

## **Two neighbourhoods created in Barcelona in the 1950s: two models of a city, two models of society**

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At the end of the 1940s, the problem of housing in Barcelona became critical and required urgent action. As stated by Carme Rodríguez: “the inefficiency of the Franco regime’s policy with respect to the lack of housing was revealed by the uncontrolled rise in migration and ascertainment of the backwardness of the Spanish construction industry. The need to create forums for debate and reflection on the issue was soon felt in the architectural context, when interest in recovering pre-war models of dwellings arose. Simultaneously, there was an increase in information channels that transmitted what was being proposed in post-war Europe”<sup>1</sup>.

The debate involved different levels, as the problem was also complex. Discussions on the minimum-size dwelling, a subject that had already been tackled prior to the war, emerged. Due to the post-war economic situation, there were also relevant proposals from a technical and construction perspective designed to cut processes and costs, and to bring construction, which was very backward at the time in Spain, closer to industrialization processes. Finally, we should refer to the debate on the model of the city and its structure. The proposal was to replace perimeter blocks with individual buildings separated by open spaces. In this context, and significantly for this study, a form of “Catholicism in action” began to take shape that was committed to resolving the housing problem and its social impacts.<sup>2</sup>

The Congrés Eucarístic and Trinitat Nova neighbourhoods are positioned in the middle of these debates, and both reflect some of these issues, according to the purpose of the neighbourhood and the objective that pervades it. The end result in both neighbourhoods is affected by the stress placed on one or other aspect of the debate.

### **The Congrés Eucarístic neighbourhood, 1952-1962**

The Congrés Eucarístic (1952-1962) neighbourhood of Barcelona reflects a general approach to a new neighbourhood that touches on many of the proposals that were discussed at the time in political and architectural spheres, including the role of the Catholic Church, which had close ties with the regime. The name of the neighbourhood was chosen to keep the memory of an important event for Barcelona alive: the thirty-fifth International Eucharistic Congress, held in 1952.

Congrés Eucarístic was designed as a model neighbourhood from a moral and social perspective. The initiative for its creation came from the then Bishop of Barcelona (Gregorio Modrego, 1890-1972), who encouraged the well-to-do to get involved in the creation of dwellings, as he considered housing to be an

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<sup>1</sup> Rodríguez, Carmen: “1949: la consciencia pública del problema de l’habitatge” a *Les Vivendes del Congrés Eucarístic de Barcelona, 1952-1962*. 2011. Edicions UPC

<sup>2</sup>Ibidem

element that promoted integration and social control. The sermon that best reflects this idea is *Habitación, pan y trabajo* (Housing, bread and work), in which he relates immorality to a lack of housing. Modrego's proposal was part of a series of actions that were to be carried out in different areas of the ecclesiastic sector. The Congr s Eucar stico neighbourhood was an experimental design that aspired to be a model, created as an example of social order and catholic moral in the city.

The creators of the plan for the Congr s Eucar stico neighbourhood were Josep Soteras Mauri, Carlos Marqu s Maristany and Antonio Pineda Gualba. Soteras was a very important architect in Barcelona at the time. He was director of urban development in Barcelona City Council and very close to the political regime, which enabled him to participate in numerous plans and events. One of the events he participated in directly was World Urbanism Day, held in Barcelona on 8 November 1950. Discussion on the model of an open urban block formed part of this event. At the time, in some professional sectors, the model of a perimeter block was being questioned, as it was considered a way of enclosing and increasing the density of the city, making it less inhabitable. Some professionals supported arguments related to the rationalist city, and proposed abandoning the perimeter block. This dilemma is perfectly reflected in the development of plans for the Congr s Eucar stico neighbourhood. The initial proposal for an independent block in 1952 evolved into the mixed solution that was finally built, with a combination of high apartment blocks and perimeter blocks, so that there was no clear break from the existing city.

The Congr s Eucar stico neighbourhood was built on farmland belonging to the Can Ros estate, which was between two urban areas of the city that had been developed since the start of the twentieth century: Garcilaso and Fabra i Puig. The design that was eventually built shows, in some cases, a desire to achieve greater variety and a certain degree of proximity to the closest or most common urban fabric in Barcelona than was seen in the original proposal. The short amount of time between the original proposal in 1952 and the successive presentation of plans for the buildings that would be built, as well as the control that Josep Soteras was seen to have over all levels of definition of the complex, indicate that the process of transformation of the original proposal was probably accompanied by a debate on the most appropriate way to introduce a large residential complex in a consolidated urban area.

The plan had a clear grid structure, with a square in the centre. It was strongly marked by its size and by the layout of the buildings, particularly the four towers with a cross-shaped ground plan, situated in the corners of the square. The focus of the square would be a church, which was constructed years later. Carrer de Felip II street was defined as the axis of the new neighbourhood, reinforced with three blocks of residential buildings on the western side of the street that were very long, so that the architectural unity of the complex was maintained on both sides. The layout of the buildings in the different urban blocks combined open and perimeter designs, which enabled facilities and services to be defined.

The overall organization of the Congrés Eucarístic neighbourhood and the final configuration of most of the blocks in this complex are reminiscent of some of the reconstruction operations carried out in Europe after the Second World War (for example, Le Havre designed by Perret); Ina-Casa actions undertaken in Italy at the same time as the neighbourhood in Barcelona was being built; and the interventions that the socialist city council of Vienna implemented between 1919 and 1933<sup>3</sup>. The Congrés Eucarístic neighbourhood could therefore refer to models with a clear urban intention and a noticeable desire to create residential units that seem to shy away from a linear distribution of apartment buildings on open urban blocks.

The dwellings themselves mainly reflected types based on rationalist experiences that, as we have seen, were the subject of lively debate on architecture in Barcelona at the time. A basic principle governed the entire operation of designing the dwellings: all of them would open onto two façades, in other words, they would have cross ventilation. The best distribution to achieve this is that of a linear block, with access stairs and two dwellings per landing. More economical distributions that take advantage of the stairs to include more dwellings per landing were rejected, as these would not have had cross ventilation.

The proposed layout follows criteria of clear separation into day and night zones. Although the size of the dwellings varies from 55 m<sup>2</sup>, 85-90 m<sup>2</sup> and 100 m<sup>2</sup>, in most cases the kitchen and dining room are situated on one side, and the bedrooms and bathroom on the other. The zones were separated by a hall or corridor. In terms of fixtures and fittings, all the dwellings had a generous-sized kitchen, a gallery off the kitchen, and a shower in the bathroom, which was quite unusual in Barcelona in the 1950s. In addition, the water and electricity systems included features that were not often found at that time in social housing, which show a clear desire to differentiate this neighbourhood from other initiatives of the time.

The façades were treated in different ways: some were solid with window openings; others were more transparent with terraces, depending on whether they were oriented to the north or the south. Generally, a comparison of the initial plans that were drawn up and those of the buildings that were constructed shows that the use of the space was increased to provide more dwellings.

Finally, we should refer to technical aspects to examine how this neighbourhood fits in with the debate on technological backwardness in the construction sector. The construction techniques used to build the dwellings in the Congrés were based on established technological strategies. Although it is true that some aspects of construction technique had advanced intermittently, in general, the sector mainly drew on construction tradition. Builders' work continued to follow a solid tradition based on labourers with traditional skills, and materials that were cheap to obtain and produce, basically, bricks and lime. The technology of reinforced concrete was known, experimented with, and basically used in public works, but only infrequently in buildings. In the case of the Congrés

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<sup>3</sup> Hereu, Pere: "Els habitatges a les Vivendes del Congrés Eucarístic" a *les Vivendes del Congrés Eucarístic de Barcelona. 1952-1962*. Edicions UPC, 2011

neighbourhood, with the exception of the tower blocks in the square, reinforced concrete was only used in some elements such as pillars, concrete purlins, lintels and corbels, which were integrated into the traditional construction. Only some prefabricated elements were used, such as self-resistant girders in roofs, steps and windowsills. In short, the technological scenario was one in which the continuity of construction tradition was fostered, although with a degree of optimization and the introduction of some novelties.

From a general perspective, the various plans indicated that the “type of construction shall be one that is common in the city, in its outskirts, commonly known as a good construction, using good quality materials with efficient labourers”<sup>4</sup>. To sum up, apart from the exceptional nature of the four tower blocks built with a reinforced concrete structure, we could say that the construction was traditional and basic, enhanced by some individual innovative elements.

### **The Trinitat Nova residential estate, Barcelona 1953-1963**

The Trinitat Nova housing development was started in 1953 with a very different objective to that of the Congrés Eucarístic neighbourhood. Trinitat Nova was designed to take in families that had recently arrived in Barcelona and others from areas of shacks. In this case, the intention was not to create a model neighbourhood according to the moral of the time, but to construct a place to contain mass housing. We could state, as we will explain below, that due to the location, size and distribution of this housing development it was a precedent for those that would be built at the end of the 1950s and particularly in the 1960s and 1970s.

Trinitat Nova is situated on the outskirts of Barcelona, on the lower slopes of the Sierra de Collserola range. The land has a steep gradient and is close to the banks of the River Besós. For decades (until the ring roads were created in 1992), it was separated from the city by a gap in the urban fabric occupied by high voltage electricity pylons. It is a large housing development: the total area is around 37 hectares, in which 3367 dwellings were situated. It was built in several stages: the plan for the first was completed in 1953; the last in 1973, although most of the development was built between 1953 and the end of the 1960s.

Three urban development entities were involved in the construction of Trinitat Nova that are essential to understanding the social housing of the period. They were: the *Patronat de l'Habitatge de Barcelona* (Barcelona Council for Housing) which was dependent on Barcelona City Council and which built 1076 dwellings, the *Instituto Nacional de la Vivienda* (National Housing Institute), which was responsible for 1137 dwellings, and the *Obra Sindical del Hogar* (Housing Union Association) which constructed 1154. The land for the

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<sup>4</sup> Paricio, Antoni: “Les Vivendes del Congrés Eucarístic: l'estat de la tècnica i les estratègies aplicades” a *les Vivendes del Congrés Eucarístic de Barcelona. 1952-1962*. Edicions UPC, 2011

construction of the housing development was ceded by Barcelona City Council. It had mainly been agricultural, and was bought from various owners in 1952.

Despite the complexity and the size of the housing development, Barcelona City Council did not propose the creation of a partial urban development plan until 1957. The aim was to legalize the urban development of the entire area, where some buildings had already been constructed and occupied. The drafting of the plan in the City Council was led by the architect Josep Soteras, who reviewed existing alignments to adapt the distribution of the urban blocks and the road network to the requirements of the building programme, and to fit in, as far as possible, with the topography of the land. The urban development plan was for a neighbourhood that would house around 17,500 people in large, open urban blocks containing independent buildings surrounded by green areas (green areas that would take decades to complete).

In this paper, we focus on buildings developed by the *Patronat de l'Habitatge de Barcelona* as, unlike those constructed by the other urban development entities, a very wide range of formal and technical solutions were applied, that reveal different approaches to residential buildings. We have already stated that Trinitat Nova was designed to meet a need for mass housing. Unlike the Congr s Eucar stic neighbourhood, the aim was not to create a model of its kind. Trinitat Nova was conceived as an isolated housing development, far from the city and organized into independent blocks. According to the argument set out at the start of this paper, we must now address two other issues that were the subject of debate at the time: the model of dwellings and how the development was tackled from the perspective of construction techniques.

The *Patronat* constructed the buildings in four stages, corresponding to 1953, 1959, 1963 and 1973. The *Patronat* buildings that are of particular interest to us are those built first and second, as in these two stages around 80% of the buildings developed by the *Patronat* were built. They are the most interesting stages in terms of form, and the most divergent in terms of construction aspects. Below, we describe the general characteristics of the buildings in the first stage, which were all the same, and of the two types of building in the second stage.

The buildings in the first stage, which were started in 1953, were comprised of a ground floor plus three upper floors. They were of different lengths (2, 4, 6 or 8 dwellings per landing), depending on their location in the urban block, the topography, and in order to create a varied neighbourhood with interstitial, categorized green spaces.

In each of the buildings, the dwellings were arranged in series alongside each other, and accessed from a shared exterior walkway. The stairs were situated in towers located at each end of the building (except in the case of buildings with two dwellings per floor, which only had one stairway). Given their size and finishing, the towers were defining, distinguishing features of the buildings. The dwellings were small at around 50 m<sup>2</sup>. Each one opened on to two fa ades. In the distribution of the floors, there was a clear aim to optimize communal spaces, to adapt the design to the demands of a minimum area. The layout of

the dwellings is highly compact, which means that the dining room is also the hall. The other rooms are accessed from this area, and there is no division into zones. The kitchen is integrated; the bathroom has minimum fixtures and fittings, with only a toilet and a washbasin in a 1.62 m<sup>2</sup> space, and is accessed from the central area in many cases. There are up to three bedrooms.

From the perspective of architecture and exterior space, these buildings and their distribution contained elements of quality. However, in terms of construction, the solutions were below minimum acceptable levels, and in many cases comprised a clear example of worsening of conventional brick construction. The construction approach was based on brick, but extreme solutions were used, which meant that there was no protection or insulation from the outside. From a structural perspective, these buildings had severe resistance and durability problems, to the extent that an intervention by the *Patronat* in the 1980s led to the demolition of these buildings.

In the second stage, which began in 1959, two types of buildings were constructed in the same urban block. On one side there were four buildings, each made up of two blocks in parallel with central stairways, and on the other side there was one linear building along the lower part of the urban block.

The buildings comprised of two parallel blocks each had four dwellings per floor, so that the two stairways provided access to two dwellings in each block. These blocks were formed from one space between supports, and each of the dwellings opened on to two façades: an exterior façade and the façade that faced the other block. As in the previous case, there was a clear intention to create buildings that had cross ventilation. In addition, the blocks were oriented to ensure a minimum number of hours of sun exposure in every dwelling every day.

These were extremely small flats, at under 39 m<sup>2</sup>. The layout of these dwellings included a dining room as the central area, two bedrooms, a kitchen and a bathroom. In this type of dwelling, the bathroom is separated from the dining/living room.

In these buildings, construction elements derived from traditional construction at the lowest levels of quality, for example the load-bearing and party walls, were used together with other solutions in which a certain degree of modernization of construction techniques can be glimpsed, as in the case of the slab floors, but always within acceptable limits.

The last of the buildings to be examined is a linear block situated in the same urban block as the above. It was comprised of a ground floor plus four upper floors and was very long at around 50 m, and 4 m deep. It was a very compact building, with no balconies or terraces, and very homogeneous. The same window design was repeated on both longitudinal façades. The only variation was in the openings for wet zones and on lateral façades. The building had five stairways, each providing access to 3 dwellings per landing (60 dwellings in total). Two of the dwellings on each landing were symmetrical, the other fitted in

between them. These were also very small dwellings of 40 or 45 m<sup>2</sup>, depending on whether they were one of the symmetrical units or the middle unit.

In this case, day and night zones are clearly separated in the dwellings. The two bedrooms and the bathroom are separated from the dining room and the entrance. The kitchen is open and has the same source of ventilation as the living room, which means that inhabitants cannot separate these two areas in the future.

The formal appearance of this building, as well as the specific organization of the dwellings, reveals its main characteristic: the construction system used to build it. It was made from prefabricated, reinforced concrete panels. The structure of the building was based on two longitudinal spaces between supports, created by façades of prefabricated concrete panels, and pillars and girders situated along the longitudinal axis.

### **Final considerations**

After this description of the main characteristics of the two neighbourhoods, it is interesting to examine how the debates described at the start of the paper affected each one.

Clearly, the approach behind each of the neighbourhoods determined its configuration and defined a model of city. The Congr s Eucar stic neighbourhood was conceived on the basis of the period's moral ideology and was integrated into the existing urban fabric using new, singular approaches, to achieve comparable results. In contrast, Trinitat Nova was developed to contain mass housing, which led to the construction of an isolated neighbourhood with no prejudgments. In other words, as the housing development was not associated with social and moral values, there were fewer formal criteria. The Trinitat Nova development reflected some of the issues that architects were discussing at the time in different forums. One forum was the Fifth National Assembly of Architects, at which housing was a central theme, and proposals included the model of the independent block and dwellings of 40 m<sup>2</sup> with one space between supports and 65 m<sup>2</sup> with two spaces. This solution was applied in practically all the buildings in the two stages in Trinitat Nova.

If we analyse how both neighbourhoods have developed over time, we can see that the Congr s Eucar stic neighbourhood has been incorporated fully and smoothly into the city's process of evolution, whilst maintaining its own appearance. In contrast, Trinitat Nova has always been isolated, with serious social problems. Even today, it is an area that requires special attention from public administrations. Consequently, it is perhaps relevant to ask whether the model of an isolated neighbourhood situated outside the existing urban fabric was a good solution for a city like Barcelona.

However, the difference in approach in the Congr s Eucar stic and Trinitat Nova neighbourhoods is not so evident in the model of the dwellings. In both neighbourhoods, the dwellings were based on rationalist experiences of the

1920s, although using very different standards. In Congr s Eucar stic, the dwellings were comfortable, with a standard number of rooms and functions; in Trinitat Nova a new model of minimum-sized dwelling was tried out, in which ventilation, sun exposure and minimum costs were compatible.

In any case, the dwellings in Congr s Eucar stic were more highly valued by society itself, regardless of their real estate value, because they were larger and their design was better adapted to the traditional families which made up most of the population of Barcelona in the latter half of the twentieth-century, with more bedrooms and a kitchen separate from the living/dining room. In the Trinitat Nova neighbourhood, the dwellings' design did not meet the demands of the six- or seven-person families that were the most common at the time.

From the perspective of construction, we also find a similar situation, but with very different criteria and priorities. Construction in Congr s Eucar stic was mainly based on traditional brickwork whose quality and execution were satisfactory. The work drew on a long tradition of Catalan construction. In contrast, the Trinitat Nova buildings show indications of a time of difficulty and technical contradictions. A situation of poverty led to construction solutions based on misappropriation of the traditional technique. The situation was not just that there was no access to innovation or new materials; traditional techniques were taken to the lowest possible levels. An effort was made to overcome this technical paucity using industrialized solutions. In Trinitat Nova, one apartment block was built using a prefabricated technique. This indicates that the option of prefabrication followed a slow and not always secure path that had not been consolidated, but did open up new perspectives.

A study of the Congr s Eucar stic and Trinitat Nova neighbourhoods today, almost sixty years after their construction, shows two neighbourhoods that have evolved in very different ways. Congr s Eucar stic is still practically intact and its urban, formal and construction values can be clearly perceived. However, in Trinitat Nova most of the buildings that were developed by the *Patronat* have been demolished. Although they had innovative urban and formal values, the construction was of very low quality, and they did not withstand the passing of time.

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