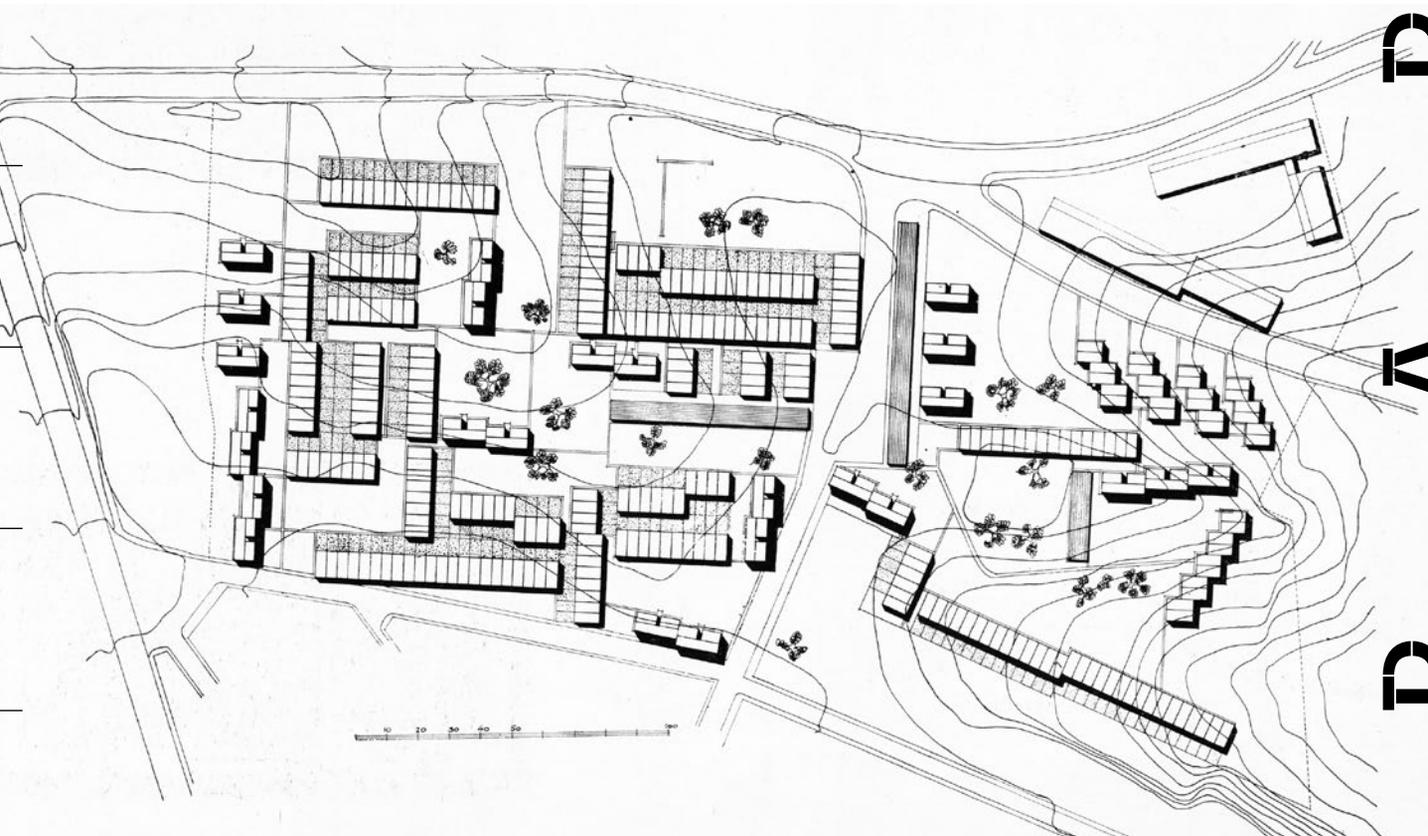


# Jaime J. Ferrer Forés

## Oíza at Ciudad Blanca



## Introduction

The trajectory of Francisco Javier Sáenz de Oíza (1918-2000) moves between the contained expressionism of the Sanctuary of Aránzazu in Oñate (1950-1955), which he built with Luis Laorga, and the sober economy of means of Fuencarral A (1953) or Entrevías (1956) social housing. From the modern tradition of the trusses grid of the Chapel on the Camino de Santiago (1954), to the articulated and stepped forms of Ciudad Blanca (1961-1963), close to Team 10 and the organicism of Torres Blancas (1961-1968) and the Banco de Bilbao (1971-1978) to the formal concern of his later works (Alberdi, 1996; Capitel, 1990).

Defining a new stratum in the landscape of the Bay of Alcudia, Oíza assumed the ideas of Team 10 as his own and turned architecture into landscape. The understanding of the building as a system of complex and overlapping vertical relationships is related to the empirical attitude of the Team 10 members and the aspirations to create an environment capable of generating more bounded spaces that favoured social interaction, following the premises set by the Doorn manifesto (1954) and the notions of “habitat”, “identity” and human association. The elevated pedestrian walkway, the Smithsons “street in the air”, generated the aggregation mechanism and worked as access to the apartments, an entrance itinerary filtered by lattices and twists that foster social interaction. Inside, he introduced a stepped floor, which directs the units to the sea rather than to the horizon and refers to the housing project in Elineberg by Jørn Utzon, published in issue 5 of *Zodiac* magazine (1959).

Ciudad Blanca illustrates the transit from orthogonal frames to architectural systems, taking into account the orientation and views in the diagonal arrangement of the apartments and in the individualization of the units within the complex. The dynamism of the volumetric composition caused by the juxtaposition, superposition and sliding of the units shows the compositive logic of the aggregation. The analysis of this work by Oíza in Mallorca reflects the influence of Team 10 on the critical reinterpretation of modernity developed by the Spanish architects of the so-called Third Generation who put into practice more complex and flexible formal responses or architectural systems that enhanced the public space and the inside-outside relationship as main values.

## The experience of collective housing

To Oíza, collective housing was a field of constant experimentation over his professional career. Oíza explored the ability of architecture and urbanism to achieve identity and social cohesion, through the identification of the inhabitants with the specific place, the environment, attending to their needs and giving them meaning as part of a larger group. Based on the definition of Camilo José Cela, Oíza understood housing as a link between the inhabitant and the place. To Oíza, “the basis of the city is a space of diverse relationships that facilitate the realization of each of the personal expectations” (Oíza, 2006, p. 130).

Frontispiece and Fig.1a Francisco Javier Sáenz de Oíza. Site of Fuencarral A, Madrid, 1955, and comparison with the village of Mojácar.

Oíza's collective housing moved from the fidelity to the Modern Movement's principles to the progressive incorporation of the review elements of Team 10 and to the search for a specific habitat for each particular situation. Experimentation with various types, blocks, towers and spatial grouping forms in the minimum and social housing of Viviendas Experimentales (Experimental Housing) and Poblados Dirigidos (Planned Villages) of the 1950s evolved, opposed to the determinism of the functional city, towards the vindication of the communitarian character in San Ignacio de Loyola (1957-1962) and

Fig. 1b Sáenz de Oíza, F. J. (1956). Poblado de Fuencarral A. *Revista Nacional de Arquitectura*, (176-177), 63, 66.



*El poblado de Fuencarral A, de traza y concepto tan actuales, está en la misma línea del pueblo de Mojácar, en la provincia de Almería. Continuidad no buscada ni pretendida, y que se logra sólo por la pura condición de español de su autor, al exponer, con absoluta libertad y sin ningún prejuicio, sus ideas sobre la arquitectura de nuestro tiempo. (Foto Ortiz Echagüe.)*

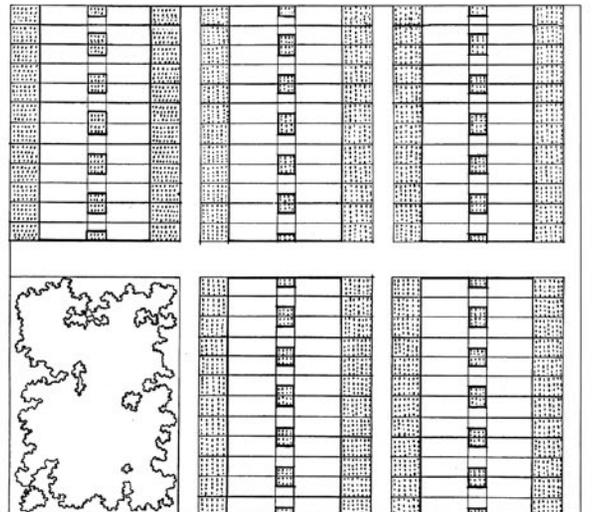
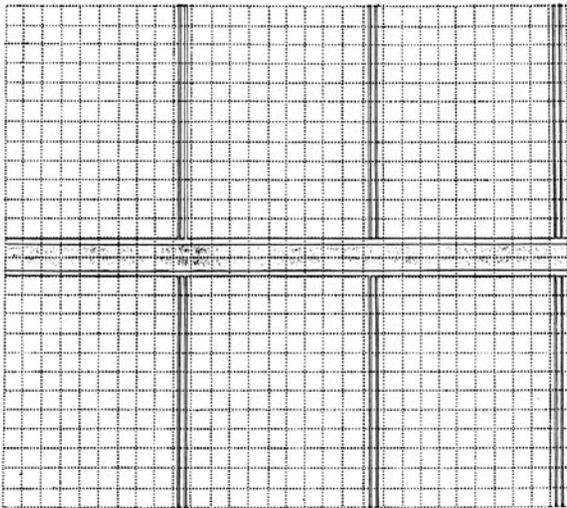


Nuestra Señora de Covadonga (1954). This was the case too in the compositive aggregation of the additive systems of Ciudad Horizonte (1960), precursor of the Ciudad Blanca holidays housing in Alcurdia (1961-1963).

In the social dwellings of the Fuencarral A Residential Unit (1955), Oíza combined two-storey single-family terraced houses with patio and a 3.5-meter bay, with twin-bay four-storey blocks holding two apartments per staircase (Fig. 1a). Oíza intended to humanize the CIAM Athens Charter model of the city, ruled by hygienic criteria, joining together several diversely oriented stepped-back blocks. This way, a variety of spaces for the community were formed, propitiating the individuality of each group opposite the uniformity of types and constructive resources, associating with the image of the traditional construction of Mojácar as shown in the *Arquitectura* journal (Oíza, 1956, p. 66; Vellés, 2018, p. 63; Fig. 1b). To Oíza, “the village is the most immediate human landscape, as an essential part of man himself [...] A more human village, more on the spiritual and physical scale of man” (Oíza, 1959, p. 26). As Shadrach Woods noted: “before the existence of the city planning architect, it was the result of the interaction of the houses with the environment. The cells have been located together: stacked, staggered or scattered” (Smithson, 1966, p. 39). In Entrevías, the ensemble is the result of the interaction of the houses with the environment.

In the Poblado Dirigido de Entrevías (1956), the individuality of the two-storey houses was expressed by the patio-garden, where the inhabitants identify with their houses, “each garden having something peculiar that distinguishes them from the others” (Oíza, 1963, p. 24-26; Fig. 2a). The project established a modular system through a 3.6-meter urban fabric, 7.2-meter wide road traffic streets and 1.8-meter wide alleys that combines flexibility in urban development and general design with the unavoidable rigidity of the urban planning of roads and houses (Fig. 2b).

The Viviendas Experimentales Contest (1956), announced by the Instituto Nacional de la Vivienda (National Housing Institute), promoted the industrialization and modernization of the construction process. Oíza submitted a project consisting of a block holding two apartments per staircase, aiming to achieve the maximum flexibility using a structure of concrete pillars and porticoes and two-storey houses by means of a system of 4-meter wide load-bearing wall bays (Oíza, 1959, p. 11). The patio-garden was conceived as a “continuation and extension of the family living space” (Fig. 3). With great economy of means, Oíza concentrated the kitchen and bathroom nucleus of services, allowing for different configurations. The severe architecture of the existential minimum served Oíza to meet the individual social needs although it was not enough to fully solve the collective needs of the urban scene and its space. His concern for urban and environmental features evolved from the elementary schemes of the modern city, with the systematic repeating of the housing blocks, to the elaborate



S  
D  
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D  
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D

arrangement of the housing blocks regarding the topography of the Barrio de Batán (Batán District) (1958-1960), configuring outdoor spaces for the community. In Batán he proposed “a small neighbourhood unit under the principles of a rational, organic urbanism, in the form of large blocks structured towards the inside, towards a central community space or civic centre” (Oíza, 1961, p. 2-10). In the brief, Oíza noted, “civic spaces reserved exclusively for mankind are created, quiet spaces where to build housing, next to the green areas, facing nature” (Oíza, 2002, p. 230).

The urban space of San Ignacio de Loyola (1957-1962) is delimited by two concentric series of linear housing blocks inscribed in a modular frame, as an economic and formal control mechanism, which created an interior facility for the community: “the great central space, zone of maximum privacy, is reserved for pedestrians” (Sáenz de Oíza, Romany, Mangada, Ferrán, 1965, p. 30). The adaptation of the complex to the topographic slope by means of a sequence of platforms accentuates the stepping of the route and characterizes a sense of place that fosters

Fig. 2a Francisco Javier Sáenz de Oíza, Manuel Sierra. Poblado Dirigido de Entrevías, Madrid, 1956.

Fig. 2b Sáenz de Oíza, F.J. (1996). *Cinco proyectos de vivienda social en la obra de Francisco Javier Sáenz de Oíza*. Madrid: Pronaos, 10, 11.

Fig. 3 Francisco Javier Sáenz de Oíza. Viviendas Experimentales Competition, 1956. Sáenz de Oíza, F.J. (1959). *Viviendas experimentales*. *Arquitectura*, (2), 5, 10, 11.

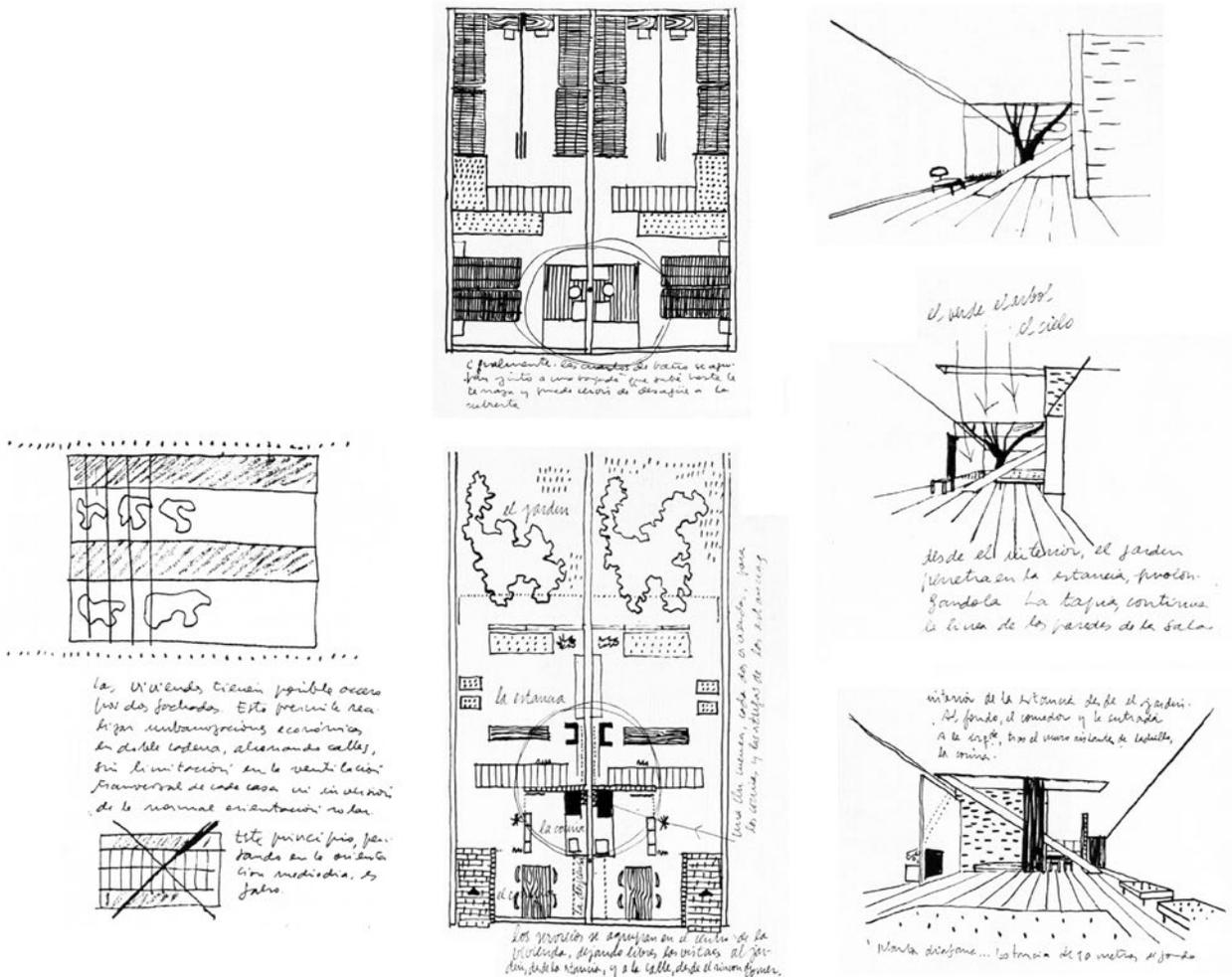


Fig. 4 Francisco Javier Sáenz de Oíza, José Luis Romany, Eduardo Mangada, Carlos Ferrán. Complex of San Ignacio de Loyola, Madrid, 1957 – 1962. Romany, J., Mangada, E y Ferrán, C. (1965). Grupo de Viviendas Loyola. *Hogar y Arquitectura*, (59) 30.

Fig. 5 Hurtado, E. (2002). *Proyecto para la construcción de 600 viviendas en la urbanización del río Manzanares, 1953*. Francisco J. Sáenz de Oíza, Manuel Sierra Nava, José Luis Romany Aranda y Adam Milczynski Kass. Madrid: Fundación COAM, 36.

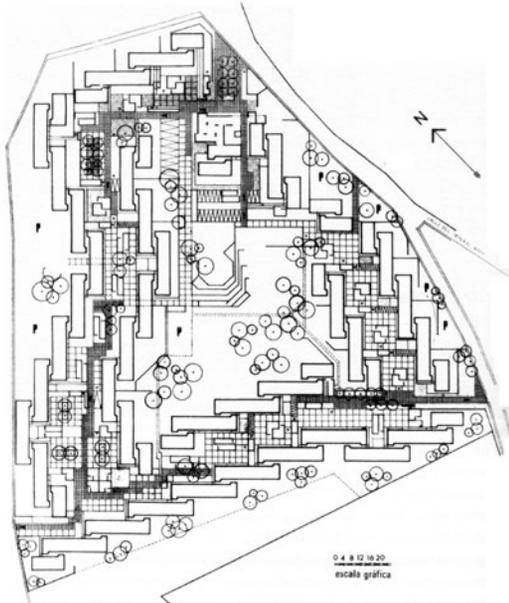
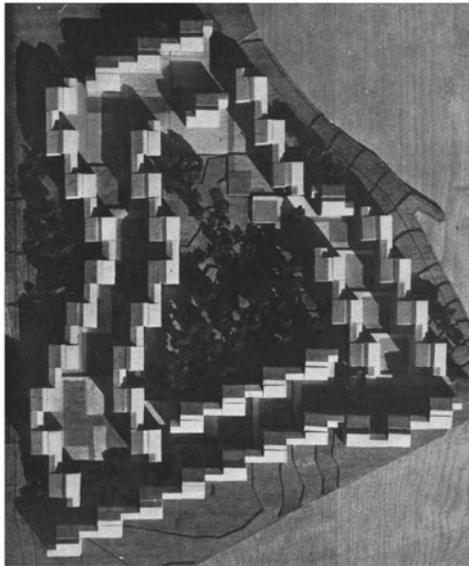
social vitality (Fig. 4). As Vellés noted (2018), “under the influence of Team 10 principles, in addition to economic and functional housing, it was intended to achieve a pleasant environment that would enhance community life” (p. 96). The staircases assemble the housing blocks, serving four apartments each of them, with access to two apartments at each landing, while adapting the building to the topography using half-storey floors. Oíza developed a series of investigations about this model of arrangement of collective housing, trying to explore the spatial grouping of the dwellings.

The Manzanares Unité d’Habitation project (1953) is based on Le Corbusier’s Unité d’Habitation of Marseille (1945–1952), improving the circulation system (Fig. 5). In the two 13-storey high linear blocks that hold 600 apartments, Oíza moved the interior corridor of the Unité d’Habitation to the facade as posed by, among others, Alison and Peter Smithson, Candilis-Josic-Woods or Van den Broek & Bakema. Comparing it with the Unité d’Habitation of Marseille, he pointed that “the street is open to the sun and the landscape, with the possibility of achieving pleasant and interesting environments”. A half-storey system that allows for the relationship of the domestic spaces at different levels organises the apartments. This three-dimensional character of the apartments introduces an important spatial quality. By means of the spatial aggregation of the apartment, a sort of semi-duplex facing opposite facades organised by a corridor, apartments with a single facade and terraces that allow for the visual expansion of the corridor alternate (Hurtado, 2002). The streets up in the air accommodate community life and anticipate one of the central concerns of Team 10 members.

In Nuestra Señora de Covadonga housing scheme (1954) he anticipated the displacements, stepping and setbacks that he later retook at Alcudia’s Ciudad Blanca in Mallorca (1963). From obliqueness and sliding, Oíza arranged a complex formed by series of two and three-bay blocks and a row of single-family houses that delimit a community space.

In the project of Ciudad Horizonte (1960), for a commuter town in Madrid, Oíza conceived, along with Mangada, Romany and Ferrán, rather than an addition of isolated and unconnected housing blocks, an organic complex arranged around an inner core as civic centre holding the community services. In the brief they explained that it was “necessary to create more human urban spaces than those that delimit the independent housing blocks” (Ferrán, Mangada, Romany, Sáenz de Oíza, 1965, p. 38) and defended the role of open spaces, not as what is “left over”, but as what structures the urban scheme. To Oíza, the open space of the functional city lacked social interest and proposed the construction of a human environment, introducing community organizations that he called “the neighbourhood unit”.

In the brief for Ciudad Horizonte, they replaced the project categories of the Athens Charter of CIAM (dwelling, work, recreation



Resumen de la solución. Comparación con otras realizaciones análogas.

La casa de viviendas con sus 11 pisos de vivienda.

31.65m  
2.40m

La solución más actual y audaz: El bloque de Marsella

Viviendo arriba y dos plantas sin ascensor por una calle o plaza independiente

Son los departamentos, tipicos de las soluciones actuales.

Las calles o plazas, son vitales, edificadas, con sus usos (obsequiosos).

El desarrollo de un dos alturas (viviendas arriba) con 11 plantas cada una de ellas y servicios.

Para 11 viviendas se necesitan 14 unidades (14x11) en una estructura total de 22 plantas.

Cada vivienda requiere un área y ancho, este es 3.32 m., para un área de 2.40.

Nuestra solución:

11 viviendas 11 pisos de vivienda y circulación en la calle de acceso.

Viviendo con dos fachadas y acceso restringido.

Son los departamentos de la casa de galería o el bloque de Marsella (calle vitales).

La calle o plaza está abierta al sol y al paisaje (en forma de galería o plaza independiente) y al desarrollo. Ahora se tiene un punto como un desarrollo sin ascensor por la calle o plaza de la fachada de la vivienda.

El desarrollo de un dos alturas con dos plantas de galería y servicios y departamentos.

Para 11 viviendas se necesitan, en una altura total de 22 plantas.

Cada vivienda requiere un área y ancho, este es 3.20 m., para un área de 2.40.

de vivienda = 11.65m

de vivienda = 11.65m

7 plantas

1.50m

Una de construcciones: Comparación de la solución con otra edificación análoga de 12 plantas.

31.65m  
2.40m

31.19m  
3.60m

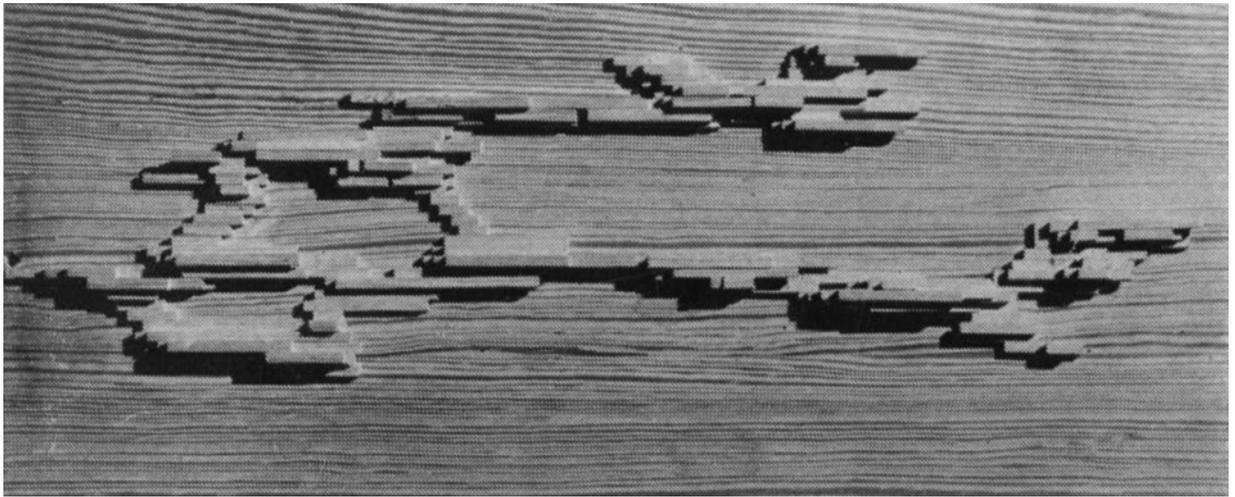


Fig. 6 Francisco Javier Sáenz de Oíza.  
Scale model of the Ciudad Horizonte project,  
Madrid, 1960.  
Fullaondo, J. D. (1966) Torres Blancas, en la  
trayectoria de Francisco Javier Sáenz de Oíza.  
*Nueva Forma*, (10–11), 25.

and transport) with more phenomenological categories and closer to the Team 10 approach: Housing unit, Neighbourhood unit, City and green areas. They proposed the human association, each community as a particular complex and the scales of association.

The scale model of Ciudad Horizonte illustrates the formal coherence of the ensemble through the systematic addition of modules around a linear scheme (Fig. 6). The project continues the formal investigation started at Nuestra Señora de Covadonga (1954) with the displacement of each housing block and the sequence of stepping and setbacks.

### Ciudad Blanca

Overcoming the formal constants of Modernity, Oíza came progressively closer to the Team 10's approaches. To Oíza, the sixties were marked by the transformation of architecture "with the relegation of the Athens Charter, and the CIAM, the resurgence of new and more coherent movements – for example, the TEAM X" (Oíza, 1964, p. 53). In the project of Ciudad Blanca in Alcudia, Mallorca (1961-1963), the notions of urban infrastructure, house grouping and the threshold, characteristic of the revisionist attitude of Team 10, are recognised.

Commissioned by HISA (Huarte Inmobiliaria SA) Oíza developed, in 1960, two projects of exhibition, meeting and conference halls for the company in Madrid, refurbishing, with refinement and rigour, two basements with wooden slats and a furniture with ingenious mechanisms in which Rafael Moneo collaborated (Oíza, 1961, p. 36-40). After the success of this cultural hall, Juan Huarte entrusted Oíza with the draft of a touristic urban development in Alcudia, where he continued his research on house grouping and urban establishment.

### Additive system

Located north of the Bay of Alcudia, in the immediate vicinity of the natural environment of S'Albufera, the urban design of Oíza

and Fullaondo was introduced by a scale model made with chalk pieces, displaying the ability of the module to configure a system of occupancy of the territory through modular addition (Sáenz Guerra, 2018, p. 141; Fig. 7).

To keep the presence and scale of the landscape, Oíza and Fullaondo devised, assembling primary elements, an artificial geography based on a regular fabric. They explored the character of a settlement model that emphasises the natural condition of the site, the ability of each group to establish a link with the land through the cluster and

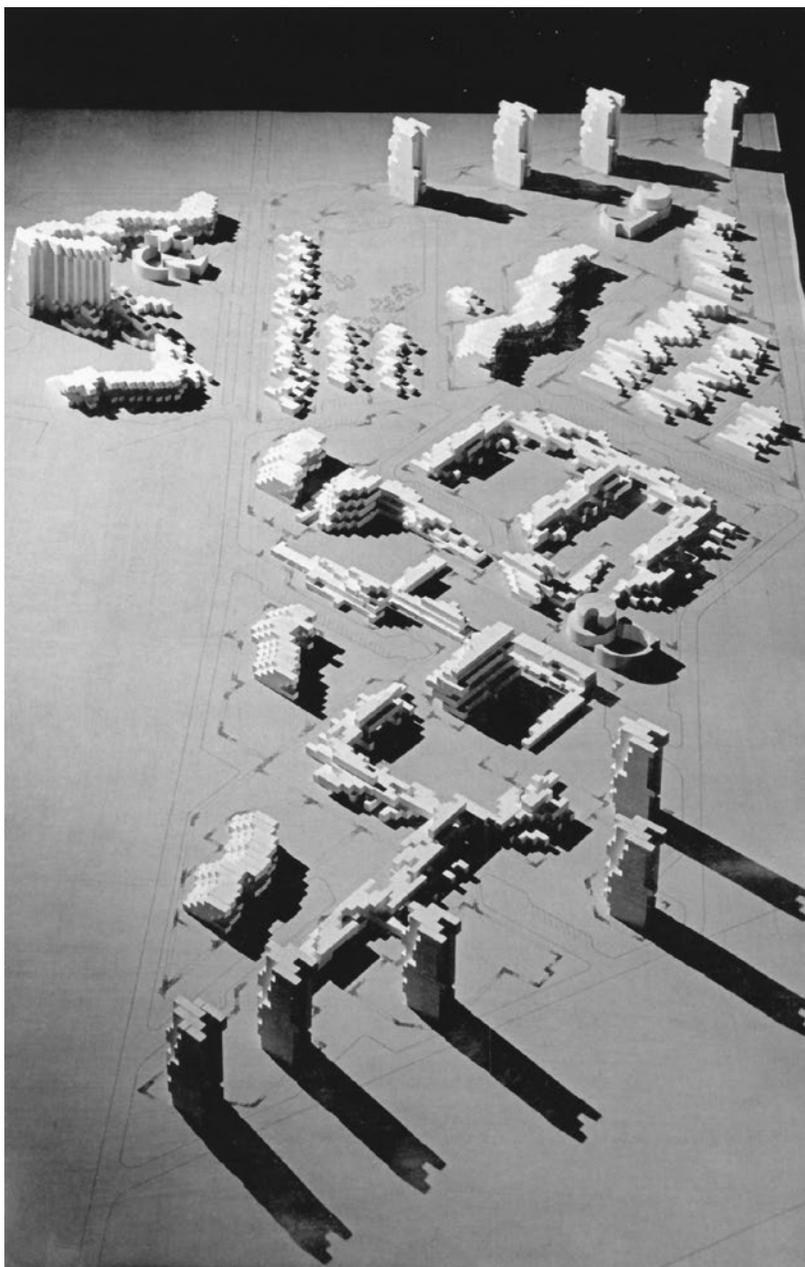


Fig. 7 Francisco Javier Sáenz de Oíza, Juan Daniel Fullaondo. Scale model of the Ciudad Blanca project, Alcudia, Mallorca, 1961. Bergera, I. (2017). *Cámara y modelo. Fotografías de maquetas de Arquitectura en España*. Madrid: Fundación ICO, 155.

establish a correspondence with the landscape on which it stands. Oíza affirmed, “the answer is mostly dictated by the site. There is no project without a site”. (Oíza, 1989, p. 66).

The cluster is the solution of the members of Team 10 that responds to the association models capable of adapting to their context while fostering an environment of coexistence and encounter. To Oíza, “we cannot continue thinking about urban planning of zones or closed figures, but as a coherent and total arrangement of the living fabric of Nature where the individual and social man are based” (Oíza, 1964, p. 58). Faced with the rigidity of the modern urban complexes, the cluster used in Ciudad Blanca supported the arrangement of the settlement model conceived around the neighbourhood unit and the landscape and referred to Coderch’s project of Torre Valentina (1959) or Atelier 5’s Halen neighbourhood in Bern (1956–1961) as models of low-density human grouping.

The new organization scheme, the cluster, established an organic growth pattern characterised by the juxtaposition, overlapping and sliding of the units that reflected the compositional logic of the aggregation. The complex presents a wide diversity of typologies and multiplicity of groupings, stepped holiday apartment towers, medium-density housing blocks, terraced houses and a set of services that reinforce collective cohesion.

### **Grouping of housing**

From the ambitious planning project, only the block closest to the sea was developed (Añón Abajas, Torres Dorado, 2015, p. 58). The design scale models combined a large hotel within a stepped tower with two series of stepped blocks of apartments (Climent Guimerà, 2001, p. 12–43; Fig. 8). The next design considered the construction of four four-storey apartment blocks, but only a stepped 100-apartment block (1962–1963) was built initially, and later on a 64 apartments tower (1968) (Oíza, 1970, 62–63).

The apartments block is a four-storey building consisting of 25 modules of four stacked apartments (Fig. 9). Sliding the modules, a setback series is formed and when moving them vertically, a stepped section is formed, generating an additive three-dimensional system characterised by aggregation, diversity and fragmentation.

The sliding of the units refers to the broken geometry and the volumetric composition of the project of the Hotel de Mar in Illetas, Mallorca (1962) where Coderch tested new patterns of three-dimensional repetition, with the obliqueness and the sliding of the modules (Cortés, 2004, p. 29).

### **The ‘street in the air’**

Through two wide single-flight concrete stairs give access the open gallery, as an elevated exterior street that leads directly to the first-floor apartments while a spiral staircase gives access to the second

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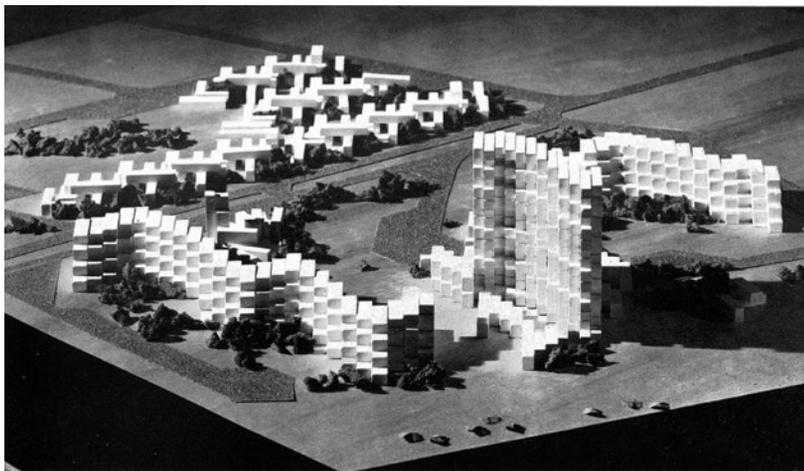


Fig. 8 Francisco Javier Sáenz de Oíza, Juan Daniel Fullaondo. Partial scale model of the Ciudad Blanca project, Alcudia, Mallorca, 1961. Sáenz de Oíza, F. J. (1964). *Urbanización Ciudad Blanca. Cuadernos de Arquitectura*, (58), 33.

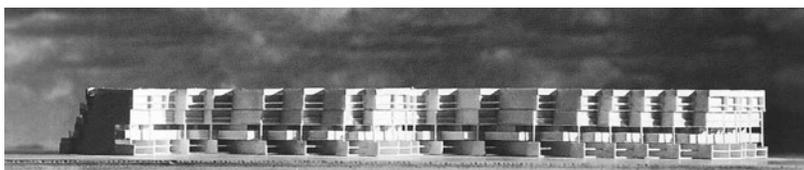
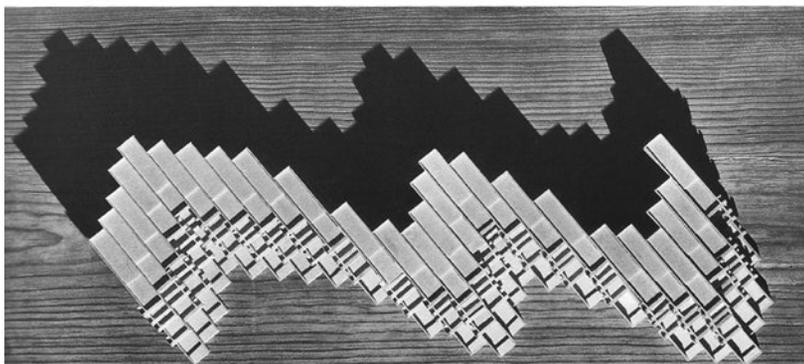
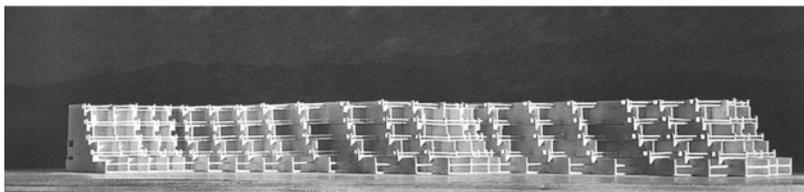
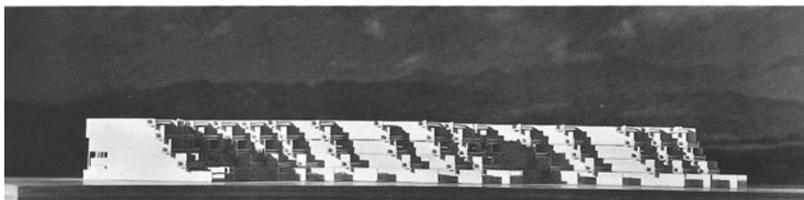


Fig. 9 Francisco Javier Sáenz de Oíza. Scale model of the 100-apartment block in Ciudad Blanca, Alcudia, Mallorca, 1961 – 1963. Climent Guimerà, F. (2001). *J. Sáenz de Oíza. Mallorca 1960 – 2000: proyectos y obras*. Palma de Mallorca: Govern Balear, 19.



and third-floor apartments (Fig. 10a, b). Oíza, in a debate session on Coderch's Girasol building in Madrid, defended the role of the street as an area of social exchange, as a threshold between the dwelling and the exterior and as a shared environment that provides the community with an identity. "When the city is divided into housing blocks, perhaps dwellings are more hygienic, but one of the charms of architecture, of urbanism, the need of man to live in community has disappeared. It is the street as a space for communication" (Oíza, 1967, 34). The elevated street provides the dwellings with access and establishes a common area of social interaction for the community (López Peláez, 1989, p. 40). The zigzagging gallery accentuates the stepping of the walkthrough and the widenings generate meeting places and identify the dwellings on the platform. The elevated street is a means of access to the apartments as well as a collective element that generates a feeling of belonging.

The protection of the elevated exterior street by means of a white square lattice contributes to generate a great spatial richness and a sense of place that fosters social vitality (Fig. 11a). The apartments on the ground floor have independent access from the community garden, emphasising the continuity between the platforms in the air and the streets that run through the garden and the environment.

This very interest in the shapes of the walkthroughs and the streets, understood as thresholds to identify the dwellings within the complex, can be found in the works of the architects of Team 10, the "streets in the air", or the "platforms" of the Smithsons that give access to the dwellings in Golden Lane (1951) and host community life.

### **The threshold**

The access route to the holiday apartments acquires great importance and the transition of the community space, which fosters social ties, to the private space of the apartment is emphasised by the notion of the threshold as a transitional place that mediates between the two areas (Fig. 11b). The meeting and dialogue between two areas of different order, the street and the private space, takes place in these intermediate spaces. To Oíza, "the threshold is the space that relates the interior and the exterior and, therefore, is your existence. You have a private life, but you also have your public projection. The threshold is, thus, the centre of the world. This is very important for architecture, because the thicker its edge, the threshold, the more important architecture is" (Capitel, 2000, p. 82). In Ciudad Blanca, the sensitivity of Team 10 is present in the treatment of the threshold as a place with its own identity, where there is a transition and connection between areas of different character.

### **The bay as spatial system**

The single-family houses in the residential complexes of Oíza are set between two parallel walls that were considered, in the briefs of the analysed developments, as an "ideally economic" constructive system.

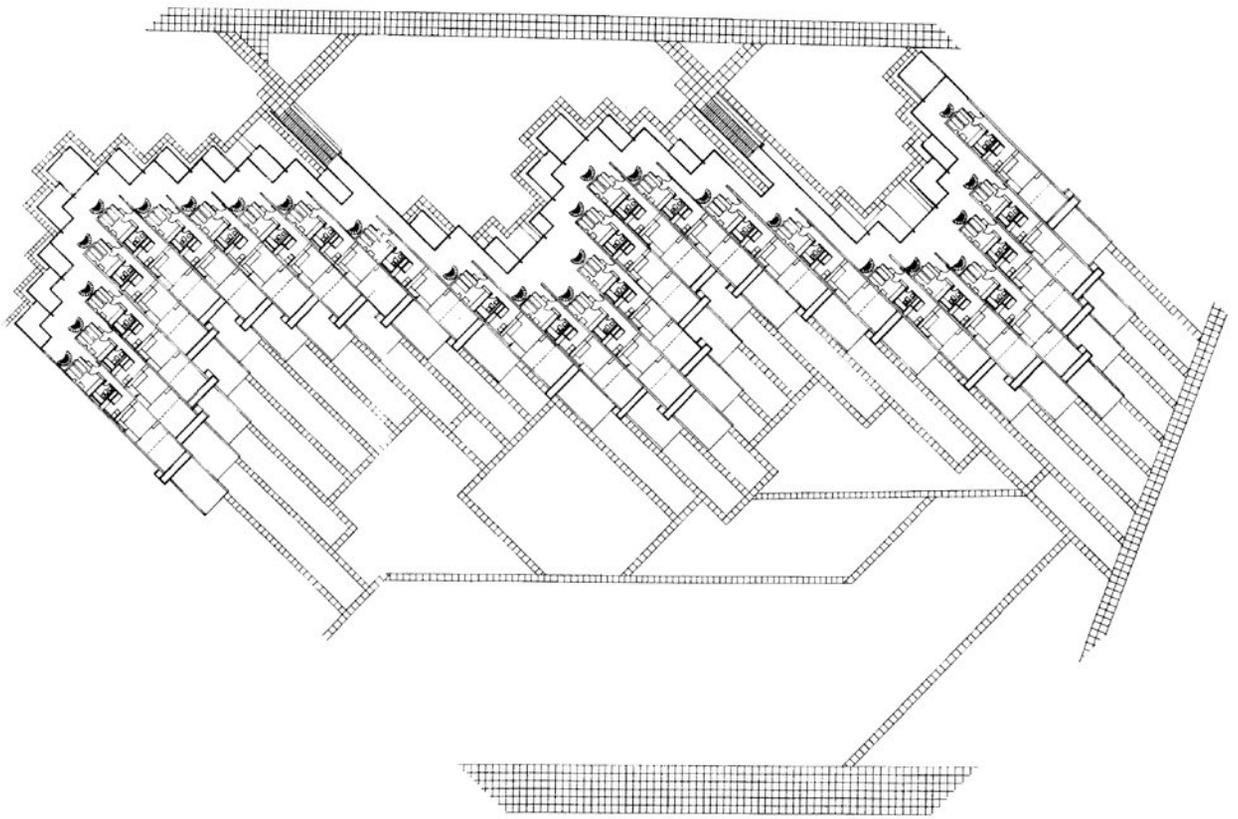


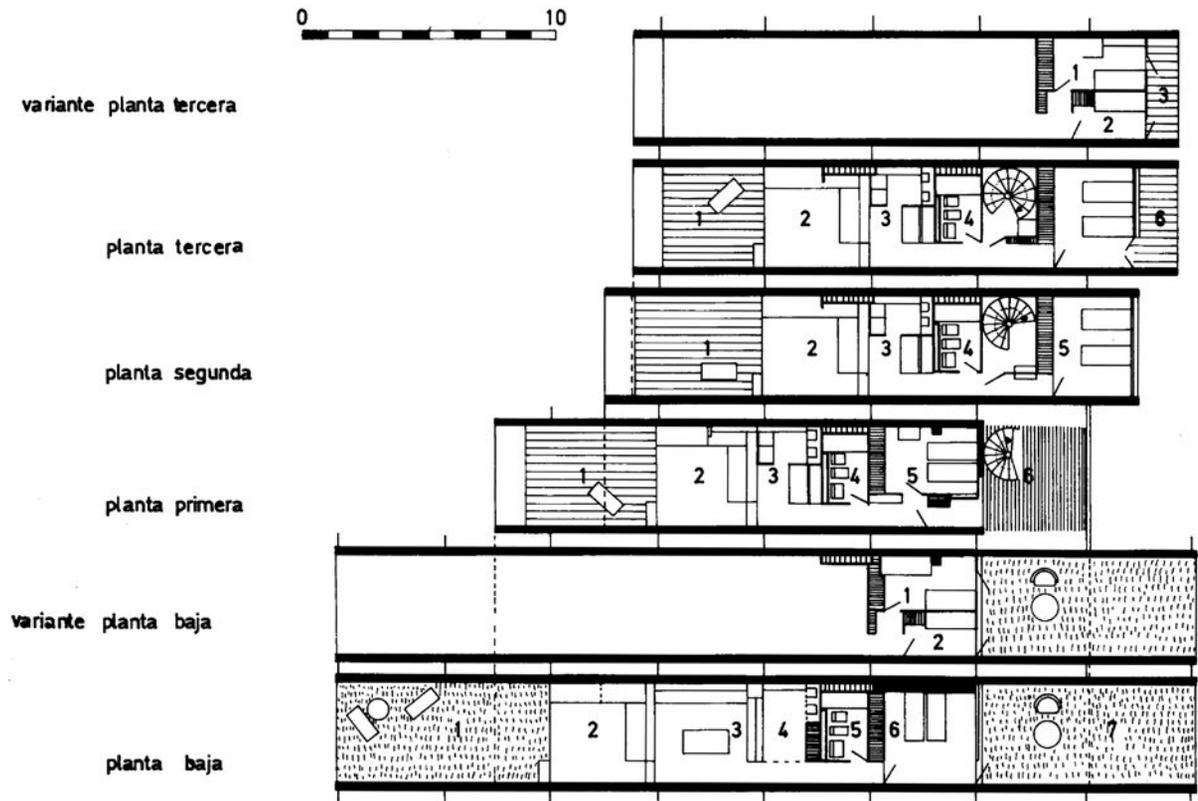
Fig. 10a, 10b Francisco Javier Sáenz de Oíza.  
General plan of Ciudad Blanca and stairway to  
the 'street in the air'.  
Sáenz de Oíza, F. J. (1989). Ciudad Blanca  
revisitada. D'A, (3), 49; Author.





Fig. 11a, 11b Francisco Javier Sáenz de Oíza.  
Gallery and threshold access to the apartments  
of Ciudad Blanca, Mallorca, 1961–1963.  
Author.

Fig. 13 Francisco Javier Sáenz de Oíza.  
Plans of the Ciudad Blanca apartments, Mallorca,  
1961–1963.  
Sáenz de Oíza, F. J. (1989). Ciudad Blanca  
revisitada. D'A, (3), 45.

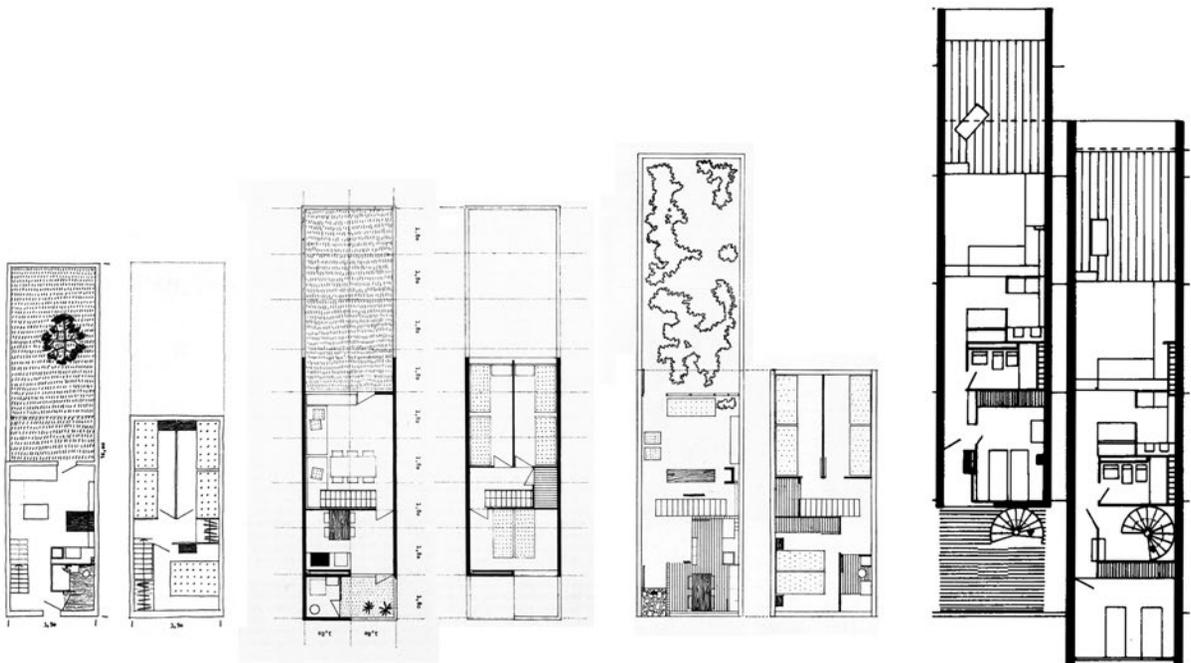


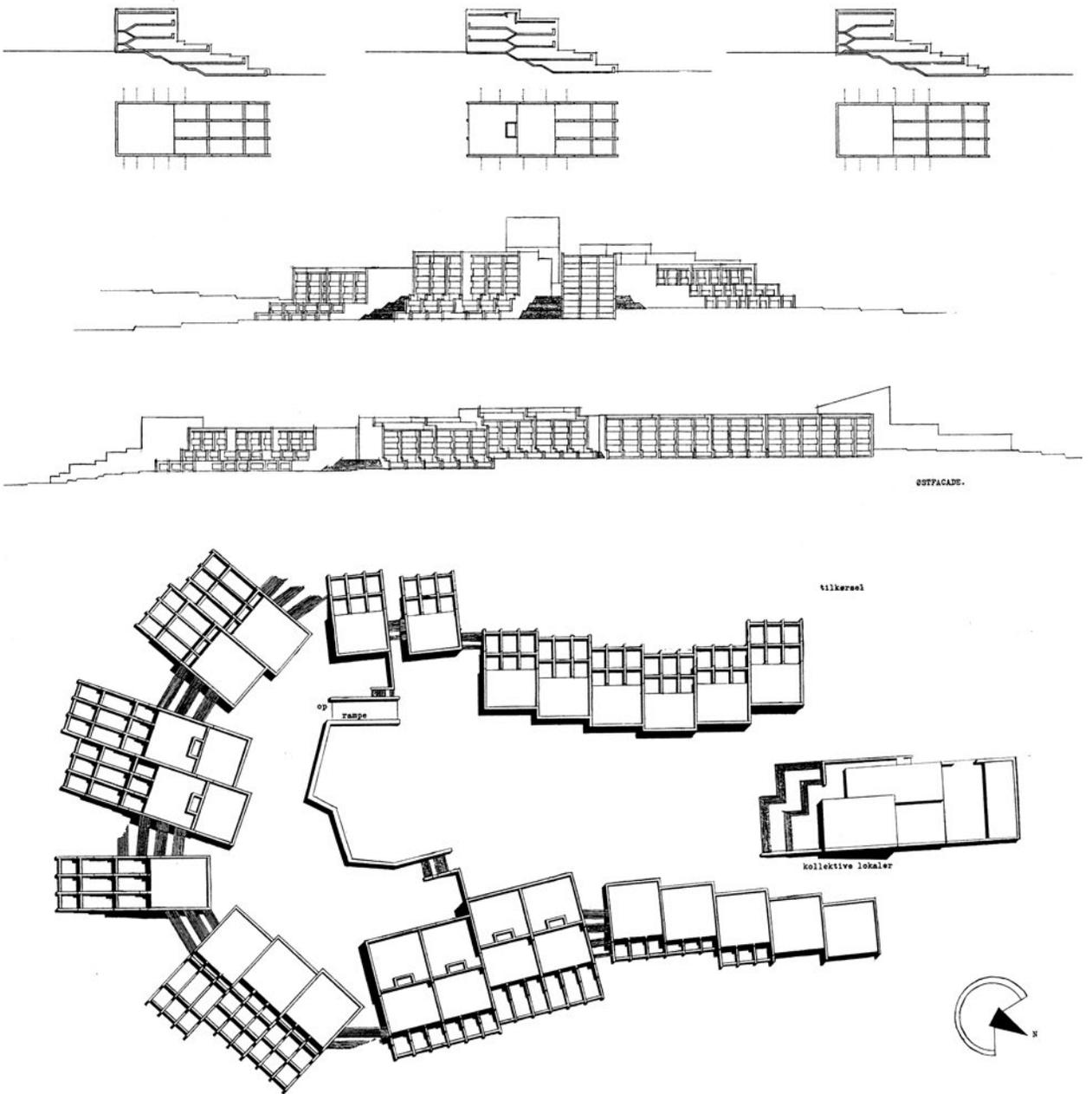
The residential projects of great bay depth allow for the improvement of the shape coefficient by reducing the proportion between facade and usable space with the consequent economic and energy saving. The staircases are parallel to the slabs to avoid the use of pitching pieces and the system only requires adequate lateral bracing. In the minimum housing projects, Oíza used a system of load-bearing wall bays that determine the spatial directionality of the dwellings. The depth is the shape of the space and the dwellings extend to the garden. In the two-storey single-family dwellings of Fuencarral A (1955), the bay is 3.5-meter wide. In Entrevías (1956), the bay extended up to 3.6 meters, inscribed in a 1.8x1.8-meter module. In the Viviendas Experimentales (1956), the bay extended to 4-meter wide and in the holiday dwellings of Ciudad Blanca, Oíza used the 30 cm decimal foot module and the bay extended to 4.2 meters (Fig. 12).

In Alcudia, Oíza took on a narrow and deep housing model in which the minimum dwelling patio was replaced by the viewpoint terrace of the holiday apartments. He also substituted, stacking four dwellings, the load-bearing walls for a frame system that maintained the pattern of the walls system (Fig. 13).

The research on the single-bay narrow and deep dwelling, between two parallel walls was carried out simultaneously by Atelier 5 in the Halen neighbourhood in Bern (1956–1961), alternating dwellings with a 4.2-meter wide bay and larger ones with 5.15-meter wide bays. Coderch also used a system of equidistant walls, with 4.5-meter bays, in the Torre Valentina project (1959) that he showed at the Team 10 meeting in Otterlo (1959).

Fig. 12 Francisco Javier Sáenz de Oíza. Evolution of the house in depth. Fuencarral A (1955); Entrevías (1956); Viviendas Experimentales (1956); Ciudad Blanca (1961–1963).





### Raumplan

The vertical movement of the apartment units creates a section whose stepped profile evokes the project of the housing complex in Birkebo (1960) (Fig. 14a) or the contest for Elviria in Malaga (1960) by Jørn Utzon. "I must declare that an Utzon project in Malaga influenced me," stated Oíza (1989, p. 67; Fig. 14b).

The functional program of the apartments includes living room, kitchen-dining room, nucleus of services, and the possibility of one or two bedrooms. The ground floor apartments have a 70 square-meters

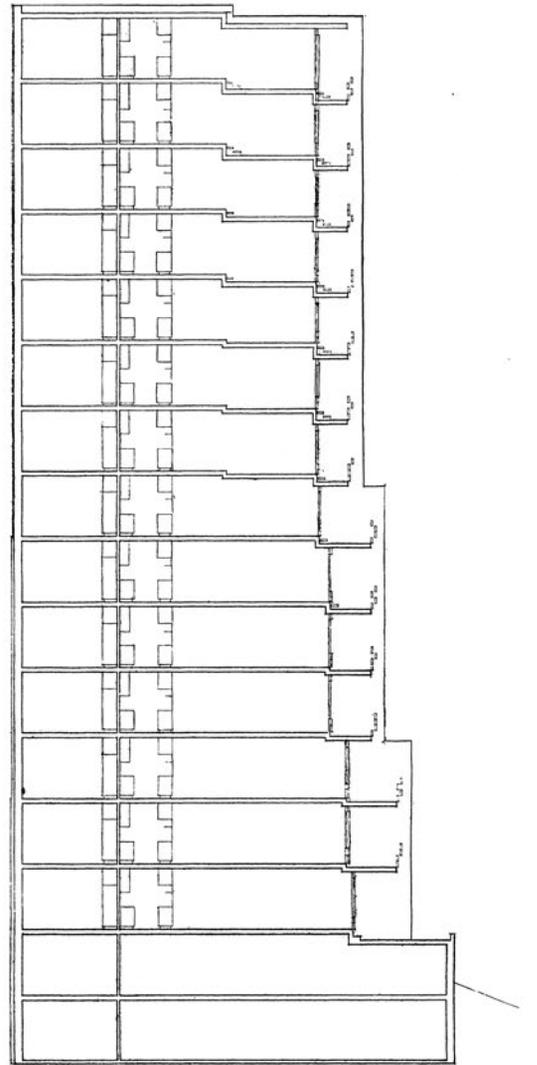
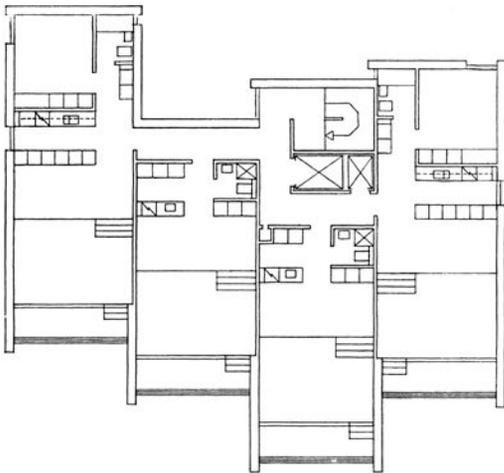
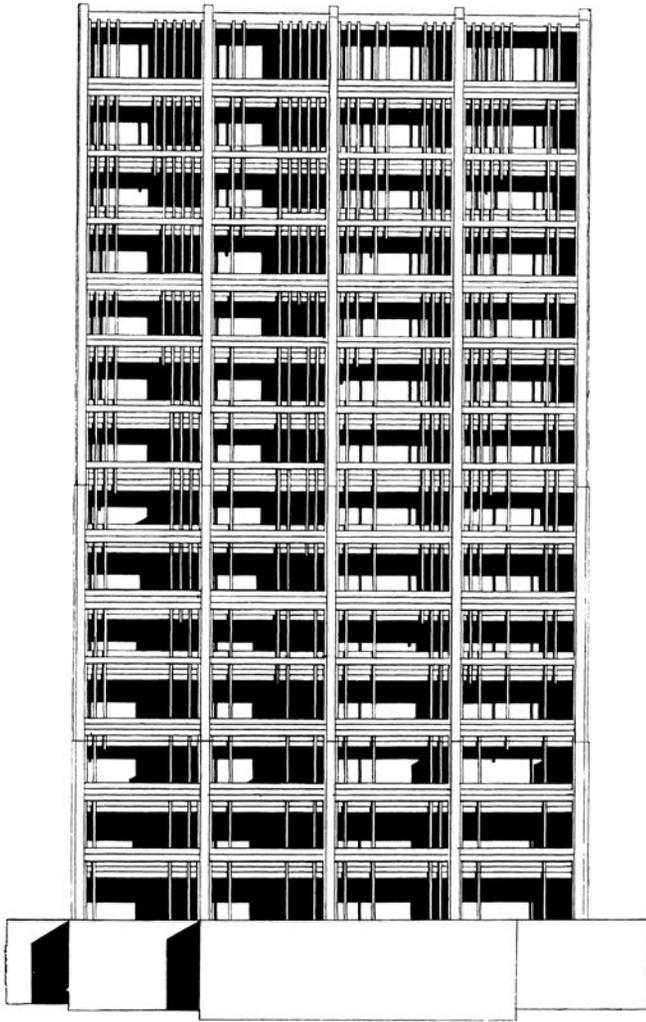


Fig. 14a, 14b Jørn Utzon. Housing complex in Birkebo, Denmark, 1960. Francisco Javier Sáenz de Oíza. Ciudad Blanca, Mallorca, 1961–1963. Ferrer Forés, Jaime J. (2006) *Jørn Utzon. Obras y Proyectos*. Barcelona: Gustavo Gili, 214–215. Climent Guimerà, F. (2001). *J. Sáenz de Oíza. Mallorca 1960–2000: proyectos y obras*. Palma de Mallorca: Govern Balear, 28.

area and a 70 square-meters terrace, both at the front and at the back. The first, second and third-floor apartments have a 50 square-meters area and a 25 square-meters terrace. In addition, Oíza affirmed, “in Alcudia you can find Utzon’s descending planes of the slabs” (Oíza, 1989, p. 67). There is a stepping of the slab between the kitchen-dining room and the living room, separating the areas, and between the living room and the terrace there is another stepping that spatially orientates the dwelling towards the sea and refers to the project of the houses with the stepped floor in Elineberg (1954) by Jørn Utzon (Fig 15a, b). The research on the spatial characterization of the dwellings by a stepped section can also be observed in the Entonnoir (1953) houses of Candilis-Josic-Woods.

### Climate and tectonics

In his texts for the Building Health and Hygiene course, with which he began teaching at ETSAM, Oíza pointed out that “water, air, sun and soil are the essential elements of public health” (Oíza, 2006, p. 124). Oíza compared the apartments with sun loungers and orientated them to the Southeast. Oíza affirmed, “architecture is truly the great climate control system, to which techniques only accompany”. With the assessment of the site and the introduction of climate control strategies such as cross-ventilation and the “exact breathing”, he tried to achieve bioclimatic comfort taking advantage of the environmental conditions (Luxán,



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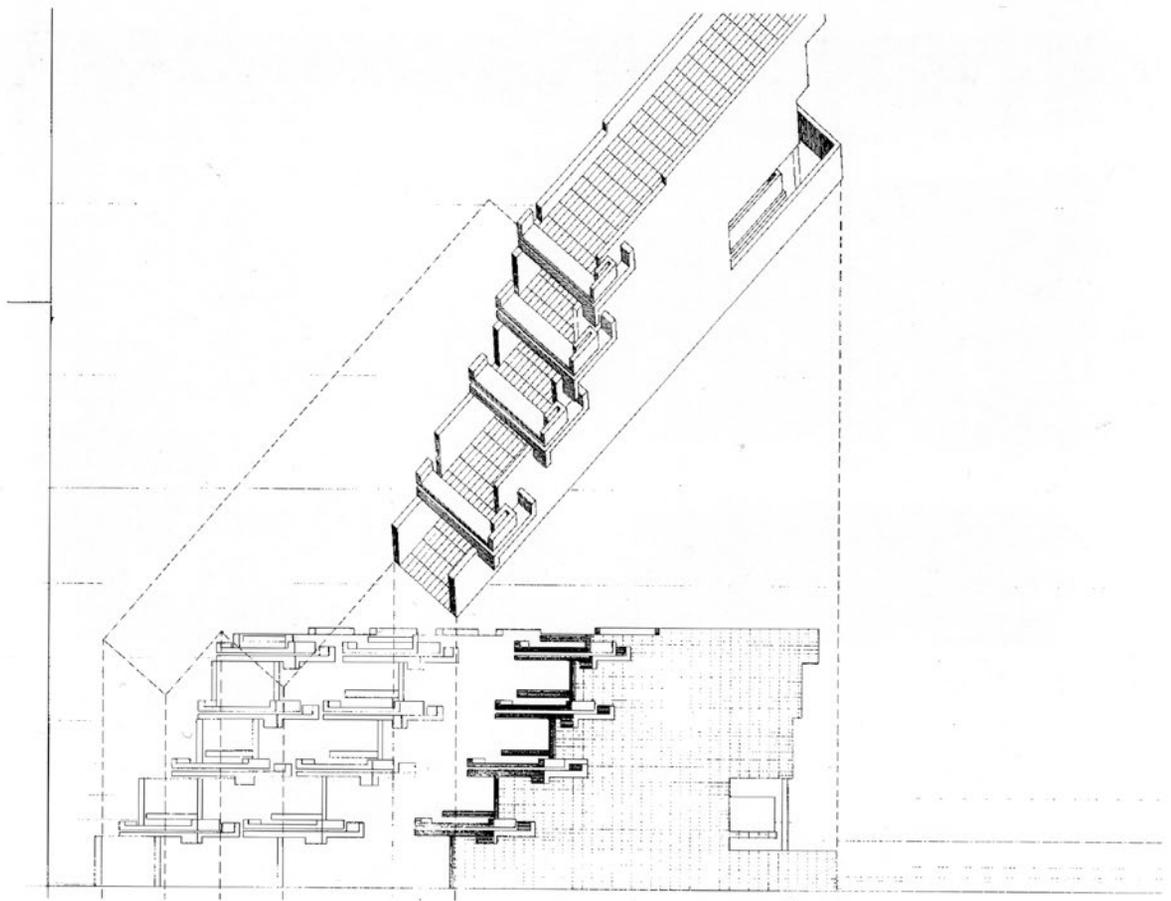
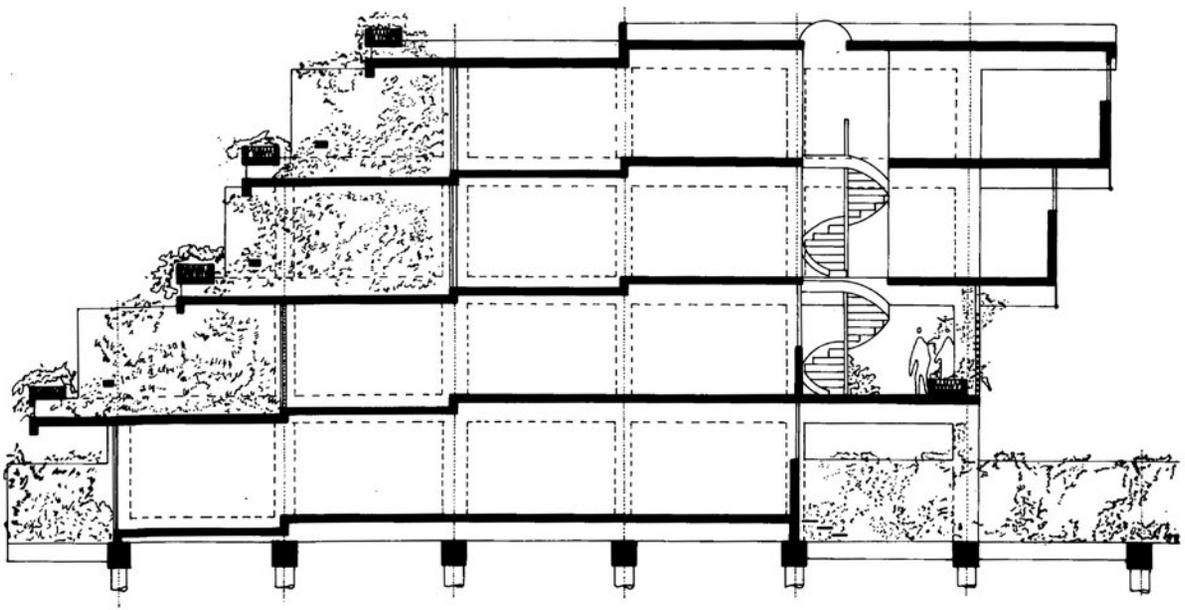


Fig. 15a, 15b Jørn Utzon. Elineberg Housing complex, Sweden, 1954. Francisco Javier Sáenz de Oiza. Cross-section of Ciudad Blanca, Mallorca, 1961-1963.

Ferrer Forés, Jaime J. (2006) *Jørn Utzon. Obras y Proyectos*. Barcelona: Gustavo Gili, 119. Sáenz de Oiza, F. J. (1989). *Ciudad Blanca revisitada*. D'A, (3), 46.

Fig. 16 Francisco Javier Sáenz de Oiza. Axonometry of the housing block and elevation of Ciudad Blanca, Mallorca, 1961-1963.

Climent Guimerà, F. (2001). *J. Sáenz de Oiza. Mallorca 1960-2000: proyectos y obras*. Palma de Mallorca: Govern Balear, 25; Author.



2018, p.130-131). All the architectural tension of the holiday apartments developed in depth is concentrated in the Southeast facade, where it opens to the landscape. For this reason, this facade is treated as a single opening, using up to the maximum all the available surface, while, thanks to the terrace and the porch, it acquires thickness, creating a transition space between interior and exterior that is, in itself, a living space.

Oiza introduced, as limits of the apartment terraces, a jardinière that favours the separation between the apartments: “the way to avoid seeing the neighbour below is to put, instead of a railing, a meter-high parapet” (Oiza, 1989, p. 68). The stepping and the plastic effects produced by the neoplastic joint in the treatment of the walls, slabs and borders of the jardinières characterise the image of the apartments (Cortés, 2006, p.139; Fig. 16a, b).

The supporting structure is formed by a reinforced concrete portico system and the enclosure and partition walls were executed with a lightweight Ytong insulating block. Oiza used the prefabrication for jardinières, spiral stairs, carpentry or kitchen-dining room furniture, made by H Muebles, which underlined spatial continuity.

### Conclusions

Through successive tests, Oiza’s experimentation on housing grouping moved from the rigid pattern of the functional city to the progressive plasticity of the organic arrangement. Likewise, from the additive three-dimensional system characterized by aggregation, diversity and fragmentation of Ciudad Blanca to the vertical garden city of Torres Blancas or the mega-structural M-30 housing block as a means of ordering the urban sprawl. This conceptual and formal review introduced a greater degree of complexity in the studied architectural systems that responded to the premises set forth in the Doorn

manifiesto (1954) and to the Team 10's notions of "habitat", "identity" or human association. Thus, Oíza's collective housing flows from the articulation of rational and autonomous volumes, with the premise of the void as an open space, to the arrangement of the dwellings in the organic structure of Ciudad Blanca, capable of generating more enclosed spaces that favour social interaction and human association.

## References

- Alberdi, R. (1996). *Francisco Javier Sáenz de Oíza*. Madrid: Pronaos.
- 
- Añón Abajas, R. M., Torres Dorado, S. M. (2015). Ciudad Blanca en Bahía De Alcudia. Una obra con sentido pedagógico del Profesor Francisco Javier Sáenz De Oíza. 1961–63. *Proyecto, progreso, arquitectura*, (12), 52–71.
- 
- Bergera, I. (2017). *Cámara y modelo. Fotografías de maquetas de Arquitectura en España*. Madrid: Fundación ICO.
- 
- Capitel, A. (1990). Las ideas orgánicas como instrumentos de proyecto: Torres Blancas y otras obras de Sáenz de Oíza. *Anales de Arquitectura* (2), 50–57.
- 
- Capitel, A. (2000). Palabras de Arquitectura. Retazos de reflexiones de Sáenz de Oíza. *Arquitectura* (número extraordinario), 80–85.
- 
- Climent Guimerà, F. (2001). *J. Sáenz de Oíza. Mallorca 1960–2000: proyectos y obras*. Palma de Mallorca: Govern Balear.
- 
- Cortés, J. A. (2004). Schindler en Mallorca. *Arquitectura*, (338) 28–37.
- 
- Cortés, J. A. (2006). Las vicisitudes de una propuesta arquitectónica. In Cortés, J. A., *Lecciones de equilibrio* (pp. 133–141). Barcelona: Fundación Caja de Arquitectos.
- 
- Ferrán, C., Mangada, E., Romany, J. y Sáenz de Oíza, F. J. (1965). Horizonte. Anteproyecto de urbanización para ciudad Satélite de Madrid. *Hogar y Arquitectura*, (59) 31–44.
- 
- Ferrer Forés, Jaime J. (2006). *Jørn Utzon. Obras y Proyectos*. Barcelona: Gustavo Gili.
- 
- Fullaondo, J. D. (1966) Torres Blancas, en la trayectoria de Francisco Javier Sáenz de Oíza. *Nueva Forma*, (10–11), 20–32.
- López Peláez, J. M (1989). En la Ciudad Blanca. *D'A*, (3), 36–41.
- 
- Luxan García de Diego, M (2018). Francisco Javier Sáenz de Oíza, un maestro de la adecuación bioclimática. *ZARCH*, (10), 126–137.
- 
- Hurtado, E. (2002). *Proyecto para la construcción de 600 viviendas en la urbanización del río Manzanares 1953. Francisco J. Sáenz de Oíza, Manuel Sierra Nava, José Luis Romany Aranda y Adam Milczynski Kass*. Madrid: Fundación COAM.
- 
- Sáenz de Oíza, F. J. (1956). Poblado de absorción Fuencarral A. *Hogar y arquitectura*, (6), 3–10.
- 
- Sáenz de Oíza, F. J. (1956). Poblado de Fuencarral A. *Revista Nacional de Arquitectura*, (176–177), 63–66.
- 
- Sáenz de Oíza, F. J. (1959). Viviendas experimentales. *Arquitectura*, (2), 5–11.
- 
- Sáenz de Oíza, F. J. (1959). El pueblo de Vegaviana. *Arquitectura*, (7), 25–28.
- 
- Sáenz de Oíza, F. J. (1961). Unidad Vecinal Batán. *Hogar y Arquitectura*, (33), 2–10.
- 
- Sáenz de Oíza, F. J. (1961). Local para exposiciones en Madrid. *Arquitectura*, (30), 36–40.
- 
- Sáenz de Oíza, F. J. (1963). Barrio de Entrevías. *Arquitectura*, (58), 2–29.
- 
- Sáenz de Oíza, F. J. (1964). Cuestionario. *Arquitectura*, (64), 52–59.
- 
- Sáenz de Oíza, F. J. (1964). Urbanización Ciudad Blanca. *Cuadernos de Arquitectura*, (58), 33–36.
- 
- Sáenz de Oíza, F. J., Romany, J., Mangada, E y Ferrán, C. (1965). Grupo de Viviendas Loyola. *Hogar y Arquitectura*, (59) 21–30.
- Sáenz de Oíza, F. J. (1965). Ciudad Blanca. Wohnquartier in Alcudia auf Mallorca. *World architecture*, (2), 156–159.
- 
- Sáenz de Oíza, F. J., Fullaondo, J. D. (1966). Ciudad Blanca, Alcudia, Majorque, 1962–63. *L'Architecture d'Aujourd'hui*, (52), 30–35.
- 
- Sáenz de Oíza, F. J., Fullaondo, J. D. (1966). Ciudad Blanca: Terrassenwohnungen in Alcudia auf Mallorca. *Baumesteir*, (63), 1482–1484.
- 
- Sáenz de Oíza, F. J. (1967). SCA. Sesión crítica de Arquitectura. Edificio Girasol. *Arquitectura*, (107), 29–37.
- 
- Sáenz de Oíza, F. J. (1967). Ciudad Blanca. Wohnquartier in Alcudia auf Mallorca. *Baumesteir*, (64), 1453–1492.
- 
- Sáenz de Oíza, F. J. (1970). Torre de apartamentos de Alcudia, 1968. *Nueva Forma*, (53), 62–63.
- Sáenz de Oíza, F. J. (1989). Ciudad Blanca revisitada. *D'A*, (3), 42–59.
- 
- Sáenz de Oíza, F. J. (1989). D'A entrevista Oíza. *D'A*, (3), 60–73.
- 
- Sáenz de Oíza, F. J. (1996). *Cinco proyectos de vivienda social en la obra de Francisco Javier Sáenz de Oíza*. Madrid: Pronaos.
- 
- Sáenz de Oíza, F. J. (2002). Francisco Javier Sáenz de Oíza: 1946–1988. *El Croquis* (32–33).
- 
- Sáenz de Oíza, F. J. (2006). Francisco Javier Sáenz de Oíza. Escritos y conversaciones. Barcelona: Fundación Caja de Arquitectos.
- 
- Sáenz Guerra, J. (2018). Oíza aditivo. El método comparativo en Alcudia, seleccionando el horizonte. *ZARCH*, (10), 138–151.
- 
- Vellés, J. (2018). *Oíza*. Barcelona: Puentes Editores.