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Unités & Hybrids (1963-74). Three Basque exercises on linear residential blocks

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Abstract

The final result of an architectural experiment, especially in terms of public collective housing, not only responds to the will and creativity of the architects, and to the adoption of canonic models, but it also depends on the specific circumstances of the place where the housing was built. This work examines three residential blocks, built along the Basque coast, which reflect the influence of the main discourses related to linear residential blocks that prevailed in Western Europe in the 60s of the twentieth century. The three cases show the way in which architects, agents and local administrations tried to apply the architectural type in a certain place, and under specific economic and sociopolitical conditions. The article provides an innovative vision, as the authors decided to adopt a geographical framework that transcends the political framework of the time, considering the entire Basque area, where the different architectural discourses were deposited. The original projects of the three case studies have been consulted, as well as general and specific literature relating to each case. Further, a series of interviews were held with the architects responsible for two of the cases. From studying all the publicity around linear blocks carried out between the early 60s and the oil crisis (1974), the authors have obtained the sequence of influences under which these projects were developed.

Keywords: Modern Movement; public housing of the 60s; residential type; Basque studies

Citation

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1. Introduction

During the period between the end of the Second World War (1939-45) and the oil crisis (1974-77), there was a great boom in the field of European collective housing, as a result of the need to house a society in constant demographic, economic and social growth. There was one particular residential type, loaded with special complexity when articulating the homes together, that represented an interesting field of experimentation (Díaz *et al.*, 2019). These are the linear residential blocks, conceived as an alternative to towers of homes, and based on the more or less complex juxtaposition of a considerable number of homes. Unlike what happened with the tower, based on the repetition of the same floor, the interior organisation of linear blocks posed special difficulties in order to guarantee reasonable transit through the common elements, in terms of accessibility and impact on the arrangement of the homes. Indeed, the linear block required paths that sometimes took the form of a large interior corridor, and sometimes that of an exterior footbridge attached to the building.

Apart from the questions relating to the interior organisation, linear blocks were an attractive field where different architectural discourses were to be expressed. It was a field where the main European architects projected their own personal views, and where the ideological opening, which started to occur in the middle of the 50s within the Modern Movement, became evident, once the *Congrès Internationaux d'Architecture Moderne* (CIAM) entered into crisis, after holding its ninth edition (Bonillo *et al.*, 2006).

Thus, in response to the need to recompose the urban fabric during the first post-war years, and in order to house an increasing population in large cities, new proposals in the form of linear blocks were developed by acknowledged European architects. In 1948, after the Second World War, Le Corbusier proposed his first *Unité d'Habitation* in Marseille, which announced the start of French reconstruction. It was like a small town in itself, with its 337 homes and basic services (Sbriglio, 1990). With time, new examples based on linear developments emerged in Europe and in the United States of America: in 1952, Peter Smithson and Alison Smithson developed their *Golden Lane Housing Project*, a high-density proposal that they presented to the tender called by the London City Corporation to again reinvent the corner between Golden Lane and Fann Street. The architects proposed a building with streets in the air, some spacious galleries from which the interior of the homes could be accessed (Eisenman, 2004; Webster, 1992).

In 1953, Francisco Sáenz de Oiza, Manuel Sierra and José Luis Romany developed an ambitious re-interpretation of the *Unité d'Habitation* on the edge of the river Manzanares, in Madrid. The building was conceived in the form of two large parallel blocks, whose transit galleries opened up to the exterior (Hurtado, 2002). From there, by going up or down half a floor, the homes developed on several levels were accessed. Jo van den Broek and Jaap Bakema also distributed by levels their Hansaviertel tower homes in Berlin (1957), although in this case, the corridor ran through the inside of the building. In 1959, Kenzo Tange presented the Residential Unit Plan, an experimental work for the urban development of Boston port, carried out with the collaboration of students from the Massachusetts Institute of Technology (Banham, 1976). The proposal adopted the form of two linear blocks that curved around themselves with a common space between them. It was considered the first megastructure: a large system that contained all the functions of a town, by inserting specific independent structures into it (Maki, 1964).

As far as Europe is concerned, as the countries gradually recovered after the war, the trials would take on a territorial nature, incorporating a more intense relationship with the infrastructures. From the morphological viewpoint, on the other hand, the concept admitted different arrangements, such as the development of one single block, the duplication into two parallel blocks, or compositions

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with a row of several blocks. *Le Vele di Scampia*, a set of blocks that were planned by Francesco di Salvo and constructed in Secondigliano, Naples, from 1962 onwards, respond to this latter concept. The seven buildings, designed in agreement with the *tendenza megastrutturalista*, are based on two long blocks that increase in height at the centre, and are separated by a covered gallery (Fusco, 2003). In 1964, the Frenchman, Jean Bossu, proposed his *Artère résidentielle*, a theoretical proposal based on two parallel blocks that measured 430 metres long and housed 1,800 homes, with a street between the blocks (Dousson, 2004).

In 1967, the development of the Monte Amiata residential complex, in the Gallaratese quarter in Milan, started. The architect, Carlo Aymonino, planned a group of four residential blocks for 2,400 inhabitants. To compose the façades, Aymonino took the language of *frammentismo*, based on the rupture, collision and contrast between different fragments (Conforti, 1980). In contrast, in the northern section of the group, a linear block with galleries and flat façades, designed by Aldo Rossi as a synthesis of typical Lombardy houses, provides a certain serenity to the group (Frampton, 1985).

Noteworthy are other initiatives constructed in South America. These were designed totally independently from the old colonial city model, decisively choosing standardisation and density to provide shelter for constantly growing population groups. A good example of this are two blocks, both built in Rio de Janeiro. First, the *Vila Isabel* residential complex (1952) by Francisco Bologna, that takes the form of a long building that folds over and over (Bonduki, 1998). Secondly, the *Pedregulho* complex, a very long curved block with duplex houses, which was planned in 1950 by Eduardo Reidy and Carmen Portinho (Montaner, 2015). Finally, the block planned by Eduardo Larrán in Salta, in northern Argentina is worth a mention. This block was constructed between 1962 and 1968, and it rises over the centre of the historical city (Rovira, 2014).

Whether it adopted the form of a *Unité* or of other hybrids resulting from the integration of concepts of different origin, the long block became a widespread solution that was applied practically all over the world, with much typological and social experimentation. Nevertheless, the conceptual rupture that, with respect to pre-existing types, these new proposals caused was such that society needed some time to accept them. Today, as the social vision that invented this residential type vanishes in the collective memory, not only does its architectural meaning start to blur, but the physical marks that this era left on the building stock and spatial planning start to disappear (Farhat, 2012).

2. The Basque context: introduction to the 3 case studies

Between 1963 and 1974, under different forms of public agencies, three interesting cases were built in cities on the Basque coast: Bayonne, Irun and Bilbao. On the one hand, they reflected the influence exerted by the main visions that prevailed in Western Europe regarding linear residential blocks. On the other hand, they revealed the way in which architects and local administrations tried to apply this architectural type in a certain place. By analysing them, we also discover some of the specific characteristics adopted by the construction of public housing in Spain and in France, in issues such as the residential type and construction systems.

The first of the cases is made up of the 7 residential blocks of the *Zone à Urbaniser par Priorité* (ZUP) on the hill of Sainte-Croix, Bayonne, a small town in the South of France. They were planned by Marcel Breuer and Associates, and built from 1963. Insofar as the organisation of the homes is concerned, the architects adopted the concept established by Le Corbusier for the *Unité d'Habitation*. The other two cases were developed in the Spanish part of the Basque country, in a

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political context of little freedom, corresponding to the last stage of the Dictatorship of General Franco (1939-78). The first of them is the *Pedro Astigarraga* group of social housing, in Bilbao. It was planned by the architects, Rufino Basañez, Esteban Argarate and Cesar Larrea, and was built between 1963 and 1968. The third and last case is comprised of the block of Social Housing, situated in parcel V-A of Estate 58, in the city of Irun, planned by the architect Juan Ramon Lombera, and constructed from 1974 onwards.

2.1 The ZUP of Sainte-Croix, in Bayonne (1964-1969)

At the start of the 60s, the population of France started to experience a strong growth. The Official Journal of the French Republic, faced with the increasing demand for housing in all French cities decreed, in January 1959, the urban administrative procedure whereby an order of the Ministry of Construction could designate Zones *à Urbaniser par Priorité* (ZUP) in those municipalities where there was an urgent need for the construction of housing.

The developer of a ZUP could be a public institution or a *Société d'économie* with public and private capital, and the designated area should have enough land to fit at least five hundred homes, including diverse amenities and facilities. The dossier required for the attribution of a ZUP included graphic and written documents, the approval of the City Council and a report describing the surface, the infrastructures and the number of houses and facilities to be built. This type of management involved rapid land acquisition, and the process of expropriation was usually employed, ordering a statement for public use of the land. This administrative procedure was the main instrument for social housing planning applied in France during the period of growth, since 195 ZUP, with more than 800 000 houses, were built between 1959 and 1969 (Merlin, 2012).

Like all other cities in France, the town of Bayonne was experiencing a considerable demographic growth. Between the start of the 50s and the middle of the 60s, the population increased by 30%, reaching 43 000 inhabitants. Thus, on 12 December 1963, after receiving a request from the City Council, the decree of the council of ministers to designate a ZUP on the hills of Sainte-Croix was made public. The choice of the place was in agreement with the prevailing vision among Modern Movement architects, who viewed the historical city as an outdated system. In fact, they proposed the construction of blocks far away from it. In addition, the blocks were to be placed in the middle of the countryside, and organised according to a strict functional programme (Bohigas & Español, 2002).

The initial project contemplated the construction of a winding row of large blocks, 13 storeys high, atop the hill of the old Jewish quarter of the city (Figures 1 and 2). The study of the collective amenities for the future ZUP was drafted by the Bureau d'Etudes et de Réalisations Urbaines (BERU), an office that had already planned several ZUP in other places in France, such as Grand Quevilly and St. Germain in Laye, which prepared a rigorous analysis of the collective needs. As a result of this study, a very ambitious plan was developed: on the one hand, it would have 1,300 homes *Habitation à Loyer Modéré*, a sort of rent-controlled housing (Newsome, 2009). On the other hand, as far as the collective amenities are concerned, the area would have four primary schools, two secondary schools, two sports complexes, a clinic with a pediatric service, a social centre, a cultural centre and a space for young people. In addition to the above, several administrative amenities were planned, such as a post office and a police station. Lastly, the construction of a Catholic Church was projected. In short, it was going to be a satellite town where 15 000 people would live.

The appointment of the chief architect had to be approved at the Council of Ministers of the Republic, so the choice of the architect was controlled from a much higher office. This made it possible for the project to fall upon an architect of international renown. At that time, the Minister

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of Culture with the greatest knowledge and passion for Modern Movement architecture formed part of De Gaulle's Council of ministers: André Malraux, writer, political activist and a great admirer of Le Corbusier. It was Malraux who delightedly approved the appointment of Breuer proposed by Max Ernst, director of the BERU (Etxepare *et al.*, 2015).

Breuer returned to concepts that he had already proposed in the 20s: duplex type homes accessing the apartments by means of lifts and corridors located on only every three floors (Figure 3). Thus, on floors 2, 5, 8 and 11, a central street ran through the building lengthwise, giving access on both sides to four models of homes. A and B models are juxtaposed around the corridor, with a living area on the access floor that occupies half of the depth of the building, and the sleeping area occupying the whole lower bay. Instead, in homes C and D, both living and sleeping areas are developed on the upper floor, and there is not anything else that the hall on the access floor[1]. In comparison with the duplex type homes of the *Unité d`habitation* of Marseille (1948), the apartments were shorter in depth, with a wider module on the main floor, which made it possible to install the interior staircase transversally, in contrast to Le Corbusier's Unité. The surface occupied by the interior streets, and the stairwell and lift shaft amounts to 1,460 m^2, 9% of the floor area of each block.

The option for complexity did not only respond to an architectonic game. The legislation that controlled the design of French social housing was extremely rigorous (Gatje, 2000). The new post-war French legislation established rigorous conditions in order to guarantee healthiness in homes that had more than one bedroom: crossed ventilation by means of windows on both façades, direct ventilation from the kitchens, fume extraction shafts and ventilation shunts in bathrooms. A rigorous control was also established over the lifts and interior evacuation transits. The inhabitants needed to conveniently access their homes, and these had to be evacuated easily in the case of fire or bombing.

Figure 1. View of the residential blocks of the ZUP of Sainte-Croix

Source: Author of the photograph: Aitor Izaguirre Ansa.

[1] Breuer, M.; Smith, H.; Berckhard, H.; Emslie, M & Gatje, R.F. (1963). *Project for the ZUP Bayonne*. Archives départementales, Pôle de Bayonne et du Pays Basque, Bayonne.

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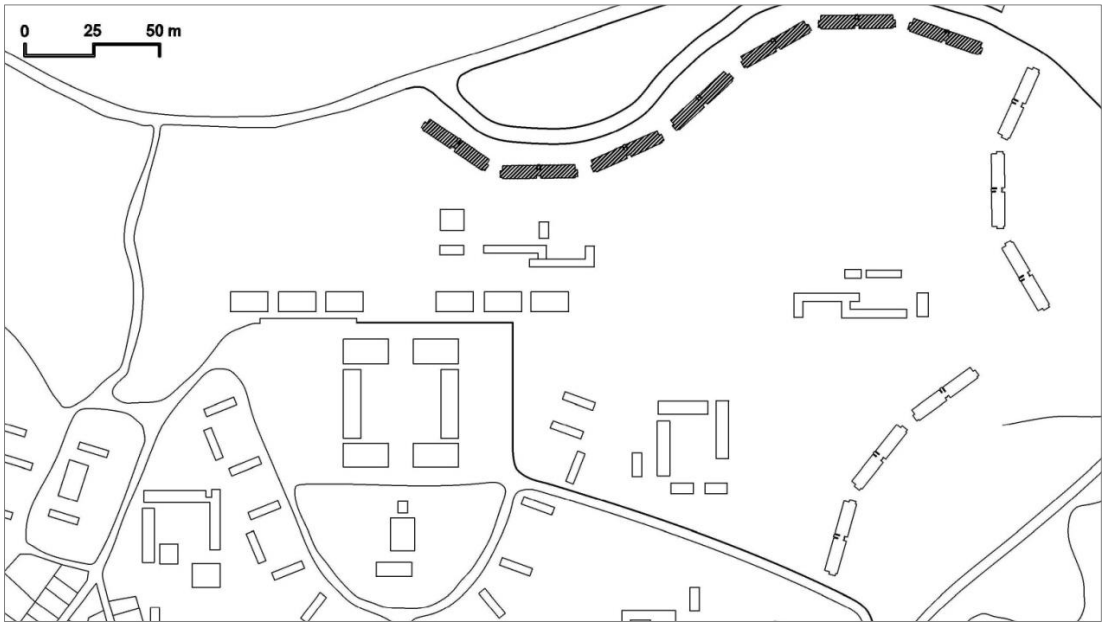
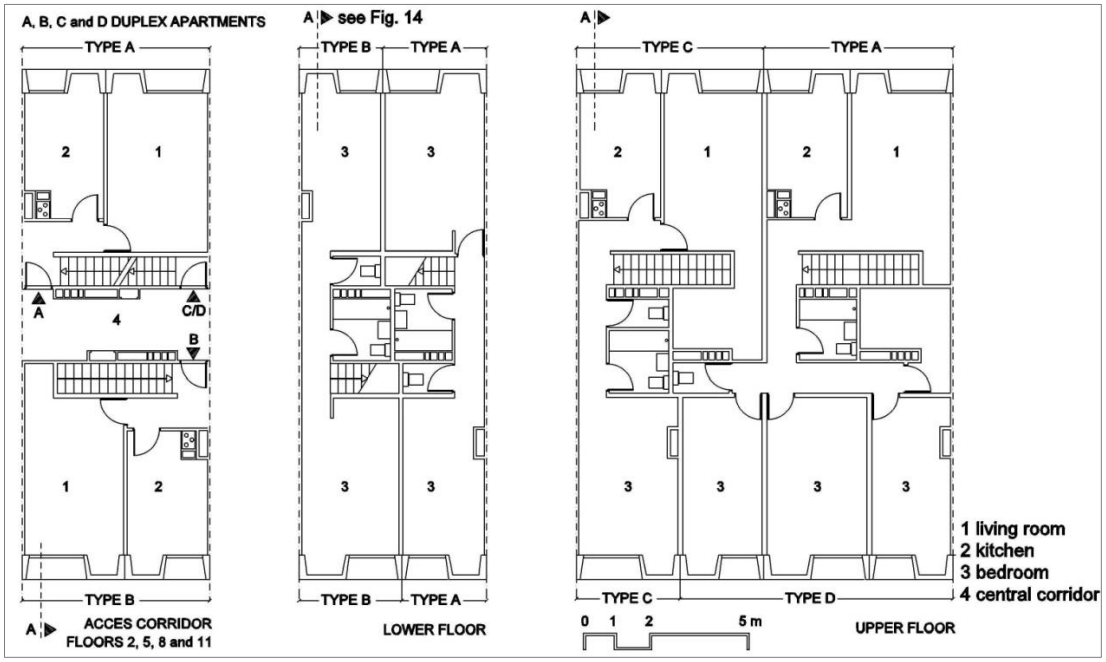
Figure 2. General layout plan of the ZUP of Sainte-Croix and the seven blocks



Source: Own elaboration.

Figure 3. The ZUP of Sainte-Croix. Floor plan of duplex apartments A, B, C and D



Source: Own elaboration, based on the original architectural project (see footnote 1).

Breuer based himself on the concept that Le Corbusier established for his *Unité d'Habitation* at the end of the 40s, and which he had already developed in Marseille (1948), Nantes-Reze (1955) and Berlin-Westend (1957). However, insofar as other characteristics are concerned, both types differ considerably: in terms of the relationship with the ground, unlike the Unité, that rests on powerful pillars, which leave the ground free, the ZUP blocks of Sainte-Croix emerge from the ground, showing a greater attachment to nearby elements, such as the non-residential buildings that

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accompany the residential programme. On the other hand, the Unité is one single building that houses a town on the inside, without the need for any other complementary building. The blocks of Bayonne, however, form the residential body of a satellite district, whose non-residential buildings are clearly dissociated (Amouroux, 2014).

In the ZUP blocks of Sainte-Croix there is absolute integration between the different structural and constructive elements. In the Unité of Le Corbusier, in contrast, the houses are independent from the concrete structure and are comprised of prefabricated cells inserted into the structure. Given the high degree of industrialisation applied to the construction of the Bayonne blocks, its main structure, the separation elements and the façade panels form a closely knit monolithic system, constructed entirely in reinforced concrete (Figure 4).

Figure 4. Detail of the façade panels

Source: Author of the photograph: Aitor Izaguirre Ansa.

The blocks of Sainte-Croix go to show that in post-war France, during the reconstruction of the country (1945-1960) and under the auspices of the State, the Modern Movement architects, engineers and powerful construction companies joined forces in favour of the joint progress of architecture (Picon, 2012). New construction techniques that permitted responding efficiently to the urgent demand for reconstruction were devised and launched, such as the tunnel formwork technique, the on-site manufacture of the façade panels or the fixing of the installations on the inside of the structural elements. In short, the fact that the application of the new typological formulas and technological advances went hand in hand, goes to show the dialogue that existed between all the agents involved; undoubtedly a feature of progress.

2.2 The south of the Basque country: plans, housing estates and partial plans

The context in which the cases of Bilbao and Irun were conceived was quite different to the case of the French Basque country, although the demographic evolution presented common features on both sides of the border. When the Spanish Civil War (1936-39) ended, the natural increase and the

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considerable immigration received by the industrialised Basque provinces at the end of the autarchic period of the dictatorial government (1939-59), caused a strong increase in population in the 60s. The urgent need for new housing led to a paradigmatic change in the vision of collective housing. Some of the architects of the time insisted on developing new typological solutions that, on the one hand, would house the large number of homes required, and on the other hand, would also serve to announce and influence the changes that society was experiencing as the dictator's death became imminent (1975).

The application of the new architectonic types, on the other hand, was favoured by an in-depth renovation in the legal field. In the mid-20th century, both at a municipal level and at a territorial scale, the Spanish urban development management availed itself of more efficient tools. This made it possible to test the new residential types. Regarding the Basque context, it was the time of the General Plan of Urban Management of Bilbao and its region (1946), and of the first municipal plans, such as the General Plan of Urban Management of Tolosa (1954). At state level, and promoted by the Spanish Government, the first National Housing Plan emerged (1955), one of whose objectives was to construct 550 000 houses safeguarded under the Limited Income Housing Act. Later on, in 1959, the Government approved the Stabilisation Plan, which would be the start of the era of developmentalism. Together with this, the Development Plan would arrive. Its objective was to increase the growth rate of the Gross Domestic Product to a maximum.

The second case responds to this context: the houses of the Pedro Astigarraga group, situated in the district of San Ignacio, Bilbao. The organisation of the district had been previously defined by the General Plan of Urban Management of Bilbao and its region (1946), in the first instance, and later on by the Reform project of the extension of Deusto, of that same year (Martínez, 1999). The district, annexed to the city in 1924, underwent considerable development at the start of the 40s, to house the emigration caused by the end of the Spanish Civil War. Its physiognomy responded to the concept of New Suburb, and it was made up of closed blocks of houses.

As far as the development on non-consolidated land is concerned, the entry into force of the Land Law of 1956 was a decisive factor. This law implemented a comprehensive analysis of the territory by means of planning figures at different levels: the Provincial Plan, the General Urban Development Plan, the Partial Plan and the Urban Development projects (Candela, 1994). One of the new tools provided by the Law, taking into account its competence to convert reserve land into urban land, was the Housing Estate, whose creation was the first step towards constructing future districts. The local government, after selecting a series of parcels of land spread out on the periphery of the municipality, joined them together forming an Estate, a unit on which future urban development would have to be carried out (Vinuesa & Vidal, 1991).

The development of the Housing Estate was based upon a 'Partial Plan', which defined all its urban development characteristics: alignments, heights, volume and uses, as well as other questions referring to amenities. This device was essential for testing new residential types. An example of this way of proceeding is the third case study: the long block of Social Housing in parcel V-A of Estate 58 of Irun (1974-77). The block, whose Partial Plan was drafted in 1973, is next to the river Bidasoa, which defines the border between Spain and France.

2.3 *The* Pedro Astigarraga *group of houses in San Ignacio, Bilbao (1963-1968)*

The *Pedro Astigarraga* group of houses is comprised of three blocks and houses 227 homes. It is located in plot number 26 of the Extension of Deusto, next to the river Nervion. It was developed by *Viviendas Municipales de Bilbao* association, a public developer created in 1918 by Bilbao City Council. The role of this association was to attract private capital to solve the deficit of social housing, by means of a minimum guaranteed interest, with the association providing the land and

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initial capital. In 1957, *Viviendas Municipales de Bilbao* made a multiple call for ideas to build several blocks of houses, after having purchased a large area of land in the suburb of Deusto. A total of 1,186 homes would have to be located there. In contrast to the policy initiated by the Spanish Ministry of Housing, based on fostering homeownership, the houses of the *Pedro Astigarraga* group were designed under a system of economical rental (Bilbao, 2011).

With respect to plot 26, the initial idea presented by the architects, Rufino Basañez, Esteban Argarate and Cesar Larrea, was the winner. The project responded to a conventional 5-storey block, in harmony with the blocks that had already been constructed in the area. Further, shortly after the project ended, Rufino Basañez undertook his first trip to Europe, when he had the chance to visit the *Unité d'Habitation* in Marseille. The building made a deep impression on the architect, who was astonished by its volume, the unusual organisation of the homes, and the plasticity that the exposed concrete acquired in that vast building. A few months later, after reaching an agreement with the managing director of *Viviendas Municipales de Bilbao*, the three architects withdrew their initial project, and with the consent of the association developed a new proposal that opted for an experimental solution[2]. Instead of the block of houses, they suggested concentrating three linear blocks on one side of the parcel of land: one 12-storey high block and two 5-storey high blocks (Figures 5 and 6).

Figure 5. View of the *Pedro Astigarraga* residential group

Author of the photograph: Aitor Izaguirre Ansa.

The new project developed by the architects was not just influenced by Le Corbusier. They felt an even greater fascination for the solution proposed by the British architects, Alison Smithson and Peter Smithson in the Golden Lane project. It is not by chance that Basañez should look upon the architecture of the English. If there were a city in the Basque country historically linked to England, it undoubtedly was Bilbao. The city and its territory, Biscay, had maintained a close relationship with England for many centuries, which was consolidated after the 19th century when England resorted to the rich steel mines of Biscay, which accounted for almost 20% of the imported material (Johnson, 2009).

[2] Basañez, R.; Argarate, E. & Larrea, J. (1965). *Proyecto para 45 viviendas y locales comerciales*. Archivo Municipal de Bilbao, Bilbao.

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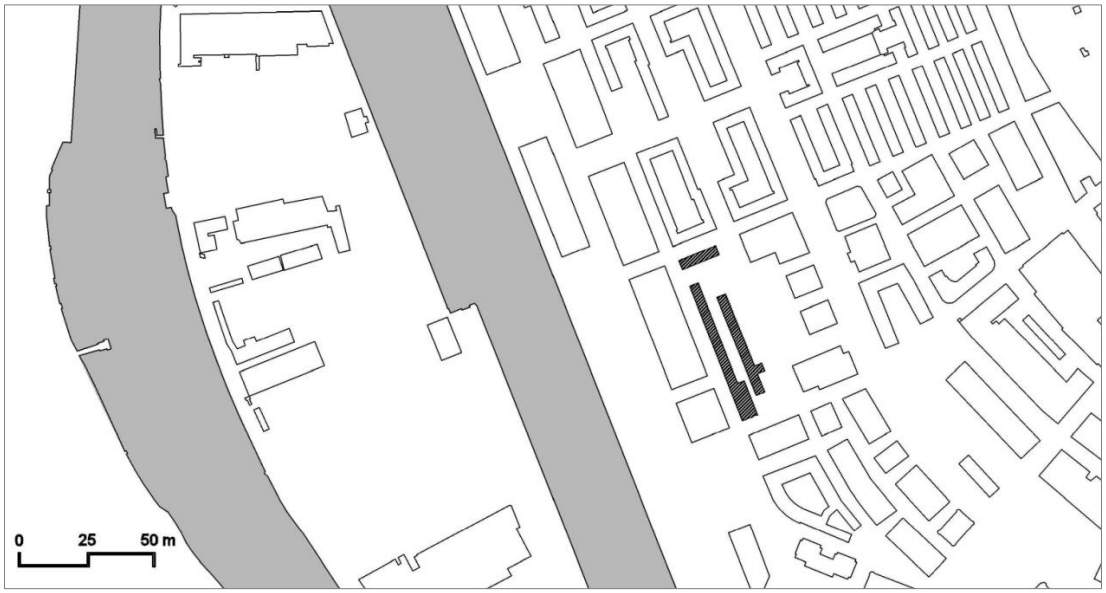
Figure 6. General layout plan of the *Pedro Astigarraga* residential group



Source: Own elaboration.

The Golden Lane programme foresaw the construction of the largest number of houses possible. With respect to transit, it established three elevated streets, attached to the blocks, which would enable residents to access their homes (Vidotto, 1997). Ultimately, this was an underlying criticism of the interior street of the *Unité* of Marseille, considered by some as dark and leading nowhere; it was but a vast hotel corridor. If it was moved to the façade and in the open air it could have reoriented the building: the homes had an entrance façade with a door and windows, from where one could see out so that the abstract duplex became again a small house (Panerai *et al.*, 1997). Thus, each one of the platforms would have to serve a minimum number of residents, in order to guarantee community life in them; hence, the established ratio of 90 families per platform. Those spots where the platforms coincided and neighbourly relations were intensified, such as the lift access areas, would have a triple height. The homes would have to have an individual courtyard at the rear which could be seen from the platforms so that the activities carried out there would enrich community life: dovecotes, vegetable patches, spaces for DIY and other activities which would show how each family participated in community life.

Despite the Smithsons' proposal consisting in an intervention on the ruins of the War, Basañez, Argarate and Larrea considered that many of the concepts and resources of Golden Lane also helped solve the programme of the new residential complex. Thus, the three blocks are developed on an 11-metre wide structure (Palacios, 1997). On a systematically repeated 450 cm bay, different types of homes were arranged: homes taking two bays and on one single floor accessed from the first floor, and duplex homes on one single bay on the upper floors (Figure 7). From among the examples mentioned in the introduction chapter, noteworthy, due to its similarity, is the block that Eduardo Larrán planned one year earlier in Salta, Argentina (1962). This block adopts the same relationship between access walkways and dwellings, as well as the same type of duplex (Rovira, 2014). As far as the main block is concerned, the surface occupied by the walkways and the stairwell and lift shaft, amounts to 1,602 m^2, 11% of its floor area.

The evacuation of the blocks of the *Pedro Astigarraga* group is solved thanks to two staircases that connect to the elevated streets. However, in the case of the 12-storey block, one of the staircases is attached to the outside of the main façade, adopting an expressive nature, given its finish in

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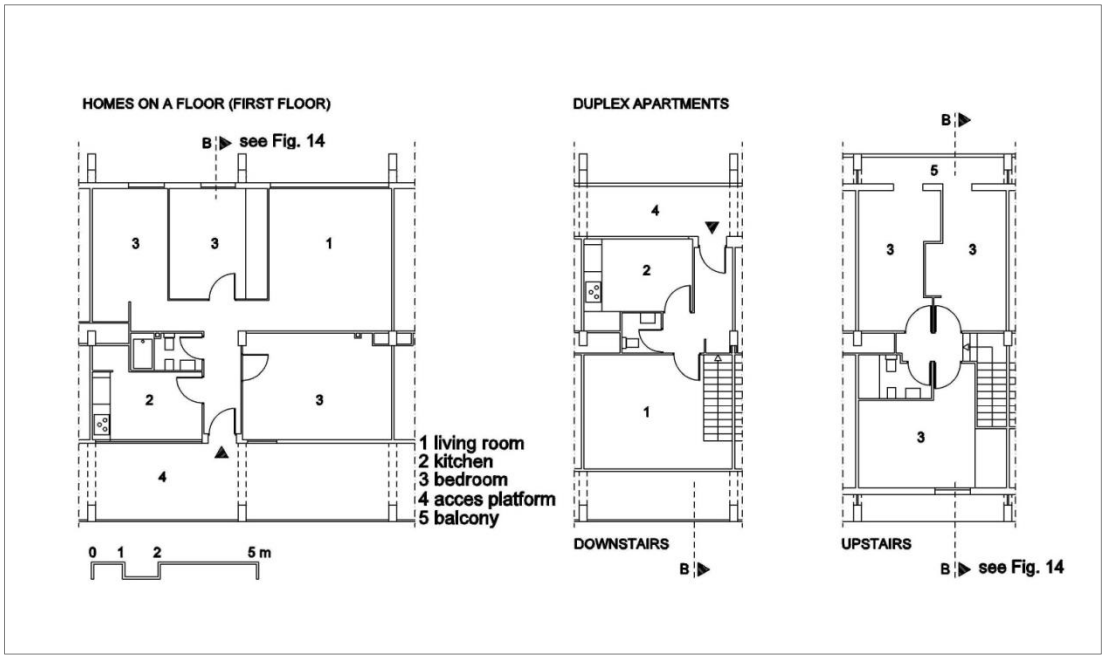
exposed concrete, and the unevenness of the parapet which accompanies the staircase. Thanks to this singular element, the large elevation of the block acquires life and expression (Figure 5).

Figure 7. Floor plan of homes on a floor and duplex apartments of the *Pedro Astigarraga* residential group



Source: Own elaboration, based on the original architectural project (see footnote 2).

Figure 8. View of the *Pedro Astigarraga* residential group

Author of the photograph: Aitor Izaguirre Ansa.

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From the constructive viewpoint, both projects differ a great deal. The proposal of the British architects was conceived to be raised by means of prefabricated systems that would facilitate its construction and reduce costs. As the competition report showed, the structural rack would be a reinforced-concrete box-frame with seven-inch bearing walls and six-inch floors. The site was planned to use a mobile tower-crane to best advantage. The walls would be cast in large panel, timber-faced, light steel-framed shutters which can be lifted vertically; erection finally taking place at all levels in pyramidal fashion. Floors would be lifted to the next level through the slot left for the pre-cast stairs. Into this rack would be built the homes; standardised factory-fabricated, with the minimum of site work (Smithson & Smithson, 2001).

The *Pedro Astigarraga* group of housing, however, was raised by means of traditional systems, much to the disgust of Basañez, who had been interested in pre-fabrication of social housing for years. This concern led him to travel to France, Holland and Yugoslavia at the beginning of the 60s. His aim was to discover new systems that would serve to solve the situation suffered by hundreds of families that had immigrated to Bilbao in the 50s. However, the *Pedro Astigarraga* housing was raised before prefabricated systems were definitely implemented in Bilbao and its territory.

Further, the architects attempted to provide the building composition with an industrialised aspect that would echo the proposal of Golden Lane. That desire is reflected in the use of certain compositional devices that lead one to believe that the structure and the envelope of the building really were prefabricated. This is the case of the portal frames in exposed concrete that are dissociated with respect to the façade, and which refer to prefabricated structures, as well as the parapets of the footbridges, which try to appear to have been resolved by means of prefabricated panels.

There was a generalised craving to try out these new residential types, and the *Pedro Astigarraga* group blocks represented the materialisation of this craving. Spanish journals began to publish articles on the *Unité d'Habitation* of Marseille in 1949 (Sambricio, 2004), and the trade union weekly, *Pueblo*, began to praise the architecture of the Smithsons. Among the architects of Bilbao, there was a determined interest in the new types, which did not materialise given the technological lag and the reticence of agents and administration. The actual *Obra Sindical del Hogar y de la Arquitectura*, a public constructor dependent on the Ministry of Housing, had been reticent to build high density residential blocks (Bilbao, 2011). This is shown by the fact that the construction of the *Unité* planned in 1953 by Francisco Sáenz de Oiza and his collaborators, was finally aborted as a result of the prejudice shown by some high government officials. In the end, despite all the difficulties, it was a small municipal society that finally echoed that craving and managed to carry out the construction of an interesting and very ambitious residential group.

2.4 Social Housing in parcel V-A of Estate 58 of Irun (1974-1977)

The third study case, planned by Juan Ramón Lombera, was constructed in parcel V-A of Estate 58, in Irun, starting in 1975[3]. It was conceived under the Land Law of 1956, in the first place, and under the Land Law of 1975, whose entry into force coincided with the final phase of the processing of the project. The urban planning in force was that established by the General Urban Development Plan of Irun (1965). Unlike the first plans approved years earlier in the Basque country, this plan responded to an urban intervention model based on an apparently infinite development. As a result of the application of this model, lacking, in almost all the cases, the slightest architectural interest, the periphery of Basque villages and towns underwent such a transformation that the relationship between the historical centre and the peripheral centres of population was strained to an extreme.

[3] Lombera, J.R. (1976). *Proyecto para 65 viviendas y locales en Polígono LVIII, Parcela V-A*. Archivo Municipal de Irun, Irun.

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The actual General Plan of Irun contemplated a considerable growth whereby the population of the city would be duplicated after a few decades. In response to this, it programmed a surface area covering 865 hectares of developable land, in comparison to the 429 established by the previous plan. Whether it was the result of a realistic estimation or the fruit of a selfish daydream, this forecast ended up becoming evident in each and every one of the nuances that urban development and architecture adopted at that time.

The Partial Plan of Estate 58, approved by the Provincial Planning Committee in February 1973 and developed by the architect Luis Peña Ganchegui, considered all the conditioning factors of the place, such as the steep slope of Aldabe mount, the presence of the river Bidasoa and a small railway line that ran along the edge of the parcel. The architect decided that the building would be arranged parallel to the river, thus avoiding having to place it in the direction of the slope (Figure 10).

The block was constructed by Vicon, a cooperative that belonged to the Mondragón Group, which was the seed of the Basque cooperative system. The cooperatives, created in the 1950s around the Professional School of Mondragon and under the auspices of the Basque church, were companies whose aim was to satisfy the needs of their society. They were managed by their workers, who were partners in turn and participated in their profits (Williams, 2007). In 1959, after the creation of the first cooperatives that engaged in industrial manufacturing, new cooperatives were created for other purposes. Some were engaged in the manufacture of furniture and other consumer products, and others, such as *Vicon*, in construction. The construction of the 63 social houses was partially financed by the state: their development was pursuant to Decree 2131/1963, the first Spanish law on Social Housing (Scanlon *et al.*, 2014).

The block, which is 125 metres long and four storeys high, adopts a longitudinal nature. However, the conditioning factors differ a great deal from one side of the building to the other, as, unlike the previous cases, its composition takes on a different aspect on each façade. Towards the river Bidasoa, the building looks like a sturdy wall, with a series of raised bodies that look like bastions (Figure, 9). On the rear, south facing, the building offers its more friendly face, with long balconies, large windows and exempt stairwells (Figure 12). The composition of the block refers to the channels experimented by some of the Italian Marxist architects of the 60s, who, under the name of Tendenza, developed a neo-rationalist language in response to the frivolous subjugation of populist programmes (Frampton, 1985).

Figure 9. View of the Social Housing in parcel V-A of Estate 58

Author of the photograph: Aitor Izaguirre Ansa.

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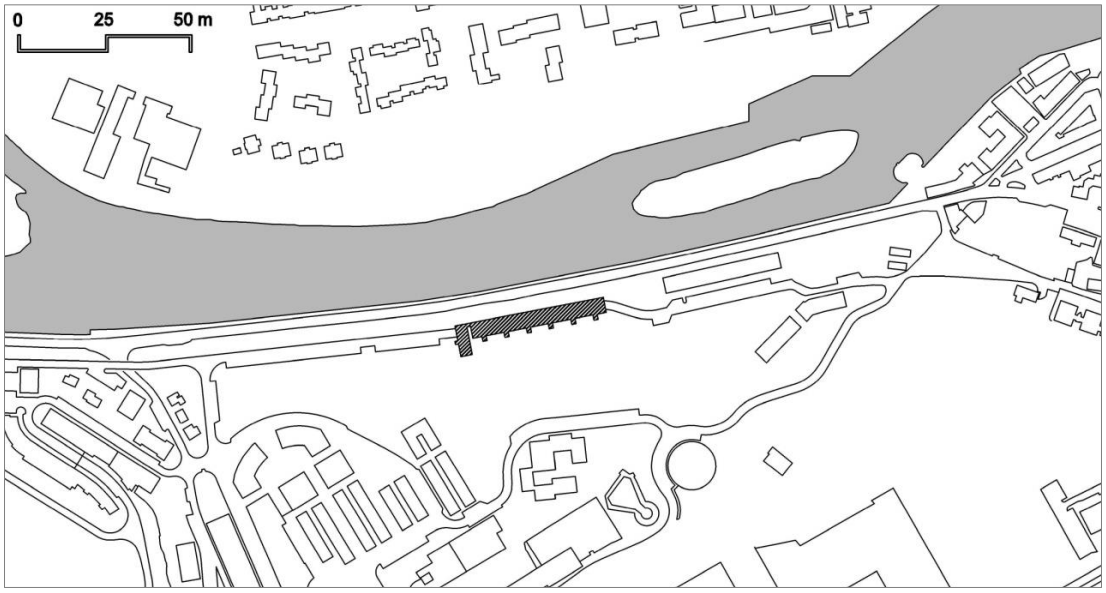
The Italian influence is not by chance. In the summer 1973, a small group of Basque architects began to organise a series of lectures, as part of the *Architectural Weeks*, and through their initiative, prominent personalities such as Aldo Rossi, Massimo Scolari, Carlo Aymonino, Manfredo Tafuri and others were brought to San Sebastian (Solà-Morales, 1986). The lectures were organised within the *Colegio Oficial de Arquitectos Vasco-Navarro*, a territorial association founded in 1930, with similar structures in all the regions of Spain. The aim of the Association was to protect professionals, and it had competences regarding the validation and endorsement of architectonic projects. During those meetings held in San Sebastian, the books of the Italians were already a highly topical matter. These books were eagerly awaited by the group of Basque architects who, from the discipline viewpoint, needed a dogma that would put an end to the prevailing abuse in the Modern Movement, void of any doctrine by that time. Not only did the Basque architects adhere to the language of the Tendenza, but friendships were established among the architects.

Figure 10. General layout plan of the Social Housing in parcel V-A of Estate 58



Source: Own elaboration.

The block in parcel V-A of Estate 58 replicates, to a certain extent, the *Monte Amiata* residential complex, which was planned 10 years earlier by Carlo Aymonino. *Monte Amiata Società Mineraria* and Milan City Council had undertaken a social initiative at the end of the 60s to develop an area of 52 700 m² situated in the Gallaratese quarter, to the north-east of Milan. Thanks to this, 2,400 homes were built to house families from the south of Italy who had immigrated in search of work to the industrialised city of Milan. The complex is comprised of four long residential blocks that converge at an articulation point which takes on the form of an outdor circular theatre (Nicolin, 1977). It was developed between 1967 and 1974. Different influences fuel its composition: Russian constructivists, hints at brutalism, and also the complex compositions developed by Le Corbusier by adding and eliminating objects. However, the replica to the Aymonino blocks is more faithful in terms of the composition of the façades, and the accentuated rectangular section posts on the ground floor, than with regards to the organisation. It is, indeed, a more conventional organisation.

Although it is one single building, and insofar as the façade facing the river is concerned, Lombera tried to reproduce the composition of the blocks that Aymonino planned in the Gallaratese. The architect resorted to a similar arrangement of openings, volumes and textures. However, the most characteristic feature is the long succession of portal frames made of exposed concrete on which

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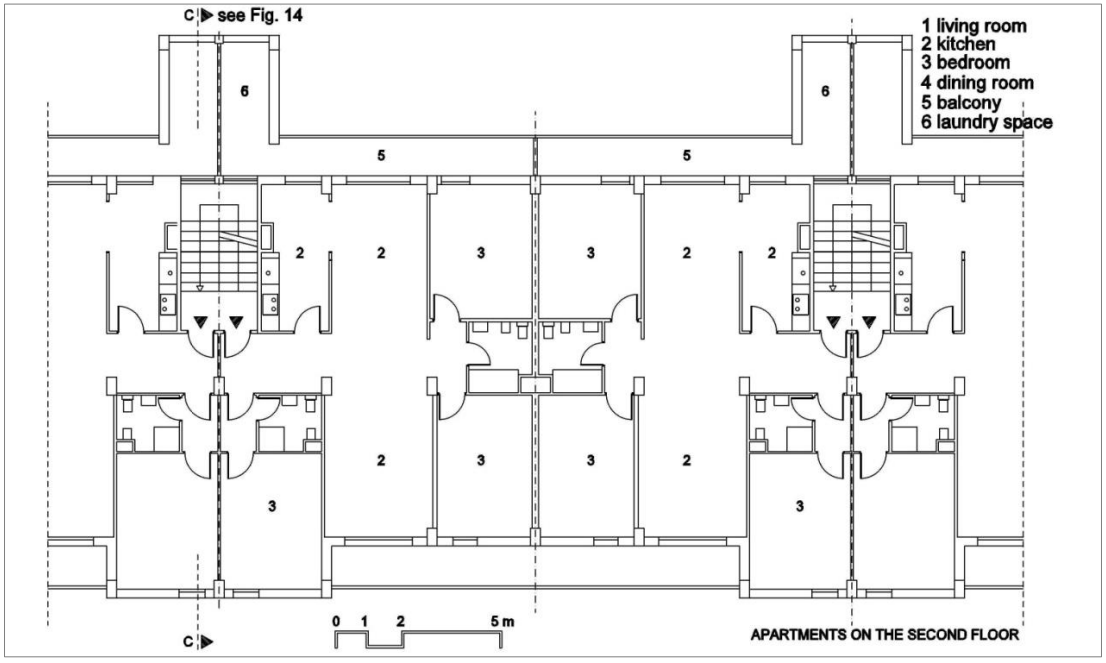
the complex rises, also replicating the Gallaratese blocks. Under these frames made up of deep edge beams, there is a road that is used for parking (Figure 14).

Figure 11. Floor plan of the apartments of the second floor of the Social Housing in parcel V-A of Estate 58



Source: Own elaboration, based on the original architectural project (see footnote 3).

Figure 12 View of the rear façade of the Social Housing in parcel V-A of Estate 58

Author of the photograph: Aitor Izaguirre Ansa.

Thanks to this arcaded tunnel and to the complex organisation of the accesses at the rear, solved by a series of bridges, the building acquires a complex spatial relationship with the environment, compensating for the conventional interior organisation of the building. Indeed, unlike the previous

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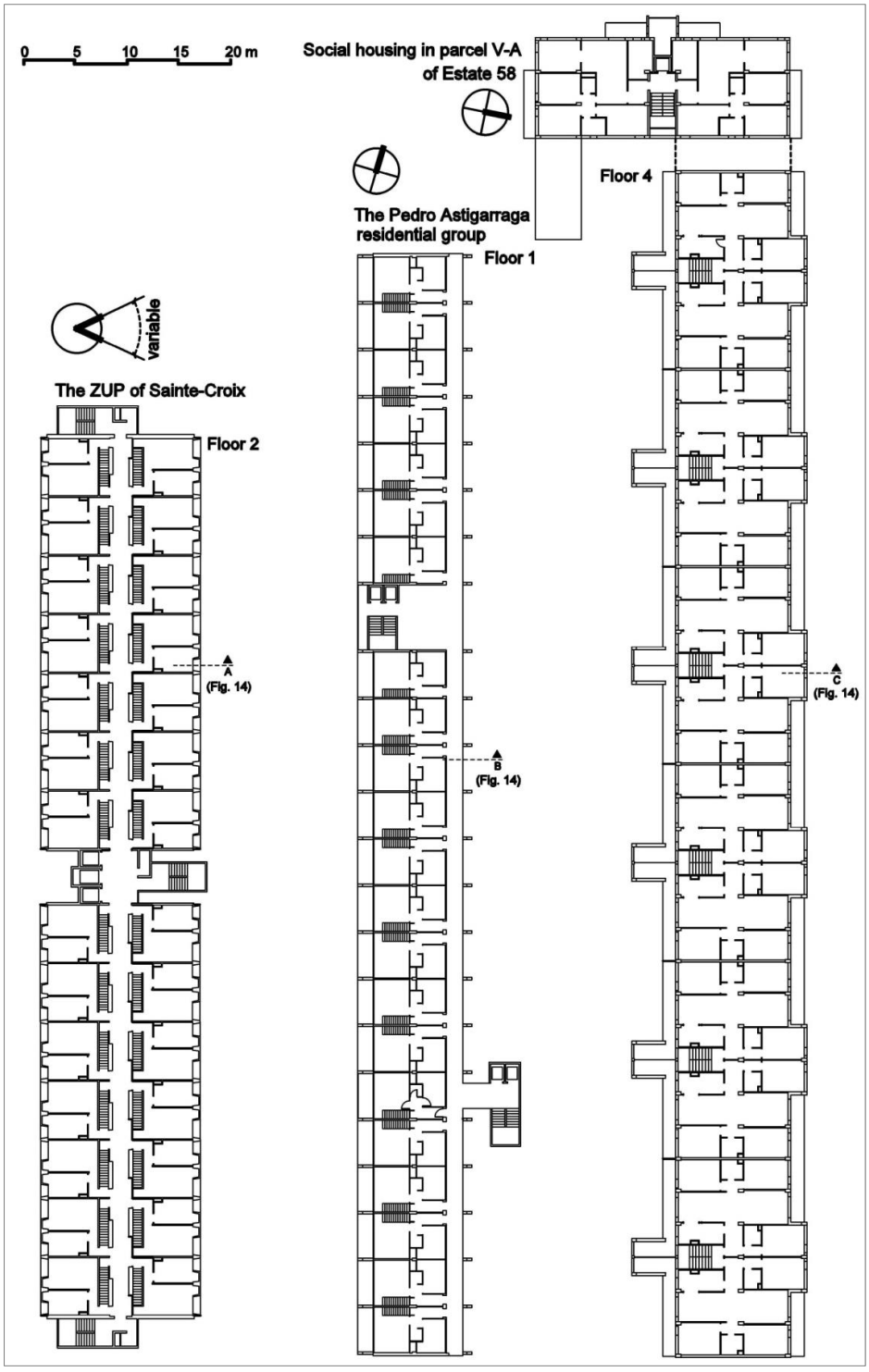
cases, instead of resorting to footbridges or interior streets, the houses are accessed by means of six stairwells, on whose sides the homes are arranged. The surface area occupied by the common elements, such as staircases, lifts and halls, is 360 m^2, 6% of the floor area of the block.

Figure 13. Floor plans of the three residential blocks



Source: Own elaboration, based on the original architectural projects.

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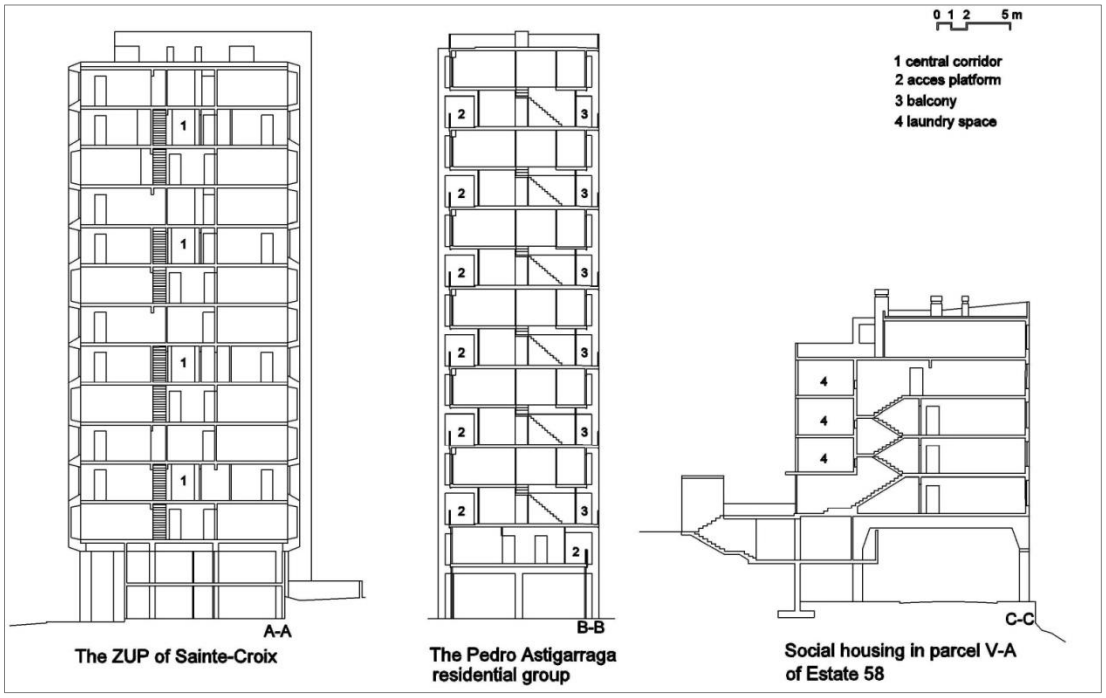
The block is the result of a time when the group of Basque architects were experiencing an in-depth change in terms of architectonic theory. Books such as *L'architettura della città*, by Rossi (1966), *Teoria e storia dell'architettura*, by Tafuri (1975), or *La costruzione logica dell'architettura*, by Grassi (1967), had led young professionals to look again at the urban analysis and typology, and for them to prepare a new discourse on the vision of history and contemporary popular forms. The influence of these books and of others, such as *Complexity and Contradiction in Architecture*, by Venturi (1977), was enormous (Ruiz Cabrero, 1989). Under this influence the Higher Technical School of Architecture of San Sebastian was established shortly afterwards (1978).

3. Conclusions

Like the ripples of a stone falling into a pond, the influence of the first linear blocks spread through Europe from the 50s onwards. As shown by the three case studies, the Basque country was no exception. However, the circumstances in which each one of the cases was conceived are truly specific, in terms of such different questions as the appointment of the architect, the non-residential programme or the social context. Each of these linear blocks had characteristics that are worth analysing.

All of them reflect the ideal of a new type of coexistence and a rupture with respect to the historical city. The typology sought to guarantee interior comfort. During the 60s, the needs of typical residents were profusely studied, and after converting these needs into parameters, minimum requirements were estimated. Efforts were concentrated on making the functional relationships between the homes and between the interior rooms perfect and the results were translated into standardised typological studies, which were periodically published in the form of distribution atlases. Architects resorted to them to develop their collective housing projects. Among others, linear residential blocks.

Figure 14. Cross sections of the three residential blocks



Source: Own elaboration, based on the original architectural projects.

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This paradigm came to a peak in the final years of the 70s, as, following the oil crisis, the organisation criteria of the residential programmes returned. Architects left the systematic vision on one side and chose to give each challenge that arose an individual solution, trying to leave their personal imprint on each one of the projects. The abundance and plurality that characterised the construction of linear residential blocks during the 60s, remitted from then onwards. With respect to the Basque country, there were no more trials of this type. The three trials described remain as imprints of a typological emergence, which remitted with the Oil crisis (Lieberman, 1995), and with the change in political regime, insofar as the cases of Bilbao and Irun are concerned.

Beyond historicist interpretations, the authors defend that the attitudes obtained by studying these cases, constructed half a century ago, could be well worthwhile repeating, incorporating them once again into today's architectural practice, especially insofar as collective housing is concerned. Firstly, the commitment of the architects of the 60s to the incorporation of a solid theoretical discourse into their creative process, disseminated more through literature than through reports, is obvious. Thanks to theory and research, inextricably entwined, they were able to push the boundaries of the officially possible, and to give rise to some previously unknown residential types.

It is also worth underscoring the ambition with which the three projects were carried out, in terms of seeking a new community life model. It is obvious that the dream of a different society was more alive than ever, and that the type of society aimed at was based on the community association of citizens. The common spaces resulting from the choice of a residential type, such as linear blocks, certainly more extensive and varied than in other types, not only responded to the question of traffic and access to the dwellings. They also provided a space for co-existence where common activities were carried out, a transition space between the private dwelling and the street, which transferred part of the private activities of each family to the community area. It would not be a bad thing to reflect upon this aspect, in view of the disappearance of transition spaces in an era of market-driven capitalism, which despises this type of spaces, as a result of its lack of economic use.

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Authorship

The first author, who defined the viewpoint, the theoretical and geographical framework of the article, and re-drew the projects, has managed the research that has given rise to this article. The second author has reviewed the structure of the article and the methodology carried out. The third author was responsible for compiling literature, and the fourth author for seeking reference cases in Europe and America.

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