offices were located. The extensive vertical street, which resolves the design of the elevation, extends through eight formally different levels, as do the pilasters, which are also expressed in different configurations.

On the first two levels, a rectangular boxed pilaster stands out in great dimensions from the façade plane, two large elongated stone corbels delimit and support the overhang of the first balcony. On both levels, a French-style lintelled arch articulates the opening where two models of windows of different heights fit, but with the same composition, a central fixed panel and two rotating glass leaves with a vertical axis. The one closest to the street is completely protected with a metal structure forged with a set of ornamental rods moulded with organic shapes and placed on the 0.40m of parapet with respect to the internal level. Above the lintel of the first window stands out a rectangular volume that precedes a fine cornice of mixed mouldings, while, in the upper part, on the central axis of the light between pilaster strips, a corbel of the same shape as the adjoining ones is placed, but of a height similar to that of the lintel.

On the successive levels, the second, third and fourth upper floors, a new type of pilaster is conceived that also delimits the vertical sections. A large classical column rises on a pedestal, which corresponds to the height of the first continuous balcony and ends under the cantilevered slab of the second, next to an entablature decorated with a denticulated girth cornice. The two tori, the scotia and the fillets on the Attic base, present considerable dimensions and stylised proportions, as do the concave sides of the abacus and the acanthus leaves on the capital. The veins in the texture that cover the lightly entased shaft coincide with those of the rustication and project as fine horizontal lines, unlike the marked sunken joints in the stones that cover the pilasters on the ground floors, where the relief of the elevation is even more accentuated. It should be noted that, as the base, the

shaft and the capital are fitted into the façade, they only have half of their section, unlike the columns in the CASAS ALMIRALL which are established with their entire body.

A unique moment appears at the level of the fifth and sixth floors, where the addition of pilasters is avoided in favour of large ornamental vases supported on a pedestal, which, like the previous cases, also separates the balustrade sections. Meanwhile, on the last level, also conceived as part of the crowning of the façade, rectangular pillars with Tuscan capitals, enriched stone jambs and low relief planes are arranged, which together articulate a large gallery-like corridor. Not all of them are joined with a horizontal header; some are extended by the very shape of their pediment.

At the level of the first continuous balcony there are two columns with pronounced entasis and Ionic capitals under a thin lintel with a mixtilinear cornice, separated from the jambs of the opening and flush with the plane of the façade. Continuing the vertical projection, a large balcony corbel of organic character helps to support the cantilever of the slab, in the form of an arch, which stands out like a predominant volume and articulates the balustrade of the next level. The latter exhibits a triangular pediment with historiated elements that is supported by two boxed pilasters with Tuscan capitals, and is decorated with a frieze, mouldings with ovos and darts in the architrave, as well as fine mixtilinear cornices above the lintel. On the upper floor, a pediment with scrolls and volutes without a base frames the opening for the two leaves of a door whose upper post is not straight, but continuous with the shape of the pediment, an ornamental decoration typical of a classical door. Part of the triangular body of the lower pediment accompanies a delicate metal railing that serves as protection.

The last three levels have a different plasticity, two rectangular pillars with Tuscan capitals, recessed into the plane of the façade, guide the vertical axes where two balcony corbels are added for a slab that now has a rectangular overhang. A new metalwork moulded with organic shapes serves as a fine railing that differentiates it from the others. Two pillars of the same section as the previous one, enriched with Ionic capitals and smooth corbels, give rise to an entablature with a wide frieze, which supports a semicircular pediment with a tympanum of floral motifs, accompanied by a vase-type baluster on each side. The body that precedes the pediment's top is formed by two concave faces that frame the face of a classicist sculpture.

Auction

The upper perception, seen in a transversal way, announces the final touch of the façade, the crowning is a stylized work, comparable to a last brushstroke, which makes a façade unique in relation to the adjacent exterior. It is not only the last element or the final plan, it is the part that expresses, differentiates and concretizes the development of the façade (Donaire, 2015). We understand the basement as the support and at the same time the

dissociation of the building from the street, which, in turn, supports the second plane of action with that play of volumes and reliefs perceptible in its elevation and the experience when walking its sidewalk. In this way, the scope of these five case studies configures crowns where their particular height, when placed next to the basement, does not allow us to appreciate what happens at its top. The alignment of the volumes, galleries, tribunes, pilasters, etc., play a fundamental role together with the perspective and the visual distance, this effect leads us to experience the façade when we walk as far as possible.

Consequently, the setback of the plans in the L'ILLA is an adequate complexity to begin to investigate the crowns. Approaching a set of this dimension makes the notion of strategy necessary, as Moneo (2010) reminds us: “a project like this must be adopted and express the length of its place, be an architecture capable of making a city.”(p. 227). And one strategy that achieves this is to fragment and set back the volumes, achieving an elemental, rich and varied vision that takes this façade out of monotony. The image of the building was entrusted to the perforated opening, however, the rhythm that makes up the façade deliberately cancels it out when it reaches its top.

The Roman travertine slabs that cover the horizontal panels between the lintel and the sill of each window are generally three sheets in the overall composition, however, before the moment when each of the facade planes reaches its end, they increase in number and extend along the entire upper plane, even forming part of the variable depth of the setback ((from Teresa, 2020).If the base opened the façade to the street, the crowning provides a clear contrast to the use of openings, thus emphasizing that the façade closes at this point.

The ten levels in the development body of the MITRE building concentrate all the movement towards the centre of the façade. It is framed like a canvas by the curtain walls that compose it. At the same time, the lateral screen walls, the overhang of the upper eaves and the concrete slab that separates the building from the base, are associated and act together as the frame that collects the façade. This formal sobriety, very refined and assimilated, sections and at the same time relates the crowning with the development of the building (Martínez et al., 2015). The thickness of the roof slab should not be assimilated as the only final touch of the composition; it is the total perception that crowns the building. From the beginning, the façade has a rectangular shape with very visible edges, contrasted even with white stoneware, which contain the entire arrangement of the elements that compose it.

The excessive gestures of these two crowns, which at first glance seem to be resolved with very little, contrast intensely with the provisions that articulate the classical case studies, despite continuing to establish marked relationships between them all. Those vertical sections assimilated as large repetitive modules configure a body of their own that differs greatly from the block that culminates its façade. The composition of CAN JORBA provides large openings surrounded and framed by exquisite classical elements,

a fairly open and transparent expression, which, as in L'ILLA DIAGONAL, configures a solid strategy to delimit the canvas of the elevation. The upper balustrade and the top floor, which in the past was a large garden terrace that once housed a mini zoo, establish the width of the plane where the crown is displayed.

The large openings of the façade are confronted by a closed upper block, which, despite displaying an ornamentation in keeping with and related to the rest of the façade, establishes a solid form, generating its limit. Above the long cornice of webbing, which defined the second body of the elevation, a rectangular pilaster rests on each of the vertical axes. Its pedestal extends between them and serves as support for a colonnade of fine Tuscan pilaster sections, which originally gave rise to a gallery, but which, in one of the various restorations it underwent, was fitted with a solid vertical wall at the back, configuring the current hermetic façade plane. A new cornice of webbing projects large pedestals that delimit the sections of the final balustrade. The separation of the balusters develops a small game of openings and solids, a similar and very unique arrangement that will also be appreciated in the two works of the Catalan Guàrdia Vial. Finally, bas-reliefs on the pilasters and entablatures, as well as large floral vases, make up the original crowning designed by Calvet.

The clear French influence on the three less contemporary façades projects a finish that, although it converses the elements that developed its lower bodies, tends to present its third part with an intention of distinction. In the CASAS ALMIRALL, the crowning is resolved occupying the sixth and last floor of the building. However, as previously reflected, there are two vertical sections that differ in the radii of the arches that make up the porticos of the base. Both modules are finished with a balcony door, of the same size and type as that of its ground floors, framed in two types of ornate pediments. In the interval with less light there is a triangular pediment with a history, while in the largest there is a semicircular pediment with a tympanum decorated with floral motifs, at the same time, they share the same type of decorated concrete corbel.

The pediments, like the door jambs, are articulated vertically outside the plane of the façade, which now slopes and is covered with dark blue tiled sheets, a gesture that reminds us of the classic mansards of Parisian neighbourhoods. A long continuous balcony accompanies the top of the building, with the same characteristics as the one that separated the base and the development, together with stone vases and cornices previously tested along the façade. To crown the elevation, a final element is established at the top, the sculptural metalwork captured in a thin railing of floral compositions acts as a diadem and borders the three main faces of the building.

In the same way, the strategy to resolve the top of the façade of the TOBACCO SHOP, starts by differentiating its last level by conversing in its design the elements that make up its development. As we had stated lines above, the corridor that is formed on the last

level has an intrinsic relationship between the crown and the development of the elevation, it is not a body that can be isolated like the mansards of the ALMIRALL HOUSES, it always coexists in duality. The façade plane is set back and gives way to a corridor, this is framed by small elements that, although they have not been previously arranged on the canvas, continue to form part of the classical repertoire, such as, for example; the fine stylized corbels or the bas-reliefs in the central part of the rectangular pilasters. The semicircular pediment, in addition to forming part of the frame of the lower balcony, also acts as the protective railing along the corridor.

However, there is a small final body that could be isolated, but not classified as the only finishing touch to the façade. A clean frieze entablature, a cornice of serrated webbing and stylized wooden eaves, which remind us of the old Roman modillions, complement the plaster of the ceiling and the dark tone of the tile arranged on an inclined plane, managing to articulate a small roof and project it as the volume that most protrudes from the plane of the façade. A gesture that completely finishes the vertical sections, and which also has a close relationship with the classical orders that helped in the complex composition of the façade.

Discussion

The formal, detailed and precise approach is necessary for a correct conception of the composition of the façades. Projecting each element and recognizing it as it really is, allowed us to understand the complex arrangement that orders them. However, despite the great differences with which they coexist, compositional links are established between them and between the architecture they structure. By fragmenting the three parts of the façade and representing them in isolation, a perspective comes to light that, while allowing us to imagine each body independently, at the same time leads us to conceive them as a whole, where the close relationship that exists between the tripartite composition of each case is ratified.

The internal laws that articulate the facades catalogue and order many of the singularities that they seek to express, one in front of the other they speak to each other and give guidelines on how they are displayed. In the five case studies there are volumes expressed in different ways, the thickness of the setback in the planes of the L'ILLA is comparable with the interstice of the columns and corbels mounted in front of the boxed pilasters of the Guàrdia Vial works. In the same way, the extensive dimensions of the extruded elements of CAN JORBA work in the same way as the cantilever of the slabs and balconies of the MITRE building.

The confluence of architecture that houses a façade needs a body that delimits and frames it. Although the third part is responsible for completing the façade, it tends to project a layout very close to the development, with which it connects and establishes an almost

inseparable relationship, very difficult to isolate. Despite this, the crown is displayed in an expressive way and clearly responds to a circumstance of block and scale. In contrast to the base that had a close relationship with the sidewalks, this part adopts a very particular characteristic when it forms part of the urban route; the further away we go, the better we can appreciate it. The magnitude of the morphology of the crown generates moments in which it is impossible to appreciate it if we only stand on the ground floor or on the sidewalk in front; perceiving its perspective leads us to move away, as if it were really the canvas of a painting placed in a museum, in which there is a recommended distance to understand it.

Conclusions

- The thickness of each façade is different throughout its length, and the relationship with the exterior acts differently in each of them; in some cases it opens onto the street, in others the façade stops acting as an epidermis and becomes its own place, and at certain times it even acquires an intention to close itself off from the exterior. However, all of them form a key part of the composition of the city's architecture, giving identity and its own character to the street and its collective image.
- By simplifying the body of the façade into a few abstract elements, evidently worked on in depth and complexity by its authors, we can interpret features that reflect the formal origin of its composition. They can even be classified as more contemporary architecture with respect to the other three cases, however, the repetition of a module, which can be made up of several elements and not just refer to a single object, remains the axis of order in the arrangement of these elevations.
- The compositional expressiveness of the long, individual bodies of these façades allows us to reflect and understand the reason for their elements. They are not only resolved as protective walls or walls that differentiate the exterior from the interior; they acquire a complex character, the idea of the façade as a third space, a deep and material border between two worlds, the ground and the sky, which connect and at the same time limit the building.
- If the base opened the façade to the street, the development plays an exquisite game between composite elements that make up an arrangement through the rhythm, sequence, and proportion of the module, which in turn generates another super module that composes again, and finally, a crowning that provides a clear contrast to the use of openings, thus emphasizing that the façade closes at this point.

Conflict of interest

The authors declare no conflict of interest.

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