

Dissertation

**The Siedlungen and Sáenz de Oíza's Social Housing.
A Spanish Case Study**

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Raquel Jaureguizar Jiménez
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Abstract

This historical research work is aimed to be an investigation into the influence of the German interwar and postwar *Siedlungen* and their architecture principles in the special case of the Spanish social housing projects designed and built after the Spanish Civil War, specially during the decade of the 1950s and, above all, through the important architectural achievements and contributions of Francisco Javier Sáenz de Oíza in terms of social housing in Madrid, since they precede and provide the basis of all his subsequent architectural production, which is much better known.

The decision to analyze Sáenz de Oíza's social housing production with a new critical approach and from the German reference is therefore based on the assumption that his work can be understood as a catalogue of architectural references, which are multiple and changing along his professional path. In the case of the German influences, they are most evident in his social housing production, concentrated in the decade of the 1950s, but they remain a constant reference in two isolated projects carried out by Sáenz de Oíza in subsequent decades, and more specifically in 1979 and 1986, when he revised the issue of social housing in the Spanish capital.

Zusammenfassung

Ziel dieser Forschungsarbeit ist es, den Einfluss deutscher Zwischen- und Nachkriegssiedlungen auf den sozialen Wohnungsbau im Spanien während der 1950er Jahre zu zeigen. Die Madrider Beiträge von Francisco Javier Sáenz de Oíza im Spanien nach der Bürgerkriegszeit stehen im Fokus. Sie bilden die Grundlage für sein breites und bedeutendes späteres Werk, das weithin bekannt ist.

Die Entscheidung, den sozialen Wohnungsbau von Sáenz de Oíza mit Bezug auf die deutschen Beispiele zu analysieren, beruht auf der Annahme, dass er als eine Sammlung architektonischer Referenzen verstanden werden kann. Eine Erweiterung und Ergänzung der Referenzen in seinem späteren Werk ist ebenfalls nachzuweisen, so bei den Siedlungen der Jahre 1979 und 1986, als er sich erneut mit der Frage des Sozialwohnungsbaus in Madrid befasst.

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Preface

*"The house is the intimate enclosure of our
<<self-realization>>."*¹

Francisco Javier Sáenz de Oíza

The History of social housing in Europe is the history of the minimum resources (financial, material and technical), hygiene, healthiness and joint efforts of all parties: public institutions, architects and future owners. We can not speak of any of the above points in isolation without referring to the rest of related and complementary factors. They all form a conglomerate of circumstances and opportunities, woven together and sharing the same role: to help improve the lives of the people. Without a doubt, postwar social housing developments provided Europe with one of its most beautiful, emphatic and unique architectural exercises of the twentieth century.

Particularly in Spain, and due to the Civil War (1936-39) and the consequent national hardships after the conflict when the Francoist regime was installed, the language of modern architecture was interrupted or abandoned by many architects. However, despite the nationalist ideology imposed on the Spanish society (which obviously affected the architecture), the postwar period was also the opportunity for many young architects in Madrid to restore the modern principles of the twenties and experiment with the urgently needed social housing. In this way, the modern architecture of Madrid was marked by its capacity of radically changing the political and social conditions in Spain in the twentieth century.

The Spanish Civil War ended in 1939 in Madrid with the victory of Franco and left behind a shattered society of winners and losers. In this environment, a younger generation of architects in the 1950s represented, among others, by Francisco Javier Sáenz de Oíza, leading exponent of the Spanish contemporary architecture, sought to develop a careful process towards a new understanding of architecture, with great expressive power and elegant subtlety. For many of these young architects, this would be possible through the attempt to rebuild the lost ties with the European modern architecture of the twenties that had been cut when the national conflict began.

Although there has always been a widespread thought that the fifties were a period of isolation and lack of information in Spain, the numerous foreign projects in national publications and the assistance of Spanish architects at various exhibitions in Germany, as in *Interbau* (Berlin, 1957), in *Constructa* (Hannover, 1951) or *Wie*

¹ SÁENZ DE OÍZA, Francisco. Interview by PÉREZ BODEGA, Marisa: <<La opinión del arquitecto

Wohnen? (Stuttgart, from 3 December 1949 to 31 January 1950), show otherwise. But, how much information about foreign architecture appeared in the pages of Spanish journals? What were the most important issues for the Spanish architects? In the mid-fifties, Spanish journals took a look at German and Italian cases in search of a solution to the housing problem.

In this sense, there is a need to recognize the magnitude of what was done in Germany after the two world wars on the formation of Spanish architects of the decade of the fifties. This German influence used to be in many cases the soul of their works, and most of these direct and indirect influences were brought through specialized magazines and the educational stays of Spanish architects in Germany since the early 1920s. It is not uncommon to assume that, having a similar situation in postwar Spain than that of the twenties in Germany, some of the Spanish architects involved in the design and construction of the postwar social settlements, specifically in the early 1950s, adopted the same attainable housing typologies developed by their European masters.

Madrid's top and most radical examples of this typology for the working class, which are directly inherited from the German *Siedlungen* of the 1920s, were represented by, among others, the *Relocation Settlement of Fuencarral* <<A>> (1955) and the *Directed Settlement of Entrevías* (1956-1960), both early works of Sáenz de Oíza. Although these were not the only examples of adaptation of the *Siedlung* from the 1920s nor was Sáenz de Oíza the only isolated representative of its principles, these two social housing projects are arguably the most radical and pure attempt to carry them out, assuming that what had worked in Central Europe, could also work in Madrid, and therefore, in Spain. Despite the difficulties, both experiences clearly show the strong influence that those modern teachers of the 1920s had on Sáenz de Oíza's modern architectural thinking. The image and results of his social housing settlements are a clear tribute to the *Siedlung*. Not only did Sáenz de Oíza admire the effort in the exercise of those new postwar settlements, but he was also able to assimilate them, extracting their 'truth' and making it his own design tool, in a more Spanish nature.

Sáenz de Oíza is one of the most renowned Spanish architects of the twentieth century but also one of the least known abroad. It is somewhat paradoxical that the one considered by many as one of the masters of Spanish architecture along the second half of the twentieth century is nearly a largely unknown outside the Spanish border. Perhaps the fact that he started in the world of architecture over a period of national political isolation has induced this ignorance of his work outside his country, at least those projects included in this research work. But, as many critics have commented, including architects who personally or professionally dealt with him,

Sáenz de Oíza's absence in the international panorama is possibly due to his ability to "perfect mimicry"², the difficulty of recognizing his own style, to relate one of his works to a previous one. Besides, Sáenz de Oíza wrote or published very little, a reason that has contributed to a lack of knowledge of his work and architectural thinking. Every information about Sáenz de Oíza comes from the testimonies told by the people who treated him professionally or personally, which have been collected in several publications and monographs where his whole work is not fully analyzed or appears frequently dispersed.

What is certain is that no building designed by Sáenz de Oíza has gone unnoticed. All his work has been acclaimed and is considered as quality architecture. At times, his projects were surrounded by controversy, as well as his public speeches or his classes at the School of Architecture in Madrid. No two projects from Sáenz de Oíza are alike but they closely resemble other works from other authors. Sáenz de Oíza tried to find in these examples a source of inspiration for his work, but without actually copying them. In fact, it seems as though Sáenz de Oíza denied or became tired of his architectural sources and influences, as if he had flirted with one and the other until they no longer served him, thus leaving them behind without nostalgia or devotion. It is for this reason that he has often been described as an architect without style, but, if one focuses on the nuances, at all events, in Sáenz de Oíza's work there are many references and too many similarities, and it might well be that this continuous mimicry when facing the project, together with the Spanish political isolation, impeded greater international projection of his work.

On the other hand, all written opinions on Sáenz de Oíza and his work are innumerable, but also frequently varied, and most of them have been forged after treating him personally or professionally. Hence, they accuse an obvious tone of affection (quite understandable and often very welcome) which, even though they produced really endearing readings on his life and work, they can infer the goal of an objective analysis of his work. Unquestionably, Sáenz de Oíza was a loved and admired architect, and therefore, because his greatness could 'contaminate' a few glances of those who knew him, it is important to take some distance and look at him with the same admiration and respect. This is only possible through the clearness given by perspective, the necessary temporal distance from the analyzed facts that is required to avoid being defiled by them. An objective look and criterion can only be set by trying to leave all sentimentality behind, although it is difficult task when it comes to the figure of Sáenz de Oíza, a symbol for everyone who had studied

² Term used by Salvador Pérez Arroyo to describe Sáenz de Oíza's attitude towards his work. In: PÉREZ-ARROYO, Salvador: «Oíza...Mimetismo genial». *Los años críticos: 10 arquitectos españoles: Candela, Cano Lasso, Oíza, Chueca, Sota, La Hoz, Fisac, Peña Ganchequi, Picardo, Carvajal*. Fundación Antonio Camuñas. Madrid, 2003. Print. p.107. Translation by the author (R.J.J.).

architecture at the School of Madrid or is interested in History of Modern Spanish Architecture.

At the same time, the phenomenon of social housing in Madrid during the fifties is a topic of interest for every young architect who has experienced the drama of the current crisis in the profession, or what is even more important, the refugees crisis all over the European territory (specially in Germany), and feels the need to reinvent our activity and accommodate it to the new society's demands. The architects of that time, <<our masters>>, were able to implement the modern European ideal of producing a better society with a modern architecture in the service of social housing, following the path of European masters such as Mies van der Rohe, Le Corbusier, Walter Gropius, Alvar Aalto, Ludwig Hilberseimer, Bruno Taut, or Arne Jacobsen. Assuming that architecture reacts to the needs of the society, the concern of the architects of the <<New Building>> (*Neues Bauen*) during the twenties was to build a social world and provide a decent and healthy housing. Thirty years after, the social urgency caused by overcrowding of slums, where thousands of people coming from rural to industrial cities were housed, caused a similar movement in Madrid, and therefore, the concern to many architects –with Sáenz de Oíza as one of the top representatives in this architectural scenario– focused on giving an answer to these problems through social housing projects that met minimum sanitation and hygiene conditions, which are necessary for a decent standard of living.

In this globalized world in which the visual power, individualism and competitiveness prevails, it may be useful to stop and meditate, to look back and remember that collective spirit, the fighting and generous character of the masters, as well as the importance of sharing knowledge and experience, the necessity of a debate and cooperation among architects. In short, the desire to improve society by making the most humane and reasonable architecture possible. And all of it by recognizing and sharing initiatives that work and are valid and transferable to any country or territory, regardless of their situation and circumstances, allowing fruitful architectural interferences.

To that end, let this thesis be useful for these new generations of architects who dream the architecture as Sáenz de Oíza used to dream it: combining the good work with the fairness, being alert and sensitive to the problems of the world, the society and the individual.

Methodology

Research Objectives

Objective 1:

The aim of this doctoral dissertation is to establish a complete analysis of the influence of German social architecture experience of the modern *Siedlungen* and other particular foreign influences in the social architecture model of Francisco Javier Sáenz de Oíza, mostly concentrated in the decade of the 1950s. Sáenz de Oíza has been an absolute reference for several generations of Spanish architects, especially for those who have studied at the School of Architecture of Madrid, and he is recognized as the master of at least three current generations of teachers at the School of Madrid, where he worked as professor of Architectural Projects and later became director of the institution. However, despite the celebration of the centenary of his birth in 2018, sufficiently serious studies of his first professional stage have not been carried out yet. Perhaps the proximity of many Madrid architects to Sáenz de Oíza has resulted in this vacuum that is certainly very necessary to fill or complete.

For this purpose, and from the collection and comprehensive analysis of the sources, drawings, photographs, reviews and criticism elaborated on the subject, the final objective is to obtain a chronological overview of the work related to Sáenz de Oíza's social architecture, which has not been deeply studied so far or extensively organized and presented with regard to its possible German influences.

Objective 2:

The dissertation has another purpose: to clarify these German-Spanish relations of cultural exchange in a turbulent period throughout specific projects and architecture personalities in postwar Madrid. This thesis is not only aimed to complement existing studies on the subject or help resume further studies of German and Spanish relationships in terms of art, technic and knowledge sharing, but it is also intended to manifest the importance of a not so well-known cultural and architectural exchange between both countries during a difficult time of their history, regarding the urban planning and the specific case of various social housing projects.

This is only possible through the analysis and study of the interferences between Germany and Spain, their architectonic and urban interactions after the terrible parenthesis of the Spanish Civil War. Therefore, this study leads to the possibility of establishing or reinforcing a bridge between the German and Spanish social

architecture, while it might shed light on their relationships, knowledge transfer and influences during postwar Spain, a fact that has not been sufficiently examined in depth or has even been observed with some suspicion.

Objective 3:

Lastly, the present research is also an effort to study, understand and evaluate social housing policies of postwar Spain (with the 'Madrid case' as main focus study) in relation to the German experiences in both postwar periods. This could help future studies or researchers and be used as a reference to address the current situation and the problems of the present, and thus enable the possibility to make previsions, as well as more consistent and responsible proposals for the future, but on the basis of a solid understanding of the history, which implies: learning from its mistakes and its successes.

While it is undeniable that the housing policies and the various interventions considered during this dissertation have little or nothing to do with the present European situation, it is important to largely draw the essence of the common elements that have served as an argument for the social housing production in Germany and Spain in their postwar periods, rather than paying attention to the formal aspects of their own historic moment. Thus, it would be feasible to exploit the potential prospective utility of this studio.

Primary Questions

When I proposed this research the first task I had to face was to analyze the historical facts around the *Siedlungen* in Germany and their relevance in the study of the social housing in Madrid during the 1950s. Then, some interrogants were put on the table: Was it a clear influence in the Spanish architecture panorama after the Civil War? What were the connections and dialogues between German and Spanish architects during this controversial period? What was the impact of the German industrialization in the new ways of social housing construction? In order to support these relationships, one could just go back to the 1920s and 1930s to corroborate the German presence in the Spanish cultural scene, specifically in architecture. This research started with these premises and has been focused on references and concepts of those German *Siedlungen* which Sáenz de Oíza knew, studied and applied in his particular social housing in Madrid. Therefore, the dissertation pretends to state how and when this assimilation of foreign innovations occurred.

Research Method

For the purpose of integrating all hypothesis and questions in a coherent process, the method used in the following historical research is the analytic-synthetic. The study of the historical issues involves the deep observation and analysis of all relevant events, which means: breaking them down into smaller parts to get to know their possible economic, social, political, religious or ethnographic roots. From this analysis, the synthesis to reconstruct and explain the historical fact can be carried out. The methodology used during the research work has applied the inducting reasoning and has been basically divided into the actions defined by Francis Bacon: observation of reality, induction or extraction of knowledge from particular experiences, hypothesis or initial approach, hypothesis-testing, demonstration or refutation of the hypothesis and the final conclusions.

Moreover, an historical research must also be deductive-inductive. On the one hand, the word <<deduction>> comes from the Latin word <<deductio>>, which means the action and effect to reach a conclusion on the basis of a principle, a proposition or an assumption. Thus, the process of reasoning starts from the premises, which are followed by the conclusions. That is to say: reasoning from the general to the specific. On the other hand, the term <<induction>> comes from the Latin <<inductio>>, which refers to the act of moving, convincing, persuading, or inciting someone. This method of reasoning ensures the possibility of moving from the singular facts to general propositions or, in other words, to integrate the particular into the general.

The research project is intended to be a historical thesis based on this methodology and, in detail, on the panoramic analysis of the main factors that determined the influence of German *Siedlungen* and some other specific European examples in the architectural making of Sáenz de Oíza, particularly in his social housing projects, which, I believe, are a more or less direct sensitive heritage –with many nuances and in a Spanish way–, of the <<New Building>> developed in Germany during the twenties. But this thesis does not have a monographic character, since not all of his work and career has been discussed, but it sets specific margins that cover an initial determinant period of his career. To this end, the phenomenon of the German *Siedlung* has neither been analyzed as a whole, nor delving into specific cases, since it would be a redundant work and this is not the intention of this research study. In other words, diverse architectural themes of modern social housing in Germany, which are present in specific projects and specific authors, have been deliberately analyzed, because they have been considered as possible models, references or influences on Sáenz de Oíza's social housing projects during the decade of the fifties, but also in his late social housing projects.

In that regard, the research focuses almost entirely on the first professional stage of Sáenz de Oíza, defined between 1946 and 1960, because it has been considered as a coherent and homogeneous period, both in his style and architectural activity, which was primarily focused on the social housing production. Thus, an initial phase in his career can be defined, which extends from the years immediately following his graduation at the Higher Technical School of Architecture of Madrid to the beginning of the 1960s, when he concluded his collaboration in the design and construction of the colonies for the *Hogar del Empleado*³ ("Employee's Household"). At this second stage, Sáenz de Oíza began his transition to a more organic architectural language, corresponding to a period of new private commissions and intense production of projects for the *Grupo Huarte*.⁴ Finally, a last chapter is dedicated to analyzing two isolated projects in which he took up the issue of social housing: the *Housing in Orcasur* (Madrid, 1979) and the *Housing on the M-30 Highway* (Madrid, 1986-91), commonly referred to as <<*El Ruedo*>>⁵ ("The Bullring").

It is nevertheless important to note that the early years of Sáenz de Oíza's professional career (1946-1949) corresponded to a period of undue influence exerted by governmental institutions on all cultural activity in the country, with special attention to Madrid's architectural scene. The decade of the 1940s was marked by the postwar period of autarchy, characterised by misery and isolation. The national policy focused on the reconstruction of the country after the Civil War with the agriculture as the economic foundation of the country, but based on unskilled labor and a virtually non-existent industry. These circumstances do not allow to accurately determine Sáenz de Oíza's true intentions towards the project due to poor written compilation and publishing of his thought.

In this connection, the historical interest of these projects also resides in the study of their construction technique, because they are part of a peculiar Spanish constructive reality that was conditioned by austerity and economic hardship, by an

³ The *Hogar del Empleado*, founded by the Venezuelan Jesuit Tomás Morales in 1949 as a charitable and social entity of Marian dimension, was created to support workers employed in Madrid and the young population who has migrated to the city and was forming new families. For a thorough understanding of the actions carried out by the Hogar del Empleado, see the doctoral thesis: FERNÁNDEZ NIETO, Antonia: *Las colonias del hogar del empleado: la periferia como ciudad*. Doctoral Thesis. Editorial Académica Española. Saarbrücken, 2011. Print.

⁴ Juan Huarte Beaumont (Navarre, Spain) is a Spanish industrialist, entrepreneur and patron, who supported the professional activity of various artists like the sculptor Jorge Oteiza and the architect Sáenz de Oíza. The relationship between Sáenz de Oíza and the *Grupo Huarte* has special relevance in his professional development, since, due to the great interest of the company in all advances in the construction industry, Sáenz de Oíza was able to build his most emblematic projects during the 1960s. Prominent among them was the apartment block "*Torres Blancas*" (Madrid, 1961-68), considered one of the best examples of Spanish brutalist architecture.

⁵ Street name given to Sáenz de Oíza's *Housing on the M-30 Highway* because of the external appearance which recalls the form of a bullring.

almost precarious craft industry. This situation encouraged the profession to work more boldly and with responsibility, to think about the minimum and cheap construction. However, these a priori 'inconveniences' were an incentive to re-establish a dialogue with the European modern tradition, to impulse the ingenuity of the young architects coming out of the School of Madrid, who faced the problem of housing shortage in the capital. In this way, the considerable difficulties after the Civil War was the excuse to re-modernize Madrid's architectural scene and rebuild the interrupted bridges with the German architecture.

The research has intended to involve a global analysis method and an attempted synthesis. But taking an objective approach has not always been relevant, particularly in cases where it was impossible to be objective either because the relevant facts and necessary viewpoints were lacking, or because in many cases, the subjective opinions or responses happened to be the most important research tool. Thus, it has been possible to take an objective approach in situations in which the study called for an expression of subjective thought or feeling.

It is however important to bear in mind that architecture and politics face a key issue in contemporary architecture: its responsibility towards society. The influencer role of architects and urban planners in the socio-cultural context is unquestionable, since they are responsible for generating the living spaces where interactions between individuals of a society take place. The CIAM was not only engaged in formalizing the architectural principles of the Modern Movement, but also saw architecture as an economic and political tool that could be used to improve the world through the design of buildings and urban planning. Therefore, the architecture and urban planning in the cities, far from being an affordable luxury for a few lucky ones, should be understood as a tool of positive transformation of society, something close and fundamental, a universal right of, by and for citizenship.

Throughout history, architecture has been understood and used as a powerful signifier, since it has always been an excellent political scenario, a key weapon to ensuring the safety of an ideology or a political power. In this line of argument, we find the German art historian Martin Warnke. According to him, historically, the building has always had an important political weight given its status as a strong economic factor, being able to express and represent ideas that go beyond its presence, aesthetic or function.⁶ Indeed, architecture has been an important instrument to show the splendor of great civilizations, but also other less glorious epochs, making them last over time. Its task has traditionally been linked to all power structures in the

⁶ Regarding the political nature of architecture, see: WARNKE, Martin: *Politische Architektur in Europa vom Mittelalter bis heute. Repräsentation und Gemeinschaft*. DuMont. Cologne, 1984. Print.

countries: the Egyptian pyramids, the Greek and Roman temples, the clergy with their cathedrals and kings and emperors with their castles and palaces. But also the architects of the Modern Movement believed in architecture as an effective weapon to build a social and progressive world. All of them are some clear examples of the political nature of architecture.

The political essence of architecture, deeply argued by Warnke, has also been addressed by other architectural theorists or socially and politically committed architects: while Tafuri considered architecture as “an essential part of the profession of political theorist”⁷, Luis Lacasa, Spanish architect and urban planner, whose concern to improve the architecture –and thus, the society– led him to assume a certain vital and political posture, argued that the problems of architecture and architects had to be faced by covering the whole society in order to change the economic and social regime.⁸ These arguments were, in short, a proclamation of the architects' need and responsibility to think in politics in order to improve society.

This relationship between architecture and politics is twofold: architecture is used as a tool for political propaganda, and it benefits of a political commitment to achieve greater impact in the media. In this sense, architecture has been used to support an explicitly political statement, or to present a new image of a country, as was the case of Niemeyer in Brasilia or the design of Chandigarh by Le Corbusier. In the 1930s, the then very young German architect Albert Speer impressed the *Führer* with his designs of massive and heavy stone buildings, and Giuseppe Terragni was the great architect of Mussolini's Italy. With regard to Spain, the reconstruction after the Civil War took place under Franco's dictatorship and in ambivalent terms: between economic isolation and international examples.

Likewise, and this is where we come to the key point of the topic, both sociology and politics have always been instrumental factors in the development of architecture and the architectural theoretical thinking. Indeed, social policies are largely to blame for the development of cities, whose design is also subject to legislation. Therefore, social housing is a factor of social integration. At the present time, a major historical change is being detected in the housing policy that could be substantiated in the shift from a phase in which the resolution of the housing problem was an almost exclusive objective, to another phase where housing should be conceived as an instrument to serve social integration of disadvantaged populations.

⁷ See: TAFURI, Manfredo: «The Culture Markets». Interview by VÉRY, Françoise. In: *Casabella*. Milan, January-February 1995. Print. pp.619-620. Originally published as «Entretien avec Manfredo Tafuri». *Architecture, Mouvement, Continuité*, n.39. Paris, June 1976. Print. pp.64-68.

⁸ See: LACASA, Luis: *Escritos 1922-1931*. COAM. Madrid, 1976. Print. pp.86, 91.

As a faithful mirror of society, the discipline of architecture and town planning are able to reflect its characteristics with high accuracy. The architects have creation, invention and decision-making powers, and their work is subordinated to economic, political and social conditions, which make it a product that responds to specific problems of society. Consequently, their work can have an impact on the socio-economic system, and therefore political. In this sense, the acts of being, living, thinking and building are inseparable.

With all these facts in mind, the study and understanding of the architectural examples of Sáenz de Oíza included in this thesis has been done through a process of four steps in the order listed as follows:

- Initial theoretical study of the socio-cultural context around the architect and his work. In Spain, the fifties are a period of rich socio-economic events, and therefore, architectural. It is the decade in which the process of transition from the Francoist autarchy (from 1939 to the beginning of the fifties) to the openness and developmentism of the sixties took place, when the country reactivated all contacts with the outside world and the economic growth led to an abandonment of the housing policy towards private initiatives. The migration of depressed rural population to the major Spanish cities in search of a better working life and a more prosperous future represented the backdrop to promote social housing policies in the fifties and to produce the real estate boom of the sixties. To the extent possible and in order to be able to properly assess the works analyzed in this work, it was necessary to study the legal and regulatory constraints affecting Sáenz de Oíza's designs and those of his companions, as well as the housing policy developed in these years.
- Visit to the buildings and approach to their environment, which includes: extensive photographic report, analysis in relation to the original site plans of the different projects (streets, vegetation and facilities), formal analysis of their current state (materials, façades, construction elements), and thus comparison between the original construction and the following restorations and changes throughout the time. This phase has been essential to complete the documentation that allows a deeper understanding of the studied works. Besides, it was very interesting to observe the evolution of the buildings over time, their more than decent 'aging'. It was exciting to discover, for example, the delicate treatment of gardening in the colonies, especially in the case of three colonies: *Puerta del Ángel*, *Batán* and *Erillas*, where the trace of time has allowed the landscape design to reach its deliberate and true value within the project.

The examples proposed are entirely framed in the European territory. Thus, visits to several German *Siedlungen* and all Sáenz de Oíza's social housing projects were planned and accomplished. These visits enabled a direct and emotional approach to the studied elements, and the significant transformations suffered by the buildings along the years could be verified, especially in the case of Sáenz de Oíza's colonies, which are all situated in Madrid. Furthermore, these site visits to buildings helped in the process of analyzing and understanding the existing graphic documentation of the original projects, and to make an analytical observation and review of the evolution of each building, putting them in value, comparing them to establish the common points, but also their differences.

Most of the photographs included in 'chapter 3' were taken by the author between April 2015 and March 2016 and they show the current status of the analyzed works. This phase of the research has been particularly enlightening and exciting inasmuch as almost all the works analyzed remain in place, and this has been key to a site analysis that has allowed me to evaluate the passage of time, their dignified aging as well as contemplate what has endured from the original project and what has changed. Although the conservation of Sáenz de Oíza's social housing is uneven, they do maintain the image and character with which they were conceived. In that sense, both the colonies of *Batán and Puerta del Ángel* are especially worth highlighting, since the design of landscaping and gardening plays an essential role in the urban developments and it has acquired the value that was intended in the draft projects with the passing of time.

However, these visits were performed in a period of time in which the current legislation was already in force, and many substantial changes in the external appearance of the buildings had already been made. Thereby it was considered interesting to include images that show the contrast between the original façades of brick, the windows and original shutters, which are still present, and the already renovated buildings, mostly finished externally with different coloured paints.

- Production of analytical graphic documentation: photographs and plan materials. The work of compiling plans and drawings required dedication and time, since most appear in numerous (and sometimes scattered) Spanish publications. Nevertheless, in María Antonia Fernández Nieto's doctoral thesis *Las Colonias del Hogar del Empleado. La periferia como ciudad*⁹, all colonies designed by Sáenz de Oíza have been widely approached and studied, and this was an essential and solid point of departure to lean on and to find the documentation in a clearly,

⁹ FERNÁNDEZ NIETO, *op.cit.*

orderly and efficient manner. The author is also grateful to her for the maintained contact and the help and guidance provided during the investigation, both to resolve doubts that have emerged (especially with regard to the dates of Sáenz de Oíza's colonies), as well as providing graphic material necessary to make the discourse of this thesis more understandable.

Thanks to these communication with Fernández Nieto, the information contained in the section "Annex 1: General Characteristics of the Colonies"¹⁰ could be compared and verified. These data were based on Fernández Nieto's thesis, which represent the most accurate and complete research study about the colonies that were built by the *Hogar del Empleado* in Madrid until today. After having compared them with other publications of the time, especially those magazines where these colonies were published, and with research studies on the subject, a summary table of general characteristics of the colonies is presented, in which possible inaccuracies or errata have been fixed in order to show an overview of these colonies, a catalogue that is not aimed to be a repetitive and deep study on the topic, but complements the arguments.

- Comparative study with specific interwar *Siedlungen*. The young generation of architects involved in social housing in Madrid during the fifties encountered many constraints and limitations but, however, these factors or handicaps did not decrease their architectural aspirations. Sáenz de Oíza, as well as many of his colleagues, discovered foreign works (some parallel in time, but especially those of the modern twenties) which certainly played a decisive role in his formation and practice of architecture. The lessons he learned from the European and American housing projects provided him fundamental design concepts which he would apply in his own social housing. The study of these projects through magazines, books, visits and photographic reports, marked at all times the essential formula of research: the comparative analysis.

Besides, the Technical Building Inspection in the city of Madrid has launched the renovation of buildings and this has involved the full rehabilitation of the colonies, including: the application of monolayer mortars on the façades and the progressive replacement of the original sliding shutters and window frames. For this reason, the original drawings and the comparison between old and new pictures helped to trace the references and common architectural languages in order to establish a comparative discourse, as objective as possible. Since a building is not an isolated object or phenomenon, especially after the difficulties as a consequence of the war, all political, economic and socio-cultural contexts, as well as the architects who have

¹⁰ See pp.179-181 included in this dissertation.

participated in its creation and development, must be examined in depth. Therefore, before each visit, the history, circumstances, theory and criticism of each building have been studied.

The methodology is completed with the final phase: the architectural criticism, which has been substantiated and reasoned by prior knowledge. According to the research objectives that have been set out, the methodology used in this research work was supposed to validate or not the methodological proposal at the end of this research, by the rejection or acceptance of the hypothesis that had previously been stipulated. A new element is able to raise the entire knowledge of something specific, which means that acquired positions in the field of historical knowledge are always provisional and need to be confronted. The progress of this landmark study resulted, ultimately, the endless accumulation of complementary perspectives. New perspectives from which to relaunch the analysis and polish up the conclusions have always been sought. Thus, the whole research work consisted of the patient and gradual composition of successive partial points of views, enriching knowledge and building it as a mosaic that is increasingly able to reflect more faithfully and accurately the reality of an era.

Based on this research work methodology, the doctoral dissertation is set out in four interrelated chapters, three major themes and one epilogue at the end of it, which make up the guiding thread of the study: the analysis of the German architecture influences, in particular those of the modern *Siedlungen*, but also from other representative European and American modern examples, on Madrid's postwar social housing, considering the decade of the 1950s as central research period, and specifically studied through the work of Sáenz de Oíza in the Spanish capital, with a few isolated exceptions that helped build a more coherent and clearer discourse.

These four structural chapters of the study are:

1. The young Sáenz de Oíza: Education and German Influences:

The first chapter is devoted to Sáenz de Oíza's education and his possible German influences during his first professional stage (from the end of the forties until the beginning of the sixties). In it, the figure of a young Sáenz de Oíza is analyzed from the point of view of his learning, motivations and German influences. The profile of the architect has been traced through the reading and interpretation of all publications on his educational background and his trip to the United States, by sorting and analyzing his readings until 1968, and through the analysis of the first project in which the German influence is noticeable and Sáenz de Oíza appeared as a promising figure in the Spanish architectural

scene by breaking with the academic world from which he came and becoming the modern architect of the radical social housing of the fifties.

2. Spanish-German Contacts in Post-Civil War:

Disclosure and Receptiveness of German Architecture in Madrid

The second chapter is dedicated to the German-Spanish relationships, exchanges and contacts in postwar Spain, with the decade of the fifties as the focal point. However, it should be clarified that the reader will not find in this section a thorough historical study of all these contacts and influences, because that is not the aim of this thesis. This chapter is intended as historical reference point, supported and sufficiently documented in previous studies, which has served as argument to draw a panorama of the historical and architectural context in which the analyzed works of Sáenz de Oíza are situated. In this sense, the study thus provides a new perspective: to determine the German presence in postwar Spain, especially those cases that influenced the architecture produced in Madrid during the 1950s and, specifically, a part of Sáenz de Oíza's early works and his architectural thinking.

3. The modern *Siedlungen* Experience:

Influence on Sáenz de Oíza's Social Housing

The core of the dissertation has been addressed in the third chapter: the analysis of Sáenz de Oíza's social housing through the influence of modern *Siedlungen*. To this aim, a study on social housing policies in the fifties in Madrid has been conducted in order to understand the background of these projects, two experiences or blocks that Sáenz de Oíza designed and built in parallel: six colonies for the *Hogar del Empleado*, and three radical social housing projects. These two blocks of lines of action have been understood and studied as a whole, a model or experimental process which Sáenz de Oíza evolved and improved over time. But it is important to note that this dissertation is not a complete and exhaustive catalogue of the examples that have been considered and analyzed, nor it is intended as a thorough study on technical and constructive aspects of the period examined. The research has focused on related aspects of the form, composition, urbanism and intentions or fundamental concepts behind each project, establishing dialogues and possible architectonic interferences between the examples compared through the plans and pictures, assuming their common features, but also their differences. In this way, in order to add a new value and reading to Sáenz de Oíza's architecture, an analytical study has been established through the interpretation of his social

housing production, and therefore, his drawings, which talk about the conceptual realities of each specific project.

4. Epilogue: Permanence of German Influences Thirty Years Later

The last chapter is conceived as an epilogue, a bridge connecting with the topic discussed in the previous chapter, established through the selection of two isolated projects in which Sáenz de Oíza took up the issue of social housing. Although the temporal distance –thirty years– between the two phases also involves another attitude and maturity towards the architectural problem, the fact is that with regard to social housing, this distance is shortened, and Sáenz de Oíza even reached a mimic or dialogue with his <<I>> of the fifties. Obviously, the situation in the country and the challenges were very different, but, despite the different scale of urban action, the architectural language and references reappeared. In short, the German reference remained somehow, and therefore, it was found convenient to conclude this investigation linking both periods with the same argument, which was somehow never lost in Sáenz de Oíza, but blended with many other references that are also possible and equally accurate in his work.

Research Tools, Data Sources and Bibliography

The research has been focused on two significant and complementary phases:

The first phase was concerned with the data collection and the choice of the most appropriate way to approach the subject. This involved two work procedures: the collection of graphic and written documentation, such as architecture magazines of the time, publications on the subject of social housing in Germany and Spain, monographs on Francisco Javier Sáenz de Oíza and many interviews throughout his long career. The query and compilation of these journals and specialized magazines had been a working primary tool in the investigation.

On the other hand, the comparative analysis and comprehension of the collected data have led to the conclusions drawn from the review of both written criticism on the subject and the thorough study of the documentation. Since this historical research proposes a deeper look at the influence of the *Siedlungen* on Sáenz de Oíza's social housing, concentrated in the decade of the fifties and in the case of his Madrilenian social dwellings thirty years later, the work of collation and reorganization of the information items, drawings, sketches, publications of the time, and recent literature

has been carried out. From this perspective and in order to evaluate the story as objectively as possible, the reviews on existing collection of artwork and the transcript of his statements through interviews and thoughts published in journals, books and monographs, have been the optimal research lines during the study. Likewise, and for the purpose to assess critical information reliably, a comparison between historical documents and other research works in recent years on Sáenz de Oíza's social housing, as well as the dissemination and influence of German architecture in Madrid's architectural scene during the fifties has been required.

In addition to the analysis of existing drawings of the studied social colonies, the testimonies of other architects and critics collected in interviews or articles, and the criticism and discussion during those years, have allowed a more accurate approach to the urban and constructive realities. But also the review and understanding of the political and social circumstances around Sáenz de Oíza's analyzed works, which are indisputably essential part of the development of his social housing. In short, this method has provided new clues, allowing a more realistic view of the appearance and meaning of the studied architecture in the real social and political context in Madrid during the postwar years.

By analyzing the social housing of Sáenz de Oíza in relation to the German *Siedlungen*, it has been necessary to identify and demonstrate the commonalities in morphology, construction, design and architectural solutions. This task was carried out through careful observation and the analysis of floor and elevation plans, sections, details and photographs of the studied buildings, most of them collected and published in a large amount of architectural books and magazines. Some of these references were accepted by the author himself, by the criticism or by those who had worked or studied with him. Others can be derived from the literature that he used to handle at home or at his office, which was published by Juan Daniel Fullaondo¹¹ in *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*. Nevertheless, it is also possible that this relationship of influence could be in some cases purely coincidental.

Through the collection of magazines of the time (corresponding mostly to the period between the 1950s and the 1970s), specific books and transcribed interviews, the content of his social architectural work, his references and influences, his thoughts, and his architectural aspirations could be both analyzed and interpreted.

¹¹ Juan Daniel Fullaondo was an architect from Bilbao who arrived in Sáenz de Oíza's office in 1961, after graduating from the School of Architecture of Madrid. At that time, Sáenz de Oíza was already immersed in his organic phase. See: FULLAONDO, Juan Daniel: *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*. Kain Editorial. Madrid, 1991. Print.

Since the aim of the dissertation is the analysis of Sáenz de Oíza's work in relation to the German *Siedlungen*, not only graphic documentation of the projects had been necessary, but also the reading of his thoughts on the issue at hand. The research work has led to a long list of books and magazines, both from the period in which this thesis has been focused, which are fundamental to contextualize and understand the projects in their time. This method and tools allowed to get first-hand knowledge of the different opinions among the architectural critics and, more importantly, to 'hear' the story told by the protagonists themselves.

Obviously, most of the historical compilation and search for relevant information was focused on the technical material about Sáenz de Oíza's projects, their history and circumstances around their creation and development. The specific literature on him and those architects who have been considered relevant for this study, because they have been identified as models that could have influenced Sáenz de Oíza's social housing production, were primary research tools during the investigation as well. The depth exploration of the specialized magazines of the time, interviews and monographs, has been a crucial part of the work because it enabled to give possible answers to the questions that arose during the research process, but it also raised new issues.

In general, all the necessary research material to conduct the whole investigation has been easily found in German and Spanish libraries. The work of collecting artwork from the time period under study has been accomplished by searching the archives of architectural magazines, many of which are already documented and collected in digital form. Besides, the literature on the work and thinking of Francisco Javier Sáenz de Oíza is easily accessible by Spanish bookstores and libraries, especially in Madrid. Despite the absence of an official archive with publicly available sources, most of the material consulted for the study and development of this thesis was easily accessible through other publications and previous research works, journals and monographs on the architect. Moreover, his son Javier Sáenz Guerra, who is also an architect and critic, has published several essays on his father that have contributed to deeper learning and understanding of Sáenz de Oíza's life and personality.

To that end, it was necessary to switch the literature search in Germany (mainly in the University of Stuttgart's Library and Weissenhofmuseum's private library), and Madrid. For this reason, periodic journeys to Madrid have been an essential part of the investigation process, not only because the main literature and graphic materials about Sáenz de Oíza are collected in the archive and library dependent on the Architecture Foundation COAM (Official Architects Association of Madrid) or the library at ETSAM (School of Architecture of Madrid); but also because Madrid is the

scenario where all Sáenz de Oíza's social housing listed in this thesis are located. In fact, during one of these trips to Madrid, the author was able to visit all the social colonies and interview one tenant who had been living in the *Directed Settlement of <<Entrevías>>* since Franco inaugurated these dwellings.

Many books and bibliographic references were easily found online, thanks mainly to the numerous publications on the virtual library and archive of COAM, the digital archive of the Polytechnic University of Madrid (UPM) and the digital archives of RACO, Dialnet and the National Library of Spain. The most interesting articles consulted are concerned with the Spanish postwar architecture until the early 1970s and they are included in the bibliography¹² used in this research, which is detailed at the end of it, divided into three different sections and based on the following topics:

- General Bibliography
- Publications on Sáenz de Oíza and his Work
- Consulted Articles and Interviews on Sáenz de Oíza and his Work:
 - 1940s
 - 1950s
 - 1960s
 - From 1970

Those documents that contradict each other, or even opposing opinions among critics have been particularly important as it is to find references to other foreign architectures, and in many cases, these references are neither unequivocal nor unique. Through the comparative study and interpretation of the drawings and up-to-date photos, the contrasting reflections and ideas expressed by Sáenz de Oíza or his critics (admirers and detractors), a wide range of rich and different contents were emerging and they needed to be identified and evaluated.

¹² The literature cited in this research follows the guidelines outlined by the *MLA Handbook for Writers of Research Edition* (MLA. New York, 2009).

Status of Research

The social housing development was promoted as one of the main tasks since the 1920s, especially in Germany after the First World War, and this importance has also been well researched. With regard to the situation in Spain, however, the facts about social housing development were different. Comparative studies on this specific subject, and focused on the specific work of Sáenz de Oíza, have not been deeply conducted or regarded as a main research topic. In this way, the dissertation aims to be able to open up new scientific territories.

The peculiar history of the Spanish architecture incorporation to modernity thoroughly deserves a serious study for two main reasons: First, because it has not yet been sufficiently clarified, maybe because of a certain historical disinterest for this task, its relative difficulty, the apparent lack of outreach of its eventual figures and remarkable episodes; and secondly, because there must be certainly a reference to it to understand the immediate advent of the happy period of international recognition and appreciation to the present Spanish architecture, its freshness, creativity and strong presence across national borders.

We must validate a fact: traditionally, there has been a certain lack of depth historical research through this period, possibly because it is a politically sensitive time of history, so the critics knew little about it or they used to address the issue 'on tiptoe'. Until the arrival of Spanish democracy, architectural critics had ignored what happened in the early postwar years considering them as an interruption in the architectural evolution of Spain, which reprised its way at the beginning of the fifties. Finished the years of the dictatorship in 1975, this stage of the review finally occurred, and the interest to know what happened during the dark decade of the forties and the awakening of the fifties arose, trying to understand the importance of the architectural production of these years under several historical circumstances surrounding the projects: political, economic, cultural or social.

Since then, the issue of Spanish social housing during the decade of the 1950s have aroused great interest among historians and it has been extensively studied in Spain. In this area, the historical research works from Carlos Sambricio are particularly remarkable and valuable contributions, but also all published works by Ana María Esteban Maluenda on Madrid's social housing from this period. However, a research work with focal point on Sáenz de Oíza's social housing from a comparative perspective towards the experience of the postwar German *Siedlungen* and other

isolated foreign interwar examples and from the second postwar period has not been carried out so far.

It is quite striking that the majority of studies on this topic pinpoint the year 1936 as the end of the Germanic influences in the Spanish architecture of the twentieth century, coinciding with the start of the Spanish Civil War. Although these relationships were attenuated, gradually diluted by more than obvious reasons after the national conflict, in terms of social architecture, everything that occurred in the golden ages of 1950s in Spain was an attempt to allusion to the German «New Building» of the 1920s, a mature review and in no case falling into mere repetition, but rescuing planning elements and a minimal rational thinking and adapting them to the circumstances and idiosyncrasies of an impoverished, punished and depressed country.

The possible connections between Sáenz de Oíza's social housing projects and the world of technic, art and architectural thinking of the German *Siedlungen* had not been orderly clarified yet nor exposed. However, with regard to the German-Spanish connections before and after the parenthesis of the Spanish Civil War, there are already some studies which have dealt with this matter exhaustively, and they meant to be an important historical support to develop a coherent argument to build this historical and critical review on some specific projects from Sáenz de Oíza. In recent years, some important architecture congresses are being held in Spain under the name of *Congresos Internacionales de Historia de la Arquitectura Moderna en España* ("International Congresses of History of Modern Architecture in Spain"), bringing together different critics in the conviction that the issue still offers important gold mines which have been barely exploited. During the celebration of the International Congress *Modelos alemanes e italianos para España en los años de postguerra* ("German and Italian Models for Spain in the Postwar Years"), which was held in Pamplona on the 25th and 26th of march 2004 at the School of Architecture of the University of Navarra, Juan Miguel Otxotorena stated that:

"The (...) fascination aroused by the experience of the German and Italian architecture in the Spanish architecture of the time mainly refers to two relatively distinct moments, marked by the previous and subsequent years corresponding to the respective military confrontations.

The first of those two points would be the period from 1920-1940. And it is: On the one hand, that of the influence of Expressionism, the impact of linguistic coding and dissemination of theoretical framework and international paraphernalia and publicistic foundational manifestos of the Modern Movement, the brilliance of the

experience of the German *Siedlungen* or the laborious and intensive enforcement of the Bauhaus (...).

The second, (...), would be the fifties and sixties, marked (...) by the spectacular results of material and spiritual reconstruction of postwar Germany, for its brilliant achievements in the methodological field and the field of industrial development (...)."¹³

Besides, José Manuel Pozo, who also attended this Congress, declared that “the direct German influence was mostly received through these magazines, and to a lesser extent through trips and stays in Germany before and after the wars, made by the well known Mercadal, Feduchi, Moya, Moreno Barberá or (...) Fisac and others”¹⁴. Furthermore, Carlos Sambricio has also published some of the most important and comprehensive books on history of Spanish architecture¹⁵, focusing his studies in the relationships between German and Spanish architects and town planners along the twentieth century. On the other hand, for the purpose of analyzing the relationships and contacts between German and Spanish architects in the Spanish postwar period, which is referred in chapter two in order to approach and understand Madrid's architectural environment during the fifties and the influences on Sáenz de Oíza's work and thinking, it has been necessary to study and base the research on Joaquín Medina Warmburg's doctoral thesis *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*¹⁶, in which he carried out a surprising and revealing research on exchanges and architectural influences between German and Spanish architects and urban planners between 1914 and 1936. But, as Medina Warmburg clarified in his preface¹⁷, not every presence necessarily meant an influence, and this was a key finding that has promoted this study and has also predetermined the research. From this perspective, the thesis is not aim to focus on all German influences in Madrid, but to give a whole perspective of the historical and architectural situation –with the German influence as focal point–surrounding Sáenz de Oíza's social housing production during the fifties.

¹³ OTXOTORENA, Juan Miguel: «La influencia alemana e italiana en la arquitectura de la postguerra española: entre la fascinación acomplejada y la eventual emulación autodidacta». *Modelos alemanes e italianos para España en los años de postguerra*, Escuela Técnica Superior de Arquitectura de la Universidad de Navarra. T6 Ediciones S.L. Pamplona, 2004. Print. p.9. Translation by the author (R.J.J.).

¹⁴ POZO, José Manuel: «La presencia del expresionismo alemán en la génesis de la arquitectura española moderna». *Ibid.*, p.116. Translation by the author (R.J.J.).

¹⁵ See all publications from Carlos Sambricio included in the bibliography at the end of this dissertation.

¹⁶ In relation to this German-Spanish relationships, see: MEDINA WARMBURG, Joaquín: *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*. Doctoral Thesis. Ars Iberica et Americana Band 10, Frankfurt a. M., 2005. Print.

¹⁷ *Ibid.*, p.11.

Moreover, Ana María Esteban Maluenda received several awards for her thesis *La modernidad importada. Madrid 1949-1968: cauces de difusión de la arquitectura extranjera*¹⁸, where she addressed the issue of the contacts and dissemination of European modernity in the architecture panorama of the Spanish capital through magazines and publications of that time. Esteban Maluenda has also devoted many articles¹⁹, congresses and conferences to disseminate Madrid's architecture, such as the *Directed Settlements* (or "Poblados").

In addition to the numerous articles and official publications of the time and later years about the reality of the housing for the working class during the 1950s, the publications devoted to the experience of the *Directed Settlements* in Madrid must be highlighted. There are two important books that specifically address the issue of these settlements built in Madrid throughout the fifties: *Barrios de Promoción Oficial: Madrid 1936-1976*²⁰ and *La Quimera Moderna. Los Poblados Dirigidos de Madrid en la arquitectura de los 50*²¹, which are hitherto the most extensive published research papers on the unique experience of these social settlements in Madrid after the Civil War. In particular, the *Directed Settlement of Entrevías* designed by Francisco Javier Sáenz de Oíza in collaboration with Jaime de Alvear Criado and Manuel Sierra Nava has also been deeply studied and widely published, not only in the two books listed above, but also in architectural magazines of the time and subsequent decades and articles from recent congresses²²; or at academic level, either in master thesis²³ or doctoral thesis (but never as a central theme of the thesis).

All these studies and findings set solid base of support to put this study in a suitable starting point and to deepen the topic of the influence of German *Siedlungen* in the specific case of Sáenz de Oíza's social housing. Without these previous and

¹⁸ ESTEBAN MALUENDA, Ana María: *La modernidad importada. Madrid:1949-1968: cauces de difusión de la arquitectura moderna extranjera*. Doctoral Thesis. Universidad Politécnica de Madrid. Madrid. 2007. Print.

¹⁹ See: ESTEBAN MALUENDA, Ana María: «La vivienda social española en la década de los 50: Un paseo por los poblados dirigidos de Madrid». *Cuadernos de Notas*, n.7. pp.55-80. Madrid, 1999. ISSN 1138-1590. PDF File. 2 January 2013. And also: ESTEBAN MALUENDA, Ana María: «Poblados dirigidos de Madrid». *VPOR2 Revista de vivienda*, n. 6. Valencia, September-November 2009. Print. pp.18-23.

²⁰ MOYA GONZÁLEZ, Luis: *Barrios de promoción oficial: Madrid 1939-1976: la política de promoción pública de vivienda*. COAM, Servicio de Publicaciones, D.L. Madrid, 1983. Print.

²¹ FERNÁNDEZ-GALIANO, Luis, ISASI, Justo, and LOPERA, Antonio: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*. Editorial Hermann Blume. Barcelona, 1989. Print.

²² See: BONED PURKISS, Javier, and JILIBERTO HERRERA, José Luis: «Sáenz de Oíza, el proyecto fenomenológico». *I Congreso Nacional "Pioneros de la arquitectura moderna española: Vigencia de su pensamiento y obra"*. Fundación Alejandro de la Sota. Madrid, May 2014. PDF File. 23 February 2015.

²³ See: JILIBERTO HERRERA, José Luis: *El Poblado de Entrevías. Oíza, Sierra y Alvear. Experimentación y síntesis de un modelo de vivienda*. Master thesis. Universidad de Málaga. Escuela Politécnica Superior. Departamento de Expresión Gráfica, Diseño y Proyectos. Málaga, December 2011. PDF File. 13 March 2013.

complementary investigations this dissertation would have been an impossible task, because unfortunately most of these examples of social architecture in Madrid have not survived the passing of time, or have a radically different appearance to the original one conceived by their authors.

On the other hand, GIVCO²⁴ is a research group at the Polytechnic University of Madrid that develops its work from the understanding of all forms of collective housing as necessary and possible generators of the contemporary city. Their work is all based on the deep knowledge, systematized and transmissible history of the residential projects of the twentieth century. The focus of their work is the realization of a complete database of the most important Spanish collective housing buildings of the twentieth century organized by decades. On this basis, the “Cuadernos de Vivienda CVI”, which are periodic monographs with international character, are being developed. Each issue is devoted to a paradigmatic example of collective housing whose mapping is documented and digitised in order to develop a further data register. Furthermore, in order to contextualize the building, the monograph includes a facsimile reproduction with the most complete publication of the period as well as an article by a researcher who is familiar with the work. One of these notebooks, specifically the “CVI004”, is also dedicated to the *Directed Settlement of Entrevías*.²⁵

Both professional and personal lives of Francisco Javier Sáenz de Oíza have caused rivers of ink to flow. Despite the absence of an official ‘Sáenz de Oíza’s archive’ in which it would be much easier to find and verify everything about his work, there are still numerous publications in journals, interviews, books and dissertations that have delved into his life and work as a master of Spanish architecture. But all his architectural references (in this case, the German influence), which Sáenz de Oíza used to handle and studied when dealing with his social housing, have not yet been studied in depth. Most of these publications or studies have been carried out by people who were closed to him: his children, former collaborators, students, colleagues who knew him personally and admired him. But also by journalists, and in recent years, even by younger architects who belong to the generation of Sáenz de Oíza’s ‘grandchildren’ and have studied in the same School of Architecture, in which his influence had been strong and continues to be very important inside the lecture halls. Somehow, Sáenz de Oíza’s influence is still present among a major part of the

²⁴ GIVCO: “*Grupo de Investigación Vivienda Colectiva*”. In English: “Collective Housing Research Group”. For further information about GIVCO visit: <http://givco.dpa-etsam.com/>

²⁵ See: GIVCO: << Poblado Dirigido de Entrevías = Satellite settlement of Entrevías: F. J. Sáenz de Oíza, J. de Alvear Criado, M. Sierra Nava: Madrid, 1956-60>>. CVI *Cuadernos de vivienda*, n.4. GIVCO Collective Housing Research Group. DPA ETSAM, Universidad Politécnica de Madrid. Madrid, 2009. Print.

Spanish architects, especially those who have studied at the School of Madrid, who have surely walked through his buildings or even lived next to one of them.

But still, and despite the fact that the talent of Sáenz de Oíza as an architect took an early recognition among his peers and critics, there are not so many publications that have been made about his work with a monographic character. However, it is true that after his death in 2000 the publications on the autor began to proliferate, most of them with commemorative character. Sáenz de Oíza never wanted to transcribe his thoughts, especially in his early career (1946-1958). Therefore, there are minimal own publishing texts in which to test his intentions in architecture. Instead, most of them are obliged comments that accompanied the publication of his works.

Likewise, the official bodies of those years between the end of the Spanish Civil War and the fifties had a great influence in all cultural activity of the time, making it difficult to accurately determine the true intentions of the architect, which is also reflected in the low literal publication of his thinking. The fact remains that it seems hardly unheard to see monographs about Sáenz de Oíza and his engagement with the social architecture in his early working years, maybe because Sáenz de Oíza himself was reluctant to talk about himself and what moved him to project that way, or maybe because these projects no longer exist the way they used to, and both the history and time have not been fair to them. Besides, it is surprisingly strange how in the publication of *El Croquis 32/33*²⁶ dedicated to his figure (officially <<his book>> until the present day), photographs or drawings of this building period –mainly the fifties– dedicated to social housing are scarce or not included, perhaps because it is a dark time politically speaking, or because that social and economic brick architecture, battered by time and its occupants, does not sell or attract the masses and the new generations of architects.

Notwithstanding, there are two doctoral theses that have addressed the work of Sáenz de Oíza with different premises, purposes or focuses to those of this dissertation, but they have served as a solid and forceful starting point in order to establish an adequate approach to this research:

- On the one hand, the thesis *Las Colonias del Hogar del Empleado. La periferia como ciudad*²⁷ written and published by María Antonia Fernández Nieto in 2009 as part of the research group GIVCO. Her study focused on the analysis and critique of six built colonies and one project that was not executed, the *600 houses in the*

²⁶ VV.AA: *EL CROQUIS 32/33. Francisco Javier Sáenz de Oíza. 1946-1988*. El Croquis Editorial. Madrid, 2002. Print.

²⁷ See: FERNÁNDEZ NIETO, *op.cit.*

Urbanization of the Manzanares River, all of them situated on the outskirts of Madrid. These colonies were promoted by a private association called *Hogar del Empleado*, and they were designed by a group of architects who assisted in this task for a decade. Among them, the figure of a young architect stood out: Francisco Javier Sáenz de Oíza. Neither the volume of work nor the quality of the projectual dwellings were insignificant as an example of the social housing of the decade of the fifties in Madrid. Although many of these colonies were published in magazines of the time, particularly in *Hogar y Arquitectura*²⁸, in some of Madrid's subsequent architecture guides and in the monographs of the most famous architects of the group, these publications are usually punctual in magazines, architecture guides and monographs, since they are early works and other large-scale projects do often (and logically) take up more space and consideration in the specialized publications. Therefore, these sources were of interest and meant a solid basis to compile, organize and study all the necessary documents for this doctoral dissertation, allowing the author to explain the work as a whole and to relate the projects to each other. The fact that most of the case studies in this research were built in the same decade –the fifties– makes them dependent on and related to each other.

- On the other hand, the thesis by Manuel Cabeza González titled *Criterios Éticos en la Arquitectura Moderna Española. Alejandro de la Sota - Fco. Javier Sáenz de Oíza*²⁹ provides a comparative analysis between the professional careers of two renowned Spanish architects such as Alejandro de la Sota and Francisco Javier Sáenz de Oíza, through the determination of the influences that ethical arguments have on architectural approaches. In this regard, the author made a preliminary analysis between the architectural discourse and the production of each of the two architects. From this previous study and in addition to verifying the degree of consistency between the author and his work, he established the relevant parallels for subsequent comparison of both careers. But once again, the work and complete path of Sáenz de Oíza was described and analyzed without having delved into the issue of his social housing production as main point of the research, and without focusing on his possible German and other specific foreign influences from the interwar period and some isolated cases of the second postwar period, which are the core of this study.

Consequently, an extensive research has been carried out in order to contribute to a clearer information about Sáenz de Oíza's biographical and professional career. The published baseline data was lacking and confusing, with many discordances between

²⁸ *Hogar y arquitectura* ("Home and Architecture") was a famous Spanish magazine that contributed to the dissemination of the Spanish architecture abroad between 1955 and 1977.

²⁹ See: CABEZA GONZÁLEZ, Manuel: *Criterios éticos en la arquitectura moderna española. Alejandro de la Sota – Fco Javier Sáenz de Oíza*. Doctoral Thesis. E.T.S Arquitectura (UPV). Valencia, 2010. PDF File. 13 February 2013.

differentes authors and publications, especially in terms of project dates. This helped to set up a starting point in which to orientate the work. However, the biography on the figure of Sáenz de Oíza included at the end of this thesis may also be incomplete, since some projects have been lost or not reported, and the absence of his public archive made it more difficult³⁰ to present an accurate list of projects and his most memorable professional achievements. This would definitely be an interesting subject to study in the future.

With all these starting points, however, this research paper does not pursue to be another Sáenz de Oíza's monograph, since not all of his projects had been discussed, but sets specific margins that cover an initial determinant period of his career and offers a more complete overview of his architectural production. Consciously, the author sought to avoid turning this work into a professional biography of the already well-known Sáenz de Oíza. It has also been considered essential not to delve into other issues such as his complete personal life or his political ideology, although both aspects inexorably marked the character and intentions of his social architecture, even the whole of his work.

This thesis aims to fill a void –or open a new front– by offering a new approach to the problem: a uniform presentation of all his social housing projects, raised from the point of view of the German references that can be found in each project or proposal, which are not unique, and not from the project itself, as it would be a repetitive work. Along with these German references, some specific European and American projects have also been included, since Sáenz de Oíza's work is full of multiple references that coexist and complement each other without contradictions.

³⁰ However, a few lost or unknown projects could be found in online journals and publications or, as in the case of his *Housing in El Saler*, in the Municipal Archive of Valencia.

Expected Results

This research is intended to rescue an important part of the issue of social housing in Madrid developed over the fifties, a decade that was rich in experiences and architectural results in Spain. However, a thorough analysis of each work has not been carried out as it would have been redundant. Instead, these specific projects have been studied as a whole but with new nuances, related to the influence of the experience of modern *Siedlungen* in Sáenz de Oíza's work and thinking. In other words, this thesis has sought to address a key issue in the history of Madrid's architecture during the Franco dictatorship but with a different look: focusing on the architectural influences and potential interferences between the German architecture and Sáenz de Oíza's social housing projects. But, as explained above, it also tries to analyze his work from a new necessary perspective: from the distance in time and space between the analyzed facts and the study of them, which is favoured by the fact that the author belongs to the generation corresponding to the 'grandchildren' of the Spanish masters –like Sáenz de Oíza–, a distance that brings serenity and more objectivity when dealing with a critical analysis of an architectural work. As a result, another way of analyzing and understanding Sáenz de Oíza's social architecture, its features and his architectural thinking is provided.

The fascination of Spanish architects (particularly those emerging from the School of Architecture of Madrid) after the Spanish Civil War towards the German experience of the *Siedlung* and the German urban planning, despite the dramatic cut imposed by the national conflict, calls for a unified global attention. It is clear that the landscape of contemporary social architecture of Germany, along with Italy, ranks first among foreign influences in the execution of Spanish architects of those years. The research paper is therefore intended to be able to state how and when did this assimilation of foreign innovations occurred, particularly in the life and work of Francisco Javier Sáenz de Oíza. Upon completion of this research, the author expects to accurately demonstrate the existing relationships between the German and Spanish social housing architecture languages during the reconstruction of both countries after the destruction of their corresponding wars, and through the importance of the social housing experience, particularly in the case of the architect Francisco Javier Sáenz de Oíza. In this regard, the thesis is intended to lay down a bridge or a scientific connection between both sides of Europe in a period that was suffering from a serious lack of dialogue and freedom to communicate new ideas for a modern and a more economic way of living in the cities. However, this intercommunication was possible thanks to the study trips that the Spanish architects made to Germany before and after the Civil War, their absorption of new techniques and ways of thinking

architecture, and their valuable contribution to the dissemination of these modern European principles along the Spanish territory through specialized publications.

As previously stated, deliberately, the present research study does not have a monographic character nor aims to present the complete works of Sáenz de Oíza. However, efforts have been made to draw an accurate profile of his first architecture stage –that of the ‘young Sáenz de Oíza’–, as complete and panoramic as possible, according to his architectural references, his training trip to the United States, his readings, his vital influences and his early works. This youth profile has been considered essential to approach a very important part of his work, sadly forgotten by the younger generation of Spanish architects and unknown to the Germans, but from another perspective: that of the influence of German architecture, with the modern *Siedlung* as focal point and considering other foreign influences as equally valid. This results, consequently, in an investigation on his work with a different critical eye.

Therefore, the work strategy has been focused on analyzing his decisions and concrete answers to a very specific historical and social issue: social architecture, a typology unfairly little present in the books of architecture dedicated to his work and professional practice. The study of Sáenz de Oíza's social housing projects has helped me to establish further links with the other part of the present work: the influence of interwar and postwar German *Siedlungen*³¹ in Sáenz de Oíza's social housing projects, including other specific European and American examples. The will of bringing both experiences together and the comparison established between them by addressing the Spanish case of Sáenz de Oíza's social architecture means also the desire to assert the importance and significance of this part of his extensive work, since it gives the opportunity to strengthen architectural ties and dialogues between the two countries, thus enriching the architectural interplay between two apparently distant cultures. But, moreover, it is an attempt to understand how domestic architecture (the *Siedlungen*), urban planning and the modern architecture language penetrated the Iberian Peninsula and influenced part of the social housing of the fifties and thus, the way of thinking, planning and making the future modern city.

Thus, this dissertation may represent an opportunity to open the door (or enlarge the existing one) to the exchange of knowledge and architectural experiences between the two cultures, German and Spanish, in the field of social housing and urban planning and by remarking, above all, the transcendence of the European modern findings of the twenties and from the second postwar period, especially in the

³¹ The study is mainly focused on the modern *Siedlungen* of the twenties, but some specific projects of the post-World War II have also been considered, due to the historical parallelism with Sáenz de Oíza's social housing projects.

design and development of social architecture in postwar Madrid, but also in the formation of its architects. To that end, one of its greatest representatives and masters has been taken as an example.

The German influences, as well as the rest of European and American referents analyzed in this dissertation, have been identified by the author or are based on comments or previous analysis by other authors who have already studied the work of Sáenz de Oíza, but always as isolated studies and in no case pretending to delve into the foreign references as a central research topic. In this sense, the most representative influences in Sáenz de Oíza's social housing are presented and explained in detail and for the first time throughout the dissertation, because it has been understood that there is another possible reading and understanding of his work. Thus, it is pretended that this new way of approaching and studying his social housing models through their foreign influences might help to understand and tell an important part of his architectural production that has sometimes been unfairly less valued, even forgotten.

In the course of this investigation, it has been considered indispensable to carry out a research work as objective and consistent as possible, but also with passion, since it is not incompatible with critical analysis, and focused on the main Central European experiences –particularly German– that preceded and influenced Sáenz de Oíza's social housing models more clearly. Without any doubt, there is a lot to learn from their vast architectural production through their analysis, comparison, and adaptation of their positive attainments, but also considering their negative aspects, if any, so as not to repeat them.

In short, this study case involves the willingness to bring to light the possible German references in the work of Sáenz de Oíza and, in particular, in his social housing in Madrid by adding another brick to the large wall of Spanish-German intercultural and architectural relations or interferences throughout the twentieth century. Besides, the author hopes that the lack of written records produced by Sáenz de Oíza could have been mitigated by the analysis of his architecture, the truth that can be extracted from the drawings that comprise the most clear and powerful design concepts and digressions, as well as from the graphic material provided that complements the explanatory discourse, which show the constructed reality of what was previously thought in the drawings. That was, at least, the purpose during the investigation, since, when analyzing a work of architecture, the graphic information, particularly the drawings, should speak for themselves –even more than the built solution–, and the researcher should be able to read, interpret and extract their true essence and intentions.

1. The young Sáenz de Oíza: Education and German Influences

- ★ Born in Cáseda, Navarre on 12 October 1918.
† Madrid 18 July 2000.
- ★ Graduated as Architect from the School of Architecture of Madrid on 31 July 1946.
- ★ PhD in Architecture from the School of Architecture of Madrid in 1965.
- ★ Long-term Professor at the School of Architecture of Madrid since 1968.

“Contrary to what might be expected, there was nothing linking us to a political party, nor was our intention to make money; they simply offered us the chance to be architects. This is a lesson that we have given you all; our function was the architecture, and we dedicated to it with the same devotion and the same interest as if it had been the Palace of Communication.”³²

Francisco Javier Sáenz de Oíza

“I was born in Navarre, in the village of Cáseda. I graduated in 1946. I went to work in the United States as a pensioner of the Academy of Fine Arts, and on my return I started teaching at the School. I have some educational concern; A teacher also continues to be pupil and, therefore, he remains alive. I was a teacher of Health and Hygiene: The utilitarian architecture of my country did not work, the taps gave no water, the drains sealed; I explained the subject for ten years, speaking about sun, water and the importance of environmental control for the creation of the housing form; this was the first lesson. I worked in the Selección Provincial de Urbanismo of Madrid. I got married in 1956. I obtained the chair in 1968. I haven't produced a lot of work: Torres Blancas, the White City of Alcadia, the Bank of Bilbao and some affordable housing groups are the best known part of it. I have had no master...”³³

This is how Francisco Javier Sáenz de Oíza began his self-presentation in his monograph, published by *El Croquis* magazine. Indeed, Sáenz de Oíza was born in Cáseda (Navarre) on 12 October 1918. His father, Vicente Sáenz, was an official architect, and because of work reasons, the family moved to Seville, where Sáenz de Oíza studied Secondary Education. He returned back to Madrid to study his last year of high school at the *Instituto San Isidrio*. Sáenz de Oíza was left fatherless in 1937, in the midst of the Civil War, and he lost a brother shortly after finalizing the national conflict. This situation made him assume the role of being the head of the family at the age of nineteen.

³² SÁENZ DE OÍZA, Francisco Javier: «Conversaciones sobre poblados: la experiencia en el recuerdo de sus protagonistas». In: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, op.cit., p.179. Translation by the author (R.J.J).

³³ Quoted in: *El Croquis 32/33. Sáenz de Oíza. 1946-1988*, op.cit., p.4. Translation by the author (R.J.J.).

These painful facts, deprivations and the hardships of that time certainly marked his character and his desire –even fixation– to collect all kinds of objects.³⁴ Sáenz de Oíza studied architecture at the Higher Technical School of Architecture of Madrid, in a very conservative school environment and with a study plan oriented towards the history of classical architecture, so that the students were receiving little influence from the progress of the Modern Movement. However, in 1984 Sáenz de Oíza assured in an interview for *Werk* magazine that this methodology instilled something very important into him: "cultural discipline"³⁵. Sáenz de Oíza studied in the forties, in a climate marked by the autarchy of postwar Spain, a period of almost continuous economic crisis, that was experienced by the country since the end of the war (1939) until the fifties.³⁶ He completed his studies in 1946 and at the age of twenty-eight, as the break of the Civil War undoubtedly delayed him in his studies.

Despite the circumstances, Sáenz de Oíza (or 'Oíza', which is how he liked to be called) was a model student with a brilliant academic record, who won almost all prestigious national architecture awards, with the exception of the *Real Academia de España* in Rome. He received the «Aníbal Álvarez Award» for the best academic record and after having passed through the classrooms of Leopoldo Torres Balbás, Modesto López Otero³⁷ and Luis Moya. According to his son Francisco Javier Sáenz Guerra, Sáenz de Oíza inherited from his teachers of the School of Architecture the importance of traveling as a primary tool for learning architecture³⁸, and he constantly remembered López Otero's references to the Vienna Secession, to Schinkel or Otto Wagner during his classes.

With regard to his teachers, specifically Modesto López Otero, Sáenz de Oíza declared in the same monograph that:

³⁴ Juan Daniel Fullaondo admitted that Sáenz de Oíza confessed this to him personally. In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, pp.36-37.

³⁵ SÁENZ DE OÍZA, Francisco. Interview by Paolo Fumagalli: «Francisco Sáenz de Oíza, der Regenbogen ist keine Architektur». *Werk, Bauen + Wohnen*, n.9. Zürich, September 1984. Print. p.52. Translation by the author (R.J.J.).

³⁶ The information provided in *El Croquis* by Sáenz de Oíza is quite limited, especially in respect of his early youth. See: SÁENZ DE OÍZA, Francisco Javier: «Disertaciones». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988*, *op.cit.*, pp.8-31.

³⁷ Modesto López Otero y Bravo (1885-1962), Spanish architect, professor of Projects and director at the School of Architecture of Madrid, author of the University City Complex of Madrid and director of the *Real Academia de Bellas Artes de San Fernando* from 1955 until his death. He was Sáenz de Oíza's professor and the one who encouraged him to go to America to continue his training. See: SÁNCHEZ DE LERÍN, Teresa: *Modesto López Otero: vida y obra*. Doctoral thesis. E.T.S. Arquitectura (UPM). Archivo Digital UPM. Madrid, 2000. Print; and: SÁENZ GUERRA, and SÁNCHEZ DE LERÍN, «Sáenz de Oíza, el hombre que hablaba de construcción, estructuras y poesía», *op.cit.*, p. 1.

³⁸ SÁENZ GUERRA, Javier, and SÁNCHEZ DE LERÍN, Teresa: «Sáenz de Oíza, el hombre que hablaba de construcción, estructuras y poesía». PDF File. 15 March 2016. p.1.

“The children always try to deny their parents, who also denied his own, therefore the children claim for their grandparents. The old masters, the director of the School, Modesto López Otero, (...) had Schinkel and the Viennese Secession as a model. The young people talked in terms of Le Corbusier.”³⁹

One year after, he won the «Conde de Cartagena Scholarship» from the *Royal Academy of Fine Arts of San Fernando*, an opportunity that allowed him to travel to the United States⁴⁰ between October 1947 and November 1948, and know the American reality of those years of economic expansion, the steel industry, and the architecture of European masters such as Mies van der Rohe or Marcel Breuer, but also Frank Lloyd Wright and Konrad Wachsmann's projects.

However, Sáenz de Oíza did not take this American experience as an opportunity to develop a research work. Instead, he decided to invest the money of his scholarship to travel, visit villages and cities, a large number of buildings and meet the people and their customs. This is how the American stay allowed Sáenz de Oíza to open his eyes and mind to a very different world from that of the Spanish postwar reality from which he came from.

The decade of the forties and the fifties were the years when many Spanish architects and technicians travelled to North America to continue their formation. This American trip enabled Sáenz de Oíza to see and study not only the American architecture at first hand, but also the works of German architects who had migrated to the United States and whose works had already been studied by Sáenz de Oíza in Europe: Mies van der Rohe, Hilberseimer, Gropius or Breuer. Therefore, we can deduce that in spite of the fact that Sáenz de Oíza never studied in Germany or visited the country in the analyzed period, he did know its modern architectural tradition: First, through the architecture books and magazines that he handled during his stage as a student at the Higher Technical School of Madrid; and second, after studying *in situ* the imprint of its principal masters in the American territory.

On his return from his American experience, Sáenz de Oíza acknowledged that:

³⁹ See: SÁENZ DE OÍZA, «Disertaciones». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.26.

⁴⁰ Sáenz de Oíza never reported his stay in the United States, apart from occasional events where he used to recall the trip or when he mentioned some references to buildings he had seen there in front of his students. However, his American trip and learning had already been studied in the following publication, in which some comments from Sáenz de Oíza's child Javier and Eduardo Mangada, Sáenz de Oíza's former student and collaborator, were cited: MARTÍN GÓMEZ, César: «El viaje de Sáenz de Oíza a Estados Unidos (1947-48)». *La arquitectura norteamericana, motor y espejo de la arquitectura española en el arranque de la modernidad (1945-1965)*. Escuela Técnica Superior de Arquitectura Universidad de Navarra. T6 Ediciones. Pamplona, 2006. PDF File. 15 October 2014.

"In America I discovered that modern art interested me less than modern technology. Traffic lights and concrete lintels...You realize that the American spirit is inventive on all sides. The Patent Office there is just as important as the *Museo del Prado* here."⁴¹

It is important to note that, during the years corresponding to Sáenz de Oíza's formation –the forties–, the architecture studies in the School of Barcelona could not be equated to the architecture studies in Madrid, although both institutions were based on the tradition of the French polytechnic schools. The polarity and competitiveness between the School of Barcelona and the School of Madrid, which were the two unique Spanish university institutions committed to the teaching of architecture during the forties and the fifties, has been largely discussed since the end of the 1960s, becoming the essential point of an open discussion among many architects and critics.⁴² Without wishing to go into a detailed analysis or further debate, it seems important to clarify the role played by the School of Madrid in order to understand what was Sáenz de Oíza's formative background, his architectural and cultural roots. To that end, Iñaki Bergera's definition on the significance and representation of each Spanish school is clear:

"From the beginning, each location of architectural training was characterised and qualified by the identity of their cities. Madrid represented and represents the centrality of the State, condensing both ideologically and aesthetically the legacy of the artistic and cultural Spanish tradition, while concentrating the territorial sensibilities of the country. Barcelona –together with the Basque Country– crystallizes the feeling of a distinctive Catalanian national identity, expressed among other things by a broader openness to Europe through the Mediterranean."⁴³

The programme of study of the degree in Architecture at the School of Madrid during the forties was very much influenced by the German architectural culture, but with a primarily humanistic and artistic basis. Almost all the construction manuals and magazines handled by the students in Madrid those years came from Central Europe and the majority were written in German. Sáenz de Oíza's trip to America and his rational thought, combined with his innate artistic sensibility, also made him question his academic backgrounds and his technical culture, essentially German:

⁴¹ Quoted in: ALBERDI, Rosario, and SÁENZ GUERRA, Javier: *Francisco Javier Sáenz de Oíza: libro-estudio*. Ediciones Pronaos. Madrid, 1996. Print. p.19. Translation by the author (R.J.J.). Extract of the interview by RUBIO, Pilar: «Entrevista con Francisco Javier Sáenz de Oíza». *Lápiz*, n.32. Madrid, 1986. Print.

⁴² See: BERGERA, Iñaki: «School of Madrid vs. School of Barcelona». In: PHILIPP, Klaus Jan, and RENZ, Kerstin (ed.): *Architekturschulen: Programm, Pragmatik, Propaganda*. Universität Stuttgart, Institut für Architekturgeschichte, Fakultät Architektur und Stadtplanung. Ernst Wasmuth Verlag. Tübingen, 2012. Print. pp.183-197.

⁴³ *Ibid.*, p.183.

“My surprise about the technical thing was, to some extent, the rejection against the claim of the School and the Academy, (...). I was gripped by the American technical culture and I changed many of the assumptions from which I started, for example, that building economics was the economy of materials, and I found out that (..) the Germans were entertained in determining the strict forms of a concrete basement to spend less material, and the American culture was based on putting more material if this was cheaper. (...) That's why the American economy I knew, for me, was (...) very polarized, very economist, with a very materialistic basis, and I had a German education in the strict sense of the economy of materials and sacrifice everything to put the minimum weight of material.”⁴⁴

Even so, the socioeconomic status and the nationalist direction taken by the politics of Spain, would obviously require him to practice the German economy of materials in his social housing projects, but with a Spanish local craftsmanship, almost without means. However, Sáenz de Oíza constantly defended that the Spanish architecture should look across the Atlantic and advocate for the International Style, in large part reviled in Spain and represented by Mies van der Rohe and Walter Gropius in the United States. Upon his return from the United States, he became professor of ‘Health and Hygiene of the Building’⁴⁵ in 1949, replacing Pedro Muguruza⁴⁶, a subject to which he would be devoted during eleven years, teaching in the areas of heating, plumbing and sanitation in building. No one had taught him this discipline, and therefore, it was a self-study that was developed in the fascination with systems and technologies which he certainly discovered in the United States.

There were two circumstances that encouraged Sáenz de Oíza to be a teacher. In an interview, Sáenz de Oíza had to answer the question “Does your stay and American experience continue to influence you today?”⁴⁷ and he recounted and summed up his return to the Spanish reality with these words:

⁴⁴ Quoted in: FUNDACIÓN CAJA DE ARQUITECTOS (ed.): *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*. Colección la Cimbra 3. Fundación Caja de Arquitectos. Madrid, 2006. Print. pp.17-18. Translation by the author (R.J.J.). Extract of the interview: «Entrevista con Francisco Javier Sáenz de Oíza», *op.cit.*

⁴⁵ In the School of Architecture of Madrid the subject received the name “Salubridad e Higiene de la Edificación” (equivalent to “*Bauhygiene und Konstruktionstechnik*”), from which Sáenz de Oíza was assistant professor from 1949 to 1961.

⁴⁶ Pedro Muguruza (1893-1952) was an architect and professor at the School of Architecture of Madrid. The war that followed the uprising and the subsequent imposed dictatorial regime, resulted in a decrease of architects including many of the most relevant professionals that worked in the Republican period, who did not survive the war event and the subsequent repression, or were exiled or disqualified professionally. That was not the case of Pedro Muguruza, as he held important positions in Franco's government which led him to be regarded as the leader architect of the Regime, in charge of the reconstruction of the country.

⁴⁷ Extract of the interview by DE LA FUENTE, Inmaculada: «Respuestas polémicas». *Diseño Interior*, n.5. Madrid, 1990. Print. p.109. Translation by the author (R.J.J.).

"It was very interesting. I was more interested in the architecture as beautiful form, but I realized immediately that I had to learn basically technical facts there. And I returned to Spain in 1948 and the impact was tremendous, because I still had to do the military service. And I was assigned to Seville and I was staying in a hotel, and I opened the tap and the shaved beards remained in the sink, there was no way to clear them. And by giving with the hand so as not to leave the sink dirty, (...), I managed to clean the beards and I said to myself: "I've finally left a decent room". I went to the bath and they all had come out in the tub. And then, of course, as I knew technique, I said to myself: we must dedicate ourselves to the technique. And that is why I became a teacher at the School. (...) And that is beautiful, it is not wanting to be a teacher to win a title, but for doing better architecture."⁴⁸

Undoubtedly, it is a beautiful motivation: wanting to be a teacher in order to make a much better architecture. This well-known anecdote was compounded by the fact that the School of Architecture of Madrid was looking for a teacher of installations, and when a colleague offered him the opportunity to teach the subject, Sáenz de Oíza replied:

"I accept gladly. I come from Seville, where the taps do not work, and I don't mind teaching others how to do it correctly."⁴⁹

In his facet as a teacher, Sáenz de Oíza used to talk about water, air, sun and soil, because "they are the substantial elements of healthiness"⁵⁰. And moreover, he demonstrated one of his most valuable virtues: his ability to be universal. He dealt with the 'Projects' courses with the same ease as with a purely technical subject. In fact, Fullaondo reported that Sáenz de Oíza faced this new challenge with great success, and he would use the classroom to talk not only about health facilities and equipment, but also about the cities of Hilberseimer, the wind, acoustics, the *Frankfurt Kitchen*, Mies, or the Nordic architects such as Alvar Aalto.⁵¹

But his occupation as assistant professor of 'Health and Hygiene of the Building' also allowed him to become the main driving force behind the change of outdated education systems established by the School of Madrid, while it led him to apply a strict rationalism when designing his social housing, being always attentive to get the most economic budgets from the comprehensive study of construction materials.

⁴⁸ SÁENZ DE OÍZA, <<Respuestas polémicas>>, *op.cit.*, p.109. Translation by the author (R.J.J).

⁴⁹ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*, *op.cit.*, p.124. Translation by the author (R.J.J). Extract of the interview by REBOIRAS, Ramón F.: <<La Arquitectura. Hablando con Francisco Javier Sáenz de Oíza>>. *La Arquitectura*. Acento Editorial. Madrid, 1993. Print.

⁵⁰ Quoted in: *Ibid.*, p.124. Translation by the author (R.J.J).

⁵¹ In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, pp.22-23.

Indeed, Sáenz de Oíza was one of the proponents of a different teaching of architecture at the School of Madrid, promoting a return to modern architecture, in line with the legendary Bauhaus with which many young Spanish architects dreamed. From his point of view, "the contribution of the Bauhaus was very interesting: to lower the artist from his pedestal and raise the artisan."⁵² The architecture had to change somehow and recover the modernity that was lived in the thirties in Madrid, a city that was not yet the metropolis it is today.

During the fifties –his first and most prolific social stage–, Sáenz de Oíza wrote articles that highlighted the importance of materials and technology in modern architecture, a concern that is present in "El vidrio y la arquitectura"⁵³ ("Glass and Architecture"), an article he wrote in 1952 for the monographic issue that *Revista Nacional de Arquitectura*⁵⁴ dedicated to this material, in which he developed a study on the role of glass in the new architecture and the change experienced in the building external enclosures.

The references to the American architecture and technical aspects in this article are constant, where the most referred architects are Wright, Neutra and Mies van der Rohe. Thus, the *Crown Hall* at the *Illinois Institute of Technology Campus* was described by Sáenz de Oíza as "one of the most successful achievements of the new art of building"⁵⁵. The buildings reproduced in the article are significant: The *Lever House* by S.O.M., the skyscrapers proposed by Mies Van der Rohe in 1926, details of Chicago buildings, Gaw & Fawcett's works, or Neutra's *Atwell House*. The article also includes some interesting digressions such as the sketches he made during his American trip, in which he compared the human respiratory system with the air conditioning ducts of an American building (see Fig.1.1).

⁵² SÁENZ DE OÍZA, Francisco Javier. Interview by PÁNIKER, Salvador: *Conversaciones en Madrid*. Editorial Kairós. Barcelona, 1969. Print. p.142.

⁵³ SÁENZ DE OÍZA, Francisco Javier: «El vidrio y la arquitectura». *Revista Nacional de Arquitectura*. n.129-130. Dirección General de Arquitectura. Madrid, September-October 1952. pp.11-67.

⁵⁴ Or *RNA* (1941-1958). Architecture magazine published by the *Dirección General de Arquitectura*. ("Directorate General of Architecture"). Originally called *Revista de Arquitectura* (1918-1936) and published by the *Órgano de la Sociedad Central de Arquitectos* ("Central Association of Architects"), it recovered the simple naming of *Arquitectura* since 1959, which was lost in 1941, and it is still published by COAM ("Official Architects Association of Madrid").

⁵⁵ *Ibid.*, p.22. Translation by the author (R.J.J.).

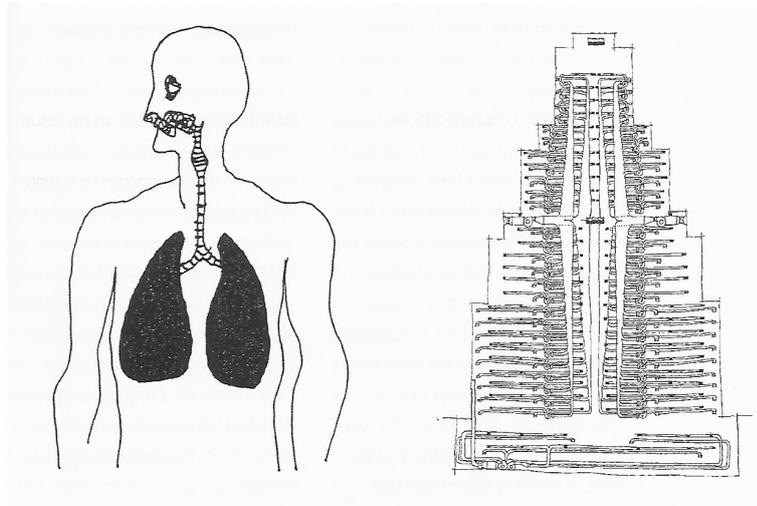


Fig. 1.1 Sáenz de Oíza's sketches from the United States (1947-48).

This meticulous research work carried out with notes and pictures that he collected during his American stay gives a glimpse of the importance of this material in his later work. "El vidrio y la arquitectura" is an article in which Sáenz de Oíza addressed many issues: from his view of the state of architecture, the new materials applied to construction and acoustic insulation, to the theoretical development of thermal immission by sunlight in buildings. But above all, it was a statement of principles, in which he also confessed those American influences (but mostly German architects building in the United States) that marked him both personally and professionally. His fascination with this material, its design and execution in the works he could visit in the United States was expressed as follows:

"All the work of Mies van der Rohe or Neutra breathes this prodigious use of glass, which rather than limiting the interior space, as the stone did, it intends to contain the lush and splendid penetration of nature within the inhabited space. A new aesthetic of architecture, the result of new technology."⁵⁶

If relating the new architecture with technology had been a tradition of the modern manifestos, it had always been understood that, in a world in which technology could become a vital democratizing factor, the culture of the new architecture would be technical. When Sáenz de Oíza talked about the latest technological advances and the potentials in cultural media, he was aware of the value and capacity of the media for the dissemination of culture, and how the new human order was based on a speech in which the technological potential meant freedom of choice and use.

⁵⁶ SÁENZ DE OÍZA, «El vidrio y la arquitectura», *op.cit.*, p.18. Translation by the author (R.J.J.).

Sáenz de Oíza's article opened a window in Madrid's architectural scene to what an ideal architectural production could be, heiress of the Modern Movement, which could perhaps passed unnoticed to the most representative culture, supported by the Spanish Regime. In short, a new international architecture.

Besides, Sáenz de Oíza's in-depth treatment of the different technical issues in this publication makes it an article which still remains relevant and valid. As César Martín Gómez points out, Sáenz de Oíza "wasn't able to write anything better afterwards. In the first place, because in this article he was able to condense his concerns, theories and technological and constructive expertise in an outstanding manner. Secondly, because action and reflection are not always compatible and Sáenz de Oíza had an intense professional life that would not allow him to find the time and peace of mind that it is required to write such a dense text."⁵⁷

Indeed, despite the fact that he wrote many pages on the 'decimal foot' –one of his obsessions in the fifties–, a sort of 'Sáenz de Oíza's Modulor', he published little or almost nothing, apart from some loose items in Spanish architecture journals⁵⁸. He published just one time, in the case referred above on the properties and value of glass in architecture, but he did write constantly, in private. Rafael Moneo, Sáenz de Oíza's former student and collaborator, said that "Sáenz de Oíza practiced the Socratic, oral teaching, without writing anything."⁵⁹ In this respect, his aloofness and lack of writing production is also reflected in one concrete fact in his career: when the subject of the PhD in Architecture arose in Spain, it was decided to tackle the issue allowing architects to present one of their building projects, instead of a doctoral thesis. Fullaondo wrote that Sáenz de Oíza had enough material to make "fifty brilliant theses"⁶⁰, but still, he would receive his doctorate degree with his *Gómez House* project in Durana (Vitoria, 1959).

In relation to his classes at the School of Architecture of Madrid, he did not only collect his knowledge in the article for the *Revista Nacional de Arquitectura* but also in some notes for the students who attended his course of 'Health and Hygiene of the Building'. These notes, which have lost nothing of their relevance and have been re-

⁵⁷ MARTÍN GÓMEZ, *op.cit.*, p.18. Translation by the author (R.J.J.).

⁵⁸ In 1959, Sáenz de Oíza wrote an article for *Arquitectura*, where he discoursed on how to conduct a magazine about architecture in Spain. See: SÁENZ DE OÍZA, Francisco Javier: «Perspectivas de una revista española de arquitectura». *Arquitectura*, n.3. COAM. Madrid, 1959. Print. pp.3-10.

⁵⁹ Quoted in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, p.175. Translation by the author (R.J.J.).

⁶⁰ *Ibid.*, p.59.

released in recent years⁶¹ (see Fig.1.2), were a useful handbook for students and professionals because they included continuous references to American and European technical books. Sáenz de Oíza would use this information to present the fundamentals in the field of installations in a unified way, exposing them simultaneously according to the criteria of different authors so that the reader could see what were the options available and the information raised by the different authors about the subject.⁶²

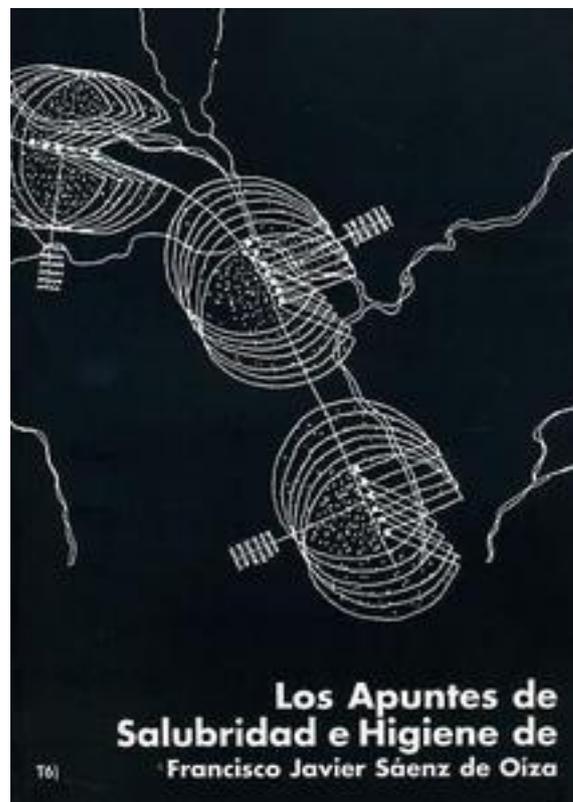


Fig. 1.2 Sáenz de Oíza, *Notes on Health and Hygiene*. Front cover of its re-edition (Pamplona, 2010).

⁶¹ See: SÁENZ DE OÍZA, Francisco Javier: *Los apuntes de salubridad e higiene de Francisco Javier Sáenz de Oíza*. T6 Ediciones. Pamplona, May 2010. Print.

⁶² According to César Martín Gómez, after his conversation with Eduardo Mangada, the writing of these notes began in 1956-57 school year. These notes are preserved in the Library of the School of Architecture at the Polytechnic University of Madrid. Eduardo Mangada began working in the office of José Luis Romany and Francisco Javier Sáenz de Oíza while he was studying architecture and he attended Sáenz de Oíza's course on 'Health and Hygiene of the Building'. Although Mangada met Sáenz de Oíza years after the trip to America, he became a direct witness of Sáenz de Oíza's memories and the influence that this tour around the United States left in his way of working and attitude to face the architectural problems. See: MARTÍN GÓMEZ, *op.cit.*, pp.19-21.

Back to his one-year American stay, it is inevitable to consider the impression that this foreign experience must have caused him, and whose teachings accompanied him and his designs throughout his entire career. In the words of Sáenz de Oíza:

“I toured the United States to learn how the people lived...on my return from the United States I knew how the traffic system functioned...there I learned to understand that (...) the solution of one problem created other problems...”⁶³

At this point, it would be necessary to understand the meaning of the postwar American culture and the role that the great European reconstruction was playing at the time. The United States had become the place where the best European traditions carried out by the German architects who fled Nazi persecution, converged with the American pragmatic view. And all this cultural exchange took place in exceptional economic times, which made the country the engine of the global economy and a reliable model in which to look for all the socio-political references. The reconstruction of postwar Europe and the urgent needs for new housing caused by World War II, were nurtured by abundant references to modern architecture.⁶⁴ But these references did not solely lie on the German or American architecture, the latter influenced by the European rationalism and functionalism at the same time. There was also a growing influence of Italian architecture that began to exert on Spain.

To Sáenz de Oíza, these years of American architecture certainly meant a fundamental reference in all his work, and one could claim that they were the basis of something that defined him as a great architect, with a exceptional sense of proportions and scale, beyond fashion. It would be legitimate to attribute this one-year stay in the United States as a deep learning, which can be noticed in the perfect match between that postwar American architecture and Sáenz de Oíza's scale. Undoubtedly, he found a strong reference in the United States, in their particular reinterpretation of modern architecture and the influence of Mies van der Rohe, which would determine his subsequent architecture. In this connection, two apparently disparate projects can be highlighted among the works where this early influence is noticeable: the *Chapel on the Saint James Way* (1954) and the *Directed Settlement of <<Entrevías>>* (1956).

Sáenz de Oíza always demonstrated an enormous technological curiosity. Endowed with great inventiveness, he patented a drafting machine and built a slide rule that was able to add angles, he invented a way to multiply from left to right and,

⁶³ SÁENZ DE OÍZA, <<El vidrio y la arquitectura>>, *op.cit.*, p.19.

⁶⁴ The *Progressive Architecture* magazine published a great number of projects and articles devoted to the housing problem in Europe during those years.

during his classes, he proposed an improved type of airtight window with an air camera similar to that of the bicycles, a universal lock with adjustable wrench, and a square root scale as a general logic in technical drawings of universal format.⁶⁵ Even in the mid-fifties, he proposed to his students the design of a sleeper as an exercise in his 'Projects' course, in the line of Gropius's *wagon-lit* for the Mitropa rail car of 1914.⁶⁶ These facts reveal that Sáenz de Oíza always had penchant for engineering, functionality, mechanisms, inventions, the <<machine for living>>, and therefore, he would always try to respond to environmental problems with a rationalist attitude. Indeed, and in like Le Corbusier's manner, he always felt unconditional admiration for the world of the machine and technological cleansing, specially by the bicycle and the car. Although he maintained this constantly inventive-rational facet during his career, one could argue that it seems more authentic and fruitful in his phase during the fifties, perhaps even deeper. Also, more committed. Nevertheless, this rational attitude was not lost during his next professional stage of the sixties, but was hidden behind other organic experiences, with much more grateful, colorful and economically powerful projects.

The American industrial optimism was assumed by Sáenz de Oíza during his trip to the United States, and its influence on his thinking and subsequent projects, such as his social housing projects, is also clear. In fact, Sáenz de Oíza was an architect who used to speak and work with accurate concepts of industrialization and standardization. As an example of this impregnation and admiration for the American architecture (or for German architects residing in North America) a few examples of the technical literature that Sáenz de Oíza handled regularly in his studio⁶⁷: Marcel Breuer's *Sun and Shadow. The Philosophy of an Architect*⁶⁸, Gay and Fawcett's *Mechanical and Electrical Equipment for Buildings*⁶⁹, and the complete book with the series of *Time-Saver Standards*⁷⁰, which were published once a month in the American magazine *Architectural Record*.

⁶⁵ Again Fullaondo recounted Sáenz de Oíza's inventions in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, p.66.

⁶⁶ See: MARTÍN GÓMEZ, *op.cit.*, pp.23-24.

⁶⁷ In: *Ibid.*, p.24. It is important to note that these publicaciones do not appear in Fullaondo's list included in *La bicicleta aproximativa*. However, it is also evidenced the huge presence of American authors and German authors publishing in the United States. See: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, pp.105-120.

⁶⁸ BREUER, Marcel: *Sun and Shadow. The Philosophy of an Architect*. Dodd Mead & Co. New York, 1955. Print.

⁶⁹ MERRICK GAY, Charles, and DE VAN FAWCETT, Charles: *Mechanical and Electrical Equipment for Buildings*. John Wiley & Sons. New York, 1935. Print. The book deals with plumbing, sanitation, different systems of heating, electricity and even acoustics. Most of the systems presented in the book involve energy consumption.

⁷⁰ ARCHITECTURAL RECORD: *Time-Saver Standards: A Manual of Essential Architectural Data for Architects, Engineers, Draftsmen, Builders, and other Technicians*. F.W. Dodge Corporation. New York, 1946. Print.

However, it is clear that, because of the economic situation and development of the country, the information, learning and working tools that Sáenz de Oíza brought from the United States could not be implemented in the Spanish reality. Although Sáenz de Oíza always worked with rigour and mental effort through the discipline of the installations and their rationalism, he was not able to pursue a technological success because that was a real fact of modern America, but an illusion in the worn and outdated Spain of the late forties. For this reason, and by taking advantage of the limited means available, Sáenz de Oíza, who used to delight in drawing the details of every installation⁷¹, always tried to apply his intelligence and methodical character as main tools for the analysis and resolution of the architectural problem. For him, the facility design was inseparable from the overall design of the building.

Considering Sáenz de Oíza's profile as an architect, it is nevertheless difficult to draw an accurate sketch of his personality, because even those who knew him best (friends, colleagues, students...) give different versions or tell their story from different perspectives, which stands to reason. In the long and undeniable successful professional career of Sáenz de Oíza there are many chapters, many nuances and languages, but also many faces. He did not maintain a straight and steady line, which is reasonable if we assume that, obviously, there are different stages and moments in one's life. But if anything defines Sáenz de Oíza's character is certainly his constant interest in learning architecture throughout his career, as he considered it an eternal apprenticeship. His determination to keep up to date with regard to the architectural trends of the moment is clearly reflected in his eclectic architectural production, which goes from a beginning marked by a severe European rationalism to the largest postmodern exuberances, passing by some elaborate proposals with obvious nods to organic and expressionist movements. Sáenz de Oíza defined his own working method in an interview in 1983 in this way:

"I'm a pretty eclectic architect. I do not have a defined path and I make each project a problem from which I'll try to find my own expression or the expression that corresponds to that building (...). The creation comes out by itself and it is almost prejudicial to the author to get involved in the work. I always had the idea that projects resent those intentions that the author had before their own germination."⁷²

⁷¹ This interest was reported by César Martín Gómez after a conversation with Eduardo Mangada, former employee in Sáenz de Oíza and Romany's office. In: MARTÍN GÓMEZ, *op.cit.*, p.22.

An anecdote: Sáenz de Oíza used to say that Eduardo Mangada looked like Breuer. In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, p.46.

⁷² THORNE, Marta: «Interview with Francisco Javier Sáenz de Oíza». *Quaderns d'Arquitectura i Urbanisme*. n.157. Barcelona, 1983. PDF File. 26 February 2015. p.99. Translation by the author (R.J.J.).

Sáenz de Oíza's eclecticism has been another aspect highlighted by the critics. With regard to his eclectic attitude, José Manuel López-Peláez, former student and collaborator of Sáenz de Oíza, stated that:

"To talk about an eclectic attitude is stating the obvious, but such evidence sheds little light on the real interests and the architect's way of working. It may be preferable to inquire in the constants rather than the changes, and in this way find some keys to his thought and work."⁷³

López-Peláez's point of view coincides with the base of the procedure chosen to address this research: to fix the gaze and analysis in Sáenz de Oíza's constant attitudes concerning his social architectural production, but without getting lost in the changes in trends, sometimes misleading, and which do not allow us to see what was his real attitude to address the basic architectural problem: the cheapest minimum housing, and therefore, in many cases, the most human.

The Spanish criticism has always chosen to define Sáenz de Oíza's architectural production in different phases, but there are disparate opinions: Either his professional trajectory has been structured in four stages, depending on the architectural currents that influenced him at every step (and therefore understood by José Manuel López-Peláez); or it is divided on the basis of his collaborations with other architects (thesis defended by Juan Daniel Fullaondo⁷⁴). However, both agree to mark the end of the decade of the fifties as a turning point in Sáenz de Oíza, towards a more organic architecture, away from the rationalism that marked his beginning as an architect dedicated to social housing. This change of style and architectural language coincided with the period of cultural openness to the outside that Spain was experiencing in the sixties, which also led to a general enthusiasm among many Spanish architects, who began to study and embrace the organic principles of the Italian architecture.

On the other hand, and following Fullaondo's thesis, Sáenz de Oíza did not walk alone along his long career. His professional career was marked by his collaborations with other reputed architects. If in the early years of profession he worked with Luis Laorga and Jorge Oteiza, he later went on to work with José Luis Romany, Manuel Sierra, Eduardo Mangada and Carlos Ferrán, with whom he worked during his main social housing production during the fifties.

⁷³ LÓPEZ-PELÁEZ, José Manuel: «Oíza y el reflejo del Zeitgeist». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.199. Translation by the author (R.J.J.).

⁷⁴ Both López-Peláez and Fullaondo's analysis and thinking on the figure of Oíza (with whom they had a close personal or professional treatment) can be found in: *Ibid.*, pp.192-221; and FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*

During the decade of the 1960s, he counted with the collaboration of two essential figures in the history of Spanish architecture at the time: Juan Daniel Fullaondo and Rafael Moneo, but also with Ricardo Aroca. Later, several known and reputable professionals like Javier Vellés or Alfonso Valdés, among others, would work in his studio, and in the eighties, his children Noemí, Javier, Vicente and Marisa and his nephew Francisco joined the team, which is still active.

Precisely the most critical analysis on the figure of Sáenz de Oíza was that of Juan Daniel Fullaondo, who began to collaborate in Sáenz de Oíza's office after graduating in 1958 at the School of Architecture of Madrid. They both had their encounters and misunderstandings, many of them explained by Fullaondo in the aforementioned report about Sáenz de Oíza, and which prompted Fullaondo's non-participation in *El Croquis'* number devoted to the figure and career of the architect.⁷⁵ Sáenz de Oíza's former collaborator would outline his vision about the architect with these words:

"Sáenz de Oíza appears to me, in many instances, an architect of great interest and simultaneously an erratic thinker, very hampered by confusions which had prevented him from defining, with insight and fairness, his own location on the national scene."⁷⁶

And he added:

"Here is, I think, one of the major sources of Sáenz de Oíza's eternal tension, the divergence in the power of some of his architectural gestures and weakness, arbitrariness of his thought, including architecture, which had led him to drift for so many moments of his life, even unable to understand himself, stubbornly clinging to a series of monotonously repeated fixations."⁷⁷

Fullaondo defined Sáenz de Oíza as a follower of the *Gestalt* criteria⁷⁸ but, however, he considered that this <<*gestaltic*>> attitude was only a mask, a disguise that he would use whenever he needed to get out of trouble:

⁷⁵ Fullaondo explained his reasons for not joining Sáenz de Oíza's tribute in *El Croquis* 32/33 in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, pp.171-176.

⁷⁶ *Ibid.*, p.11. Translation by the author (R.J.J.).

⁷⁷ *Ibid.*, p.12. Translation by the author (R.J.J.).

⁷⁸ Fullaondo declared that Sáenz de Oíza went in for a competition to enter the Department of Architectural Composition at the School of Seville in 1965, and not having been prepared for the exam, he quickly read some things about the *Gestalt*, from which, according to Fullaondo's opinion, "he did not know a word, nor he cared about it". In: *Ibid.*, p.93. Translation by the author (R.J.J.). However, in Sáenz de Oíza's personal library from 1968 one can find the following book: WERTHEIMER, Max: <<*Gestalt Theory*>>. *Social Research* 11:1/4. pp.78-99. 1944. Print. (Published in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, p.114).

“The best arose when he removed the mask and showed himself as he was, bright, disorganized, brought up to date, contradictory, obsessed with certain things, a little <<enfant terrible>>.”⁷⁹

Thus, it is evident that Sáenz de Oíza –and his architecture– had a lot of faces, quite different skins. In his work, various clearly differentiated stages can be detected in terms of theme, language, scale, structure and form. His professional trajectory can be seen as a display of fragments of architecture along the twentieth century: his variety, his detachment from the styles, his willingness to touch all areas and languages without being a specialist in any of them. And yet, his work is a showcase of high quality, with many notable and influential projects in the panorama of Spanish architecture in the second half of the twentieth century. His tendency to move through different styles, without openly identifying himself with any of them, his detachment with all architectural movements from which he nourished to implement them in his own designs is, in fact, the common denominator along his trajectory as an architect. In this regard, Sáenz de Oíza went on to state that “if I were a great architect, I would be an architect without style.”⁸⁰

Sáenz de Oíza was always sensitive to his time, a vitalist who always stayed indifferent to his own work, like Joyce's young artist⁸¹, who he constantly cited during his classes. In his willingness to not be identified with an specific style, to defend the detachment of the author with his own work, the <<non-personhood>> of the architectural project, Sáenz de Oíza agreed again with his admired Ludwig Hilberseimer. While Sáenz de Oíza asserted that “good works have no author, they are transcended”⁸², Hilberseimer defended that “the projects should look like the most natural manifestation and with no particular author.”⁸³ Precisely, the topic of the 'style' in Sáenz de Oíza's works is complex and has generated a continued and intense debate amongst the Spanish architectural criticism. In this regard, it is worth recalling the analysis of Fullaondo:

“There is a certain indifferentism of Sáenz de Oíza to the architectural styles. James Joyce used to say that ‘the most important thing for me is the style’. This is totally opposed to Sáenz de Oíza. (...). Sometimes I have said that Sáenz de Oíza is

⁷⁹ *Ibid.*, p.94. Translation by the author (R.J.J.).

⁸⁰ SÁENZ DE OÍZA, <<Respuestas polémicas>>, *op.cit.*, p.109. Translation by the author (R.J.J.).

⁸¹ The author refers to James Joyce's *A Portrait of the Artist as a Young Man* (The Egoist. London, 1916).

⁸² Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*, *op.cit.*, p.19. Translation by the author (R.J.J.). Extract of the interview: <<Entrevista con Francisco Javier Sáenz de Oíza>>, *op.cit.*

⁸³ DANFORTH, George E.: <<Hilberseimer Remembered>>. In: POMMER, Richard, SPAETH, David, and HARRINGTON, Kevin: *In the Shadow of Mies: Ludwig Hilberseimer, Architect, Educator and Urban Planning*. The Art Institute of Chicago & Rizzoli International Publications. New York, 1988. Print. p.14.

an architect <<without style>> and I think I have been misunderstood. What I was trying to point out is that he has managed all of them, often brilliantly, going from one thing to another, with absolute ease...Some would speak of cynicism, opportunism...I prefer to talk about indifference...As if, deep down, he cared about other things.”⁸⁴

As for the aforementioned architecture style –or the lack of it– in his works, Sáenz de Oíza, who always regretted not having had a youthful success or not being a good architect, saw himself as an eclectic architect. In that regard, he declared in an interview in 1990:

“The not so smart architects, but the best critics from Spain, say I'm eclectic. Everything that I am is wise, I withdraw the question, I let it operate, it boils alone and generates itself its own answers. I have been, therefore, an eclectic architect who has not done 'his architecture', but has allowed architecture to develop alone.”⁸⁵

But despite this will to be <<invisible>> towards the project, one could argue that in Sáenz de Oíza, as it had happened in the career of the great masters such as Mies, Le Corbusier and Wright –the three admired by him–, a great qualitative diversity among his various architectural stages occurs. Manuel Cabeza González already addressed in his doctoral thesis this issue of the phases in the trajectory of Sáenz de Oíza and he structured them in four stages⁸⁶, the first of which covers since 1946, the year of his graduation, until 1958. During these years in Spain, the historicism linked to the political situation and the needs of society were prevalent, as it had already happened in Nazi Germany. Therefore, it was essential to investigate in the tradition, in the true popular culture of the country as the purest national identity.

In this way, it seems appropriate to take this changing –even hesitant– nature of Sáenz de Oíza as a result of the historical moment in which he lived after he finished his studies and he had to deal with the reality of the profession in the years of the Spanish postwar: without clear benchmarks, without an identity assumed unequivocally by all, but with cultural needs that motivated a generation of architects to try to find the appropriate architectural solutions to their historical time, although this meant the rejection of the Spanish tradition and the need to look towards old modern European trends.

Within the framework of the Spanish national architecture, Sáenz de Oíza was one of the representatives of the effort that took place in the profession to abandon the

⁸⁴ In: FULLAONDO, *op.cit.*, p.70. Translation by the author (R.J.J.).

⁸⁵ SÁENZ DE OÍZA, <<Respuestas polémicas>>, *op.cit.*, p.109. Translation by the author (R.J.J.).

⁸⁶ CABEZA GONZÁLEZ, *op.cit.*, p.217.

prevailing fascist academicism, and give way to the new winds of the Modern Movement, thus recovering the tendency of those Spanish architects of the twenties who breathed and embraced the European modernity until the Civil War dampened their aspirations. Along with José Antonio Coderch, both were possibly the most important architects of their generation, since they represented the strongest support to transfer the Spanish architectural culture based on a false modernity fueled from the Spanish autarchies to the international avant-garde. The Spanish architect and urban planner Oriol Bohigas expressed the importance of both architects as follows:

“They thought it was not necessary that the new architecture was born on the revolutionary embers of CIAM, the Bauhaus, the Russian Constructivists or GATEPAC. It could arise from the austerities of vernacular architecture –from the dry Spain or the sensual Mediterranean– and from the logical analysis of classical formulas that Franco had degenerated, still visible in the discourses of the academic policy. And the truth is that, from this certainly conservative attitude, they succeeded in penetrating into the essence of modernity and saved many affected misrepresentations of style.”⁸⁷

Sáenz de Oíza also started from this prevailing historicism in Spain during the 1940s because it was part of his architectural education, but soon he abandoned it for an extreme rationalist attitude and the personal goal of reaching a comprehensive metric accuracy level of the project, as reflected in his vast social housing production in Madrid during the fifties. This facet of 'social architect' was interrupted by his organic stage, which runs between 1959-1970, but he would revisit the issue of social housing in 1979 with his *Housing in Orcasur*, and then in 1986, when he won the competition to build his *Housing on the M-30 Highway* in Madrid.

As far as his architectural work is concerned, Sáenz de Oíza offered no novelties or developments. He was rather devoted to study those projects that he discovered with enthusiasm. Then, he substracted what interested him most and analyzed the pieces that gave meaning to the overall project approach. In this way, and by learning from the successes and errors of others, he sought every improvements that could be applied to his own proposals. Therefore, his professional career was always quite marked by the influence of all different architectural trends that have occurred throughout his life. But also by a well-marked feature in Sáenz de Oíza's personality: his ability to provide different answers to the same architectural question, to identify the models and to dissect them, in order to turn the problem around and find another architectural challenge, so that the solution of a problem leads to a new problem. In

⁸⁷ BOHIGAS, Oriol: <<Sáenz de Oíza y Coderch en Mallorca>>. *EL PAÍS*. Archive. 2011 ed. (Print). EL PAÍS S.L. 19 September 2001. Web. 24 April 2015.

this regard, and in the words of Rafael Moneo: "Oíza multiplies the options."⁸⁸

What is clear is that the architecture of Sáenz de Oíza always reminds of something else, to a previous building of quality which he was able to discover, analyze and reinterpret, adapting its architectural –both technical and aesthetical– qualities to the specific needs of the architectural problem he sought to address, but with the Spanish architectural and historical context. In the case of the social housing during the fifties, these particularities were mostly marked by the political and economical constraints. This way of working by absorbing ideas of others and transforming them, was also seen and defined by his son Javier Sáenz Guerra as follows:

"From his scholarship in the United States in 1948 Oíza learns the approach of the American society, with means to test the problems. When there is an issue to be addressed all possible solutions are tested, like a scientist. (...) Sáenz de Oíza addresses all possible angles in the projects. He stands (...) outside the problem, and he focuses it from all alternatives. Once the best is chosen, (...) he works with tremendous intensity to make the most of it."⁸⁹

It is precisely this sense of Sáenz de Oíza's absorption of references to use them in his own work which clearly marked his practical work, because, as Salvador Pérez Arroyo stated:

"The reality is that his ability to thoroughly understand what other geniuses had done defiled him enough to sacrifice his own ideas. His faithful accompaniment of fashions emphasizes and expresses his will not to be revolutionary at any moment."⁹⁰

Indeed, Pérez Arroyo's analysis on the Spanish master can be clearly seen and proved in one of his first projects, the *Sanctuary of Our Lady of Arantzazu*⁹¹ (Oñate, Basque Country, 1950-55), a competition he won in collaboration with the architect Luis Laorga and the sculptor Jorge Oteiza, both key figures in the initial moments of Sáenz de Oíza's career, and in which Secundino Zuazo⁹² participated as part of the

⁸⁸ MONEO, Rafael: «Perfil de Oíza joven». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.197. Translation by the author (R.J.J.).

⁸⁹ SÁENZ GUERRA, and SÁNCHEZ DE LERÍN, «Sáenz de Oíza, el hombre que hablaba de construcción, estructuras y poesía», *op.cit.*, p.2. Translation by the author (R.J.J.).

⁹⁰ PÉREZ-ARROYO, Salvador: «Oíza...Mimetismo genial». *Los años críticos: 10 arquitectos españoles: Candela, Cano Lasso, Oíza, Chueca, Sota, La Hoz, Fisac, Peña Ganchequi, Picardo, Carvajal*. Fundación Antonio Camuñas. Madrid, 2003. Print. p.108. Translation by the author (R.J.J.).

⁹¹ See: «Santuario de Arantzazu». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.* pp. 34-43; and: GONZÁLEZ DE DURANA, Javier: *Arquitectura y escultura en la Basílica de Arantzazu 1950-55*. Apuntes de Estética 3. ARTIUM. Vitoria-Gasteiz, 2003. Print.

⁹² Javier González de Durana argues that there was an indirect relationship between Zuazo and Sáenz de Oíza, since Sáenz de Oíza joined the *Urban Planning Board of Madrid* ("Consejería General de

jury, appointed by the contestants themselves. Situated in a difficult rocky site with a strong slope (see Fig.1.3), the Basilica had to adapt to the previous expansion of the project designed by Francisco Alonso Martos in 1920, should be able to host a large number of pilgrims and, in turn, be used as convent church for the Franciscan Order. In general, *Arantzazu* can be understood and defined as 'Romanesque architecture' (see Fig.1.4), understanding the Romanesque style as a look back to the classical world. According to Sáenz de Oíza, this project was "a process of self-education. And it is the beginning of mine..."⁹³. As is the case of other projects designed by Sáenz de Oíza, the references that inspired him and which he reused are also tangible in *Arantzazu*. In this project, Sáenz de Oíza and Laorga reflected a clear intention to formal simplification of the project. It was also the place where he started a prolific friendship with the sculptor Jorge Oteiza, as well as where he met his wife María Felisa Guerra.

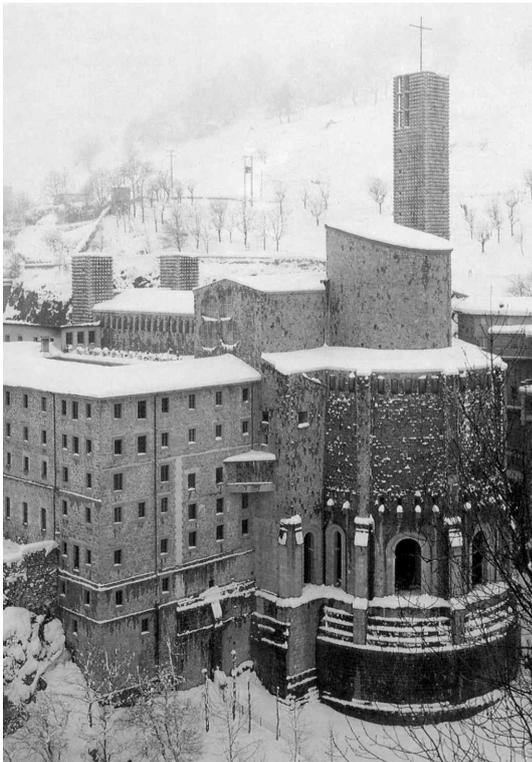


Fig.1.3 Sáenz de Oíza and Laorga, *Arantzazu*.
Rear view.

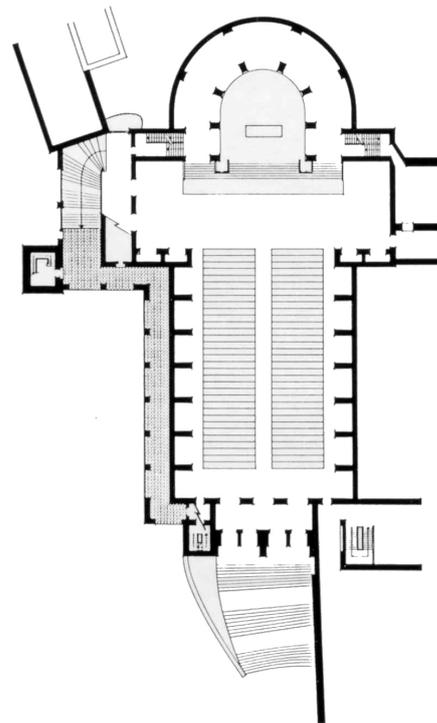


Fig.1.4 Sáenz de Oíza and Laorga, *Arantzazu*.
Floor plan.

Ordenación Urbana de Madrid”) in 1946, and this agency was responsible for implementing the urban plans for Madrid designed by Zuazo and Jansen before the Civil War and under the supervision of Pedro Bidagor. For this reason, both could possibly have met on more than one occasion. In: GONZÁLEZ DE DURANA, *Arquitectura y escultura en la Basílica de Arantzazu 1950-55*, *op.cit.*, p.57. With regard to Madrid's urban competition in 1929 see: SAMBRICIO, Carlos: «Hermann Jansen y el Concurso de Madrid de 1929». In: *Madrid, vivienda y urbanismo: 1900-1960*. Ediciones Akal Arquitectura. Madrid, 2004. Print. pp.257-278; and: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, p.224-233.

⁹³ SÁENZ DE OÍZA, «Disertaciones», *op.cit.*, p.24. Translation by the author (R.J.J.).

In 1948, a year prior to *Arantzazu's* competition, Sáenz de Oíza won with Laorga the contest for the *Latin American Basilica of Our Lady of Mercy* (“Basílica Hispanoamericana Nuestra Señora de la Merced”), built between 1949 and 1965 in Madrid. This previous building had an initial outline and aesthetics which were very close to *Arantzazu*, with two front towers and the great exedra on the façade, but resolved in a monumental and eclectic way (see Fig.1.5).

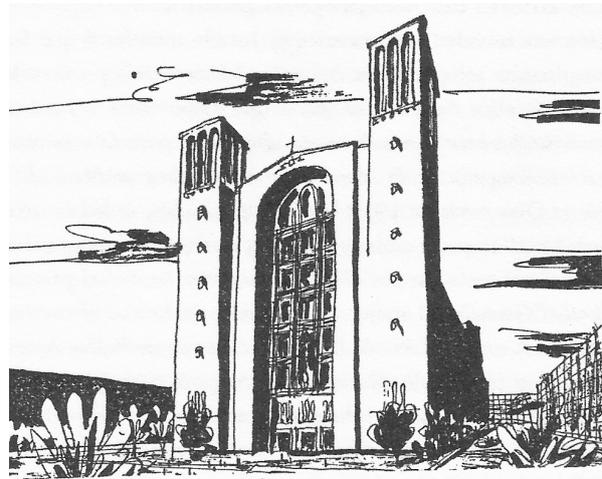


Fig. 1.5 Sáenz de Oíza and Laorga, *Our Lady of Mercy*. (Madrid, 1949). Perspective for the competition.

Carlos Sambricio already pointed out the in-depth follow-up that Sáenz de Oíza and Laorga made of the *St. Joseph's Church* project⁹⁴ (Hindenburg, 1930-31), designed by Dominikus Böhm with an Expressionist style. In fact, Böhm is the only architect who Sáenz de Oíza and Laorga mentioned in the memoirs of their first two sacral building projects. First, to criticize him, and later, to use him as a reference. It is striking that in 1949, as they were working on the project for the *Basilica de la Merced*, the architects rejected Böhm's architectural language and style by mentioning his *St. Johann Baptist* project (Neu-Ulm, 1857) as an example of “temples that are closer to the factory or places of entertainment than to the House of God”⁹⁵. However, one year later, both Spanish architects changed their minds and decided to take Böhm as a clear reference and model for *Arantzazu's* draft project. As Javier González de Durana pointed out⁹⁶, this change of opinion may be due to the American aid⁹⁷ that arrived in Spain from 1949, a fact that marked the end of the isolation of the country and, in terms of art, it represented a step towards a modern architecture, thus abandoning the imperialist idealism inherent to the first postwar decade, in which Juan de Villanueva and Juan de Herrera's *El Escorial* were taken as national architectural paradigms.

⁹⁴ SAMBRICIO, Carlos: «La arquitectura española 1936-45: La alternativa falangista». *Arquitectura*, n.199. COAM. Madrid, March-April 1976. Print. pp.77-88.

⁹⁵ Quoted in: GONZÁLEZ DE DURANA, *Arquitectura y escultura en la Basílica de Arantzazu 1950-55*, *op.cit.*, p.61. Translation by the author (R.J.J.). Extract from the article: «Concurso de ideas para la construcción de una Basílica Hispano-Americana a Ntra. Sra. de la Merced en la prolongación de la Castellana». *Revista Nacional de Arquitectura*, n.92. Dirección General de Arquitectura. Madrid, August 1949. pp.349-358.

⁹⁶ GONZÁLEZ DE DURANA, *Arquitectura y escultura en la Basílica de Arantzazu 1950-55*, *op.cit.*, pp.31.

⁹⁷ The American aid to Spain covers the period from 1949 to 1952 and started with granting credits accompanied by economic policies so that the UN resolutions against Spain after the Spanish Civil could be put to an end.

The *Basilica* of 1949 was Sáenz de Oíza's first project in which the German influence is perceived, although he did not participate in the execution project. Certainly, its simple and clear image, which is highly expressive and at the same time austere, confirms the value of the references in his sacred architecture. There are numerous examples in Böhm's religious architecture that would validate this influence in *Arantzazu*⁹⁸, but the most direct precedent is *St. Joseph's Church*. Sáenz de Oíza and Laorga could possibly know this and other projects designed by Dominikus Böhm through a book or specialized magazine.

However, *Arantzazu's* interior spaces are distant from Böhm's reference in Hindenberg. In fact, in the preliminary project, the interior resembled Clemens Holzmeister's unrealised proposal for *St. Martin's Church* (Nuremberg, 1926), which had a flat roof to the sanctuary, and a skylight illuminated the apse while the side walls ended in wide openings. Holzmeister's influence on *Arantzazu's* nave, the ceiling and the way the light penetrated the interior space is clear and perceptible in the drawings submitted to the competition. Besides, these ideas might also be based on the *Aula Palatina* (Trier, 4th century), and were explicitly present in Sáenz de Oíza and Laorga's competition drawings in 1949 (see Fig.1.6).

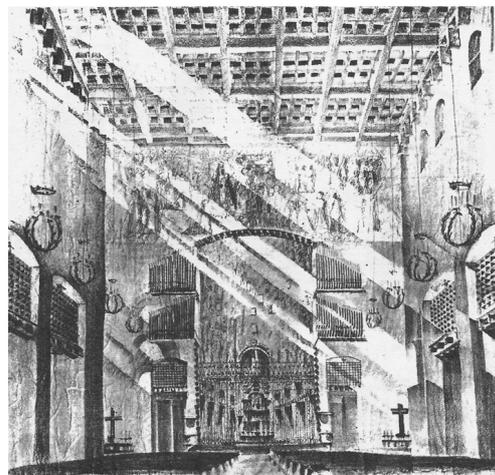
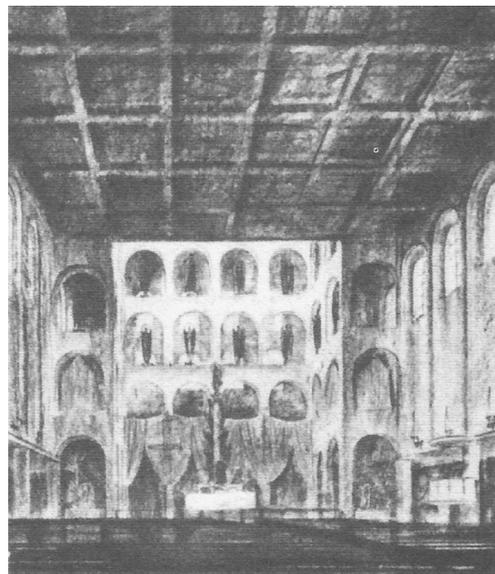
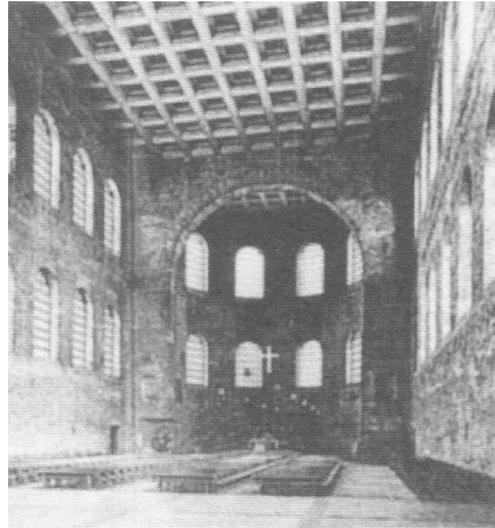


Fig. 1.6 From top to bottom:

Aula Palatina (Trier, 4th century). Interior view; Clemens Holzmeister, *St. Joseph* (Nuremberg, 1926). Interior view; Sáenz de Oíza and Laorga, *Sanctuary of Arantzazu* (Oñate, 1949). Interior view (preliminary project).

⁹⁸ Böhm's influence on *Arantzazu* has been analyzed in: *Ibid.*, pp.71-81.

It is likely that the main façade in *Arantzazu* may seem very similar to *St. Joseph's Church*, because both resort to a repeated large single hole as configurator of the façade. By observing the façade of *Arantzazu*, it is impossible not to think of *St. Joseph's* two powerful and smooth brick towers at the corners, framing a double door on which three rows of four overlapping arches are deployed (see Fig.1.7, Fig.1.8). Nevertheless, the two rows of arches on the façade of *Arantzazu* disappeared in the project execution. This was due to the lengthy process of construction which extended until 1955, allowing Sáenz de Oíza to make modifications during the execution of the building in order to give it greater modernity, although he had to manage to push his own ideas against Laorga's criteria.⁹⁹

These changes, which were mainly introduced by Sáenz de Oíza, included: The elimination of the rich decoration proposed in the contest in favor of greater strength and character of the volume and the simplification of the façade composition; the whole hollow design, which ended up being more sober and simple, with more rectilinear shapes; and the resolution of the main nave by mean of a concrete vault covered with wood which replaced the ceiling of waffle slabs from the preliminary design. The only thing that remained unchanged from the original proposal was the expressive surface finishing of the towers, which gives the whole assembly a large sculptural character and a stony presence. The final solution was a powerful building with an aesthetic between the vernacular and the modern architecture.

It is important to note that, in addition to all developments in the construction and aesthetic aspects towards a cleaner and more sincere architectural language in a religious temple, in *Arantzazu*, another important issue –perhaps less striking at first glance– appears, which also collaborated in the true strength and significance of the project: the collective and interdisciplinary work. This aspiration toward the so-called <<*Gesamtkunstwerk*>> is a reality in *Arantzazu*, where the vision of the architect as an individual protagonist of his work changed, since Sáenz de Oíza and Laorga faced their design alongside other prominent painters and sculptors. This spirit of teamwork, integrating different arts and developed by the most avant-garde artists and 'front-line' Madrid architects of the moment, meant undoubtedly a major change in the approach to sacred art and architecture, since they impregnated the whole building with an atmosphere of modern air that meant a shift away from what was enacted by the Spanish political and religious authorities. Besides, *Arantzazu* provided Sáenz de Oíza an intensive apprenticeship in producing complex, large-scale works, and this helped him to deal with all his subsequent, even parallel social housing projects.

⁹⁹ In order to understand the project's development, its problems and changes, as well as the conflicts between Sáenz de Oíza and Laorga during the execution, see: GONZÁLEZ DE DURANA, *Arquitectura y escultura en la Basílica de Arantzazu 1950-55*, *op.cit.*



Fig.1.7 Domikus Böhm, *Pfarrkirche St. Josef* (Hindenburg, 1930-31).

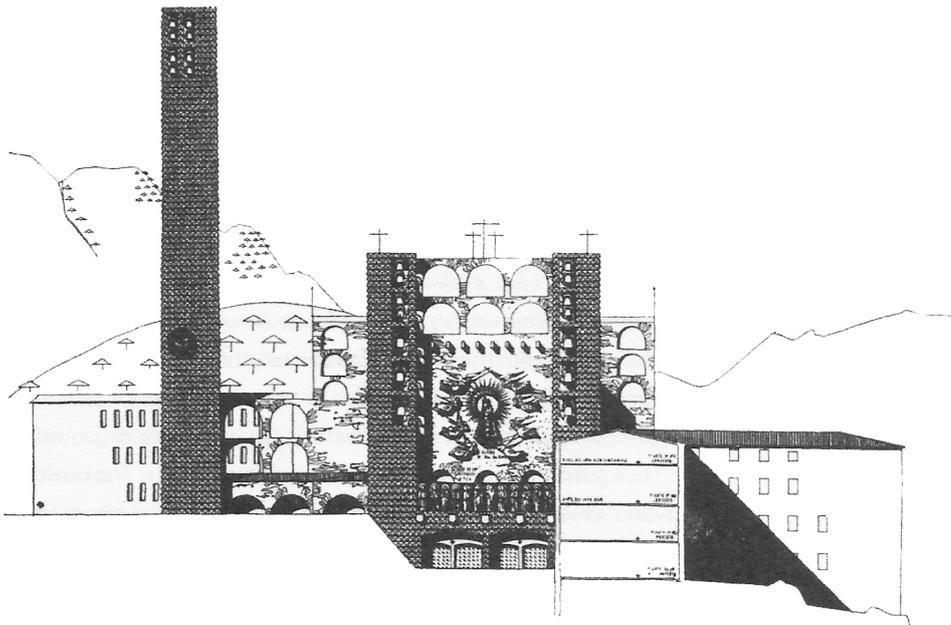


Fig.1.8 Sáenz de Oíza and Laorga, *Sanctuary of Arantzazu* (Oñate, 1950-55).
Portal façade of the Basilica (preliminary design).

On the other hand, it could also be rightful to think and to remember the architecture of Paul Bonatz and his collaborator Friedrich Eugen Scholer, in particular their project for the *Stuttgart Main Station* (1914-28). The reference can be distinguished in its particular treatment of the stone on the façade, the clear proportions of the volumes, the monumentality, the mixture between modern and traditional language, and the powerful tower which guides the travelers and citizens or, in the case of *Arantzazu*, calls all visitors to faith. Both in Stuttgart and *Arantzazu* (see Fig.1.10, Fig.1.11), Bonatz and Sáenz de Oíza applied a similar compositional solution: the decentralization of the tower, resulting in a strong but delicate bridge between the built complex and the adjacent mountains (in the case of the Basilica) or the valley and the *Schlossgarten* next to Bonatz's station. While in Stuttgart the façade is made of lime stone and on the inside, sandstone, tuff, and bricks form the walls; in *Arantzazu*, stone, tile, lime and wood are the main non-structural materials. The reason is twofold and clear: adaptation to the environment and the Spanish economy. Besides, the use of concrete and flat wooden roofing in Stuttgart as well as the wooden vault in the Sanctuary's nave and the exposed concrete confer a modern flair to the whole (see Fig.1.12). Both structures feature conservative elements represented by the monumentality and reserved decorations, as well as progressive elements, as shown by the flat roof structures in the railway station in Stuttgart, and the severe and almost unadorned façade in *Arantzazu*, full of rotundity.¹⁰⁰



Fig.1.9 *Arantzazu's* façade with its particular treatment of the granite, carved into pyramid-shaped reliefs. (Compare this powerful presence of the stone to Bonatz's façade in *Stuttgart Main Station*).

¹⁰⁰ The façade only contains an image of the *Pietà* at the top of it, which rests on a frieze of 14 apostles sculpted by Jorge Oteiza.



Fig.1.10 Paul Bonatz, *Stuttgart Main Station* (Stuttgart, 1914-28).



Fig.1.11 Sáenz de Oíza and Laorga, *Sanctuary of Arantzazu* (Oñate, 1950-55).

Clear or not, these references to Böhm and Bonatz's architecture exist. They might not be unique, but they are the most evident influences in the Basilica's final solution. Salvador Pérez Arroyo also defended this German influence when he pointed out that "the apse in Arantzazu contains vague references to an architecture which is possibly linked to the Germanic countries, with a certain emerging Expressionism and, deep down, the feeling of all neoclassical architects who influenced Spain so deeply."¹⁰¹ In any case, according to this analytical discourse, in *Arantzazu*, Sáenz de Oíza did not appear to be following the desire of linking his project with the classical tradition of the Latin-cross layout, since both the functions and the concepts that he handled in the design have another significance. Indeed, arguably, Sáenz de Oíza used again the references as a starting point to guide his speech, as he would do so many times in so many works, and later, "he modifies them so substantially that the memory is lost, or he transforms them into essential archetypal references, so that they are reborn with a more universal value."¹⁰²



Fig.1.12 View of *Arantzazu's* nave and the apse with the skylight.

¹⁰¹ PÉREZ ARROYO, Salvador: «Los arquetipos de Sáenz de Oíza». In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.219. Translation by the author (R.J.J.).

¹⁰² *Ibid.*, p.219. Translation by the author (R.J.J.).

The critical examination of the postwar Spanish architecture leads us to indicate a significant moment materialized in the two winning projects of the 1949 and 1950 competitions for the building of the *Casa Sindical* ("Trade Union House"), headquarters of the Francoist trade union apparatus on Madrid's Paseo del Prado, designed by Francisco de Asís Cabrero and Rafael Aburto; and *Arantzazu*, respectively. These projects marked the beginning of an architecture that aspired to modernity, away from the conservative historicism encouraged by the administration of the Franco regime. Precisely the attempt of both projects to re-engage with modernity was more remarkable and significant because they were buildings that represented a government power (trade union) or estates close to the political power (the Catholic Church in the case of *Arantzazu*). Although they were not the most advanced projects built in Spain until then since the end of the war, they did represent a break with the historicist and conservative ideology reflected in the public and official architecture.

Lastly, while Böhm was able to take the religious architecture out of the crisis in which it was by giving it a great expressionistic force with his projects, using new techniques and based on the sincerity of building materials as a spiritual element of it, and thus giving rise to a new style and a new era, *Arantzazu* stood out among other contemporary projects as a key event of the Spanish architecture during Franco's regime, because it meant a change in the way of understanding and making architecture. What had previously been State control and censorship, exaltation of traditions and monumental structures, became an explicit display and acceptance of modern languages and forms. And all this happened in a very short period of time (roughly six years) that started in 1949 (see Fig. 1.13, Fig. 1.14).

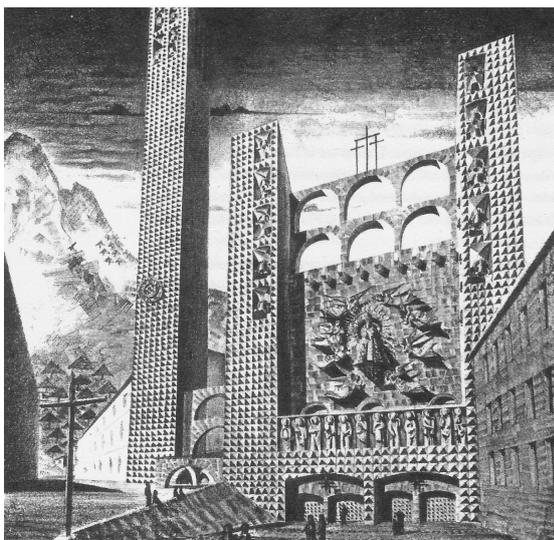


Fig. 1.13 *Sanctuary of Arantzazu.*
Perspective view of the main façade.
Preliminary project (1950).

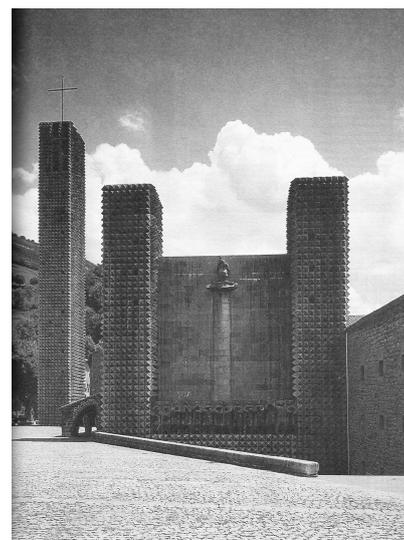


Fig. 1.14 *Sanctuary of Arantzazu.*
Main façade.
Final solution (1955).

At this point, it might be difficult to objectively define the clear German influences in Sáenz de Oíza's first professional stage, because his work always seems to navigate between styles and authors, depending on the architectural problems he had ahead and their requirements. That is to say, he used to adopt a suitable reference to deal with an specific problem. Besides, Sáenz de Oíza's character, always reserved with his biographical details, does not help to clarify this issue. However, when analyzing the list of Sáenz de Oíza's bibliographic information or references from 1968, which was partially reflected in the literature that he presented to his candidacy for the post of professor in 1968, one can obtain a clearer perspective of his mental structure and intellectual sources. This personal library was compiled in an extensive list included in *La bicicleta aproximativa*¹⁰³ (1991), a report on the figure of the architect that includes a series of talks between Juan Daniel Fullaondo and María Asunción Agulló, Sáenz de Oíza's former student at the School of Madrid.

As aforementioned, Fullaondo's critical eye in this publication has been the less sentimental vision offered and published towards Sáenz de Oíza so far. In addition to all the information provided about his figure as an architect, derived from his own personal experiences with him or what he had been told, the importance of this report lies in Fullaondo's analytical point of view, less accommodating and enthusiastic, at least different from what one is used to read from most Spanish architects and students who knew him or have written about him.

Fullaondo's explanations offered an unusual, and somewhat less patronizing image of the Spanish master. He spoke about the first Sáenz de Oíza from a critical perspective: that young architect praised for his first projects, with youth success and recognition, but unfortunately little analyzed from a personal point of view. Despite his mentioned disagreements with Sáenz de Oíza after their collaboration, Fullaondo was possibly the only person who, having treated Sáenz de Oíza very closely for many years, decided to write about him more harshly and with skepticism. This critical position certainly moves away from the general trend of those architects who studied or worked with him.

Notwithstanding, it should be pointed out that Fullaondo did not pretend to describe Sáenz de Oíza's "<<real or total>> library"¹⁰⁴ in this publication, but to reference the list that Sáenz de Oíza configured for the general public. Fullaondo qualified it as "his self-portrait of bibliophile teacher"¹⁰⁵. This interesting and revealing

¹⁰³ FULLAONDO, *op.cit.*, pp.105-120.

¹⁰⁴ *Ibid.*, p.101. Translation by the author (R.J.J.).

¹⁰⁵ *Ibid.*, p.101. Translation by the author (R.J.J.). Fullaondo based this opinion on two moments in the life of Sáenz de Oíza: the bibliographic references that appeared in *El Croquis* 32/33 dedicated to Sáenz

document was presented in two ways, or more specifically, in two sectors: a first one cited as a source of bibliographic information, and another one organized as a list of suggested reading material and divided according to the subject. It is an important document because Fullaondo shed light on Sáenz de Oíza's personal library, which was made up of 382 books of disparate subjects, from the oldest, published in 1570¹⁰⁶, until 1968. Therefore, many considerations and possible interpretations can arise and be deduced from it.

In this bibliographic list, there is a large number of German authors and works, but also American, Italian, English, French, Dutch, Scandinavian and Hungarians. After analyzing all the books cited by him, it is observed that 90 publications in this library – which is certainly not the definitive but it is sufficiently revealing–, correspond to German or German-speaking authors, non-German architects who were somehow related to the German architecture (either by education, professional development or influences), publications on German architecture or German books that Sáenz de Oíza used to handle.

In any case, these specific books clarify Sáenz de Oíza's reading interests and his German influences in all directions. The authors and titles¹⁰⁷ included in the first section of this bibliography are the following:

ARGAN, Giulio Carlo: *Walter Gropius y la Bauhaus*. Nueva Visión. Buenos Aires, 1957. Print.

ARNHEIM, Rudolf: *Picasso's Gernica. The Genesis of a Painting*. University of California Press. Berkeley & Los Angeles, 1962. Print.

ARNHEIM, Rudolf: *Arte y percepción visual: psicología de la visión creadora*. Eudeba. Buenos Aires, 1962. Print.¹⁰⁸

BALLY, Gustav: *El juego como Expresión de Libertad*. Fondo de Cultura Económica. Mexico D.F., 1964. Print.¹⁰⁹

BANHAM, Reyner: *Teoría y Diseño Arquitectónico en la Era de la Máquina*. Nueva Visión. Buenos Aires, 1965. Print.¹¹⁰

de Oíza, and the bibliography that he presented for his public examination to be professor twenty years earlier, in 1968.

¹⁰⁶ LABACCO, Antonio: *Libro d'Antonio Labacco Appartenente a l'Architettura*. Bologna, 1570. Print.

¹⁰⁷ The bibliography has been completed with the original titles and the publishers, since this information was lacking or incomplete on the abovementioned list from Fullaondo.

¹⁰⁸ Original publication: *Kunst und Sehen. Eine Psychologie des schöpferischen Auges*. Gruyter. Berlin, 1954. Print.

¹⁰⁹ Original publication: *Vom Ursprung und von den Grenzen der Freiheit: Eine Deutung des Spiels bei Tier und Mensch*. Schwabe. Basel, 1945. Print.

¹¹⁰ Original publication: *Theory and Desing in the First Machine Age*. The Architectural Press. London, 1960. Print.

- BAYER, Herbert, GROPIUS, Walter and Ise: *Bauhaus 1919-1928*. Charles T. Branford Company, Boston, 1959 [3rd edition]. Print. [1st edition: Allen & Unwin. New-York, 1938]
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- BRECHT, Bertolt: *Breviario de estética teatral*. Ediciones La Rosa Blindada. Buenos Aires, 1963. Print.¹¹²
- BRINKMANN, Donald: *El Hombre y la Técnica*. La Reja. Buenos Aires, 1963. Print.¹¹³
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- BUBER, Martin: *Caminos de Utopía*. n.104. Fondo de Cultura Económica. Mexico D.F., 1955. Print. [1st Spanish edition]
- BÜHLER, KARL: *Psicología de la forma*. Ediciones Morata. Madrid, 1965. Print.
- BÜNNING, Erwin: *The Physiological Clock. Endogenous Diurnal Rhythms and Biological Chronometry*. Springer-Verlag. New York, 1967. Print.¹¹⁴
- CIAM: *Die Wohnung für das Existenzminimum*. Stuttgart, 1930. Print.
- CONRAD-MARTIUS, Hedwig: <<El Tiempo>>. *Revista de Occidente*. Fundación Ortega y Gasset. Madrid, 1958. Print.¹¹⁵
- CURT BEHRENDT, Walter: *Arquitectura Moderna: su naturaleza, sus problemas y formas*. Infinito. Buenos Aires, 1959. Print.¹¹⁶
- EHRENZWEIG, Anton: *The Psychoanalysis of Artistic Vision and Hearing*. Routledge and Kegan Paul Ltd. London, 1953. Print.
- EINSTEIN, Albert, and INFELD, Leopold: *La Física, aventura del pensamiento: el desarrollo de las ideas desde los primeros conceptos hasta la relatividad y los cuantos*. Editorial Losada. Buenos Aires, 1961. Print.¹¹⁷ [1st Spanish edition: 1958]

¹¹¹ Original title: *Aesthetica (I). Metaphysische Beobachtungen am Schönen*. Deutsche Verlags-Anstalt. Stuttgart, 1954. Print.

¹¹² Original publication: <<Kleines Organon für das Theater>>. *Gesammelte Werke in zwanzig Bänden*. pp.659-707. Suhrkamp Verlag. Berlin, 1948. Print.

¹¹³ Original publication: *Mensch und Technik: Grundzüge einer Philosophie der Technik*. Sammlung Dalp. Bd8. A. Franke. Bern, 1946. Print.

¹¹⁴ Original publication: *Die Physiologische Uhr: Circadiane Rhythmik und Biochronometrie*. Springer-Verlag. Berlin, Heidelberg, New York, 1964. Print.

¹¹⁵ Original publication: *Die Zeit*. Kösel-Verlag. Munich, 1954. Print.

¹¹⁶ Original publication: *Modern Building. Its Nature, Problems, and Forms*. Harcourt, Brace and Co. New York, 1937. Print.

- FIEDLER, Konrad: *De la Esencia del Arte*. Nueva Visión. Buenos Aires, 1958. Print.¹¹⁸
- FLEIG, Karl: *Alvar Aalto*. Hans Girsberger. Zurich, 1963. Print.
- FLOTOW, Paschen von: *Dach Details*. Karl Krämer Verlag. Stuttgart, 1964. Print.
- FREUD, Sigmund: *Psicopatología de la Vida Cotidiana*. Alianza Editorial. Madrid, 1966. Print.¹¹⁹
- GIEDION, Sigfried: *Mechanization Takes Command: A Contribution to Anonymous History*. Oxford University Press. New York, 1955. Print. [1st edition: 1948]
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- GIEDION, Sigfried: *Espacio, Tiempo y Arquitectura: el futuro de una nueva tradición*. Hoepli. Barcelona, 1958. Print.¹²⁰
- GIEDION, Sigfried: *The Eternal Present: a Contribution on Constancy and Change. The Beginnings of Architecture*. Oxford University Press. London, 1964. Print.
- GOLDSCHIEDER, Ludwig: *Michelangelo*. Phaidon. London, 1964. Print. [1st edition: 1953]
- GROHMANN, Will: *Paul Klee*. H.N. Abrams. New York, 1957. Print.
- GROPIUS, Walter: *Alcances de la Arquitectura Integral*. La Isla. Buenos Aires, 1956. Print.¹²¹
- GROTE, Andreas: *Der Vollkommen Architektur*. Prestel Verlag. Munich, 1959. Print.
- GUTKIND, Erwin Anton: *Urban Development in Southern Europe: Spain and Portugal*. vol.III. Free Press. New York, 1967. Print.
- HEIDEGGER, Martin: *Essais et Conférences. Les Essais LXC*. NRF. Paris, 1958. Print.¹²²
- HEISENBERG, Werner: *La Imagen de la Naturaleza en la Física Actual*. Seix Barral. Barcelona, 1957. Print.¹²³
- HILBERSEIMER, Ludwig: *The New Regional Pattern*. Paul Theobald & Co. Chicago, 1955. Print. [1st edition: 1949]
- HILBERSEIMER, Ludwig: *The Nature of Cities: Origin, Growth, and Decline, Pattern and Form, Planning Problems*. Paul Theobald & Co. Chicago, 1955. Print.
- HOLLEIN, Hans: *Austriennale, the Great Number*. Triennale di Milano. Regierungskommissar für die 14. Triennale. Milan, 1968. Print.
- ITTEN, Johannes: *The Art of Color*. Reinhold Pub. Corp. New York, 1961. Print.¹²⁴
- ITTEN, Johannes: *Design and Form: The Basic Course at the Bauhaus*. Reinhold Pub. Corp. New York, 1963. Print.

¹¹⁷ Original publication: *The Evolution of Physics: from Early Concepts to Relativity and Quanta*. Simon & Schuster INC. New York, 1938. Print.

¹¹⁸ Selection of writings by Hans Eckstein. It was not possible to find the original publication, since the information was lacking and confusing.

¹¹⁹ Original publication: *Zur Psychopathologie des Alltagslebens*. Imago Publishing Company. London, 1955. Print.

¹²⁰ Original publication: *Space, Time and Architecture: The Growth of a New Tradition*. Harvard University Press. Cambridge, Massachusetts, 1941. Print.

¹²¹ Translation of *The Scope of Total Architecture*. Harper and Brothers. New York, 1955. Print.

¹²² Original publication: *Vorträge und Aufsätze*. G. Neske Verlag. Pfullingen, 1954. Print.

¹²³ Original publication: *Das Naturbild der heutigen Physik*. Rowohlts deutsche Enzyklopädie. Hamburg, 1955. Print.

¹²⁴ Original publication: *Kunst der Farbe*. Otto Maier Verlag. Ravensburg, 1961. Print.

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- JOHNSON, Philip C.: *Mies van der Rohe*. Museum of Modern Art. New York, 1953. Print.
- JUNG, Carl Gustav, and WILHELM, Richard: *El Secreto de la Flor de Oro*. Paidós. Buenos Aires, 1961. Print.¹²⁷ [1st edition: 1955]
- KANDINSKY, Wassily: *De lo Espiritual en el Arte*. Nueva Visión. Buenos Aires, 1967. Print.¹²⁸
- KANDINSKY, Wassily: *Punto y Línea frente al Plano*. Nueva Visión. Buenos Aires, 1959. Print.¹²⁹
- KAUFMANN, Emil: *L'Architecture au Siècle des Lumières*. René Julliard. París, 1963. Print.
- KOESTLER, Arthur: *Los sonámbulos*. Eudeba. Buenos Aires, 1963. Print.¹³⁰ [1st edition: 1959]
- KOESTLER, Arthur: *Discernimiento y Perspectiva: análisis de los fundamentos comunes a la ciencia, el arte y la etica social*. Emecé Editores. Buenos Aires, 1962. Print.¹³¹
- KOESTLER, Arthur: *The Act of Creation*. Hutchinson & Co. United Kingdom. London, 1964. Print.
- KOHLER, W., KOFFKA, K., and SANDER, F.: *Psicología de la Forma*. Paidós. Buenos Aires, 1963. Print.¹³² [1st Spanish edition: Argonauta. Buenos Aires, 1948]
- LANGER, Harald: *Trazado y composición de edificios*. Labor. Barcelona, 1960. Print.¹³³
- MALDONADO, Tomás: *Max Bill*. Nueva Visión. Buenos Aires, 1955. Print.
- MARGOLD, Emanuel Josef: *Bauten der Volkserziehung und Volksgesundheit*. Ernst Pollak. Berlin-Charlottenburg, 1930. Print.
- MAYNTZ, Renate: *Sociología de la Organización*. Alianza. Barcelona, 1963. Print.
- MITTAG, Martin: *Practique de la Construction de Bâtiments: "Baukonstruktionslehre", aide-mémoire à l'usage des ingénieurs, architectes et entrepreneurs*. Eyrolles. Paris, 1964. Print. [1st edition: 1958]
- MOHOLY-NAGY, László: *La Nueva Visión y Reseña de un Artista*. Infinito. Buenos Aires, 1963. Print.¹³⁴

¹²⁵ Originally edited by J. M. Meulenhoff, Amsterdam, in 1956. Print. [Preface by J. J. P. Oud.]

¹²⁶ Original publication: *Kunst der Gothik - Klassische Kathedralen Frankreichs. Chartres, Reims, Amiens*. Rowohlt's deutsche Enzyklopädie. Hamburg, 1957. Print.

¹²⁷ Original publication: *Das Geheimnis der Goldenen Blüte: Ein chinesisches Lebensbuch*. Rascher. Zürich, 1929. Print.

¹²⁸ Original publication: *Über das Geistige in der Kunst. Insbesondere in der Malerei*. Piper & Co. Verlag. Munich, 1911. Print.

¹²⁹ Original publication: *Punkt und Linie zu Fläche. Beitrag zur Analyse der malerischen Elemente*. Bauhausbücher N.9. Munich, 1926. Print.

¹³⁰ Original publication: *The Sleepwalkers. A History of Man's Changing Vision of the Universe*. Hutchinson & Co. United Kingdom, 1959. Print. German edition: *Die Nachtwandler. Das Bild des Universums im Wandel der Zeit*. Scherz. Bern/Stuttgart/Wien, 1959. Print.

¹³¹ Original publication: *Insight and Outlook: An Inquiry into the Common Foundations of Science, Art, and Social Ethics*. MacMillan Publishers Ltd. London, 1949. Print.

¹³² Original publication: *Gestalt Psychology: An Introduction to New Concepts in Modern Psychology*. Livingright Publishing Corp. New York, 1929. Print. In Spain it was published under the title: *Psicología de la Configuración* [Morata. Madrid, 1967]. Sáenz de Oíza had both editions.

¹³³ Original publication: *Planen und Gestalten*. Verlag für Architektur, Erlenbach-Zürich, 1952. Print.

- MOHOLY-NAGY, Sibyl: *Native Genius in Anonymous Architecture*. Horizon Press. New York, 1957. Print.
- MUSCHENHEIM, William¹³⁵: *Elements of the Art of Architecture*. Thames & Hudson. London, 1965. Print.¹³⁶
- MYERS, Bernard S.: *The German Expressionist. A Generation in Revolt*. Frederick A. Praeger. New York, 1966. Print. [1st edition: McGraw-Hill, New York, 1963]
- NEUENSCHWANDER, Eduard and Claudia: *Atelier Alvar Aalto. Bauten und Projekte 1950/51*. Verlag für Architektur. Erlenbach-Zürich, 1954. Print.
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- NEUFERT, Ernst: *Arte de Proyectar en Arquitectura*. Gustavo Gili. Barcelona, 1961. Print.¹³⁸
- NEUTRA, Richard: *Realismo Biológico. Un nuevo Renacimiento humanístico en arquitectura*. Nueva Visión. Buenos Aires, 1958. Print.¹³⁹
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- WEYL, Hermann: *La Simetría*. Nueva Visión. Buenos Aires, 1958. Print.¹⁴⁵
- WEYL, Hermann: *Symetrie et Mathématique Moderne*. Flammarion. Paris, 1964. Print.¹⁴⁶

¹³⁴ Original publication: *Von Material zu Architektur*. Albert Langen. Munich, 1929. Print.

¹³⁵ Although William Muschenheim was born in New York City in 1902 and studied at the MIT, he left USA in 1924 to travel around Europe stifled by MIT's Beaux Arts-based curriculum, with the aim of exploring the European Modern Architecture. He visited the Bauhaus in Weimar and worked for Arthur Korn in Berlin. Muschenheim also enrolled in the Academy of Fine Arts in Vienna in 1925, where he studied under Peter Behrens.

¹³⁶ 1st edition: Viking Press. New York, 1964. Print.

¹³⁷ Original publication: *Bauordnungslehre*. DIN. Berlin, 1943. Print.

¹³⁸ Original publication: *Bauentwurfslehre*. Ullstein Verlag. Berlin, 1936. Print.

¹³⁹ Translated by Luis Fabricant. Collection of lectures by Richard Neutra for the Alberta Association of Architects (Canada) in 1956.

¹⁴⁰ Original publication: *Survival Through Design*. Oxford University Press. New York, 1954. Print.

¹⁴¹ Original publication: «Die Perspektive als "symbolische Form"». In: *Vorträge der Bibliothek Warburg 1924/1925*. Leipzig-Berlin, 1927. Print.

¹⁴² 1st edition: Faber & Faber. London, 1936. Print.

¹⁴³ Original publication: *An Outline of European Architecture*. Penguin. Harmondsworth, 1942. Print.

¹⁴⁴ Original publication: *Zum neuen Stil*. Piper & Co. Verlag. Munich, 1955. Print.

¹⁴⁵ Original publication: *Symmetry*. Princeton University Press. New Jersey, 1952. Print.

- WEIZSÄCKER, Viktor von: *El Círculo de la forma: Teoría de la unidad de percepción y movimiento*. Ediciones Morata. Madrid, 1962. Print.¹⁴⁷
- WERTHEIMER, Max: <<Gestalt Theory>> (with a foreword by Kurt Riezler). *Social Research* 11:1/4. pp.78-99. 1944. Print.
- WIND, Edgar: *Arte y Anarquía*. Madrid. Taurus. Madrid, 1967. Print.¹⁴⁸
- WIRTH, Louis: *El Urbanismo como Modo de Vida*. Ediciones 3. Buenos Aires, 1962. Print.¹⁴⁹
- WITTGENSTEIN, Ludwig: <<Tractatus Logico-Philosophicus>>. *Revista de Occidente*. Fundación Ortega y Gasset. Madrid, 1957. Print.¹⁵⁰
- WITTGENSTEIN, Ludwig: *Los Cuadernos Azul y Marrón*. Tecnos. Madrid, 1968. Print.¹⁵¹
- WITTKOWER, Rudolf: *La Arquitectura en la Edad del Humanismo*. Nueva Visión. Buenos Aires, 1958. Print.¹⁵²
- WOLF, K.L., and KUHN, D.: *Forma y Simetría: una sistemática de los cuerpos simétricos*. Eudeba. Buenos Aires, 1959. Print.¹⁵³
- WÖLFFLIN, Heinrich: *Conceptos Fundamentales en la Historia del Arte*. Espasa-Calpe. Madrid, 1961. Print.¹⁵⁴ [1st edition: 1924]
- WORRINGER, Wilhelm: *Abstracción y Naturaleza*. Fondo de Cultura Económica. Mexico D.F., 1953. Print.¹⁵⁵
- WORRINGER, Wilhelm: *Form in Gothic*. Schocken Books. New York, 1957. Print.¹⁵⁶
- WORRINGER, Wilhelm: *El Arte Egipcio. Problemas de su valoración*. Colección Arte y Estética n. 7. Nueva Visión. Buenos Aires, 1958. Print.¹⁵⁷
- WORRINGER, Wilhelm: *El Arte y sus Interrogantes*. Nueva Visión. Buenos Aires, 1959. Print.¹⁵⁸

¹⁴⁶ French edition of the previous publication.

¹⁴⁷ Original publication: *Der Gestaltkreis: Theorie der Einheit von Wahrnehmen und Bewegen*. Georg Thieme Verlag. Stuttgart, 1947. Print.

¹⁴⁸ Original publication: *Art and Anarchy*. Faber & Faber. London, 1963. Print.

¹⁴⁹ Original publication: <<Urbanism as a way of life>>. *American Journal of Sociology*, n.44. University of Chicago Press. Chicago, 1938. Print.

¹⁵⁰ First published in German in 1921 as <<Logisch-Philosophische Abhandlung>> in *Annalen der Naturphilosophie*. Wittgenstein did not read this version and therefore it contained important errors. A corrected, bilingual edition (English-German) appeared in 1922 at Kegan Paul, Trench, Trubner & Co. in London, which is considered the official version.

¹⁵¹ Original publication: *The Blue and Brown Books*. Blackwell Publishing Ltd. Oxford, 1958 (unofficially available from 1935). Print.

¹⁵² Original publication: *Architectural Principles in the Age of Humanism*. Included in the collection *Studies of the Warburg Institute*. University of London. London, 1949. Print.

¹⁵³ Original publication: *Gestalt und Symmetrie: eine Systematik der symmetrischen Körper*. Die Gestalt XXIII. Tübingen, 1952. Print.

¹⁵⁴ Original publication: *Kunstgeschichtliche Grundbegriffe*. Hugo Bruckmann Verlag. Munich, 1915. Print. (Reviewed in 1933).

¹⁵⁵ WORRINGER's doctoral dissertation *Abstraktion und Einfühlung* was published by Piper & Co. Verlag (Munich, 1908).

¹⁵⁶ Original publication: *Formprobleme der Gotik*. Piper & Co. Verlag. Munich, 1911. Print.

¹⁵⁷ Original publication: *Ägyptische Kunst - Probleme ihrer Wertung*. Piper & Co. Verlag. Munich, 1927. Print.

¹⁵⁸ Original publication: *Problematik der Gegenwartskunst*. Piper & Co. Verlag. Munich, 1948. Print.

ZEVI, Bruno: *Historia de la Arquitectura Moderna*. Emecé Editores. Buenos Aires, 1957. Print.¹⁵⁹ [1st Spanish edition: 1954]

ZURKO, Edward R. de: *La Teoría del Funcionalismo en la Arquitectura*. Nueva Visión. Buenos Aires, 1958. Print.¹⁶⁰

The second section of this library of 1968 is subdivided in fifteen points¹⁶¹, depending on the subject. The authors or titles related to the Germanic culture in this section are:

1. Concept of a Theory of Architecture as <<Totality>>.

No German reference in this section.

2. Analysis and Synthesis. Idea and Design.

ARNHEIM, Rudolf: *Picasso's Gernica. The Genesis of a Painting*, *op.cit.*

FIEDLER, Konrad: *De la Esencia del Arte*, *op.cit.*

KANDINSKY, Wassily: *De lo Espiritual en el Arte*, *op.cit.*

KOESTLER, Arthur: *Los sonámbulos*, *op.cit.*

KOESTLER, Arthur: *Discernimiento y Perspectiva*, *op.cit.*

KOESTLER, Arthur: *The Act of Creation*, *op.cit.*

BRECHT, Bertolt: *Breviario de estética teatral*, *op.cit.*

3. Design Characters at Three Levels.

HEIDEGGER, Martin: *Essais et Conférences. Les Essais LXC*, *op.cit.*

HILBERSEIMER, Ludwig: *The Nature of Cities*, *op.cit.*

VAN DE VELDE, Henry: *Hacia un Nuevo Estilo*, *op.cit.*

4. Design and Structure.

No German reference in this section.

5. Design Processes.

No German reference in this section.

6. Architecture from the Man.

HEIDEGGER, Martin: *Essais et Conférences. Les Essais LXC*, *op.cit.*

¹⁵⁹ Original publication: *Storia dell'architettura moderna*. Einaudi. Turin, 1954. Print.

¹⁶⁰ Original publication: *Origins of Functionalist Theory*. Columbia University Press. New York, 1957. Print.

¹⁶¹ In: FULLAONDO, *op.cit.*, pp.115-120.

7. Pragmatic or functional Dimension

GIEDION, Sigfried: *Mechanization Takes Command*, *op.cit.*

OTTO, Frei: *Tensile Structures*, *op.cit.*

ZURKO, Edward R. de: *La Teoría del Funcionalismo en la Arquitectura*, *op.cit.*

8. Formal Dimension of Architecture.

MUSCHENHEIM, William: *Elements of the Art of Architecture*, *op.cit.*

PANOFSKY, Erwin: *La prospettiva come "forma simbolica"*, *op.cit.*

WITTKOWER, Rudolf: *La Arquitectura en la Edad del Humanismo*, *op.cit.*

WOLF, K.L., and KUHN, D.: *Forma y Simetría*, *op.cit.*

9. Technical Dimension of Architecture.

MITTAG, Martin: *Practique de la Construction de Bâtiments*, *op.cit.*

NEUFERT, Ernst: *Industrialización de la Construcción*, *op.cit.*

NEUFERT, Ernst: *Arte de Proyectar en Arquitectura*, *op.cit.*

WACHSMANN, Konrad: *The Turning Point of Building, Structure and Design*, *op.cit.*

10. Semantic Dimension.

ARNHEIM, Rudolf: *Arte y percepción visual*, *op.cit.*

BÜHLER, KARL: *Psicología de la forma*, *op.cit.*

BRUNSWIK, E., and TOLMAN, C.: *The Organism and the Causal Texture of the Environment*, *op.cit.*

EHRENZWEIG, Anton: *The Psychoanalysis of Artistic Vision and Hearing*, *op.cit.*

KOHLER, W., KOFFKA, K., and SANDER, F.: *Psicología de la Forma*, *op.cit.*

WERTHEIMER, Max: <<Gestalt Theory>>, *op.cit.*

WORRINGER, Wilhelm: *Form in Gothic*, *op.cit.*

WORRINGER, Wilhelm: *El Arte y sus Interrogantes*, *op.cit.*

11. Project and Production.

GIEDION, Sigfried: *Mechanization Takes Command*, *op.cit.*

GIEDION, Sigfried: *Espacio, Tiempo y Arquitectura*, *op.cit.*

OTTO, Frei: *Tensile Structures*, *op.cit.*

VAN DE VELDE, Henry: *Hacia un Nuevo Estilo*, *op.cit.*

WACHSMANN, Konrad: *The Turning Point of Building, Structure and Design*, *op.cit.*

12. Perception and Use of Architecture.

CIAM: *Die Wohnung für das Existenzminimum*, *op.cit.*

EHRENZWEIG, Anton: *The Psychoanalysis of Artistic Vision and Hearing*, *op.cit.*

GROPIUS, Walter: *Alcances de la Arquitectura Integral*, *op.cit.*

SCHACHTEL, Ernest G.: *Metamorfosis. El Desarrollo Humano y la Psicología de la creatividad*, (no edition provided).¹⁶²

WEIZSÄCKER, Viktor Von: *El Círculo de la forma*, *op.cit.*

WERTHEIMER, Max: <<Gestalt Theory>>, *op.cit.*

13. Investigation, education and production.

BAYER, Herbert, GROPIUS, Walter and Ise: *Bauhaus 1919-1928*, *op.cit.*

GIEDION, Sigfried: *Espacio, Tiempo y Arquitectura*, *op.cit.*

GIEDION, Sigfried: *The Eternal Present. The Beginnings of Architecture*, *op.cit.*

GROHMANN, Will: *Paul Klee*, *op.cit.*

ITTEN, Johannes: *Design and Form*, *op.cit.*

ITTEN, Johannes: *Kunst der Farbe*, *op.cit.*¹⁶³

KANDINSKY, Wassily: *Punto y Línea frente al Plano*, *op.cit.*

MOHOLY-NAGY, László: *La Nueva Visión y Reseña de un Artista*, *op.cit.*

MOHOLY-NAGY, Sibyl: *Native Genius in Anonymous Architecture*, *op.cit.*

14 and 15. The Great Masters. Current problems of the Theory and Practice of Architecture.

BANHAM, Reyner: *Teoría y Diseño Arquitectónico en la Era de la Máquina*, *op.cit.*

HILBERSEIMER, Ludwig: *The Nature of Cities*, *op.cit.*

JAFFÉ, Hans Ludwig Cohn: *De Stijl, 1917-1931*, *op.cit.*

KAUFMANN, Emil: *L'Architecture au Siècle des Lumières*, *op.cit.*

PEVSNER, Nikolaus: *Pioneers of Modern Design*, *op.cit.*

ZEVI, Bruno: *Historia de la Arquitectura Moderna*, *op.cit.*

Certainly, this list clears doubts about Sáenz de Oíza's preferences and passions and it allows greater closeness and understanding of his intellectual –not only architectural– references, his concerns and thinking. The first conclusion is clear: the strong German presence in Spain, and particularly in Sáenz de Oíza's world, is noticeable. From this selection extracted from the full list published by Fullaondo and following the criteria outlined above, further clear conclusions can be deduced:

- Sáenz de Oíza used to handle both Spanish and original foreign editions, such as English, German, French, Italian and Dutch.

¹⁶² Original publication: *Metamorphosis: On the Conflict of Human Development and the Psychology of Creativity. Analytic*. London, 1959. Print. This author does not appear in the first section, corresponding to the list of general bibliography.

¹⁶³ In this section, the original German edition appears.

- Sáenz de Oíza's impetus to embrace all the knowledge, which was described by his son Javier Sáenz Guerra as "the desire for an encyclopedic knowledge"¹⁶⁴. It is evident that his personal bibliography consisted of a wide and diverse range of topics: monographs, art, technology, psychiatry, psychology, philosophy, sociology, mathematics, urban theory, structures, or housing design. This great diversity reveals undoubtedly a sign of his eagerness and willingness to know everything. This is illustrated, for example, by the fact that he had both an interest in history and theory of art and architecture, poetry, science, design, or engineering, as well as in the *Gestalt* psychology, mathematical and urban theory, such as Sir Patrick Geddes and his classic publication *Cities in Evolution*.¹⁶⁵
- Lastly, attention could be drawn to the point that almost all foreign publications included in their Spanish editions were translated and published in Buenos Aires, as the Spanish publishing industry remained virtually paralyzed during the Francoism. This fact indicates both the weight and importance of Latin American (in this case Argentinian) publishers in the work of translation and dissemination of foreign architecture in Spain.¹⁶⁶

On the other hand, in this bibliography of 1968, the most referred author was Frank Lloyd Wright with nine books, followed by Le Corbusier and Sigfried Giedion with four, and Louis I. Kahn and Ludwig Hilberseimer with two books, respectively. Furthermore, Giulio Carlo Argan is the most cited scholar, with seven references, followed by Bruno Zevi and Lewis Mumford with five, and finally, Wilhelm Worringer and Gyorgy Kepes with four.¹⁶⁷

However, twenty years is doubtless a long time and in 1988, on the occasion of the publication of *El Croquis* fascicle dedicated to Sáenz de Oíza, which is considered <<his book>> or most important monograph until the present day, we notice that his references and interests had changed.

¹⁶⁴ SÁENZ GUERRA, and SÁNCHEZ DE LERÍN, <<Sáenz de Oíza, el hombre que hablaba de construcción, estructuras y poesía>>, *op.cit.*, p.1.

¹⁶⁵ GEDDES, Patrick: *Cities in Evolution: An Introduction to the Town Planning Movement and to the Study of Civics*. Williams & Norgate. London, 1915. Print. (Included in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, p.108)

¹⁶⁶ For more information on the role played by the Latin American Publishers in the dissemination of foreign modern architecture in Spain, see: ESTEBAN MALUENDA, Ana María: <<Ediciones lationamericanas. Repercusión en la difusión de la arquitectura moderna extranjera en España: el caso madrileño>>. *Actas del Congreso Internacional "Miradas cruzadas. Intercambios entre Lationamérica y España en la Arquitectura española del siglo XX"*. T6 Ediciones. Pamplona, 2008. PDF File. 5 March 2016. pp.123-134.

¹⁶⁷ FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, pp.105-115.

In fact, he mentioned Federico García Lorca, Miguel Delibes, Camilo José Cela, Juan Goytisolo, Gaston Bachelard, Jorge Luis Borges, Walt Whitman, Miguel de Unamuno, Virgil, the *Iliad*, Joyce's *Dedalus*¹⁶⁸ (who he would constantly mention in the years thereafter, but was not yet among his recommended readings from 1968), which also demonstrates his interest in literature and, especially, in poetry.

In the field of architecture: Alberti, Palladio, Zaha Hadid, Giedion, Colin Rowe (for him, the best critic), Venturi and Le Corbusier.¹⁶⁹ The latter would be precisely defined by Sáenz de Oíza as “the architect of the century, more than Kahn, and Wright, more than anybody else.”¹⁷⁰

Notwithstanding, Fullaondo would never see Sáenz de Oíza as an avant-garde architect. Despite his proven talent, his former collaborator considered that he would always lag behind the avant-gardes. Moreover, Sáenz de Oíza did not make his way on his own, but he needed to be accompanied by those who Fullaondo denominated as “his Divine Comedy's Virgils”¹⁷¹. These several architects –and influences– served Sáenz de Oíza as trusted fellow travellers and they were, according to Fullaondo's discretion: Domenikus Böhm, Paul Bonatz, Jacobus Johannes Pieter Oud, Mies van der Rohe (and his followers), Ignazio Gardella, Franco Albini, Carlo Scarpa, Jorge Oteiza, Le Corbusier, Jørn Utzon, Marcel Breuer, John M. Johansen, Frank Lloyd Wright, Alvar Aalto, Louis I. Kahn, James Stirling, Kevin Roche, Patrick Hodgkinson, Renzo Piano and Richard Rogers.¹⁷²

But in 1991, –the same year *La bicicleta aproximativa* was published–, Sáenz de Oíza responded to Fullaondo's criticism in the aptly-titled interview “Sáenz de Oíza: respuestas polémicas” (“Controversial Answers”) in the following way:

“Fullaondo has published now a book about me, teasing me and, in a way, I love it, because many things are true, while others are untrue, (...) because you can not get to know the truth of things from outside.”¹⁷³

¹⁶⁸ See: SÁENZ DE OÍZA, <<Disertaciones>>. In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, pp.8-31.

¹⁶⁹ Sáenz de Oíza used to talk about many books and different authors, but not just about architecture. Regarding his readings in the field of architecture, Sáenz de Oíza highlighted four books: the whole work of Colin Rowe, especially his *Collage City* (1978), a book he had read a lot of times, Venturi's *Complexity and Contradiction in Architecture* (1966), Le Corbusier's *Vers une Architecture* and Giedion's *Space, Time & Architecture*. In: *Ibid.*, p.23.

¹⁷⁰ *Ibid.*, p.18. Translation by the author (R.J.J).

¹⁷¹ FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, p.135. Translation by the author (R.J.J).

¹⁷² *Ibid.*, p.135. Translation by the author (R.J.J).

¹⁷³ SÁENZ DE OÍZA, <<Respuestas polémicas>>, *op.cit.*, p.106. Translation by the author (R.J.J).

Following his advice, and having made an initial general approach into his personal library, it is noticeable that there was also a certain eclecticism in Sáenz de Oíza's reading references. As if he were a Renaissance man, a humanist who was able to read poetry and dream up architecture with the same intensity and enthusiasm. As if for him, in the end, they were both the same thing. This is not a strange fact if we consider that he defined himself as an avid reader, especially of the lyric genre. His admired Hilberseimer would say that "architecture is like poetry, which is also based on structural elements"¹⁷⁴.

In any case, Sáenz de Oíza was undoubtedly an architect of great mental rigour, profound knowledge and concerns. With this analysis of his library of 1968, his heterogeneity of interests or tastes is clear and confirmed. But still, the real concern is whether he was really aware of these relationships or influences.

Additionally, it can be pointed out that Sáenz de Oíza was, above all, an enthusiastic and controversial debater. Indeed, when one reads his interviews, comments on specific drafts and articles or public interventions¹⁷⁵, his rapid tone is immediately noticed, but also his ability to be extremely skillful with the language and concepts, always passionate about what he counted or described, even excessive, theatrical, and charming. He was a great discussant, nervous, always contradicting and he used to answer himself with a speed that was difficult to follow, constantly capable of seducing and exhausting the interlocutor with his endless speech, his excesses, and his continuous wandering between ego and modesty. Because, in addition, Sáenz de Oíza was a contradictory man, either for fun, as mental exercise, or because his nature would force him to constantly question everything, especially himself. Here is another evidence of his essential contradictions:

"I am a sophist: I would like to write a book in which a page claimed one thing, and the next one, the opposite. And the reader would then choose his own thesis."¹⁷⁶

Sáenz de Oíza's intellectual ambition was overwhelming. For him, each project was a new challenge that allowed him to study and rethink conventional ideas about buildings, an intellectual process in which he studied previous references and models while he managed to incorporate everything that modern technology could provide to help him make his architectural dreams and ideas possible.

¹⁷⁴ HILBERSEIMER, Ludwig: «The Art of Architecture» (1949). In: *In the Shadow of Mies: Ludwig Hilberseimer, Architect, Educator and Urban Planning*, op.cit., p.94.

¹⁷⁵ At the end of his career, Sáenz de Oíza's was a very popular architect with media resonance, especially after the controversy over the *Housing on the M-30* (See Sáenz de Oíza's videos in "Bibliography").

¹⁷⁶ SÁENZ DE OÍZA, «Respuestas polémicas», op.cit., p.104. Translation by the author (R.J.J).

This way of doing and thinking about architecture is present in all his work, and has been foreshadowed especially in his social colonies and settlements of the fifties, as well as in his later social housing projects, which are also dedicated to the problem of social housing in Madrid.

In fact, on the occasion of Sáenz de Oíza's monograph published by *El Croquis* magazine, Rafael Moneo confirmed this observation when he clearly outlined his teacher's working and study methods:

"Oíza subjected his drawings, his projects, to a rigorous and strict comparison to those who he considered close to his project research. (...) His intellectual curiosity, his interest in architecture, led him to be as informed as the circumstances made it possible. Sáenz de Oíza devoured books and magazines, (...), thus extending the limits of his vast knowledge every day."¹⁷⁷

On the other hand, and with regard to Sáenz de Oíza's main architectural references, although his whole work collects his fascination for the American technological spirit, if we consider precisely the specific problem of his social housing production, especially in his most radical solution for the *Poblados* ("settlements") in Madrid, his look is different: into the European reality and the prototypes tested in the interwar *Siedlungen*, but also into the second European postwar period.

Indeed, Fullaondo supported this point of view or this thesis about the European influence on Sáenz de Oíza's social housing when he made the following observation:

"I think that, with all the adaptations to the circumstances of the time, they emanated from European prototypes, Oud, etc. He used to talk a lot about Hilberseimer. I doubt that this fanaticism (...) for the Existenzminimum, (...), is genuinely American."¹⁷⁸

By way of a summary, it seems appropriate to conclude this introduction to Sáenz de Oíza's youth profile by rescuing Goethe's words describing himself, which could also be those of the Spanish master:

¹⁷⁷ MONEO, Rafael: «Perfil de Oíza joven». In: *El Croquis* 32/33. Sáenz de Oíza. 1946-1988, op.cit., p.197. Translation by the author (R.J.J.).

¹⁷⁸ FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit., p.44. Translation by the author (R.J.J.).

“Neither the greatest genius would ever get very far if he had to take everything out of his own interior. (...) What is genius but the power to seize and take advantage of something that impresses us? (...) Everything I have written has come to me through thousands of different people, through thousands of different things. (...) My work consists of a conglomeration of materials extracted from nature, but that conglomerate is named after Goethe.”¹⁷⁹

It would suffice to replace the German author's name at the end of the quote by <<Sáenz de Oíza>> and it would remain equally valid, equally accurate.

¹⁷⁹ Quoted in: LEYS, Simon: *Ideas ajenas para el divertimento de los lectores ociosos*. (Trans. by Teresa Lanero). Confluencias. Salamanca, 2015. Print. p.62. Translation by the author (R.J.J.).

2. Spanish-German Contacts in Post-Civil War: Disclosure and Receptiveness of German Architecture in Madrid

"I believe that any contribution, albeit in a very specific field, we can do to a better understanding between the countries, is a positive service to the future of humanity." ¹⁸⁰

César Ortiz-Echagüe

2.1 Backgrounds before the Spanish Civil War

The German presence in the Iberian Peninsula through the culture, art, architecture, commerce and the printing press, is not an isolated event of the last two centuries. There are several studies¹⁸¹ that show the scant but continuous presence of German scholars and intellectuals in Spain and their important contribution to the knowledge and international projection of the Spanish art, architecture and culture. Indeed, the Germans have not only visited Spain in search of economic colonization, or a leisure trip throughout history. The interest of a large number of German humanists in the Spanish culture, language, art, literature, and the «pure» religious spirit of the Catholic Spain, which contrasted with the religious division of the Germanic territories, encouraged them to move to Spain and live with the Spanish people. The explanation is simple: the pursuit of national enrichment by the receptiveness and study of other cultures and the rediscovery of the ancient world were the main motivations of the century of the Enlightenment. During the late decades of the nineteenth century, Spain became a tourist destination for German philosophers, artists, architects, historians and entrepreneurs. Their travel notes, photographs and personal testimonies allow an approach from Spain to Germany, which began to observe the southern country with more profound and attentive eyes.

In the first half of the twentieth century, some German authors also felt drawn by the culture and art all over the Spanish territory. That was the case of the art historian Alfred Kuhn, who published the guide *Das alte Spanien. Landschaft-Geschichte-Kunst* ¹⁸² in 1925, about the Spanish artistic culture. Almost twenty years later, in 1953,

¹⁸⁰ Quoted in: POZO, José Manuel: «Ortiz Echagüe y Fisac. Dos personajes excepcionales separados por *Werk*». *Torrent, H. (ed.) Revistas, Arquitectura y Ciudad. Representaciones en la cultura moderna*. T6 ediciones. Pamplona, 2013. Print. pp.73-102.

¹⁸¹ See: VEGA, Miguel Ángel: «German Painters, Authors, Critics and Scholars in Spain: Facts and Considerations about the Cultural Fertility of the Spanish Journey». *Cuadernos de Filología Alemana 2009, anejo I*, pp.337-355. Universidad de Alicante. Web. 2 November 2015. See also: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*

¹⁸² KUHN, Alfred: *Das alte Spanien. Landschaft-Geschichte-Kunst*. Verlag Neufeld & Henius. Berlin, 1925. Print.

Hugo Kehrer published the book *Deutschland in Spanien. Beziehung, Einfluss und Abhängigkeit*¹⁸³, which is a detailed work of documentation on the German presence in the Spanish culture since the early Middle Ages. Kehrer presented an extensive study accompanied by photographs of Spanish art, demonstrating how far back the German-Spanish relationships encounter and how fruitful they turned out, thus marking the opening of the Spanish culture in the German intellectual society after the Second World War.

The fact that in 1953, an epoch in which Spain was leaving autarchy and isolation behind and was again on the rise as a destination of interest to the Germans, Kehrer had the opportunity to explore the culture and the Spanish art through the works and the experiences of other German authors in those distant lands, provided him a topic of attractive and stimulating study. In his research, Kehrer followed the trail of these German-Spanish relations throughout the centuries, analyzing with the same intensity those that took place in the early Romanesque architecture, such as those that occurred in the 18th century. In the 1950s, when Spain regained its role as country of interest for the Germans, this sort of guidebook became a relevant historical research on Spanish art and the German presence in it, but also a study report of its executors, both German and Spanish, who shared times of cultural and artistic splendor and lived and worked together tending bridges of relationships and influences between the two countries that have survived many centuries and a few wars. When Kehrer raised the topic and delved into it, some first inevitable questions arose:

“One might ask: Why did they go to Spain? Which reasons could have been crucial once in the Middle Ages and then in the later centuries? The answer is not simple; perhaps there was already something like an early longing after Spain, but which one may not readily identify as a romance, and which in any case differs substantially from a longing after Italy.”¹⁸⁴

Without doubt and despite the war, the task of charting the path of the German spirit toward Spain as well as determine the scope of their cultural and artistic emissions toward the Iberian Peninsula seemed tempting and enriching. In fact, Kehrer recounted the need to work in the research before the end of the war in the book's introduction, possibly fearing to see rejected this subject of study which, according to him, could not have been addressed at the end of World War II:

¹⁸³ KEHRER, Hugo: *Deutschland in Spanien*. Verlag Georg D.W Callwey. Munich, 1953. Print.

¹⁸⁴ *Ibid.*, p.6. Translation by the author (R.J.J.).

“The elaboration and design happened in the last year of the war. It would not have been possible to treat such a topic like the present one afterwards.”¹⁸⁵

In terms of architecture, the German-Spanish contacts reached a high intensity and importance during the first third of the twentieth century. Both the Weimar Republic (1919-1933) and the Second Spanish Republic (1931-36) were turbulent periods marked by political, social and economic instability, military coups, and the rise of political extremists (anarcho-syndicalist movements and extreme-right wing). In architecture, however, those were the years of the <<New Building>> in Germany initiated by the *Deutscher Werkbund* and consecrated by the Bauhaus institution, the CIAM and its sections in many countries (with the GATEPAC¹⁸⁶ in Spain) and the avant-garde; but also the time of a conservative and historicist architecture, as it was defended by the traditionalists at the School of Stuttgart, represented by Paul Schmitthenner and Paul Bonatz.

With this historical climate and as it has been demonstrated¹⁸⁷, Germany aroused the fascination of Spanish architects for its masters before the Spanish Civil War, specially with regard to the influence of Expressionism, Modernism, the Bauhaus and the *Siedlungen* experience. However, the German intellectual influence on Spain was often cultivated without the necessary presence of their authors. The classic German literature and music were known in Spain, although their creators had not even visited the Iberian country ever: the drawings of Albrecht Dürer were used as templates by the great Spanish painters, and the philosopher Karl Christian Friedrich Krause, who never left his German home, exerted a great influence on the Spanish-speaking world through the dissemination of his doctrines, both in Spain and Latin America. Krausism became particularly influential in Spain in the 19th century, where Krause's ideas were introduced by Julián Sanz del Río, an academic based in Madrid, and applied in the prestigious and innovative *Institución Libre de Enseñanza*¹⁸⁸ (ILE: “The Free

¹⁸⁵ *Ibid.*, p.7. Translation by the author (R.J.J.).

¹⁸⁶ GATEPAC: “Grupo de Artistas y Técnicos Españoles Para la Arquitectura Contemporánea”. In English: “Group of Spanish Architects and Technicians for the Progress of Contemporary Architecture”. It was a group of architects assembled during the Second Spanish Republic. The group was formed in the 1930s as a Spanish branch of C.I.A.M. The most important members were: Josep Lluís Sert, Antoni Bonet Castellana, Josep Torres Clavé, José Manuel Aizpurúa, Fernando García Mercadal and Sixte Illescas.

¹⁸⁷ For more detailed information about these Spanish-German contacts before the Spanish Civil War, see the well-documented dissertation: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*

¹⁸⁸ *The Institución Libre de Enseñanza* was an educational project developed in Spain between 1876-1936. The Institute was inspired by the philosophy of *Krausism*, which was first introduced in Spain by Julián Sanz del Río, and it had a significant impact on the renovation of the intellectual life within the Spanish culture of the time. For further information on the role played by ILE, see: VV.AA.: *La Institución Libre de Enseñanza y Giner de los Ríos: nuevas perspectivas*. ACE/Fundación Francisco Giner de los Ríos, Madrid, 2013. Print.

Educational Institution”) by his faithful disciple Francisco Giner de los Ríos and Gumersindo de Azcárate, both Spanish Krausists.

Likewise, new institutes associated with the *Institución Libre de Enseñanza* were founded to investigate the Spanish past, as was the case of the *Centro de Estudios Históricos*¹⁸⁹ (“Centre for Historical Studies”), and several contact centres were established to connect artistic and scientific elites with the European avant-gardes in the framework of the *Residencia de Estudiantes* and the *Junta para la Ampliación de Estudios e Investigaciones Científicas*¹⁹⁰ (“Board for the Extension of Studies and Scientific Research”), which was created in 1907 and dismantled in 1939 after the Republican defeat in the Civil War. There were many intellectuals, artists, architects and Spanish scientists who enjoyed fellowship programmes through the JAE, which represented one of the main pro-European engines in Spain, and they included stays abroad, including Germany. This desire to Europeanize Spain emerged as maxim for the intellectual minorities, among which was Ortega y Gasset, who was able to agglutinate all the supports and efforts for the development of the organization through his complaint of the Spanish secular delay.

Founded in the heart of the *Ministerio de Instrucción Pública y Bellas Artes*¹⁹¹ (“Ministry of Public Instruction and Fine Arts”), the JAE defended that the only possible way to improve the country was to enhance the education system through the observation of the scientific and educational movements developed by the most cultured European nations. That is to say, Spain’s misfortunes, accumulated since the disaster in Cuba in 1898, would only be healed when the cultivation of science, technical development, and the dissemination and promotion of culture and education would have reached a comparable level to the most cultured nations of Europe. Therefore, the modernization of Spain was only possible through its opening to Europe.

But the critical gaze of the country requested also to be introspective, toward itself. While the need to observe and analyze Europe arose, a fervor of knowledge of the country itself increased: the Spanish cities, their resources, the history, the territory and its heritage. Spain, with a blurred and diluted identity, needed a self-knowledge, which had to be explored through instruments of universal validity used by the

¹⁸⁹ Created on 18 March 1910 and led by the Spanish philologist and historian Ramón Menéndez Pidal, it was a division of the *Junta para la Ampliación de Estudios* in order to update the knowledge of Spanish culture.

¹⁹⁰ Also known as JAE. In order to learn more about the JAE’s works and scholarships, see: CABAÑAS BRAVO, Miguel *et al.* *El arte foráneo en España. Presencia e Influencia*. Biblioteca de Historia del Arte, CSIC. CYAN, Proyectos y Producciones Editoriales, S.A. Spain, 2005. Print.

¹⁹¹ Established on 18 April 1900 during the reign of Maria Christina of Austria, it was the predecessor of the current Ministry of Education.

Europeanized Spaniards who had been truly trained to know and discover their own country. In order to achieve this, these young researchers needed to travel and learn about the great European university centres, a project that would be promoted by the JAE through the granting of scholarships abroad or *pensiones*¹⁹². Germany and its prestigious university model, whose study method was organized and based on seminars, was the most popular destination for the young Spanish architects with the potential to qualify for a scholarship from the JAE.

Watching Europe was therefore a constant work method for the Spanish architects of the first half of the twentieth century, and therefore many of them travelled to Germany to continue their academic trainings at German universities or to gain work experience through internships in German offices: Francisco Prieto-Moreno, Pedro Bidagor, Juan Bautista Subirana, Leopoldo Torres Balbás, Luis Lacasa, Fernando García Mercadal or Luis Pérez-Mínguez are only a few examples of such cases. All of them requested to travel abroad in order to be able to see in person the experiences of the foreign architectural culture. They all reported their experiences by publishing articles, travel notes, autobiographical memories and different research studies to justify their scholarships. That is the case of Luis Lacasa¹⁹³, one of the intruders of the rationalist architecture in Spain along with Fernando García Mercadal.¹⁹⁴ In his “Notas autobiográficas”¹⁹⁵ (“Autobiographical notes”), Luis Lacasa described his firsthand experiences through various articles submitted to the Spanish journal *Arquitectura*. Lacasa faithfully recounted everything he had seen in Germany, where he criticized Bruno Taut's operations in Magdeburg in “El <<camouflage>> en Arquitectura” (1922), and he praised Otto Schubert¹⁹⁶ in “Otto Schubert” (1923). In addition, Lacasa disseminated theories of Hermann Muthesius through the articles “Un interior expresionista”¹⁹⁷ and “Un libro alemán sobre casas baratas”¹⁹⁸, both published in the Spanish journal *Arquitectura* in 1924.¹⁹⁹

¹⁹² In English: “Grant or scholarship”.

¹⁹³ For more details on Lacasa's trip to Germany, see: LACASA, *op.cit.* pp.78-79.

¹⁹⁴ With regard to Luis Lacasa and Fernando García Mercadal, see: MEDINA WARMBURG, Joaquín: *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, pp.139-147.

¹⁹⁵ LACASA, *op. cit.*, pp.75-99.

¹⁹⁶ Otto Schubert wrote *Geschichte des Barock in Spanien*¹⁹⁶, the first book on this subject and whose first Spanish edition was published in 1924. See: SCHUBERT, Otto: *Geschichte des Barock in Spanien*. Neff. Esslingen, 1908. Print.

¹⁹⁷ LACASA, *op.cit.*, pp.112-115.

¹⁹⁸ *Kleinhaus und Kleinsiedlung* (Hermann Muthesius, 1922). In: LACASA, *op.cit.*, pp.116-123.

¹⁹⁹ In: *Arquitectura*, August 1924.

On the other hand, in addition to an important outreach work of avant-garde architecture in Spain through his articles published in *Arquitectura*²⁰⁰, Fernando García Mercadal facilitated contacts between Germans and local architects from Madrid, after having studied with Adolf Loos in Vienna in 1924, but also with Peter Behrens, Hermann Jansen, Hans Poelzig, Walter Gropius, Theo van Doesburg and Mies Van der Rohe in Berlin. On their way back to Spain, Lacasa and García Mercadal led the urban debates of the 1930s in Madrid, where the German influence was stronger due to political affinities and the German aid during the Spanish conflict. It is noteworthy to mention the important contributions of these architects who, upon their return and according to Joaquín Medina Warmburg, “would divulge some of the social concepts of German architecture (from Muthesius to Taut and Gropius), focusing on the interest of Spanish socialism for allegedly social housing policy for the working class, that was materialized in the experience of the German *Siedlungen* and *Höfe*.”²⁰¹

But, before the Spanish Civil War, these journeys and contacts were bidirectional. Many German architects did also see in Spain a land of possibilities to expand their theories and teachings prior to 1936. This is demonstrated by the constant trips that more than a few German architects made to discover the Spanish geography and culture, but also to lecture at the *Residencia de Estudiantes*²⁰² in Madrid. Between 1928 and 1934 the main protagonists of modern architecture visited the *Residencia*. In addition to Le Corbusier in 1928, Erich Mendelsohn, Theo van Doesburg, Walter Gropius²⁰³, Sigfried Giedion and Edwin Lutyens exposed their ideas on art and architecture through their lectures at the *Residencia*, making it a focal point for the diffusion and propaganda of the European modern art and architecture in Madrid and, therefore, in Spain. Thus, the *Residencia* attracted a young generation of architects who wanted “to renovate the stagnant Spanish architectonic panorama of the time.”²⁰⁴

²⁰⁰ See: «Rezeption in Fachzeitschriften (1917-1936)». In: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, pp.638-639.

²⁰¹ MEDINA WARMBURG, Joaquín: «Irredentos y conversos. Presencias e influencias alemanas: de la neutralidad a la postguerra española (1914-1943)». *Modelos alemanes e italianos para España en los años de la postguerra*, *op.cit.*, p.28 Translation by the author (R.J.J.).

²⁰² The *Residencia de Estudiantes* was founded in Madrid in 1910 by the JAE. During the first half of the twentieth century, it was a prestigious cultural institution that helped create the intellectual environment of Spain's brightest young thinkers, writers and artists. It was also one of the most vibrant and successful experiences of scientific and artistic creation and exchange of interwar Europe. Its influence was particularly strong until the outbreak of the Spanish Civil War in 1936. Nowadays, the *Residencia de Estudiantes* is one of the most prominent cultural centres in the city of Madrid.

²⁰³ GROPIUS, Walter: «Arquitectura funcional». In: *Arquitectura*, n.141. Órgano de la Sociedad Central de Arquitectos. Madrid, 1931. Print. pp.51-62. Original title: «funktionelle Baukunst».

²⁰⁴ GUERRERO, SALVADOR (Ed.): «Other masters of Modern Architecture at the Residencia de Estudiantes». *“Le Corbusier, Madrid, 1928, una casa-un palacio” exhibition catalogue*. Residencia de Estudiantes, CSIC. Madrid, 2010. Web. 26 April 2015.

In this way, the German presence in Spain was extended through the 1920s. In just two years, from 1927 to 1929, not only Walter Gropius, Hans Poelzig, Josef Stübben, Otto Bünz, Paul Bonatz or Hermann Jansen travelled to Madrid to give lectures or participate in projects in the Spanish territory, but there were numerous articles in Spanish journals where many German or Austrian experiences were described. Werner Hegemann, Adolf Behne, Fritz Schumacher, Ludwig Hilberseimer, Walter Gropius, Paul Linder, Ernst May, Otto Schubert, Albrecht Haupt, Joseph Stübben and Oskar Jürgens, were among those who frequently published their opinions and thoughts on different aspects of the state and role of both the Spanish and the German architecture and their urban planning, and most of them published articles in Spanish architecture magazines between 1917 and 1936.²⁰⁵

Nevertheless, the influence of German architecture did not only arrive through the stays of Spanish architects in Germany or German architects in Spain, but they would find another powerful and intense way of transmission of information: the specialized journals. *Monatshefte für Baukunst und Städtebau*, *Bauwelt*, *Moderne Bauformen*, *Innen Dekoration* and *Der Baumeister* were the German magazines coming to Spain with greater quantity and regularity until the outbreak of the Civil War. But it should also be noted the Spanish journal's notable work as broadcasters of foreign architecture, such as *Arquitectura* (1918-1936), *La Construcción Moderna* (1903-1936) or *Nuevas Formas* (1934-1936). Among them, the relevant role of the magazine edited in Madrid *Nuevas Formas* could be highlighted, because despite having a certainly fleeting publishing existence²⁰⁶, it had an intense dissemination activity, devoting time and space to the international and Spanish architecture, and within this, especially to projects located in Madrid or architects who were settled in the capital. Besides, there was a broad representation of countries from Central and Eastern Europe among its pages, and Germany remained the most published country.²⁰⁷

Nuevas Formas stood out for its careful presentation of the chosen projects, which covered construction and practical aspects, and by the use of advertising. Ignasi de Solà-Morales pointed out that *Nuevas Formas* "adopted a format already used by other publications, such as *Wasmuths Monatshefte für Baukunst*, *L'Architecte* or

²⁰⁵ See: «Rezeption in Fachzeitschriften (1917-1936)». In: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, pp.635-645.

²⁰⁶ After the end of the war, the editorial board of the journal moved to Portugal. Although the owner and director were replaced, and with them, the editorial line, the magazine retained its name and most of the Spanish correspondents.

²⁰⁷ With regard to the activity developed by *Nuevas Formas*, see: MARTÍNEZ GONZÁLEZ: «Nuevas Formas de actividad contemporánea». *V Congreso Docomomo Ibérico*. Universidad de Navarra. Pamplona. PDF File. 27 April 2015. pp.95-96.

Architecture where high-quality photographs and drawings were protagonists”²⁰⁸. Indeed, the magazine always showed great concern for the graphics, fonts and presentation in their publications, following the guidelines of the magazine *A.C. Documentos de Actividad Contemporánea*, edited by G.A.T.E.P.A.C. between 1931 y 1937 in Barcelona, whose pages included many works and designs from Mies van der Rohe, Le Corbusier, Walter Gropius, Erich Mendelsohn or Richard Neutra, among others, as well as numerous advertisements of furniture, construction materials and facilities from both Spanish and foreign companies. The weight of influence of *Das Neue Frankfurt* in *A.C*, which literally copied its format and composition and later served as a guide format used by *Nuevas Formas*, was more than evident (see Fig.2.1).

In summary, the German influence on the Spanish architects before the Civil War was clearly defined by Medina Warmburg as follows:

“Germany offered exemplary models of metropolis, transport facilities and industrial buildings, high-rise buildings, monumental buildings, colonies, villas, interiors and furniture. In short, the reception of German architecture occurred on a transverse way but closed. It offered both practical and theoretical guidelines in all areas.”²⁰⁹

Spain's reliance on the German culture until 1936 was both ideological and architectural, but these intensive German-Spanish relations were temporarily aborted as a result of the Spanish Civil War. With them, the rationalist discourse defended by the architects of the Republic against that other group convinced of the need for a regionalist architecture and linked to a national identity was also interrupted and abandoned.

²⁰⁸ SOLÀ-MORALES, Ignasi: «G.A.T.E.P.A.C.: Vanguardia arquitectónica y cambio político». In: VV.AA.: *AC/G.A.T.E.P.A.C. 1931-1937*. Gustavo Gili. Barcelona, 1974. Print. p.24. Translation by the author (R.J.J.).

²⁰⁹ MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, p.7. Translation by the author (R.J.J.).



Fig. 2.1 Up, left: Cover of AC. Documentos de Actividad Contemporánea, n.1 (1931). Up, right: Ernst May, Das Neue Frankfurt, 1 (1926). Down, left: "Thonet" advertisement (AC, n.3, 1931). Down, right: Article about Giedion's Befreites Wohnen (AC, n.3, 1931).

2.2 Contacts in Post-Civil War: Means of Transmission

After the Civil War and with Franco in power, the idealists of the regime and the conservative bourgeoisie saw in the architecture an effective tool to achieve their propaganda purposes. Due to their exercised control from the government bodies, they managed to implement a style full of historicisms and regionalisms, through which they were able to spread the image that was intended to be identified with the new political order. In this way, the ideologists of the regime found in the totalitarian-type architecture of Germany and Italy appropriate models to follow. Since the aim was the rejection of the new rationalist architecture, the German example referred to the architecture of Karl Friedrich Schinkel and his mentor Friedrich Gilly as solid referents of an architecture that could correspond with the neoclassicism of Juan de Herrera and Juan de Villanueva in Spain, where the *Monastery of El Escorial* was considered a paradigm of the national architecture. In this sense, both the Spanish and German architecture used the monumental construction with propagandistic character to identify with the State and, by extension, with the new regime.

But this new image of postwar architecture was not adapted to the entire Spanish territory. While in the cities, especially in Madrid as the capital of the state and the regime, a monumental architecture was promoted by the official institutions, in the settlements built in rural areas and developed by the *Instituto Nacional de Colonización y Desarrollo Rural*²¹⁰ ("National Institute of Rural Development and Colonization") as part of the national reconstruction programme promoted by the *Dirección General de Regiones Devastadas*²¹¹ ("General Directorate of Devastated Regions"), the situation was different and quite singular, since they were conceived from a rationalist approach, much more appropriate to the needs and urgency of the country after the war.

Although, initially, the reconstruction of the country arose with propagandistic sense, it was soon found that this formal language did not work in structural schemes of agricultural settlements, where the rationalization of construction was essential given the scarce economic resources. Therefore the attention in these villages focused in the typological and design issues of the new agricultural settlements, and the new housing was raised following the statements of the CIAM, that is, with a

²¹⁰ The *Instituto Nacional de Colonización* was established by the Spanish Dictatorship after the end of the Spanish Civil War, in October 1939. This administrative entity had to deal with the task of repopulating rural areas throughout the country. For further information, see: ORTEGA CANTERO, Nicolás: *Política agraria y dominación del espacio. Orígenes, caracterización y resultados de la política del colonización planteada en la España posterior a la Guerra Civil*. Ayuso. Madrid, 1979. Print.

²¹¹ For a thorough understanding of the works carried out by *Regiones Devastadas*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.45-53.

programme of minimum needs in a context of popular and regionalist architecture, an experience that was gathered by several foreign publications.²¹²

With this diverse scenario from a geographical point of view, since there was not a uniform architecture style throughout the Spanish territory, and due to the various interests of the ruling classes, Madrid became the main stage of the regime's attempts to achieve a national style. To these circumstances can be added the spiritual climate that existed in postwar Spain, with a Catholic Church that exerted a great influence on many active architects. In the midst of this national environment, there was a first generation of architects who reacted against these ideals without getting enough support from abroad, owing to the outbreak of the Second World War and Spain's isolation since the end of the Civil War, which continued throughout the decade of the forties.

However, after 1939, one can appreciate that despite fascist regime's politics and the national cultural ideology, it was possible to restore the previous contacts. The return of the German influence in Spain can be explained mostly in the positive results obtained in its reconstruction and industrial development, which put the country into the spotlight, with a development model that was admired by a destroyed Spain with a long reconstruction ahead. In this regard, Spain's political and economic situation hindered the influx of ideas and, consequently, the German influence on Spanish architecture returned gradually, albeit more scattered and diluted in a mixture of foreign references, such as the American and Italian architecture.

Many Spanish architects clung to modernity against the reaffirmation of a vernacular architecture, considered the true national architecture that could meet the requirements of the Regime. Besides, in relation to the urban development and the social housing issues, the German influences during the postwar period in Spain were still dominant, especially in the architectural scene of Madrid, where many architects kept the German architectural discourse after the Civil War. In this regard, in the immediate postwar period, the trips abroad made by the Spanish architects were still reduced due to political isolation and the autarchy period that were experienced in Spain.

²¹² See: SANTIAGO, Michel: «The Spain of Carlos Flores». *The Architectural Review*, n.781. London, 1962. pp.187-189. Print. Examples of this popular rationalist architecture are *Vegaviana* (Cáceres, 1954-58) and *Villalba de Calatrava* (Ciudad Real 1955-50), both villages designed by José Luis Fernández del Amo, and which were published in *Werk*. See: «Vegaviana», and «Villalba Calatrava». In: «Thirty Years of Spanish Architecture». Heft 6: Spanische Architektur und Kunst. (*Das Werk*, n.49. Archive ETH Bibliothek. Zürich, June 1962. PDF File. 22 April 2015. pp. 192-193, 194.

However, in 1940, Fernando Moreno Barberá²¹³ graduated as an architect from the School of Madrid, and then he travelled to Germany during World War II to continue his training in a much more advanced environment in the architectural field, where he could expand his knowledge of urban planning at the *Technische Hochschule Charlottenburg* in Berlin and the following year at the *Technische Hochschule Stuttgart* with Paul Schmitthenner. Between 1941 and 1943, Moreno Barberá worked in Paul Bonatz's studio. This is how he came into direct contact with Bonatz's «*Arbeitsstil*», but also with a panorama of discussion between historicism and modernity, a debate that would also take place in postwar Spain. Likewise, after being part of the jury of the *International Competition for the Urban Planning of Madrid*²¹⁴ in 1929, and defending the need to take the guidelines established in it as a starting point for future performances in the capital, Paul Bonatz became a household name for all students from the School of Architecture of Madrid and he visited the Spanish capital in 1943.²¹⁵

In those years, Sáenz de Oíza was among the new generation of architects²¹⁶ who were studying at the Schools of Architecture of Madrid and Barcelona. The few references of what was being done outside the Spanish borders, and which were handled by the active architects and the students, came from the news that were brought by the architects who had travelled abroad after finishing their studies²¹⁷, since the dissemination of foreign publications was practically paralyzed during the first years following the Spanish Civil War. Sáenz de Oíza outlined this postwar situation in Madrid as follows:

²¹³ On the figure of Fernando Moreno Barberá, see: BLAT PIZARRO, Juan S.: *Fernando Moreno Barberá. Modernidad y arquitectura*. Fundación Caja de Arquitectos. Valencia, 2006. Print; and also: POZO, José Manuel: *Los brillantes 50. 35 proyectos*. T6 Ediciones S.L. Pamplona, 2004. Print. p.247.

²¹⁴ For a detailed description of the urban debate in Madrid and the International Competition for its Urban Planning in 1929, refer to: SAMBRICIO, Carlos, MAURE RUBIO, Lilia, EZQUIAGA, José María: *Madrid, Urbanismo y Gestión Municipal 1920-1940*. Madrid: Ayuntamiento, Área de Urbanismo e Infraestructuras, Gerencia Municipal de Urbanismo. Madrid, 1984. Print; SAMBRICIO, *Madrid, vivienda y urbanismo: 1900-1960*, *op.cit.*, pp.257-278; and also: MEDINA WARMBURG, Joaquín: *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, pp.224-233.

²¹⁵ For more details on Paul Bonatz's trip to Madrid, see: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, *op.cit.*, pp.470-475.

²¹⁶ The most representative architects of that period were: Rafael Aburto, Francisco de Asís Cabrero, José Luis Fernández del Amo, Miguel Fisac, Alejandro de la Sota (School of Madrid); and Josep M^a Sostres, Frances Mitjans, Josep Pratmasó, José Antonio Coderch, Manuel Valls and Antonio de Moragas (School of Barcelona).

²¹⁷ Sáenz de Oíza travelled to the United States, Francisco de Asís Cabrero to Italy, and Miguel Fisac to the Nordic countries. See: URRUTIA, *Ángel: Arquitectura Española del Siglo XX*. Ediciones Cátedra. Madrid, 1997. Print.

“In Madrid we lived in absolute isolation; you can see it in the lack of magazines of any country in Spain at that time. To the first scholarship holders, (...), it took us a year the management to give us passport and exit. They were very difficult years in Spain. There was not much information.”²¹⁸

The hegemony of the German influence in Spain before the war was then shared with other influences in the postwar period. For many Spanish architects, the new benchmarks were in Italy, Scandinavia and the USA. On the other hand, after the breakdown of relations between the two countries in 1945 (due to the end of World War II), all influences and contacts with Germany were diluted and dispersed among a new generation of architects out of the School of Madrid who had a wider field of view than their teachers. They had been trained with a way of understanding and addressing architecture that included not only references of the masters from Central Europe, but also American and Italian ones.²¹⁹ Consequently, the American influence on new generations of architects in Madrid would be noticeable, since the news on American architecture that arrived were interspersed with the experiences and works of the exiled European architects. As has been previously noted, this American influence –and that of the European architects who had migrated to the United States– on Sáenz de Oíza was wider and notable. Even so, the German influence, as well as both the Dutch and the Nordic ones, were still present. They all resulted in a rich and heterogeneous architectural language in the landscape of social housing in Madrid during the fifties, with the appearance of many examples of architectures with references, nods and very clear tributes to the northern European architects of the twenties. But it was also a different kind of influence. As Medina Warmburg stated: “The German-Spanish relations surpassed the unilateral dependence of earlier times and were deployed more and more like a dialogue between equals.”²²⁰

The new generation of young architects coming out from the School of Madrid had studied during the forties, and they wanted to separate themselves from the official ideological approach because they saw the need to regain the interrupted modern discourse as unique valid instrument to overcome the national absences and complexes, and this generation was represented by: Francisco Cabrero, Miguel Fisac, Alejandro de la Sota, Rafael Aburto, José Luis Fernández del Amo, Francisco Javier Sáenz de Oíza, José Antonio Corrales and Ramón Vázquez Molezún. These young professionals began to emerge in the 1950s –fifteen years after the war–, so that their need to distance themselves from the national events became an excuse to

²¹⁸ Quoted in: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, p.99.

²¹⁹ With regard to the German and Italian influence on postwar Spain, see: *Modelos alemanes e italianos para España en los años de la postguerra*, *op.cit.*

²²⁰ See: *Ibid.*, p.26.

retake the modern language, and thus, all of them shared the responsibility for re-introducing Madrid –and therefore Spain– in the rationalist period of the fifties. To this aim, these architects left behind the traditionalist architecture represented by the style of *El Escorial* and embraced the functionalist experience.

Despite the fact that the intensity of trips abroad made by the Spanish architects decreased during the postwar years and until the decade of the 1950s, other means of transmission of foreign architectural knowledge appeared in Spain, which helped to compensate the lack of direct contacts and influences. Once again, the architectural magazines played a key role in disseminating bidirectional Spanish-German ideas in those years of real difficulty in establishing contact with the outside. For this reason, the Spanish architects found on native journals the most optimal way to keep up with global architectural events. Through their pages and foreign sections, the Spanish architects could find rationalist manifestos that divulgated the latest and most accurate regarded Central European experiences, and one model to follow was marked by the German *Siedlungen*. Through photographs and drawings, modern settlements in Berlin, Frankfurt, Stuttgart and Hamburg were displayed. On the other hand, the Spanish Schools of Architecture –particularly the School of Madrid– had always had a large tradition in considering German publications on architecture as one of the best in Europe. Their high quality and finely designed graphic presentations, with a very wise approach in the selection of the works that were published, were regarded as attractive and they had a positive reception. As a result, their influential effect was much greater among the Spanish architects, and with greater intensity during the decade of the fifties.

It is nevertheless evident that during the years immediately after the Civil War, the Spanish editorial production was low, or virtually invisible. In the Spanish publishing sector, the lack of means was also a cause for their delay. One possible reason for that avoidance in the national publications was Spain's isolation. But it is also possible that the Spanish journals were not mature enough to serve as a sure guide to the new generation of young Spanish architects. Since there was a lack of resources at home, the Spanish architects needed to seek them out of their frontiers. Although the country was still very isolated from the world and with a distinct cultural lag, however, in some areas such as architecture, certain contacts were still maintained and, while they were not notorious, they helped to keep the Spanish architects connected in some way with what was happening on the other side of the Pyrenees.

In addition, in these first years of the postwar period, the German presence in the Spanish magazines was diluted, but did not disappear. This is in part due to the disappearance of *Arquitectura*, *La Construcción Moderna* or *Nuevas Formas* on the occasion of the outbreak of the Civil War in 1936, three magazines whose wide-ranging dissemination work had been constant and intense before the national conflict, since they were responsible for the publication of articles about German architects or German architecture with great regularity.²²¹ But in the forties, with a shattered country and a tough rebuilding process ahead, the specialized Spanish magazines focused their attention on publishing items on traditional architecture, economic housing, and the reconstruction of monuments and representative buildings of the national image such as ministries, bullrings and churches.

However, in the immediate postwar period, the Spanish architects did not only resort to the foreign avant-garde architecture to learn or find models of inspiration. After the war, there were also some who sought support in the foreign architects in order to sustain the dream to impose a traditional architecture that could deepen in the roots of the Spanish popular architecture, considered the true identity of the national architecture. Franco's government favoured the quest to find a national style in terms of architecture, a will that was especially materialized in the design of official buildings, and it sparked a debate through the Spanish journals about what should be the style of the new Spanish architecture since the early 1940s.²²²

Two personalities as diverse as Paul Bonatz and Francisco Javier Sáenz de Oíza participated in this debate. In 1943, the *Revista Nacional de Arquitectura* (1941-58), which was the main instrument of architectural criticism in the country, published in its foreign section ('Sección Extranjera') a lecture given by Paul Bonatz²²³ on June 15 of that year and held during a series of lectures on architecture and urbanism organized by the *Dirección General de Arquitectura*, which was also the editor of the magazine. In it, Bonatz analyzed the German case as an example of the search for the roots of nationalism, defending the genuine and traditionalist style against the enthusiasm for the new technical possibilities. But moreover, this article also evinced a recognizable event in the Spanish architectural culture of the moment: The recovery of popular architecture as a source of inspiration after the crisis of the ideal of the machine.

²²¹ See: MEDINA WARMBURG, «Rezeption in Fachzeitschriften (1917-1936)», *op.cit.*, pp.635-645.

²²² With reference to this open debate in the Spanish architectural journals see: ESTEBAN MALUENDA, Ana María: «Tradición 'versus' tecnología: un debate tibio en las revistas españolas». In: *III Congreso Internacional "Historia de la arquitectura moderna española": Arquitectura, ciudad e ideología antiurbana*. T6 Ediciones S.L. Pamplona, 2002. Print. pp.97-105.

²²³ BONATZ, Paul: «Tradición y Modernismo». *Revista Nacional de Arquitectura*, n.23. Dirección General de Arquitectura. Madrid, November 1943. Print. pp.390-397.

Although Miguel Fisac was erected at the beginning as one of the advocates of this new tendency to exalt the Spanish rural architecture, classical and permanent, a position that Fisac manifested in another article for the same magazine and published five years later²²⁴, the truth is that during this first moment of the postwar period there was a balance between the two critical views. Thus, in 1951, Sáenz de Oíza, who was already teaching at the School of Madrid, took part in a symposium held after the conference "Funcionalismo y ladrillismo"²²⁵, given by Luis Felipe Vivanco within the "Sesiones de Crítica de Arquitectura" ("Conferences on Architecture Criticism") organized by COAM ("Madrid College of Architects"), arguing that the new architecture was exactly new because of the great importance of the application of new materials and techniques.²²⁶ This shows that in the early 1950s a new trend in the profession was initiated by some architects such as Sáenz de Oíza, Rafael de la Hoz, or even Miguel Fisac, in defense of the technological and industrial production against the popular and traditional values in architecture, a debate that would be forgotten when entering the 1960s.

Despite the willingness from the government to capture a national ideal through the architecture and the decision to take Madrid as the place where to carry out this purpose with greater intensity, during the decade of the fifties, and coinciding with the end of autarchy and the opening of the country, the situation changed. In the specific case of Madrid, the architects of the 1950s and 1960s could know a significant part of the thinking and achievements of the modern avant-garde, a path of learning that was carried out in many cases through the education at the School of Architecture, the organization of meetings and debates between colleagues or, even, in a self-taught way. However, it should also be noted the equal or more important and decisive role played by foreign publications in the penetration and diffusion of what was happening outside Spain²²⁷, a flow that was intensified in the early 1950s.

In the Spanish capital, there were several magazines that arosed or intensified their activities and relevance, and whose formative role was fundamental for the dissemination of other foreign models in greater accordance with the needs of those architects that were trying to get away from the official architecture, such as *Revista*

²²⁴ FISAC SERNA, Miguel: «Lo clásico y lo español». *Revista Nacional de Arquitectura*, n.78. Dirección General de Arquitectura. Madrid, June 1948. Print. pp.197-198.

²²⁵ VIVANCO, Luis Felipe: «Funcionalismo y ladrillismo». *Revista Nacional de Arquitectura*, n.119. Dirección General de Arquitectura. Madrid, November 1951. Print. pp.35-45.

²²⁶ See: ESTEBAN MALUENDA, Ana María: «Tradición 'versus' tecnología: un debate tibio en las revistas españolas», *op.cit.*, p.100.

²²⁷ For more information on the means of dissemination of foreign modern architecture in Spain, see: ESTEBAN MALUENDA, Ana María: *La modernidad importada. Madrid:1949-1968: cauces de difusión de la arquitectura moderna extranjera*. Doctoral Thesis. Universidad Politécnica de Madrid. Madrid. 2007. Print.

Nacional de Arquitectura (1941-58), *Arquitectura*²²⁸ (1959-), *Hogar y Arquitectura* (1955-77) and *Nueva Forma* (1968-1975), which coexisted during the 1950s and the 1960s. With a different form and content, the three architecture magazines shared a common goal: to revive the architectural culture through the dissemination of national and international modern architecture.²²⁹ Among them, the work of *Hogar y Arquitectura* should be highlighted as a fruitful mean of dissemination of the social housing policies carried out by the *Obra Sindical del Hogar*²³⁰ (OSH: "Trade Union Housing Organization").

The importance of these native publications lies in the fact that they were able to make up for the the lack –or less intensity– of contacts with foreign countries through travel, exhibitions and foreign publications which, although they were still present, occurred with less intensity. However, these magazines succumbed sometimes to forget to publish the most important buildings, easily ignoring prominent works of the time, eventually publishing projects of dubious modernity, distracting themselves on minor projects or those which were close to a more traditional architecture, following the direction marked by the Franco regime: to find an architecture with national identity, returning to the Spanish historical roots. Here we see a clear example of how much the Spanish architecture was sometimes not understood, even in its own country.

On the other hand, it has already been pointed out the importance acquired by the Latin American publishers²³¹, whose responsibility in the entry and transmission of foreign modern trends in Spain was remarkable, especially the role played by *Nueva Visión*, *Poseidón* and *Infinito*. Possibly, the fact of sharing the same language along with Spain's historic situation, which was more concerned about the reconstruction of the country and the housing problem, propitiated their rise. This publishing boom of foreign books and journals translated into Spanish represented not only the beginning of the end of the years of isolation, but it also changed the academic profile of the

²²⁸ Published by COAM since 1959. Do not confuse it with the magazine of the same name, published between 1918 and 1939 by the *Sociedad Central de Arquitectos* ("Architects Central Association").

²²⁹ With regard to role of disseminators of foreign architecture played by these three magazines, see: ESTEBAN MALUENDA, Ana María: «Fuente y fundamento. Las publicaciones periódicas como soporte de la reincorporación de la arquitectura española a las corrientes internacionales en la segunda mitad del siglo XX». In: *de arquitectura*, n.23. 2011. PDF File. 16 March 2015. pp.52-57.

²³⁰ The OSH, along with the INV, met both the role of developer and construction of social housing. For a thorough understanding of the works carried out by the OSH, see: VV.AA.: «La Obra Sindical del Hogar». In: *Cuadernos de arquitectura y urbanismo*, n.105. COAC. Barcelona, 1974. Print. pp.36-51. See also: DELGADO ORUSCO, Eduardo: «La OSH y las normas de Cabrero». In: *Un siglo de vivienda social: 1903-2003*. Ministerio de Fomento, Ayuntamiento de Madrid-EMV and Consejo Económico y Social (CES). T-II. Madrid, 2003. Print. pp.41-43.

²³¹ ESTEBAN MALUENDA, «Ediciones lationamericanas. Repercusión en la difusión de la arquitectura moderna extranjera en España: el caso madrileño», *op.cit.*, p.123.

architects who were able to read more about architecture and, therefore, feel curiosity about the field of criticism.

The texts published abroad reached the architects of Madrid through three possible ways: In specialist bookshops in the capital, which have disappeared today and where they could acquire the literature they needed; in the library of the School of Architecture, or in the library from the Madrid College of Architects. Still, the arrival of these foreign publications remained much less intense than that experienced before the Civil War.²³² But if we return to the case of Sáenz de Oíza, the data is also revealing: his bibliographical list published by Fullaondo in *La bicicleta aproximativa* shows that the 90 aforementioned publications related to Germanic authors or themes were mostly published by North American and English Publishers (particularly based in New York and London), and especially those pertaining to the 1930s, 1940s and 1950s up to the year 1958, when the Spanish editions, exclusively located in Madrid and Barcelona, began to proliferate. In fact, the number of Spanish publishers was intensified considerably from 1958 and throughout the sixties, as can be seen in the twelve total Spanish editions that are present in his bibliography over a period of ten years. However, within the percentage of foreign publications, 34 were Latin American, specifically from Argentina and Mexico, and all of them were launched from the second half of the fifties. Among them, *Nueva Visión* from Buenos Aires (where Mies van der Rohe and Max Bill used to collaborate) was the most frequent publisher in his list of bibliographical references with a total of thirteen publications, followed by *Infinito*, *Paidós*, *Eudeba* or *Emecé*. As for the Germanic publishers, six came from Germany, including four from Stuttgart and two from Switzerland, mostly corresponding to the period between the late 1950s and 1968 (except for a few exceptions²³³), the year in which Sáenz de Oíza's personal bibliography came to light.

Although this thesis is not intended to track and analyze all the publications concerning German projects or German authors in the Spanish architectural journals during the postwar period until 1960, because it would be redundant, it is nevertheless important to understand the weight and presence of German architecture in the leading postwar Spanish magazines to enable a greater understanding of the historical and cultural context of the years corresponding to the formation and first professional stage of Sáenz de Oíza. The German presence in the Spanish architectural journals between 1941 and 1960, and with special attention to the decade of the fifties, when most of the social housing projects designed by Sáenz

²³² In this connection, Ana María Esteban Maluenda provided a significant fact: in 1952 the library of the School of Architecture of Madrid was subscribed to 18 Spanish and 12 foreign publications, while in 1935 the institution received 78 (domestic and foreign). In: *Ibid.*, p.125.

²³³ That is the CIAM's publication *Die Wohnung für das Existenzminimum* (Stuttgart, 1930).

de Oíza were built, was evidenced by all the articles that appeared in the main Spanish publications such as *Informes de la Construcción* (1948-), *Arquitectura*, *Revista Nacional de Arquitectura*, *Reconstrucción* (1940-1953), and *Hogar y Arquitectura*.²³⁴ These magazines did not only focus their attention on German public buildings, but especially in the German debate on social housing and urban planning. In addition, they were also attentive to divulge any piece of news related to the exhibitions held in Germany during those years. Thus, numerous articles relating to the *Constructa Building Exhibition* in Hannover of 1951 and, above all, to the *Interbau* of 1957, whose information was widely disseminated, especially through *Informes de la Construcción* and *Revista Nacional de Arquitectura*, were published in Spain.²³⁵

On the one hand, these items appeared alongside other examples relating to European (Dutch, French, Italian, Austrian and Scandinavian) and American architecture. Therefore, one could not speak of a German hegemony among the influences in the Spanish architectural scene during the fifties. On the other hand, along with a greater presence of foreign architecture in the Spanish specialized journals, one can observe that, from the 1950s, there was an increase in the publication of articles related to building systems, materials and details of construction, both domestic and foreign. In short, all these publications are proof of an opening that coincided with the end of the isolation of Spain, which increased considerably since 1958 and had followed an upward trend until today, being Spain one of the leading countries in publishing and disseminating architecture worldwide.

In terms of international exposure and recognition, the Spanish architecture had to wait until the decade of the sixties to witness its dissemination in foreign publications, coinciding with a new period of economic growth and social improvement. In December 1965, the issue '15' of the *Zodiac* magazine²³⁶ on Spanish architecture was published, and this fact meant the reaffirmation of a widespread feeling among the profession: the Spanish architecture was finally regarded and appreciated in Europe. However, as José Manuel López-Peláez pointed out²³⁷, the publication did not offer a sample of the most significant contribution from the Spanish architecture in the

²³⁴ In order to find a complete list of articles referred to German architecture published in the Spanish journals between 1941 and 1960, see: ESTEBAN MALUENDA, Ana María: «La difusión de la arquitectura moderna en España a través de sus revistas especializadas. Los casos alemán e italiano». In: *Modelos alemanes e italianos para España en los años de postguerra*, *op.cit.*, pp.171-180.

²³⁵ See these articles compiled in: *Ibid.*, pp.177-178.

²³⁶ See: VV.AA.: «España». *Zodiac #15, International Magazine of Contemporary Architecture*. Edizione Di Comunita. Milan, 1965. Print. The publication included articles by Vittorio Gregotti, Carlos Flores, Oriol Bohigas, Ricardo Bofill; and works by Bofill, Bohigas, Coderch, Martorell, Miro, Pena, among others.

²³⁷ LÓPEZ-PELÁEZ, José Manuel: «La difusa presencia de Mies en la arquitectura madrileña = The Diffuse Presence of Mies in the Architecture of Madrid». *Quaderns d'Arquitectura i urbanisme*, n.172. Barcelona, 1987. PDF File. 26 February 2015. p.80.

previous years. In this regard, *Zodiac '15'* did not focus on describing the incorporation of the Spanish architecture to modernity after the hiatus of the Civil War and the period of autarchy of the 1940s, nor was it intended to collect the most valid and significant works that had been executed during the long process of reconstruction of the country. Once again, the fruitful decade of the 1950s seemed to be forgotten on the other side of the Pyrenees. Indeed, the Spanish editorial production on architecture has always been lacking until the last quarter of the twentieth century, when magazines like *El Croquis* (Madrid, 1982-) or *Arquitectura Viva* (Madrid, 1988-) emerged, both world-renowned specialized journals with wide international circulation. Despite the fact that none of the two publications followed the critical line of other magazines such as *Arquitectura Bis* (Barcelona, 1974-85) or *Nueva Forma* (Madrid, 1968-75), all of them contributed to the release and recognition of the Spanish architecture outside of its borders.

Nevertheless, there did exist a certain degree of international recognition towards the most modern Spanish architecture of the moment, which was less linked to the ideology and style promoted by the Franco regime. Coinciding with the entry into the decade of the 1950s, the Spanish architects were finally able to gain visibility and open up a gap in the global architectural scene through their work, which began to be admired and awarded abroad. The first international critical success arrived in 1951 on the occasion of the *IX Triennale di Milano* of 1951, where José Antonio Coderch and Manuel Valls presented their design for the *Spanish Pavilion* with the mediation of Gio Ponti²³⁸, being awarded with the gold medal. Three years later, Ramón Vázquez Molezún received the same prize in the tenth edition of the Italian Art Exhibition, while Javier Carvajal and José María García de Paredes obtained it in the XI edition of 1957. In addition, in 1954 Miguel Fisac received the Gold Medal at the *International Exhibition of Modern Religious Art* in Vienna²³⁹; and César Ortiz-Echagüe, Manuel Barbero and Rafael de La Joya won the <<Reynolds Memorial Award>>²⁴⁰ from the American Institute of Architects (AIA). Lastly, José Antonio Corrales and Ramón Vázquez Molezún designed and built the *Spanish Pavilion* at the Brussels World's Fair of 1958, a timeless exercise in modernity that was acclaimed and recognized as one of the best examples of exhibition architecture of the twentieth century, and it also meant the consolidation of the Spanish architecture in Europe in those years.²⁴¹

²³⁸ See: PONTI, Gio: <<España en la Trienal de Milan>>. *ABC*. Madrid, 21 October 1951. p.29. Print.

²³⁹ See: <<Exposición Internacional de Arte Sacro Moderno en Viena>> (N.p.). In: *Revista Nacional de Arquitectura*, n.155. Dirección General de Arquitectura. Madrid, 1954. p.7. Print.

²⁴⁰ See: <<Premio R.S. Reynolds Memorial 1957>> (N.p.). In: *Revista Nacional de Arquitectura*, n.184. Dirección General de Arquitectura. Madrid, 1957. p.1. Print.

²⁴¹ CORRALES, José Antonio, and MOLEZÚN, Ramón. V.: <<Pabellón de España en la Exposición de Bruselas>>. In: *Revista Nacional de Arquitectura*, n.198. Dirección General de Arquitectura. Madrid, 1958. pp.1-10. Print.

Likewise, Sáenz de Oíza witnessed the first foreign recognition of his work by means of two different paths: the publishing and the exhibition. the *Interbau* was held in the summer of 1957 as part of the *International Building Exhibition (IBA'57)* and with the aim of rebuilding the Hansa district, situated in West Berlin and devastated after World War II. The experience of the *Interbau*, along with the *Constructa Building Exhibition* in Hannover of 1951, was intensely followed by the Spanish publications.²⁴² But moreover, the *Obra Sindical del Hogar* participated in the German exhibition representing Spain²⁴³, and this meant the opportunity to exhibit a selection of representative affordable housing of the Spanish architectural moment. Among them, Sáenz de Oíza's *Relocation Settlement of Fuencarral «A»* was prominent, a project that appeared collected in the brochure presented by the OSH at Berlin's exhibition (see Fig.2.2).

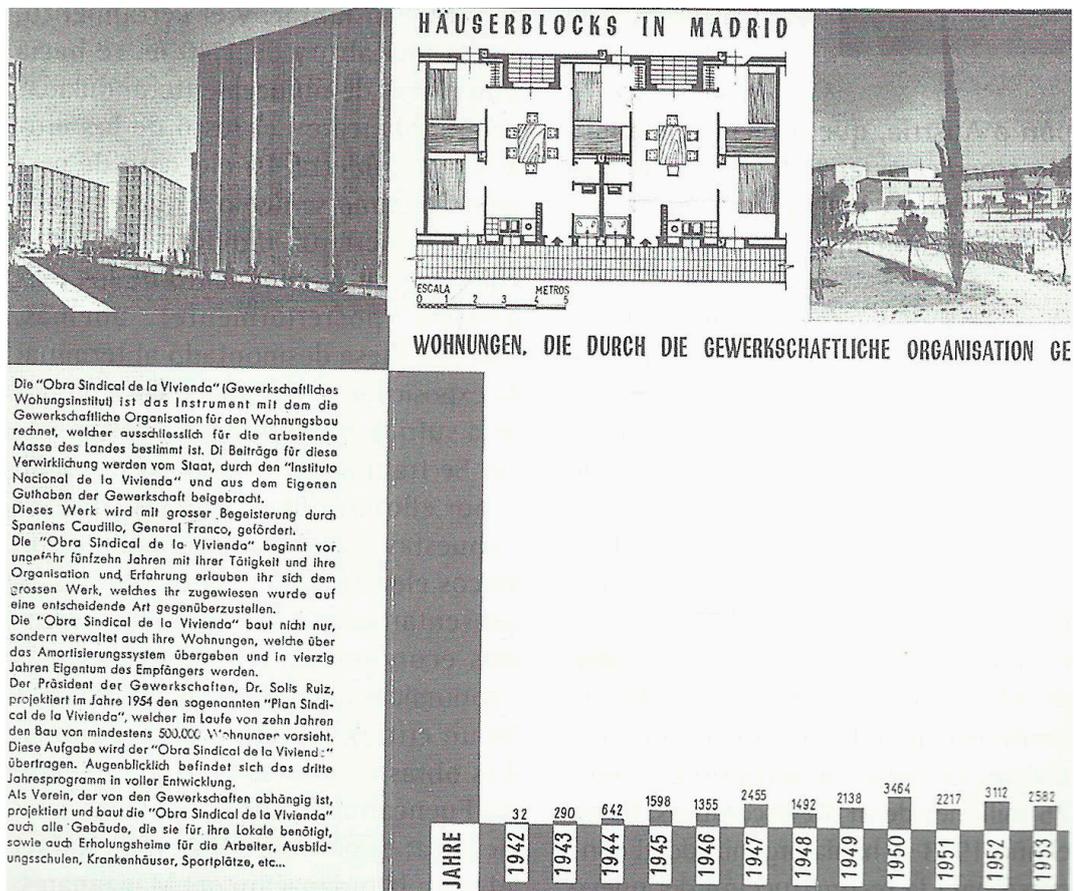


Fig.2.2 Brochure presented by the OSH to the IBA'57.

(Top right: Sáenz de Oíza's *Relocation Settlement of Fuencarral «A»*).

²⁴² See: ESTEBAN MALUENDA, Ana María: «La difusión de la arquitectura moderna en España a través de sus revistas especializadas: los casos alemán e italiano». In: *Modelos alemanes e italianos para España en los años de la postguerra*, op.cit., pp.177-178.

²⁴³ See: GÓMEZ, Marta: «La vivienda madrileña en los certámenes internacionales». In: *Un siglo de vivienda social: 1903-2003*, op.cit., pp.74-76.

But moreover, his international recognition found its niche in the foreign publications with a social housing project in Madrid, where he worked with his usual collaborators of the moment Manuel Sierra, José Luis Romany and Adam Milczynski: the *Batán Colony*²⁴⁴, designed and built for the *Hogar del Empleado* and published in *Werk* in June 1962. Precisely at that time of immaturity and lack of fertility of the Spanish editorial world, the role played by *Werk* magazine in the contribution to the dissemination and consolidation of the –second– modern Spanish architecture of the 1950s at the national and international levels was decisive.

This episode of the editorial history with regard to the two cultures, German (albeit via Switzerland) and Spanish, reveals an indisputable fact: the interest to know each other was bidirectional.²⁴⁵ It is somehow striking and significant that this openness of the Spanish architecture, and in the particular case of Sáenz de Oíza, occurred in German and through the Swiss magazine. Thanks to it, the world could realize that Spain was beginning to awaken from its postwar trauma, and that there was a bright new generation of architects recently graduated from the School of Architecture –the future national masters–, who tried to reconnect with the lost modernity before the war. The fact that foreign eyes from a German-language magazine of Switzerland were the only ones observing their efforts, further strengthened the security and self-confidence of this generation of the 1950s, who was finally convinced of the quality and precision of what they were doing. Consequently, these foreign publications helped them to consolidate and mature as architects. The Swiss magazine, with great impact in central Europe, fixed its attention on the forgotten, backward Spain, which was suffering a sensitive situation in the political, economic and social context, a fact that, according to José Manuel Pozo²⁴⁶, could only mean that they were aware of the importance of these projects and, therefore, *Werk* wanted to be the first to uncover this unknown Spain without fear of being labelled as possible ally of Franco's government.

From 1962, *Werk* used to publish annual reports called *Brief aus Spanien* (“Letter from Spain”). The first “Letter from Spain” was included in its sixth issue (see Fig.2.3) and César Ortiz-Echagüe, Madrid architect and *Werk*'s collaborator, headlined it “Dreissig Jahre Spanische Architektur” (“Thirty Years of Spanish Architecture”). Ortiz-Echagüe was entrusted with the selection of the Spanish projects, which were works

²⁴⁴ See: «Vorortsiedlung Batán: 1958. Architekten Francisco Javier Sáenz de Oíza, José Luis Romany, Manuel Sierra, Barcelona». In: «Thirty Years of Spanish Architecture», *op.cit.*, p.207.

²⁴⁵ The exact facts behind the relationship between *Werk* magazine and the Spanish architecture during those years has already been studied and reported. See: POZO, José Manuel: «Ortiz Echagüe y Fisac. Dos personajes excepcionales separados por *Werk*». *Torrent, H. (ed.) Revistas, Arquitectura y Ciudad. Representaciones en la cultura moderna*. T6 ediciones. Pamplona, 2013. Print. pp.73-102.

²⁴⁶ *Ibid.*, p.90.

that stood out for him or he considered worthy to be published, since the aim of these reports was to show the best architecture produced in Spain annually, but according to Ortiz-Echagüe's criterion. Of the sixteen projects²⁴⁷ included in the proposed list, six were located in Madrid, two of which were social housing projects²⁴⁸, and ten were designed and built by graduated architects from the School of Madrid.²⁴⁹

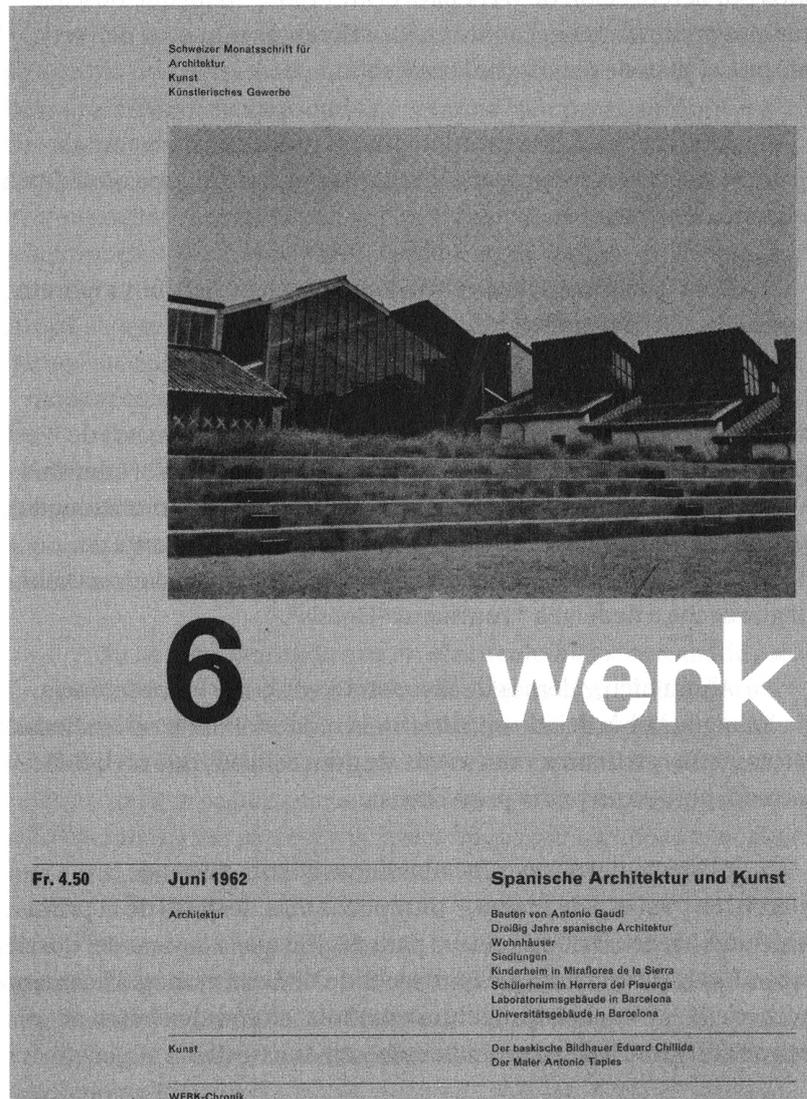


Fig.2.3 «Spanish Architecture and Art». Letter n.1. *Werk* (June, 1962).

²⁴⁷ José Manuel Pozo pointed out that *Werk* rejected several of these works for unknown reasons, although they can be intuited. In: *Ibid.*, p.91.

²⁴⁸ These projects were: the *Directed Settlement of «Caño Roto»* (Madrid, 1957-59) built by José Luis Íñiguez de Onzoño and Antonio Vázquez de Castro, and *Batán Colony* (Madrid, 1955-63).

²⁴⁹ See: POZO, «Ortiz Echagüe y Fisac. Dos personajes excepcionales separados por *Werk*», *op.cit.*, pp.90-91.

Ortiz-Echagüe was in charge of the Spanish projects selection due to two clear circumstances: he could speak German²⁵⁰ and he had an extensive professional network in Spain and abroad. In 1957, Ortiz-Echagüe won the «Reynolds Memorial Award», with Mies van der Rohe and William Dudock as part of the jury among other famous American architects. This recognition let him expand his professional and social network through a long journey along USA to get to know the architecture of the great masters on site, where he met Mies van der Rohe, Richard Neutra, Arne Jacobsen or Josep Lluís Sert personally.²⁵¹ But this fact also enabled him to work as correspondent for *Werk* from August 1961, a collaboration that would last twelve years. Besides, he pronounced various conferences between 1960 and 1962 in Frankfurt, Stuttgart, Munich and Wiesbaden²⁵², where he would speak about the work of his Spanish colleagues. Ortiz-Echagüe thus became a valid communication link between the Spanish architecture and the rest of the world. Nevertheless, these letters were published until 1974, when Ortiz-Echagüe asked to be replaced as a correspondent²⁵³, perhaps because the more than assumed international fame of the Spanish architecture made it not necessary to continue with a specific number dedicated to an architecture that already enjoyed worldwide recognition.

Werk's strategy seemed to be clear, since they published the Spanish architecture that they admired, a simple and powerful architecture far from the nationalist style, unpretentious but with a distinctive character, and it gave rise to two facts: First, that the modern Spanish architecture developed in the fifties began gradually to obtain an unexpected international recognition; and second, the interest shown by the Swiss-German-speaking magazine in an architecture that was based on the pure and simple assimilation of the international architectural culture, but without providing any novelty. It is nevertheless clear that the fact that a foreign architecture magazine like *Werk* included the *Batán Colony*²⁵⁴ with a proto-reportage (see Fig.2.4, Fig.2.5, Fig.2.6) in a publication dedicated to the best examples of Spanish architecture of those years, reinforced the assumption that the social housing settlements designed and built along Madrid's periphery where one of the most outstanding examples of this fruitful period of the fifties. This first letter in *Werk* was also the first time that a work by Sáenz de Oíza was published in a foreign specialized magazine and in particular Germanic,

²⁵⁰ In addition to his studies at the German School in Madrid, Ortiz-Echagüe had been living in Germany between 1984 and 2015.

²⁵¹ In: POZO, «Ortiz Echagüe y Fisac. Dos personajes excepcionales separados por *Werk*», *op.cit.*, p.82.

²⁵² In: *Ibid.*, p.84.

²⁵³ However, he was replaced, which could also be a solid reason for the end of this German-Spanish epistolary relationship.

²⁵⁴ *Werk* made a mistake by situating the Sáenz de Oíza's *Batán Colony* ("Vorortsiedlung Batan") in Barcelona, instead of Madrid. See: «Vorortsiedlung Batan: 1958. Architekten Francisco Javier Sáenz de Oíza, José Luis Romany, Manuel Sierra, Barcelona», *op.cit.*, p.207.

although he repeated in the same magazine with an interview in 1984²⁵⁵, when his fame abroad was already much higher, due to the proliferation of Spanish journals with international circulation and his most spectacular projects, which already enjoyed greater recognition and national and international visibility.²⁵⁶



Fig.2.4 Sáenz de Oíza, Romany, Sierra and Milczynski, *Batán Colony* (Madrid, 1958).
Assembly view. (*Werk*, 1962)



Fig.2.5 *Batán Colony* (Madrid, 1958).
Towers under construction. (*Werk*, 1962)

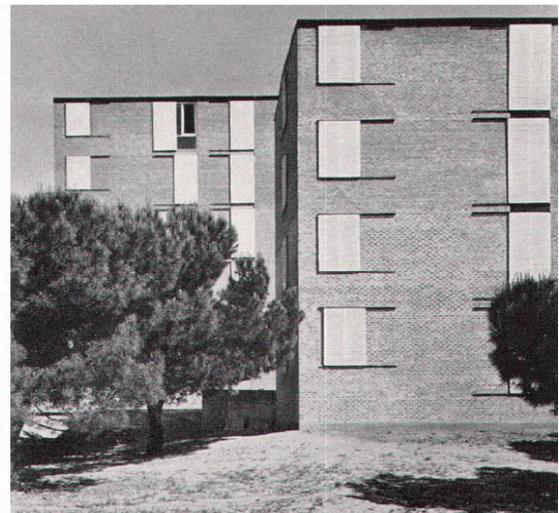


Fig.2.6 *Batán Colony* (Madrid, 1958).
Four-storey block. (*Werk*, 1962)

²⁵⁵ See: «Francisco Sáenz de Oíza, der Regenbogen ist keine Architektur», *op.cit.*, pp.52-53.

²⁵⁶ His former partner Luis Laorga, was already mentioned in 1957 in the German publication *Handbuch moderner Architektur*, but with just a line and with a short reference to his project for the parish church of «*Nuestra Señora del Rosario*» (“Our Lady of the Rosary”, Madrid, 1950), referred as “*Rosenkranzkirche*”. See: ELSÄSSER, Martin, and JASPERT, Reinhard: *Handbuch moderner Architektur*. Safari-Verlag, Berlin, 1957. Print. p.856.

With this panorama during Spain's openness towards Europe and the rest of the world, it was logical that the foreign influences could regain their influence. We can appreciate this if we examine the decade of the fifties, when it is observed that the fresh air of foreign architecture gained strong presence in Spain, especially the influence of the International Style and specifically the buildings designed by Mies van der Rohe, and mostly those built in America. With regard to Madrid's postwar architecture during those years, the strong presence of Mies van der Rohe in the projects of the time is somewhat blurred, but it remains an obvious fact.²⁵⁷ Mies van der Rohe had already had a strong upward impact and influence on the Spanish architects following the construction of the *German Pavilion* for the *1929 International Exposition* in Barcelona. Besides, the first Spanish monograph on Mies van der Rohe was Max Bill's and it was published in 1956²⁵⁸, although the most extensive collection of Mies' work had already been carried out by Philip Johnson in 1947²⁵⁹, a book that was included in Sáenz de Oíza's library, but it was not translated and distributed in Spain until the early sixties.

Precisely throughout this decade of the fifties, one can find in Madrid many examples of works that expressed this interest with which some architects watched Mies van der Rohe's work and decided to take it as a guide to be followed. For them, it was a work that represented the perfect combination between style and technique, in addition to being a more than valuable alternative to recover that lost connection with the European modern architecture, a conversation that was interrupted by the outbreak of the Civil War. Some architects working in Madrid saw in Mies van der Rohe a consistent example and a strong impulse to trace the beginnings of their careers. This is also the case of Sáenz de Oíza, who returned from the United States impacted by the work of the German architect in the new continent and he expressed such admiration in his already mentioned article "El vidrio y la arquitectura". Hence, it was not surprising that he embraced the architecture of Mies van der Rohe as a solid reference for all his subsequent architecture, an admiration that was shared with that of other masters like Hilberseimer or Le Corbusier. With regard to his influences, Sáenz de Oíza stated in 1986 that:

²⁵⁷ For a thorough understanding of Mies van der Rohe's presence in Madrid's architecture, see: LÓPEZ-PELÁEZ, «La difusa presencia de Mies en la arquitectura madrileña = The Diffuse Presence of Mies in the Architecture of Madrid», *op.cit.*, pp.80-93.

²⁵⁸ BILL, Max: *Ludwig Mies van der Rohe*. Il Balcone. Milan, 1955. Spanish Edition by Ediciones Infinito (Buenos Aires, 1956). Print

²⁵⁹ JOHNSON, Philip C.: *Mies van der Rohe*. Museum of Modern Art. New York, 1947. Print. The Spanish edition was published in 1960 by Editorial Victor Lerú (Buenos Aires), while in Germany, Johnson's book was published in 1950 by Verlag Gerd Hatje (Stuttgart).

"I am interested in the line of Le Corbusier, which is monumental in concrete; or Mies, which is Doric in steel."²⁶⁰

Nevertheless, Mies van der Rohe's influence in Sáenz de Oíza's architecture is primarily situated in his unrealised projects, but it also appears in his radical housing projects for the settlements (*Poblados*) built in Madrid, where he took the *Courtyard Houses* as a firm reference, especially in his sketches. One of the first examples in which it is evident the strong Miesian influence on Sáenz de Oíza is the *Chapel on St. James Way*, an unrealised proposal with which Sáenz de Oíza and José Luis Romany won the «National Architecture Prize» in 1954. Considered by Sáenz de Oíza as his "most emblematic and perfect work"²⁶¹, the project was published in *Revista Nacional de Arquitectura*²⁶², and it meant a revolutionary work in the Spanish autarchy's panorama, characterised by a rational architecture, far from what he had learned at the School of Architecture, which served as an instrument to create the form and space of the project through the careful combination of both art and technique. Sáenz de Oíza described his primary thoughts and feelings about the project as followed:

"The *Santiago Chapel* was an interesting time. Controversial. At the time I had travelled a lot around Castile and I had taken a lot of photos of high-tension pylons. I argued with Oteiza and Romany about whether the pylons wrecked or enhanced the Castilian landscape, (...). I told them: "Look, initially the sea is water, but in a second interpretation, the sea is a boat. So the boat doesn't destroy the concept of the sea but rather, on the contrary, it constantly talks about the sea because it is an object that uses the sea for its stability. Without a boat, a sailor is almost bereft of meaning...I told them that the pylons spoke of the immensity of Castile, that they underscored the steppe nature of the tableland..."²⁶³

The Chapel had a powerful image and structure, absolutely revolutionary for the time and circumstances, and very close to the classic proposals of Mies van der Rohe. Sáenz de Oíza and Romany's project presented a three-dimensional duralumin structure floating on a stone plinth sculpted by Jorge Oteiza (see Fig.2.7). Sáenz de Oíza admitted Mies' influence when he recounted the intentions and references behind the proposal with these words:

²⁶⁰ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.46. Translation by the author (R.J.J.). Extract of the interview by PATÓN, Vicente, and CATTERMOLE, Pierluigi: «Entrevista con Sáenz de Oíza». *ON Diseño*, n.68. Barcelona, 1986. Print.

²⁶¹ SÁENZ DE OÍZA, «Respuestas polémicas», *op.cit.*, p.106. Translation by the author (R.J.J.).

²⁶² SÁENZ DE OÍZA, Francisco Javier: «Una capilla en el camino de Santiago». *Revista Nacional de Arquitectura*, n.161. Dirección General de Arquitectura. Madrid, May 1955. p.13.

²⁶³ SÁENZ DE OÍZA, Francisco Javier. Interview by LEVENE, Richard, and MÁRQUEZ, Fernando: Interview in *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.24. Translation by the author (R.J.J.).

"(...) when the competition for the National Architecture Prize came up, we discussed the theme of a Chapel on St. James Way. (...) I remember that the model that I proposed (...) was the reproduction of the *Flagellation of Christ* by Piero della Francesca, which I had at home –which is, by the way, Le Corbusier's favourite painting–. That reference was later replaced by a spatial grid –in a clear reference to Mies van der Rohe–, as a technical object that could qualify the church (...).

(...) It ended up being a beautiful chapel which was essentially a symbolic space with no altar, without a cult. It was a reminder, a shrine, an evocation. One of my best projects..."²⁶⁴

The *Chapel* consisted of three simple elements: a spatial grid resting on four structural supports, a folding roof hanging from the grid and a five-meter-high setback wall which was independent from the main structure (see Fig.2.8, Fig.2.9). The reference to Mies van der Rohe is inevitable, and it was also pointed out by José Manuel López-Peláez:

"In the Chapel project, the intention was to find harmony between the stone and the metallic structure, between heaviness and lightness; (...) between craftsmanship and industrialization, between the old and the new. The idea can be clearly seen: A subtle halo emerges from the stone base, formed by the radiant structure which reflects the sunlight. The substitution of the interplay of volumes beneath the light for an interplay of shining surfaces and reflections is a *Miesian* idea itself."²⁶⁵

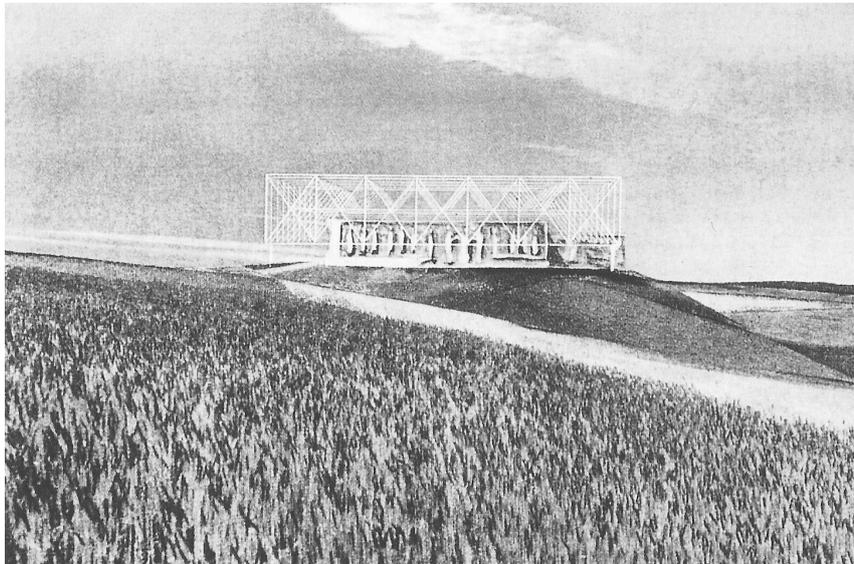


Fig.2.7 Sáenz de Oíza, Romany and Oteiza. *Chapel on St. James Way* (1954).
Perspective of the Chapel.

²⁶⁴ *Ibid.*, p.24. Translation by the author (R.J.J.).

²⁶⁵ LÓPEZ-PELÁEZ, «La difusa presencia de Mies en la arquitectura madrileña = The Diffuse Presence of Mies in the Architecture of Madrid», *op.cit.*, p.81. Translation by the author (R.J.J.).

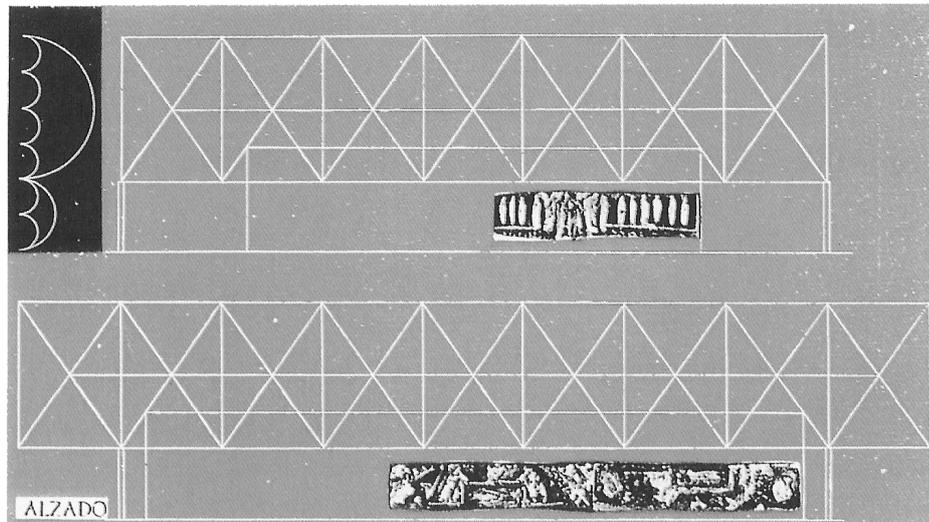


Fig.2.8 *Chapel on St. James Way* (1954). Exterior Chapel elevations with schematic representation of the Oteiza's friezes at wall level.

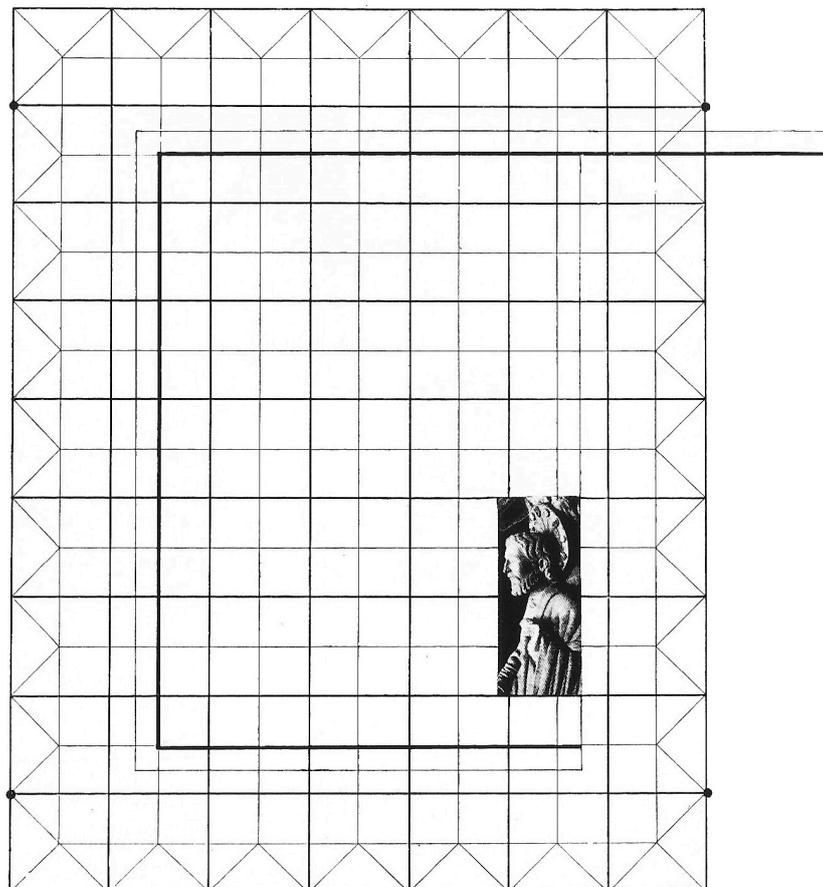


Fig.2.9 *Chapel on St. James Way* (1954). Floor plan.

In short, Sáenz de Oíza's project can be defined as an "export Germanism"²⁶⁶, a tribute to Mies van der Rohe, as he manifested openly with the graphic documents that he presented to the Critical Session (see Fig.2.10, Fig.2.11). The monumental metal structure was a clear manifesto of modernity, according to the technology of its time and with a clear reference to a Mies van der Rohe's unrealised contemporary project: the *Convention Hall* (Chicago, 1953-54). But it is also possible to find other American references: the work of Buckminster Fuller and Konrad Wachsmann of those years, which were focused on covering large spans with steel structures, or even the *Glenn Martin Bomber Assembly Building* (1937) from Albert Kahn²⁶⁷, a project that Mies used in his collage of the *Concert Hall Project* of 1942, which was published by *Architectural Forum*, a magazine which, according to Sáenz de Oíza's son, his father knew and handled during his stay in the United States, and he continued buying it on his return to Spain.²⁶⁸

In those years following World War II, the American architects focused their efforts in investigating long-span structures such as megastructures or containers with an industrial language of metal bars and large trusses that enabled large open spaces for multiple functions. Mies van der Rohe's defiant attitude towards gravity was epitomized when he presented his *Concert Hall Project*. His continuous search for a universal container was a modern approach that did not go unnoticed for the architect Sáenz de Oíza who had had the opportunity to visit the work of Mies in America. As a result, when he returned to Spain, Sáenz de Oíza was fascinated by the megastructures, the large container with a clear, open space, the light metal structure, the hangar, and the machine; but he was also strongly influenced by Mies' concerns on the proportion, the module and the most elementary essence of the construction.

The *Chapel on St. James Way* was a risky and modern project, absolutely radical which was away from any historicist sentimentality because it had an eye to the future, and therefore, toward understanding the most revolutionary foreign architectural trends of the moment. In other words: It was a strong and powerful statement of intention. According to López Peláez:

²⁶⁶ Original term used by Fullaondo: "Germanismo de exportación". In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza, op.cit.*, p.44. Translation by the author (R.J.J.).

²⁶⁷ For further information on this building and the works of Albert Kahn see: BUCCI, Federico: *Albert Kahn: Architect of Ford*. Princeton Archit. Press. Nueva York, 1993. pp.105. Print; SMITH, Terry: *Making the Modern: Industry, Art and Design in America*. University Of Chicago Press. Chicago, 1993. Print; and: HILDEBRAND, Grant: *The Architecture of Albert Kahn*. MIT Press. Cambridge, 1974. Print.

²⁶⁸ SÁENZ GUERRA, Javier: «Aránzazu: "De arriba abajo, de delante a atrás"». *Arantzazu: un monumento del siglo XX*. Ministerio de Cultura, Servicio General de Publicaciones, D.L. Madrid, 2008. Print. pp.2-3.

“It is significant that the project was given the prize despite objections on the part of ecclesiastical representatives and even open criticism by certain members of the jury; the result of the competition reflected a change of sensitivity which favoured the search for new possibilities.”²⁶⁹

The criticisms were possibly due to the absence of the key elements for liturgical functions and all outward sign to reveal its religious function (except Oteiza's reliefs on the exterior walls, which represented scenes from the life of the Apostle St. James). What is clear is that the project helped to open new paths of acting and thinking. It proposed an architecture according to the times, challenging, more advanced and consistent with the new means and tools of the Spanish culture and industry of those years.²⁷⁰ For Sáenz de Oíza, in some way, this project meant a liberation from his own educational constraints, since the *Chapel* was also an opportunity to get rid of certain hindrances from the past, but also to be able to make a declaration of his principles and architecture references through the project. In his own words:

“It was a reaction to the experience in *Arantzazu*. A crystalline, luminous vision; the vision that I had on Architecture at that time.”²⁷¹

²⁶⁹ LÓPEZ-PELÁEZ, «La difusa presencia de Mies en la arquitectura madrileña = The Diffuse Presence of Mies in the Architecture of Madrid», *op.cit.*, p.81.

²⁷⁰ See Sáenz de Oíza's explanations about the project in: SÁENZ GUERRA, Javier: *Francisco Javier Sáenz de Oíza, José Luis Romany, Jorge Oteiza : una Capilla en el Camino de Santiago = a Chapel on St. James Way : 1954*. Project Notebooks Series of the Exhibition “Arquitecturas ausentes del siglo XX”. Editorial Rueda S.L. Madrid, 2004. Print. pp.21-25.

²⁷¹ SÁENZ DE OÍZA. Interview in *El Croquis 32/33. Sáenz de Oíza. 1946-1988*, *op.cit.*, p.24. Translation by the author (R.J.J.).

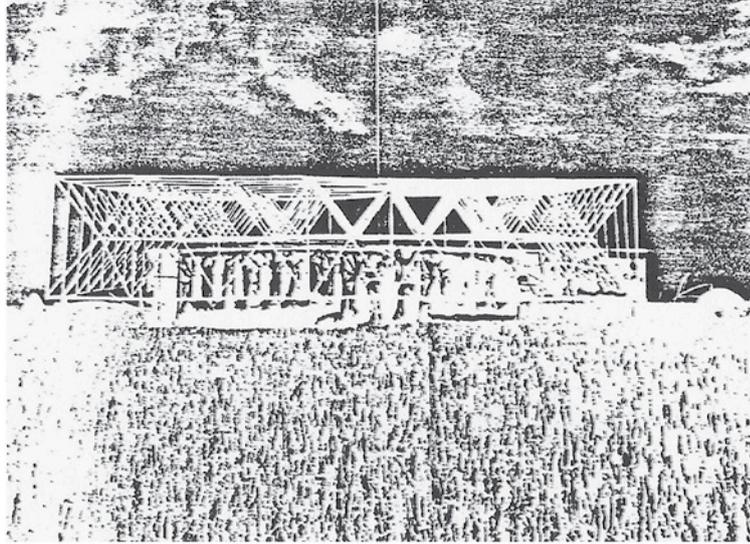


Fig.2.10 Photo of Sáenz de Oíza and Romany's Chapel (1954).
Extract from the documents submitted to the Critical Session.

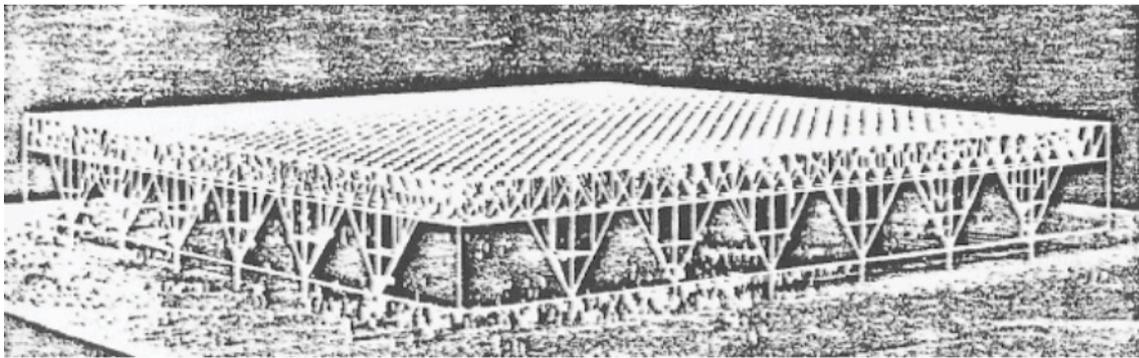


Fig.2.11 Mies van der Rohe, *Convention Hall* (Chicago, 1953-54). Initial structural solution.
Extract from the documents submitted to the Critical Session.

Three years later, Sáenz de Oíza won the competition for the *Public Finance Ministry Delegation of San Sebastian* (1957) together with Manuel Sierra. The project, which was never built, intended to create an office building with a top floor assigned to the Finance Delegate's apartment. The draft project was designed again with a Miesian language, because Sáenz de Oíza proposed an orthogonal grid that released the floor plan, which stood out for its functionality, flexibility of use, and transparency, with a clean corner conceived as a lookout point. With an industrial aesthetic, the building was solved by a metal frame and a curtain wall façade combining glass as main material and aluminium with black marble cloths. Thus, Sáenz de Oíza and Sierra generated a homogeneous and continuous volume that was only interrupted by a recessed corner on the ground floor to accommodate the entrance to the offices (see Fig.2.12). The architects described the solution in a concise but clear manner:

“The outer plastic art must acknowledge honest and simple shapes. An open and plain exterior that easily receives the skylight and also sheds rain easily.”²⁷²

By referring to an honest and simple architecture, or by speaking about simplicity – but not simplistic–, openness, light and sky, but also rainwater, Sáenz de Oíza and Sierra defined their attitude and intentions towards the project. In fact, they confessed their references, specifically that of Mies van der Rohe. The drawings presented to the contest let us recognize immediately the Miesian flair, especially in the will for airiness and brightness, as well as in the calm and free composition, both in the elevation as in the floor plan (see Fig.2.13, Fig.2.14). All features in the *Public Finance Ministry Delegation* resemble to the serenity and cleanliness of the *Seagram Building* (1954-58) and the various projects for government buildings, offices and apartments than Mies van der Rohe built in the United States in those same years, particularly in Chicago.

Once again, Sáenz de Oíza's mathematical compositional logic, almost naked and without immediate emotionalism, became clear in this proposal that, in a sense, meant the end of a cycle, the culmination of a stage. After this, a turning point occurred in his career, and his restless and eclectic character pushed him for a more organic architecture language, a new architectural phase that started with his project for the *Gómez House* in Durana (Vitoria, 1959).

²⁷² In: SÁENZ DE OÍZA, Francisco Javier: «Delegación de Hacienda en San Sebastián». *Revista Nacional de Arquitectura*, n.195. Dirección General de Arquitectura. Madrid, March, 1958. p.1. Translation by the author (R.J.J.).

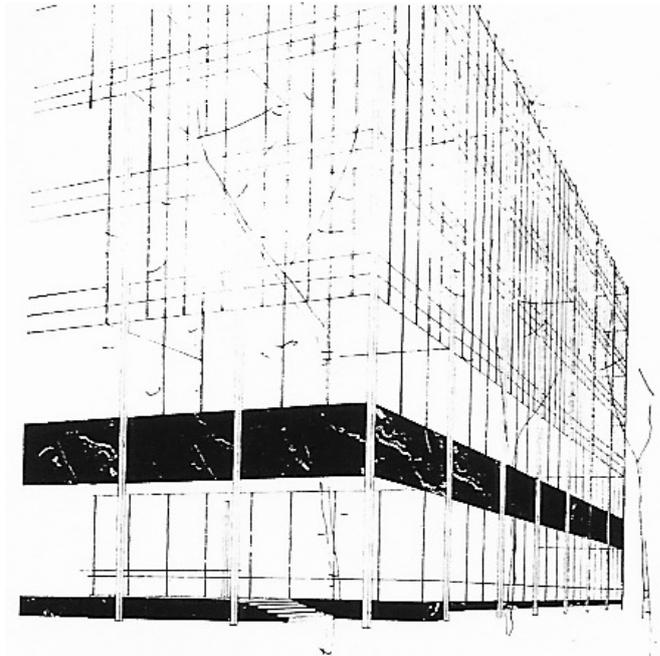


Fig 2.12 Sáenz de Oíza and Sierra, *Public Finance Ministry Delegation of San Sebastian*. Sketch (1957).

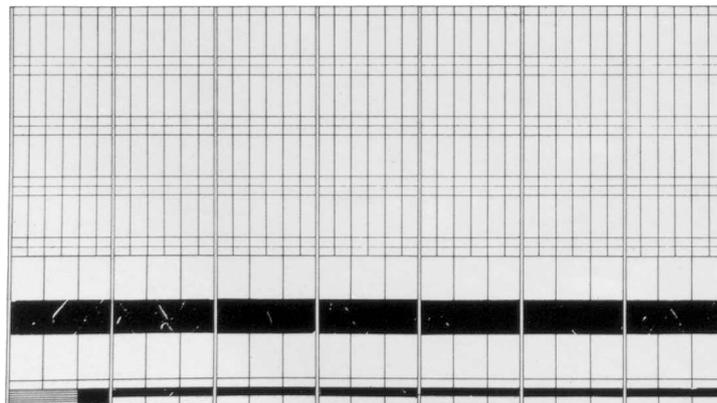


Fig 2.13 Sáenz de Oíza and Sierra, *Public Finance Ministry Delegation of San Sebastian*. Elevation plan(1957).

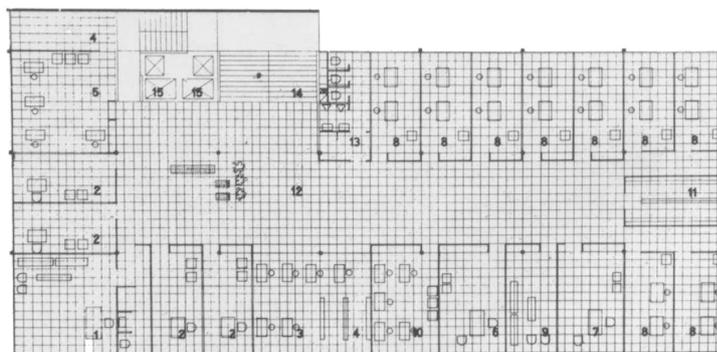


Fig 2.14 Sáenz de Oíza and Sierra, *Public Finance Ministry Delegation of San Sebastian*. Typical floor plan of the offices (1957).

Ultimately, the 1950s arrived in Spain after a decade marked by poverty and isolation, and an architecture characterised by its historicist, nostalgic nationalism and folklorisms, which was gradually abandoned. The hegemony of German architecture as first influence in Spain prior to the war was then shared with other influences that, far from confusing the new generations of architects, helped them to have a wider field of vision, to expand their cultural and architectural background and thus to produce a rich range of architectural influences. These foreign influences were multiple and varied, but adapted to the Spanish idiosyncrasy, constrained with a cottage industry and the absence of a private development that could boost it.

As a result, the decade of the fifties began with a relative return to normalcy favoured by the opening of the country, greater intensity in the flow of foreign information entering the country, and greater contact with the foreign architecture, an influx which would be reflected, above all, in many social housing projects built in Madrid, and therefore, in the urban morphology. The architecture of those years was finally able to break with the postwar historicist trend and a debate on social housing could be seriously raised and discussed. In this sense, the 1950s meant the willingness and opportunity to modify the type of housing that was hitherto designed and built in Spain, and the architectural production of Sáenz de Oíza, both his unrealised work as his social housing construction developed in this period, are an example of this architectural change, and a manifest of the importance of the foreign influences to carry it out.

The Spanish architects needed to find solutions outside of the country, in particular in the European and American architecture, and the specialized journals became aware of such necessity and intensified their work as broadcasters of foreign architecture in Spain. There was, ultimately, a change of mentality, which was also valued on the cover of *Revista Nacional de Arquitectura*, published in 1953, in which a flamenco singer appeared crossed out in a clear statement of rejection of everything that could remind the tradition, folklore or Spanish cliché and, therefore, claiming for a new architecture (see Fig.2.15, left). In the end, it was a statement of intentions along the lines of what Willi Baumeister's poster for Stuttgart's exhibition *»Die Wohnung«* from 1927 represented and vindicated (see Fig.2.15, right). The tone and the strategy are the same, but also the message: It was necessary to get rid of any folkloric, old-fashioned and traditionalist references and models that did not provide suitable answers to solve and deal with the problems, challenges and social requirements of the new times, with a view to the future and through a modern, clear and simple architectural style, which was made possible by the new constructive techniques and, above all, thanks to the efforts, expertise and illusion shown by those architects who were focused on doing the best architecture they could.



Fig.2.15 Left: Cover of *Revista Nacional de Arquitectura* (1953). Right: Willy Baumeister, *Poster for the Exhibition »Die Wohnung«, Weissenhof Estate*. (Stuttgart, 1927).

In terms of international relations, and the socioeconomic and cultural development of the country, the entrance to the fifties would be crucial in the history of Spain for several reasons: the NATO was created in 1949, the end of the blockade of the UN to Spain²⁷³ took place in 1950, the USA Ambassador returned in 1951 and, in 1953, Spain signed the Treaty of Madrid with the United States, allowing them to install a number of military bases in Spain in exchange for economic aid and diplomatic support. Parallel to these events and once the European reconstruction after World War II was overcome, the construction of the welfare state in Western European countries began. All these circumstances marked, inexorably, the social housing production in Spain and, in particular, in Madrid, in a decade of change that allowed the generation of younger architects from the School of Architecture of Madrid to open a gap in the history of Spanish architecture of the twentieth century, by making it possible to reconnect with the foreign modernity, which was re-accepted and adopted as canonical language and a valid tool to address the most serious problem faced by the Spanish society during the 1950s: the social housing, which proved to be a unique experimental laboratory for architecture.

²⁷³ This blockade of Spain occurred in 1946, when the UN ordered its isolation after the end of the Second World War. From then until the unblocking of the country, Spain only maintained relations with the Holy See, Portugal, Argentina and the Dominican Republic.

3. The Modern *Siedlungen* Experience: Influence on Sáenz de Oíza's Social Housing

*"The house should be a complex entity and therefore, it should have a very simple form."*²⁷⁴

Francisco Javier Sáenz de Oíza

The experience of reconstruction in Spain had a different character and peculiarities compared to what happened elsewhere in Europe, particularly in Germany. After the Spanish Civil War, and despite Spain's neutrality during World War II, the military dictatorship of Franco led to an international isolation of the country, and the economy concerned the housing problem and the architectural debate of that time. The needs of reconstruction during the years corresponding to the postwar period (the forties and early fifties) were further aggravated by the weight of the shortcomings dragged historically by a country that had been suffering from long decades of political instability and economic hardship. To these circumstances must be also added a process of rural exodus which happened to be more intense than in Germany, but with much lower levels of economic and industrial development. The weakness of the business fabric and the absence of a social phenomenon, reduced real-estate activity almost exclusively to the initiative of a State with very limited resources. Consequently, the legacy of the Modern Movement in Spain was interrupted.²⁷⁵

At the end of the Second World War in 1945, the American Government pursued the Marshall Plan by investing large amounts of money in the reconstruction of Europe, a fact that allowed Europe to an exit from the crisis, being able to rebuild its industries and communications networks, which greatly improved their condition and position in a few years. While Germany participated in these social and technological circumstances along with France and the Netherlands, Spain was left out of the American influence, due to its neutral status during the war. On the other hand, Germany had already successfully started the path to a domestic industry of previously standardized construction elements, but in Spain and due to the Civil War, with a fierce postwar period behind the country along with Spain's neutral role during the world conflict, the industry lost all the attention. These circumstances led the

²⁷⁴ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.42. Translation by the author (R.J.J.). Extract of the interview: <<En conversación con Vicente Patón y Pierluigi Cattermole, 1986>>, *op.cit.*

²⁷⁵ In an article published in *Arquitectura*, Carlos Sambricio defended the permanence of the Modern Movement in the ideas of the best architects from Madrid. That was the case of Luis Gutiérrez Soto, who used a conservative mask to disguise those projects that were conceived with a different mentality. See: <<La arquitectura española 1939-45: la alternativa falangista>>. In: *Arquitectura*, n.199. Madrid, 1976. pp.77-88.

country into an increase in the already established long delay from the European industrial modernization, with a poor industry and constructive techniques that stagnated in traditional, low-tech, and almost craft solutions, with the brick load-bearing wall as a standard structural solution, with a cheap and unskilled labour, and a situation in which the importation of materials²⁷⁶ or construction techniques was unthinkable. Thus, the Spanish construction was anchored in the more traditional side and linked to the ideology of Franco's regime.²⁷⁷ Moreover, the dissemination activity regarding foreign construction and engineering methods through Spanish journals, which had begun in 1919²⁷⁸, was also interrupted after the war, since the lack of construction materials and the need to rebuild the country forced to focus the architectural concern in other directions. That is why the new magazines such as *Reconstrucción* or *Revista Nacional de Arquitectura* focused on disseminating Spanish artisanal construction methods after the national conflict.

As Carlos Sambricio pointed out²⁷⁹, the culture of standardization appeared in Spain in the twenties through naval and steel companies. In this way, the concept of 'Taylorism' was timidly introduced, although the new research was not oriented to the metal profile, concrete or glass as expected, but to the roof tile and the lining tiles, which are related to a more Spanish traditional construction. The strategy consisted in trying to bring the craft and industry together, as did the *Deutscher Werkbund*, which resulted in an intense debate between those who were advocating a regionalist identity and the 'danger' that involved an excessively standard architecture, and those who defended the progress as inevitable way to solve the problems of their time. The debate on the industrialization of construction advanced during the thirties.²⁸⁰ In 1934 the *Instituto Técnico de la Construcción y la Edificación*²⁸¹ (ITCE: "Technical Institute

²⁷⁶ After the Spanish Civil War and due to the poverty of the postwar period, the country was unable to import them. The political isolation of the Spanish Regime interfered the importation of foreign materials that were also too expensive for the damaged national economy. The expensive repair of national infrastructures and other industries in greater national interest dominated all the resources. In addition, the government raised the prices of the basic elements of construction (cement, iron and brick), especially between 1948 and 1950, within a macroeconomic policy that advocated protectionist domestic production.

²⁷⁷ The Spanish modernization would come much later, from the 1980s onwards and with foreign companies, or the conversion and expansion of some national companies –mainly Basque– that reoriented their market to the construction industry.

²⁷⁸ See: SAMBRICIO, Carlos: «La ingeniería en las revistas españolas de arquitectura: 1920-1936». *Informes de la Construcción*. vol.60, 510. Madrid, April-June 2008. PDF File. 12 November 2014. pp.35-44.

²⁷⁹ See the Spanish debate in the twenties in: SAMBRICIO, Carlos: «La normalización de la arquitectura vernácula». *Revista de Occidente*, n.235. Madrid, December 2000. Print. pp.21-44.

²⁸⁰ With regard to this debate, see: CASINELLO, María José: «Razón científica de la modernidad española en la década de los 50». In: *Actas del Congreso internacional "Los años 50: la arquitectura española y su compromiso con la historia"*. T6 Ediciones S.L. Pamplona, 2000. Print. pp.171-180.

²⁸¹ Located in Madrid, it is a private institution founded in 1934 by a group of Spanish architects and engineers, and it was dedicated to the study and research in the field of construction and materials. It is

of Construction and Building”) was established by a group of engineers and architects involved in the research of modern technologies. Among them, we find the names of Eduardo Torroja and Modesto López Otero, who was Sáenz de Oíza's former teacher at the School of Madrid. The ITCE worked on the industrial prefabrication and the dissemination of foreign experiences and technical novelties through magazines such as *Hormigón y Acero*, soughting their application in the Spanish housing construction, and meanwhile, José María Muguruza devoted himself to the translation of the German DIN. These efforts culminated in 1935 with the appearance of the *Asociación Española de Normalización* (“Spanish Association for Standardization”), and the creation of the *Norma Española* (“Spanish Standard”).²⁸² Consequently, during the decade of the 1930s the concept of standardization in architecture was assumed culturally in Spain.²⁸³

The end of the Civil War and the difficult years of autarchy represented, paradoxically, the best conditions to start a long and complex process of transformation of the construction industry. As it had happened in Germany after the First World War, the strong and unstoppable immigration that large cities such as Madrid, Barcelona, Valencia and Bilbao suffered, combined with a lack of development of new building techniques due to the break of the war, plunged the new government in a state of emergency to provide an immediate solution to the new accommodation needs. The architects from the government were aware of the need for rationality in the construction of new housing and, thus, rebuilding the country was precisely the circumstance that allowed further discussion on standardization, but focused on the housing problem.

As Medina Warmburg pointed out²⁸⁴, in the early postwar years and in the same way as the German totalitarian-type architecture was taken as a valid model to be followed in order to showcase the national identity and the strengths of Francoism, there was also a stream of influence in the field of housing industrialization and typification. In 1942, Ernst Neufert *Architects' Data (Arte de Proyectar en Arquitectura)* was published in Barcelona. Shortly after, two crucial facts happened in Spain in

necessary to recognize the valuable work undertaken by the *Instituto Técnico de la Construcción y la Edificación*, because it was able to understand the true nature of standardization by defending its scientific application in the entire process of housing production.

²⁸² See: SANTAS, Asier: «1950: Una norma española, una arquitectura internacional». In: *Modelos alemanes e italianos para España en los años de postguerra*, op.cit., pp.123-134.

²⁸³ However, the slow evolution of the construction industry, the economic crisis of the 1930s, the Civil War, the lack of communication between architects, engineers and entrepreneurs or the absence of sufficient institutional support were some of the main obstacles that prevented the implementation of a serious standardization.

²⁸⁴ In: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, op.cit., pp.476-478.

terms of construction: while the first German DIN manual translated into Spanish appeared in 1944²⁸⁵, five years later, in 1947, the Spanish edition of the *Einführung in die Din-Normen*²⁸⁶ (*Introducción en la Normalización*) was published. Although, in principle, these technical manuals did not have an important application in the field of housing due to the Spanish technological delay, they served as useful technical compendium and meant a radical change of mentality in the Spanish architects from 1948 onwards since, as Asier Santas noted:

“These and other studies (...) were important because, in addition to being useful as reference tables, they reflected an influence on the architecture from two fundamental facts: First, because their way of doing was engineering; and second, because the references handled were German.”²⁸⁷

As previously mentioned, since the beginning of the postwar period and for more than a decade, the main problem of the country was the reconstruction of those buildings that were considered emblematic, but above all, the efforts focused on the construction of new public housing for the rural people who moved to the urban centres, as well as for those who had lost their homes in the city during the war. In fact, <<the housing problem>> became an accepted popular expression in those years. In 1939, shortly before the end of the Civil War, the *Instituto Nacional de la Vivienda* (INV: “National Housing Institute”) was created²⁸⁸ with the aim of promoting housing and ensure the correct use of it. Next to it, there were a series of public agencies such as the *Dirección General de Regiones Devastadas* or the *Obra Sindical del Hogar* which, although they often applied contradictory policies for action, they collaborated in the reconstruction of the country by developing a rural architecture in which inherited patterns of European rationalists experiences were implemented.

²⁸⁵ See: BALZOLA, Martín: *Manual 1 DIN*. Editorial Balzola. Bilbao, 1994. Print.

²⁸⁶ Original publication: ZIMMERMANN, W., BÖDDRICH, E.: *Einführung in die Din-Normen*. Reichsinstitut für Berufsausbildung Handel und Gewerbe. Published by B. G. Teubner Leipzig/Berlin, 1939. Print. The Spanish edition was also translated by Martín Balzola Menchaca and published in 1947 by Editorial Balzola (Bilbao).

²⁸⁷ SANTAS, Asier: <<1950: Una norma española, una arquitectura internacional>>. In: *Modelos alemanes e italianos para España en los años de postguerra*, *op.cit.*, p.128. Translation by the author (R.J.J.).

²⁸⁸ The *Instituto Nacional de la Vivienda* was set up on 19 April 1939. At first, it was dependent on the Organización Sindical (“Trade Union Organization”) and later (2 January 1942) on the Ministry of Labour. The INV performed the following tasks: to impose sanctions, to enact ordinances of protected buildings and approve and qualify their construction projects; to control the good use of the housing, and to inspect all approved projects. In relation to the activities developed by the INV in postwar Madrid and, above all, to the specific case of the *Directed Settlements*, see: ESTEBAN MALUENDA, <<La vivienda social española en la década de los 50: Un paseo por los poblados dirigidos de Madrid>>, *op.cit.*, pp. 55-80. See also: SAMBRICIO, Carlos, ed.: *La vivienda en Madrid en la década de los años 50: el Plan de Urgencia Social*. Ayuntamiento de Madrid, Ministerio de Fomento, 1999. Print.

Therefore, with a country without means and a policy of autarchy driven by the regime, the Spanish postwar reconstruction would be mainly based in agriculture, and while *Regiones Devastadas* assumed the role in promoting the construction of rural communities, in Madrid, Luis Pérez Mínguez and Pedro Bidagor, who had travelled to Berlin by grants awarded by the JAE²⁸⁹, theorized about the new image of a capital in ruins. However, the reality was that since the end of the War (1939) and until 1943, hardly any dwellings were built or rebuilt. According to Carlos Sambricio's definition, "in 1943, reconstruction meant rebuilding areas of the city destroyed by bombing but not building destroyed houses"²⁹⁰. Until 1949, the Spanish housing policies were concerned about the discussion on popular architecture and the elimination of the shanty settlements. Thereafter, the housing policy experienced a transformation due to the rising price of materials and the increase in the active labour force, and the debate on industrialization of architecture was retaken. It is precisely at this time when the architects of the OSH and the INV became concerned about foreign experiences, thus posing a debate on the reconstruction, which was similar to the one that was also taking place in Europe in those years.

On the other hand, Madrid has always been a traditional core of national migration, and between the decade of the 1940s and early 1950s, when Spain still accused the serious consequences of the Civil War, the situation worsened.²⁹¹ Nevertheless, at the beginning of the 1950s, the country began to enjoy an economic growth with an initial opening to the outside, and the new economic situation encouraged the mobility of people seeking better employment opportunities. The harsh living conditions of rural Spain forced many people to emigrate to industrialized cities that offered a wider range of opportunities in comparison with the punished world of the field, and thus, a migration to the city movement began: from the most backward rural areas in southern and central Iberian Peninsula, to the most industrialized urban areas with the highest living standards. That is, the Spanish periphery and Madrid, which experienced the most significant flood of immigrants.²⁹²

²⁸⁹ To learn more about Pérez Mínguez and Bidagor and their relationship with Germany, see: MEDINA WARMBURG, *Projizierte Moderne. Deutschsprachige Architekten und Städtebauer in Spanien: Dialog – Abhängigkeit – Polemik (1918-36)*, op.cit., pp.469-470.

²⁹⁰ SAMBRICIO, Carlos: «La vivienda en Madrid, de 1939 al Plan de Vivienda Social, en 1959». In: *La vivienda en Madrid en la década de los años 50: el Plan de Urgencia Social*, op.cit., p.16. Translation by the author (R.J.J.).

²⁹¹ For further details on the issue of the evolution of migration in Madrid, see: JLL & JRP: «Historia y desarrollo de la ciudad de Madrid: Madrid, siglo XX. Capital de la nueva España». *Nova*. 2000. JLL & JRP. Web. 24 April 2015.

²⁹² With regard to rural immigration of Madrid, the following works can be highlighted: CABO ALONSO, Ángel: «Estudios Geográficos». *Valor de la inmigración madrileña*. Madrid, 1961. Print. pp.353-374; and also: SIGUÁN, Miguel: *Del campo al suburbio. Un estudio sobre la inmigración interior de España*. C.S.I.C. 1959. Print.

But the reality for the families coming from the rural areas was different. At the beginning of the 1950s, the landscape of the suburbs of Madrid was a bleak picture of endless slums (see Fig.3.1, top). On mounds of garbage and dust, flourished, as the Spanish writer Luis Martín-Santos described, “the superb fortress of misery”²⁹³, small buildings painted with lime and makeshift stoves to face the severe cold of the capital during the winter period. The malnourished children used to play barefoot among stray dogs and chickens, improvising toys from the rubble they found in their way (see Fig.3.1, middle). The inhabitants were families of the working class who came with their meager savings, a mattress that could be shared by the parents and their children, and the self-conviction that they could find a warm house sublet by a close acquaintance in Madrid, where they expected a better life and the recovery of their lost illusions after the ravages of war.

These countless shanty towns were set up along Madrid's periphery and formed by ingenious constructions that were generally cold, smelly spaces full of junk and pessimistic environment. They were erected in just a few hours or even overnight on rustic grounds divided by their owners in plots of approximately 60 sqm, which were occupied by several families without any kind of services or basic infrastructure such as water, electricity and sewerage (see Fig.3.1, bottom).

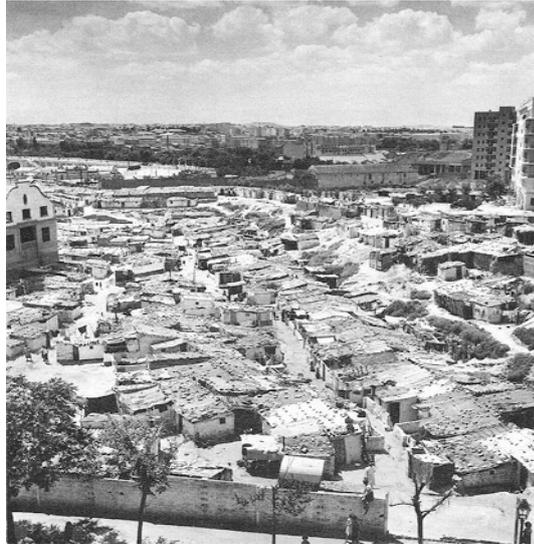


Fig.3.1 Slums in the suburbs of Madrid (1956).

²⁹³ MARTÍN-SANTOS, Luis: *Tiempo de silencio*. Editorial Seix Barral, S.A. Barcelona, 1961. Print. p.49. Translation by the author (R.J.J.).

Many of these families were people from the countryside who came to Madrid to build new houses for the upper classes, and they found difficulties to settle into the big city, posing a social problem that the Spanish government, who always boasted of social concern, could not ignore. In other words, the construction, which was the fundamental industrial engine of the city, thus became the main driving force behind the migratory movements towards the cities, and in this case, towards Madrid. In relation to the migration of rural people to the cities Sáenz de Oíza commented that:

“It has been said too many times that the country people come to the city to find work; It is not true: They come to find freedom. The rural environment is structurally poor. In the city, however, the man enters into a network of connections and relationships: friendships, jobs, aspects, ways of being. That is the profound reason that leads to the urban lifestyle.”²⁹⁴

The precarious situation of these makeshift shelters had an immediate response: while the nuclei of substandard housing was growing in the Spanish capital, the neighbours were becoming aware of their immediate collective needs: water, light, basic infrastructures such as collectors for wastewater, sinks or disposal units, and the asphaltting of the streets. The residents demanded urgent decent housing through demonstrations that forced the official bodies to impose a new model demanded by all neighbours. Thus, the unexpected need to build new dwellings led to a radical change in the situation of the Spanish construction. Due to the lack of private initiative in the problem of social housing, the state was forced to issue regulations that could encourage the construction of housing for the lower classes.²⁹⁵

Something similar had happened in Europe, where the cities had increased their population since the nineteenth century, and the lack of decent housing that could fulfilled hygiene, ventilation, sunlight and privacy conditions, caused intolerable urban densities. Given the new social needs, the Spanish politicians saw in social housing policies a suitable response for the working classes, but also for the survival of the cities. In Germany, the situation in the cities reached an alarming level after the First World War, since the cessation of the construction activities during the conflict and the rising cost of materials, land and labour, caused the need to change the housing construction, and the state had to assume the task to protect the lower classes. As in Spain, the misfortune became opportunity, and the circumstances sparked a debate on social housing, where the ideals of the architects of the Modern Movement such as the industrialization of construction, the machine age, the standardization and

²⁹⁴ SÁENZ DE OÍZA, *Conversaciones en Madrid, op.cit.*, p.144.

²⁹⁵ See: MONEO, Rafael: «Madrid: los últimos veinticinco años. (1940-1965)». *Hogar y Arquitectura*, n.75. March-April, 1968. Print. pp.47-59.

streamlining of constructive means, found an appropriate place for experimentation. In this way, it was proved that the recovery of modern architecture could bring social benefits and, therefore, improve the society.

On the occasion of the opening of the country and its economic recovery during the decade of the fifties, the debate on the rationalization of construction methods was resumed in Spain, and in particular in Madrid. The need for housing led to this change because the high demand could not be attended from the appliance of artisanal and traditional means, and therefore, the introduction of standardization in architecture was, in this Spanish context, a key concept. But speaking about industrialization of architecture involved speaking about prefabrication. In Spain, there was a growing awareness that, in order to improve the production methods, especially in terms of social housing, the means of production ought to be changed necessarily. These concepts appeared in the CIAM II celebrated in Frankfurt in 1929, where important reflections were made on the issue of minimum housing (<<*Existenzminimum*>>) after Ernst May's experience in Frankfurt. However, the rationalization of the building systems and standardization of materials and dimensions in Spain was an almost unexplored path after the Civil War, while they had been successful abroad before the 1920s.

The disadvantaged position of Spain in the 1950s in terms of modern and standard social housing was therefore more than evident. As aforementioned, the foreign publications barely arrived in the country during the postwar period, but neither did the steel construction. In fact, the shortages of this material determined the structural spans in the housing construction, and consequently, rather than implementing a process of industrialization, the construction industry was based on the standardization of building elements. This cultural and technological distance with respect to Europe, together with the lack of industrial and economic means, encouraged the development of a cheap architecture and technology, with certain autochthonous character and defined by the use of traditional materials such as the characteristic exposed brick, still very present in the Spanish housing construction.²⁹⁶

Undoubtedly, the social housing policies and proposals carried out between 1939 and 1959 in Spain²⁹⁷ were somehow related to the experiences and findings that took place in Germany with the creation of the *Siedlungen* for the working class. The different solutions proposed in Germany after the First World War were varied and,

²⁹⁶ It was not until the 1960s when the international architecture of reinforced concrete and steel was finally expanded in Spain.

²⁹⁷ With regard to the social housing policies carried out in Madrid between 1939 and 1959, see: SAMBRICIO, <<La vivienda en Madrid, de 1939 al Plan de Vivienda Social, en 1959>>, *op.cit.*, pp.13-84.

among them, the artistic innovation in the several proposals from Scharoun and Gropius in Berlin, the architectural experimentation and prefabrication of Ernst May in Frankfurt, the political influence in the housing solutions in the case of Hamburg with Fritz Schumacher, and the application of new construction techniques, as was the case of Martin Wagner in Berlin, were prominent. The city of Madrid owes much to the investigations and designs that were made in Germany in the twenties, a time of major proposals in the architecture, urban planning and construction. Therefore, from the point of view of social housing and in particular in Madrid during the decade of the fifties, the debate in postwar Spain also reactivated the German influence. Some of the best social housing projects in Madrid during the 1950s assimilated these German standards. The architects working in the *Directed Settlements* –or *Madridenian Siedlungen*–, among which Sáenz de Oíza's proposal for *Entrevías* was noteworthy, applied modulation and dimensional coordination following the basis of the German rationalist orthodoxy. The normalization served to systematize work processes in a logical assembly line, improving the organization and reducing the unnecessary work and means, even facilitating the self-construction, as it had been the strategy carried out in the *Siedlungen* of the 1920s.²⁹⁸

Furthermore, Madrid's social housing of the 1950s was also an attempt to introduce the standardization in the construction process. Actually, the word 'standard' became widespread during the 1950s among the Spanish architects, because it was considered one of the most effective tools to solve the serious problem that the country was experiencing: the lack of decent and affordable housing. The Spanish architects introduced the modern European concept of 'housing', which was considered an object that could be produced in large scale. This involved the introduction of the idea of standardization in all new social housing developments. The generalization of these standards in the Spanish architecture was, in this sense, the result of a sum of nurturing factors that occurred after the Civil War: the general will to solve the problem of affordable housing, the economic growth after the national conflict, as well as the gradual recovery of heavy industry and the support of some entrepreneurs. But, above all, the efforts to achieve a standard architecture were possible due to the work and dedication of those architects and engineers that took up again the study of German and American progress on the matter, in order to suit the needs and circumstances of the country.

Although the Spanish reconstruction is not comparable to the one carried out in Europe after the Second World War, it is evident that theories and examples

²⁹⁸ María Antonia Fernández Nieto pointed out that "housing in the second half of the 20th century is held thanks to developing systematic types and standards elaborated in the interwar years and which are systematically used by this new generation." In: FERNANDEZ NIETO, *op.cit.*, pp.60-61.

discussed and widely disseminated by the CIAM had an important weight in the social housing solutions that were applied in Spain in the 1950s, but with twenty years of delay. In particular, the experience of Frankfurt, which had been disseminated through the magazine *Das Neue Frankfurt* and was widely known and studied in Europe. Frankfurt was Ernst May's opportunity to implement his concepts of a modern «*Existenzminimum*», extensively discussed in the CIAM II, which were republished after the Second World War and arrived in Spain during the postwar period, and whose influence in the work of Sáenz de Oíza is notorious. Moreover, an article signed by Alexander Klein²⁹⁹ was published in *Revista Nacional de Arquitectura* in 1948, and his work returned to be reissued and studied in Spain in the 1950s. Thus, the investigations on the composition of the minimum housing, along with the dissemination of German models relating to prefabrication systems, penetrated in Spain.

The Spanish critics have agreed in indicating the year 1949 as the remarkable beginning of the Spanish opening to the type of construction taking place outside its borders.³⁰⁰ From then on, some architects would have the opportunity to travel to various countries, mainly in Europe³⁰¹, where they found the opportunity to study and visit many examples of modern architecture for the very first time. Therefore, it was at the change of decade when the Spanish architecture broke with the ideology of the regime, recovered its social character and gave way to a serious investigation on the social housing based on the postulates of the Modern Movement.

In this sense, the solution to the housing problem in Spain was the pursuit of minimum housing models to recover the rationalist discourse that had been initiated before the Civil War. Along with the trips abroad, the Spanish architects, and in particular those participating in the experience of social housing in Madrid during the decade of the fifties, would seek and study these foreign models through the numerous articles on social housing built in Germany, Netherlands, England or Nordic countries that were published in the Spanish specialized magazines in those years.

In this changing environment, the *V Asamblea Nacional de Arquitectos* (“National Assembly of Architects”) was held in May 1949 in several Spanish cities³⁰², where new

²⁹⁹ KLEIN, Alexander: «Contribución al problema de la vivienda». *Revista Nacional de Arquitectura*, n.75. Dirección General de Arquitectura. Madrid, 1948. Print. p.65.

³⁰⁰ To understand the debate on social housing and industrialization of construction in Spain during those years, see: SAMBRICIO, «La vivienda en Madrid en la década de los cincuenta», *op.cit.*, pp.353-365.

³⁰¹ As previously seen, in the case of Sáenz de Oíza, the destination was the United States.

³⁰² The *V Asamblea Nacional de Arquitectos* took place in May 1949 and it was held in Barcelona, Palma de Mallorca and Valencia. With regard to this event, see: «La V Asamblea Nacional de Arquitectos:

materials and constructive methods to improve the building of low-income housing where discussed. The Italian architect Alberto Sartoris, an assistant to the *Asamblea* along with Gio Ponti³⁰³, gave a lecture on the topic *Orientamenti dell'Architettura contemporanea* ("Guidelines of contemporary architecture"), in which he stated that the modern architecture was represented by two groups: the one following the American architect Frank Lloyd Wright, and another one that followed Le Corbusier. However, according to Sartoris, "between the two there was space for the independent architects who want to rebuild Europe"³⁰⁴. Following the reasoning of Sartoris, Sáenz de Oíza would have possibly suited in any of the aforementioned groups without serious contradictions.

On the other hand, several exhibitions were held in Germany on the issue of housing between 1949 and 1951, which were attended by several Spanish architects from the INV and the OSH. One of them was the exhibition *Wie Wohnen?*³⁰⁵, held in Stuttgart from the 5 December 1949 until 31 January 1950 and in which housing prototypes at a scale of 1:1 were presented. A year later, the *Constructa Building Exhibition* was held in Hanover, which was more oriented to the construction industry. The Spanish representatives who attended these German exhibitions were impressed with what they saw and became aware of the mechanisms to address not only a successful social housing policy in their own country, but also the architectural issues inherent to it. Thus, these German exhibitions allowed the OSH and the INV technicians to know German solutions in terms of housing typologies and housing policies.

Special emphasis was placed on the two-storey row houses designed by the brothers Hans and Wassili Luckhardt for the *Constructa '51* (see Fig.3.2), which became a reference for many Spanish housing solutions. In fact, the Luckhardt brothers' proposal changed the way to understand how to address the housing problem in Spain, because the Spanish architects –and particularly in Madrid–, understood that the key to resolve the housing problem lay in the study of the floor space, whose layout, distribution and surface was much more austere, simple and reduced in the case of the radical row houses designed by Sáenz de Oíza.

Barcelona-Palma de Mallorca-Valencia>>. *Cuadernos de Arquitectura*, n.10. COAC. Barcelona, 1949. pp.2-5. PDF File. 4 May 2015; and also: SANTAS, Asier: <<La V Asamblea Nacional de Arquitectos. El inicio de un cambio>>. In: *Un siglo de vivienda social: 1903-2003, op.cit.*, pp.31-33.

³⁰³ Both Alberto Sartoris and Gio Ponti were published regularly in many Spanish magazines of that time.

³⁰⁴ Quoted in: <<La V Asamblea Nacional de Arquitectos: Barcelona-Palma de Mallorca-Valencia>>, *op.cit.*, p.5. Translation by the author (R.J.J.).

³⁰⁵ See: SCHNELLBACH, and BAURAT SCHLEICHER: <<Wie wohnen?: Ausstellung im Stuttgarter Landesgewerbemuseum vom 3. Dezember 1949 bis 31. Januar 1950>>. In: Heft 7. (*Das Werk*. Archive ETH Bibliothek. Zürich, June 1947-49. PDF File. 9 November 2015. p.44.

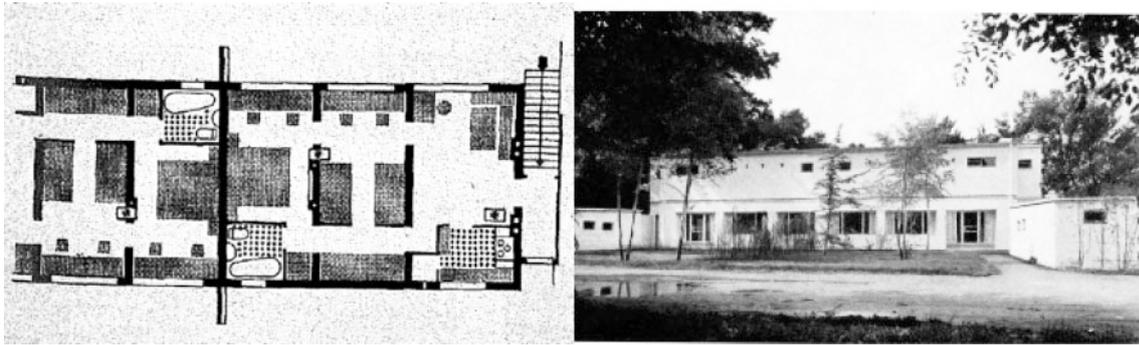


Fig.3.2 Hans and Wassili Luckhardt, *Exhibited Dwellings at «Constructa 1951»*.

Moreover, in the late 1940s and already in the decade of the 1950s, different national and international competitions³⁰⁶ were also held in Madrid and Barcelona to test and promote the industrialization in the housing construction, and the debate on housing focused not only on analyzing European housing models of the interwar period, but the debate on the European reconstruction was also assumed, especially that of Germany and Italy due to their good political relations with Spain. In particular, the *Experimental Housing Competition*, in which Sáenz de Oíza participated, was held in Madrid in 1956, with the aim of investigating and testing the possibility of normalizing prefabricated construction elements³⁰⁷, and thus to study different construction techniques on the basis of the same typical floor plan set out in the competition, so that all the teams participating had to build the different proposals at a scale of 1:1. In this sense, the competition and its approaches were a clear reference to the German exhibition experiences, from the *Weissenhof* to the *Constructa '51*. Although a total of 53 proposals were submitted to the competition, which allowed the development of new patents and the prefabrication of elements such as walls, joinery, taps or fireplaces, through the construction companies with which the architects participated, the result was quite monotonous, without great results or innovative contributions, since all the teams worked on the base of a typical floor plan and the Spanish constructive reality did not allow great achievements.³⁰⁸

³⁰⁶ For more detailed information regarding these Spanish competitions, see: SAMBRICIO: «Torroja y el concurso internacional de vivienda prefabricada de 1949». In: *Un siglo de vivienda social: 1903-2003*, *op.cit.*, pp.34-37; SAMBRICIO, «La vivienda en Madrid en la década de los cincuenta», *op.cit.*, pp.353-365; SAMBRICIO, Carlos, ed.: *La vivienda experimental. Concurso de viviendas experimentales de 1956*. Fundación Cultural COAM. Madrid, 1997. Print; and also: HURTADO TORÁN, Eva: «El concurso de vivienda experimental». In: *Un siglo de vivienda social: 1903-2003*, *op.cit.*, pp.65-67.

³⁰⁷ Carlos Sambricio noted that the concept of prefabrication in Spain in those years meant the standardization of construction elements, in line with the debate on the «type» initiated by the *Deutscher Werkbund* introduced in Spain by Luis Lacasa. In: SAMBRICIO, «La vivienda en Madrid, de 1939 al Plan de Vivienda Social, en 1959», *op.cit.*, pp.55-56.

³⁰⁸ With regard to Madrid's *Experimental Housing Competition* of 1956, see: VV.AA.: *El Concurso de Vivienda Experimental de 1956*. COAM. Madrid, 1998. Print.

But, while the housing policies and their attempts to promote the industrialization of the housing construction did not meet the expectations, there were still some specific applications of normalization, which were exclusively focused on the constructive elements. Thus, the housing industrialization in the mid-fifties, which was tested in Madrid's *Experimental Housing Competition* and exemplified in the works of Sáenz de Oíza, would rely on the modulation of constructive elements defined in floor plans and elevation plans, as well as on the effort for a metric and dimensional precision of rationalist basis. In short, it was an industrialization based on the economy of means, with a rationalization of the traditional methods through the normalization of elements and the control of dimensions, a circumstance that led Sáenz de Oíza to study the optimization of the geometry and streamline the concentration of all sanitary facilities, both common design strategies in all his social housing projects.

Since the end of the Civil War and until the decade of the sixties, the Spanish legal framework presented a confusing picture, with plans, agencies and laws that were accumulated and resulted in unstable and ineffective social housing policies. Until 1954, the shortage of materials and the limited financial resources hindered a successful work by the INV, but on 15 July of the same year, the *Ley de Viviendas de Renta Limitada*³⁰⁹ ("Limited Income Housing Act") was published, a law that regulated the construction of Sáenz de Oíza's radical settlements (<<*Poblados*>>) in Madrid, resuming the previous laws by naming the housing typologies depending on two different strategies of action: Group I (rent-controlled houses) and Group II (sheltered or state-protected houses). This law was intended to organize the process of building new dwellings in a more sophisticated and participatory manner, seeking the involvement of construction companies, financial institutions and even the families.

But moreover, the law defined the characteristics that the housing should meet in order to be considered social and be approved by the INV. Thus, two housing types were established: reduced (with surfaces between 60 sqm and 100 sqm) and minimum (with surfaces between 35 sqm and 58 sqm). The single-family dwellings in a row designed by Sáenz de Oíza in the settlements of *Fuencarral <<A>>*, the *Experimental Housing Competition* and *Entrevías* belonged to the latter housing type.³¹⁰

³⁰⁹ For more information about the requirements of the law, see: FERNÁNDEZ NIETO, pp.40-43. And also: SAMBRICIO, <<La vivienda en Madrid en la década de los cincuenta>>, *op.cit.*, pp.390-392.

³¹⁰ However, while the *Directed Settlements* like *Entrevías* met the need for housing of the migrants who came from the countryside and the access to housing was solved through the combination between private property and personal allowance, the *Relocation Settlements* were aimed to accommodate the inhabitants of the slums by providing rental housing.

In addition to these housing types, the INV raised another type of housing: the 'social type', which was aimed at the weakest economic classes and with a maximum area of 42 sqm distributed in three bedrooms, one kitchen-dining-room and one toilet, which should not exceed a total cost of 25,000 *pesetas*³¹¹. However, The important part of this act was that, along with the definition of floor plan types, surfaces, costs and the standardization of building elements, it advocated for the use of the open block against the blocks with a courtyard, because it could be adjusted to the site's contour lines with minimal movements in the floor plan. In this connection, the open block would also be the most common typology used by Sáenz de Oíza in his social housing projects, particularly in the colonies for the *Hogar del Empleado*.

One year later, in 1955, the *Plan Nacional de Vivienda*³¹² ("National Housing Plan") for the construction of 550,000 low-rent housing³¹³ was approved, and it included a specific plan for Madrid in which Sáenz de Oíza's housing projects in *Fuencarral* <<A>, the *Experimental Housing Competition*, and *Entrevías* were enrolled. Furthermore, due to the large-scale arrival of rural families in the capital, the State was forced to intervene to resolve what was starting to raise as inevitable: to encourage the construction of housing for the lower classes. To this aim, it was necessary to set up an action plan to regulate the urban interventions, and this is how the *Plan de Urgencia Social* ("Social Urgency Plan") emerged. The plan, adopted on 13 November 1957 and promoted by the already established *Ministerio de Vivienda*³¹⁴ ("Ministry of Housing"), included the construction of 60,000 homes distributed in the periphery and the centre of Madrid³¹⁵, in order to meet the urgent social needs in the capital, caused by the increase in population due to the massive migration from the countryside to the cities, and the progressive expansion of the city. All colonies designed by Sáenz de Oíza and his team colleagues for the *Hogar del Empleado* were enrolled in this plan, except for the *Loyola Colony*.³¹⁶

³¹¹ 150.25 euros.

³¹² *Decreto I Plan Nacional de la Vivienda 1955-1960*, 1 July 1955. See: SAMBRICIO, <<La vivienda en Madrid en la década de los cincuenta>>, *op.cit.*, p.396.

³¹³ In: SAMBRICIO, <<La vivienda en Madrid, de 1939 al Plan de Vivienda Social, en 1959>>, *op.cit.*, p.51.

³¹⁴ The *Spanish Ministry of Housing*, with head office in Madrid, was created in 1957 during the dictatorship of General Franco, and it was the department responsible for carrying out the administrative action in the field of housing, architecture and urbanism, bringing together various existing bodies: *Dirección General de Regiones Devastadas*, *Dirección General de Arquitectura y Urbanismo* and *Instituto Nacional de la Vivienda*.

³¹⁵ In: SAMBRICIO, <<La vivienda en Madrid en la década de los cincuenta>>, *op.cit.*, p.412. With regard to the *Plan de Urgencia Social*, see also: SAMBRICIO, <<La vivienda en Madrid, de 1939 al Plan de Vivienda Social, en 1959>>, *op.cit.*, pp.13-84.

³¹⁶ This project was built under the *II National Housing Plan* of 1961.

But, while in the German *Siedlungen* of the 1920s the concept of a city development from satellite nuclei was implemented, especially in May's performances in Frankfurt, the same strategy was undertaken in Madrid through the *Relocation* and *Directed Settlements* during the 1950s and, with some nuances, in the *Hogar del Empleado's* colonies. However, the town planning actions and architectural language proposed in many social housing projects in Madrid during those years responded generally to a simple mimesis, rather than a profound study and analysis of the characteristics of their European precedents, a circumstance that did not occur in the work of Sáenz de Oíza, in which the references were assimilated with an analytical and critical sense.

In all the social housing projects designed by Sáenz de Oíza, the economy was taken as a maxim of architectural action, beyond any style or representation that were more in line with what was enacted from the official bodies. In this regard, the social housing of the 1950s in Madrid represented a postwar rationalism³¹⁸, which did not reflect the American spirit. Due to the circumstances of the time, they arose from European prototypes, with a functional architecture away from the ideology of the government. The situation of social urgency that stimulated the construction of new minimum-budget housing with shortage of material resources allowed these architects to ignore the monumental character and the excessive burden of representativeness that was required by the government agencies in all new urban buildings. Thus, the architects in Madrid began to implement the proposals of the Modern Movement, but in a natural and almost unintended way, without trauma, too much criticism or ideological clashes.

In general, the young Spanish architects who had studied at the School of Architecture of Madrid and were designing social housing in Madrid did not have a solid urban planning basis during their studies in architecture, since the subject was only studied in the last year of university³¹⁹ and they had to access to the urbanistic theories through foreign publications or self-study. The opportunity to think and develop a new city model allowed these architects, who belonged to the third generation of the International Style, to experiment with urban planning and act with relative freedom. Madrid's periphery was an empty canvas in which to apply all the theoretical knowledge they have learned and adapt it to the specific urban conditions. To this aim, they adopted the criteria of the Modern Movement not only in their art, but also in the concepts of rationalism and minimalism.

³¹⁸ The architect and historian Carlos Flores used the term <<neo-realismo>> ("neo-realism") or <<neo-racionalismo>> ("neo-rationalism") to refer to the social architecture of the 1950s.

³¹⁹ The speciality of urbanism was not taught at the School of Madrid until 1957, and it comprised three specific courses on the subject distributed in the last three years of degree.

In the decade of the fifties, the term «International Style» had already been assumed by the foreign criticism and the specialized journals. It is important to note that, however, during those years, the Modern Movement was still observed in Spain as an architectural style linked to the victorious side of the Second World War, which represented Franco's opposite ideological side. Despite this, and under the pretext of addressing the housing problem and the continuous growth of the city, both core issues of the architecture of the twentieth century, Sáenz de Oíza and many other architects working in Madrid were able to assimilate an important part of the foreign architectural culture of those years, and to reintroduce the lost modernity in their own way and despite the dictatorship, notably in relation to the German «New Objectivity» («*Neue Sachlichkeit*») aspect, and focused on solving and providing decent social housing for the working class. Nonetheless, Sáenz de Oíza did not look at the architecture of the International Style in a superficial or formalistic manner, but he assumed its programmatic content. The *Chapel on the Saint James Way* and *Entrevías* are an example of his adherence and commitment to the rationalism and the use of new techniques, a line of thought that was already assumed abroad, and that connects with the attitude of the architects of the International Style, who were capable of mediating between the needs of their time («*Zeitgeist*») and the technological advances.

Sáenz de Oíza's constant interest and admiration for the «*Existenzminimum*» and for the functionality and rationalization of architecture is reflected in all his social housing proposals, and can be clearly seen in their austere but precise construction, the functionality and reduction of all facilities to a minimum. These constant features were achieved through a careful design and the use of his constant work tool: the module, which is the instrument that allowed him to order the structure and spatial logic of the house. In this regard, Javier Vellés³²⁰, former student of Sáenz de Oíza and collaborator in his studio during the final years of study in the second half of the 1960s, related at a conference held in Madrid in March 2015 that Sáenz de Oíza used to repeat the following sentence: "God helps those who modulate", a design philosophy that he would manifest in all his work, and especially in all his social housing production. Along with this, Sáenz de Oíza's projects reveal a thorough study and understanding of his numerous references. None of his projects come from nowhere, but were the answer to a specific problem after having analyzed other previous solutions, invented or tested by other architects and which served as the solid basis to meet the architectural problem he had to confront. As previously mentioned, this way of working and dealing with the architectural problem is a constant in all his work, and therefore, in all his social housing projects.

³²⁰ "A quien madruga, Dios le ayuda". VELLÉS, JAVIER: «Oíza, primera parte». Conference on Sáenz de Oíza celebrated at the *Teatro Figaro* in Madrid, on 16 March 2015. Translation by the author (R.J.J.).

Sáenz de Oíza began his activity in the field of housing projects precisely with a building of no social status for the middle class and located in the Madrid's traditional district of Chamberí. In the *Apartment building in Fernando «El Católico» Street*³²¹ (Madrid, 1949), Sáenz de Oíza designed a façade solution with a strong European language, clearly with an eye on the Bauhaus architecture³²², and specifically on the façade of the *Atelierhaus* (Dessau, 1925-26) designed by Walter Gropius (see Fig.3.4, Fig.3.5). Once again, we just need a glance at the two projects to ensure that the architectural language is the same (at least the external composition), and this leads to corroborate another fact: The same compositional solution used in a project in Germany could also be valid and accepted in Spain, although the project plans and functions in both buildings are dissimilar and the main composition elements (the balconies) are pursuing different intentions.

The apartment block, whose construction would extend until 1955, was designed in two phases, but Sáenz de Oíza only carried out the first of them. The housing building is located on the edges of an orthogonal site of the Madrid expansion, bordered by the Fernando 'El Católico' Street, 'La Salle' School, and the garden from the adjoining church. Built with exposed brick like many other buildings in Madrid, the L-shaped plan, which was originally designed as a U-shaped plan, is divided in five apartments with two bays per floor.



Fig.3.4 Sáenz de Oíza, *Housing in Fernando «El Católico» St.* (Madrid, 1949). View from the northeast.



Fig.3.5 Gropius, *Atelierhaus.* (Dessau, 1927). View from the southeast.

³²¹ Regarding this project, see: ALBERDI, and SÁENZ GUERRA, *op.cit.*, pp.49-51.

³²² This reference was also pointed out by Juan Daniel Fullaondo in: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, p.44.

The importance of this housing project of timeless modernity lies precisely in its time and circumstances, because it was one of the first projects built in the Spanish postwar period that represented and materialized the aspiration of looking for a connection to the international modernity, while it proved Sáenz de Oíza's admiration towards the German architecture of the twenties.

The main entrance, entirely diaphanous, allows the view of the inner courtyard from the street, so that the spatial limit between the street and the private house is understood as a space in shadow, a covered threshold, but permeable and lit naturally. In its interior, a sunny patio can be found, which included a swimming pool and garden areas that were far from the preceding schematic developments of the twenties and thus more related to the second European postwar landscaping, specifically to the expressive line of Scharoun's residential proposals, where dynamism and fluidity dominate the urban open space. The two communication nucleus and the daytime living areas are organized around this inner courtyard (see Fig.3.6), in order to take advantage of the heat and light (south or west façades depending on the side of the "L"), but also of the silence. Therefore, the private area with the bedrooms remains on the street façade. The decision to organize and invert the facing directions of the rooms by establishing two different worlds of relationship, the intimate and silent rooms linked to the street, to the collective world, and the living rooms relegated to the silence and intimacy of the landscaped courtyard, turning their backs on the city life, would be a common feature in Sáenz de Oíza's housing projects, particularly those of social character and dimension.

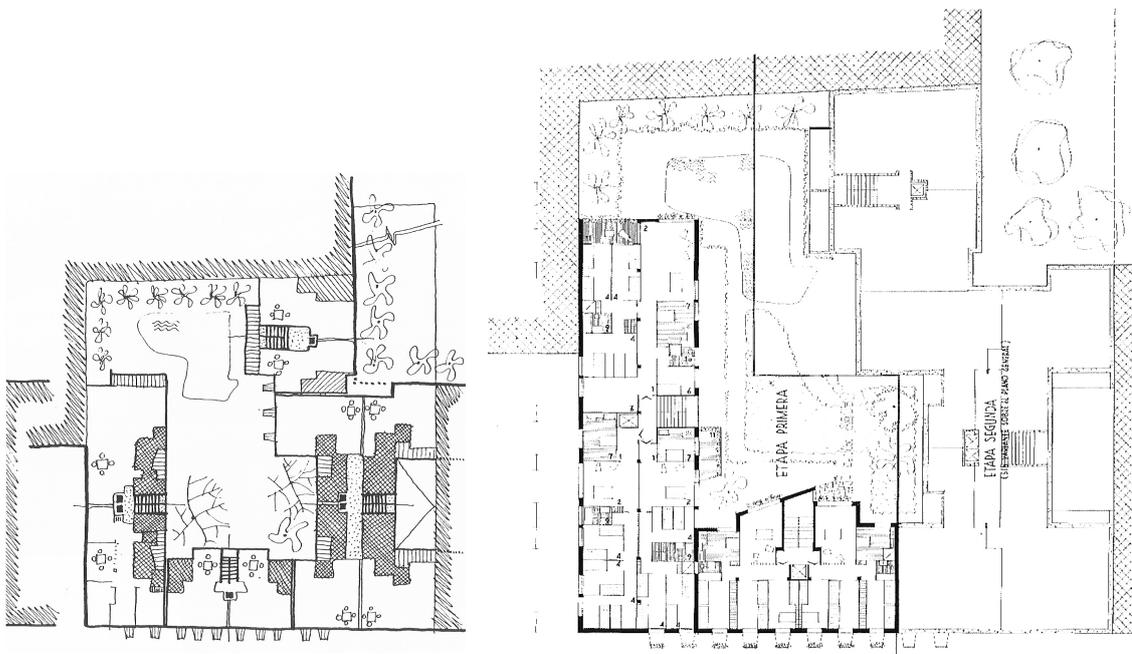


Fig.3.6 Sáenz de Oíza, *Housing in Fernando <-El Católico> St.* (Madrid, 1949).
Sketch (left) and Sáenz de Oíza's final project (right).



Fig.3.7 Sáenz de Oíza, *Housing in Fernando «El Católico» St.* (Madrid, 1949).

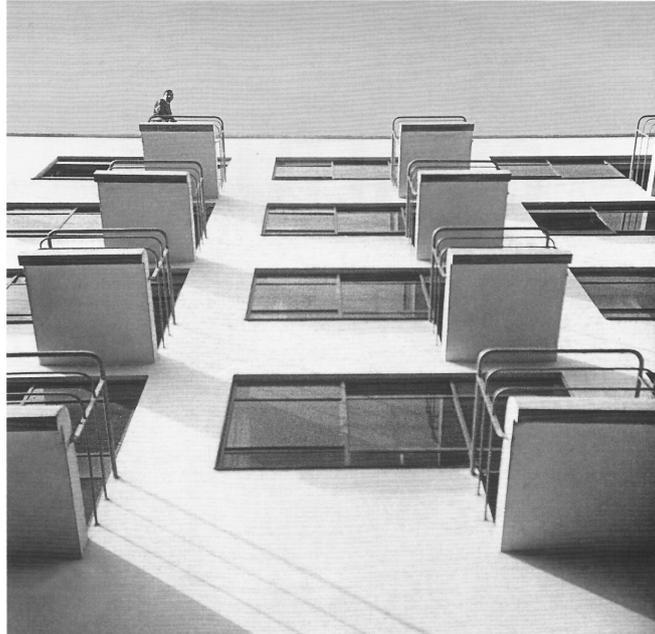


Fig.3.8 Gropius, *Atelierhaus.* (Dessau, 1925-26).

Sáenz de Oíza designed both external façades with two different characters. The eastern façade is solved as many other buildings of the capital: with a brick cloth with individual vertical hollows and a long, narrow terrace. However, on the north side that faces the *Ferdinando 'El Católico' Street*, he opted for a modern reinterpretation of the typical façade with balconies of Madrid's blocks, which are characteristic in the city expansion from the late nineteenth century, and he took Gropius as his model. In particular, Sáenz de Oíza clearly copied Gropius' solution in Dessau and adapted it to the architectural character of the Spanish capital. Consequently, a splendid row of vertical windows (or doors) with trapezoidal balconies overlooking the street was displayed in this façade (see Fig.3.7). However, these north-facing balconies do not appear as elements seeking the sunlight as it was the case in Gropius' façade and its rectangular-shaped balconies (see Fig.3.8), but their character of vertical windows fulfils the purpose to contemplate the street, thus giving the house a minimum of open space, where interactions between the individual, intimate spaces and the city can happen. This repetitive sequence is also a design resource that Sáenz de Oíza reused in his *Housing on the M-30* almost forty years later, where he set up an exterior monotonous façade free from any ornamentation, a defining feature that was undoubtedly one of the main topics of his architecture, particularly in all his social housing proposals built in the Spanish capital.

3.1 Sáenz de Oíza's Colonies for the *Hogar del Empleado*

The *Hogar del Empleado* was founded as a religious association in 1949³²³, and it was based on the realization of social actions to improve living conditions in the Spanish postwar period. These included the improvement of housing through the construction of several colonies in Madrid, called 'neighbourhood units' (<<*unidades vecinales*>>) and defined as "the minimum residential association where the first organization between served function, the dwelling, and server functions, a minimal set of equipment and services, takes place."³²⁴ These colonies were designed to accomodate their employees, most of them workers coming from insurance companies and banks, but also the immigrant population on the outskirts of Madrid.

In 1951, the militants of the *Hogar del Empleado* founded the *Constructura Benéfica del Hogar del Empleado*³²⁵ (CBHE: "Charitable Construction Company of the Employee's Household"), which decided to constitute the *Oficina Técnica* ("Technical Office") in 1952, after several isolated works.³²⁶ Francisco Javier Sáenz de Oíza, José Luis Romany Aranda, Manuel Sierra Nava and Adam Milczynski Kaas were part of this Technical Office since 1952, a professional relationship that lasted nearly a decade. Luis Cubillo would join them in 1955. Since the early sixties, only José Luis Romany maintained contact with the *Constructura Benéfica*, which ceased to exist in 1966.

Most of these colonies, which also had to be studied and approved by the INV, were raised as self-sufficient neighbourhoods chiefly located in the periphery, a fact that allowed greater freedom in their urban planning. The colonies included building services that helped implement the interest of the association in the new Spanish society, which was in the process of change³²⁷, and the educational system, as well reflected in the design of complementary buildings such as churches, community meeting areas, schools and kindergartens that gave service to the colonies. These

³²³ For more information about the history of the *Hogar del Empleado* and its activities, see: FERNÁNDEZ NIETO, *op.cit.*, pp.19-34.

³²⁴ FERNÁNDEZ NIETO, *op.cit.*, p.345. Translation by the author (R.J.J.).

³²⁵ In Germany, the experience of the interwar *Siedlungen* was viable through organizations or state cooperatives, such as DEWOG and GEHAG. Though these associations, Martin Wagner, Walter Gropius, Bruno Taut and Ernst May, were able to experiment with social housing types that could be mass-produced by establishing constructive parameters that should constitute the basic principles of the constructive process. These experiences served as a testing laboratory for their protagonists, who were able to implement their theoretical work individually.

³²⁶ The *Constructura Benéfica del Hogar del Empleado* was founded in 1951 and, despite its name, it only had a promoter role. See: FERNÁNDEZ NIETO, *op.cit.*, pp.31-34.

³²⁷ María Antonia Fernández Nieto noted in her doctoral thesis that the birth rate increased in Spain in those years, and this led to a growing concern for the education of children as a means of social progress in the cities. In: *Ibid.*, p.30.

neighbourhood units, with a thoughtfully economic adjustment, were made possible thanks to a design based on austerity and careful calculation of all elements of the project, with special attention to the construction techniques and sanitary facilities.

The proposals that were set out in Frankfurt during the CIAM II in 1929, and in which May had a starring role, focused specifically on the issue of providing adequate housing to a minimum standard of living, rejecting the overcrowded and unhealthy conditions inherent to the <<*Mietkaserne*>> model, which had been developed in Germany since the nineteenth century. The Congress assumed the official break with the previous model, characterised by its darkness and lack of ventilation, and the 'standard model' appeared. These colonies built in Madrid were based on the principles of the first CIAM³²⁸ because the projects were understood from the housing unit to the block, from the block to the neighbourhood and from the neighbourhood to the city, in a linear progression that corresponded to the project method defended by the Modern Movement.

Besides, the design of large open green spaces was also considered an important and effective hygienic measure to improve air quality in the cities. In other words, they were developed with a view to the urbanism and hygienic conditions, which were the two key issues during the years of the <<New Building>>. On the other hand, the Technical Office from the *Hogar del Empleado* opted for a type of medium density, a strategy followed in many social *Siedlungen* of the Weimar Republic, because, when compared to the single-family houses as it was the case of Ernst May in Frankfurt, greater density could be achieved, and the colonies required less technological and structural means than those used in the construction of high-rise housing.³²⁹ However, the architects participating in the colonies dealt with the different projects with the same attitude as Ernst May when he faced the project in Frankfurt: with social responsibility and sensitivity to the individual as a modern citizen.

Alongside various solutions tested in some interwar *Siedlungen*, some experiences carried out after the Second World War, with their critical review of the Modern Movement, did also appear as architectural influences in these colonies. This is explained by the fact that the resumption of contacts with the German architectural culture allowed the penetration of the new German proposals of the reconstruction in

³²⁸ After its founding in 1928, the two following CIAM were focused on the problem of worker's housing, as it was the case of the *Congress of Frankfurt* of 1929, in which Ernst May raised the study of minimum housing from the rationalization of construction systems, as it was exemplified in his performances in the same city.

³²⁹ During the CIAM III celebrated in Brussels in 1930, Walter Gropius gave a lecture entitled "Die Wohnformen. Flach-, Mittel- oder Hochbau?", in which he defended the construction of high-rise housing as a solution to the lack of hygienic housing in the cities. See: GROPIUS, Walter: <<Die Wohnformen. Flach-, Mittel- oder Hochbau?>>. In: *Das neue Berlin* 1, n.4. 1929. Print. pp.74-80.

the Spanish territory, specifically in Madrid, thus being intermingled with the references of the 1920s. The German references in these colonies are scattered and intermingled with Soviet, Anglo-Saxon, Nordic and Italian influences. But also with some Latin American examples, since Spain never lost the good relationship and contacts with these countries.

The explanation for this heterogeneity is simple: Sáenz de Oíza did not work alone in these colonies for the "Hogar del Empleado", but as a team with other promising young architects. Among his team colleagues, there were some architects who had also travelled around Europe³³⁰ and they had returned to Spain with other experiences and learning, other images in the head and other influences that they applied in these projects, contributing to their enrichment. In addition, at that time, Sáenz de Oíza was a moonlighter and he worked simultaneously for the *Obra Sindical del Hogar* (OSH), the *Urban Planning Board of Madrid* (COUM) and the *Hogar del Empleado*. The latter was the institution that ordered him more projects and more assiduously during the 1950s, hence many concepts were transferred from one project to another.

Moreover, from 1949 the *Unité d'Habitation* was being published and discussed in the Spanish journals³³¹ (see Fig.3.9), and its weight as a reference for the solution to the problem of social housing in Madrid is evident in the first draft project designed by the team working for the *Hogar del Empleado*, in which Sáenz de Oíza stood out as leading and skillful planner and designer. Furthermore, in those years, many social housing models from Germany, Italy and the Netherlands were disseminated, so that the German, American, Dutch and Italian models coexisted with the Nordic and South American references, with projects from Alvar Aalto, Pier Luigi Nervi or Lucio Costa, and the mixture of them all allowed the Spanish architects to widen the debate on the housing problem, while the entrance of foreign influences was reactivated.

³³⁰ Adam Milczynski and José Luis Romany had travelled to Sweden in 1954, through France, Germany and Denmark. See: FERNÁNDEZ NIETO, *op.cit.*, p.237.

³³¹ See: *Informes de la Construcción*, n.14. 1949; and *Revista Nacional de Arquitectura*, n.110,111,199. 1951; See also: BOESINGER, W.: *Obra completa de Le Corbusier*. Girsberger, Zurich, 1953. Print.



Fig.3.9 Cover of *RNA*, n.119 (November 1951).

The first draft project submitted to the INV from the Technical Office of the *Hogar del Empleado* was an experimental project designed by Sáenz de Oíza, Manuel Sierra, José Luis Romany and Adam Milczynski in 1953, which was called the *600 Houses in the Urbanization of the Manzanares River*³³². The project was never built³³³, and it was planned as a building of high density in a natural setting with great significance in the city, next to the Casa de Campo and the banks of the Manzanares River, and in front of the historic centre of Madrid (see Fig.3.10, Fig.3.17).

The proposal was a clear homage to the most radical modern postulates, and explicitly to the *Unité d'Habitation* (1945-52) in Marseille, whose construction had just been completed in the previous year. However, it also assimilated architectural experiences from South America and the recent European reconstruction.³³⁴ With this first project, Sáenz de Oíza and his colleagues presented a manifesto of clear intentions, with the vertical Garden City, the landscape, the community housing and

³³² Also known as "Grupo Covadonga".

³³³ Nevertheless, the proposal provided a basis for the subsequent block projected in the *Calero Colony* in 1959, but with many nuances and distances.

³³⁴ With regard to these references and their influence on the *600 Houses in the Urbanization of the Manzanares River*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.212-224.

the concentration of the buildings for the benefit of the freed space as dominant issues.

The proposed solution consisted of two eleven-storey linear blocks of 160 and 175 metres, respectively, with a portico of concrete structure and a network of installations strictly designed and streamlined. Both blocks would house a total of 600 duplex houses with intermediate galleries of communication to access the 24 or 26 apartments per floor, depending on the block, which had a single communication core situated in the centre of each block. Although the project was clearly based on Le Corbusier's model in Marseille, Sáenz de Oíza and his colleagues raised an improvement in the quality of the communication spaces, since they were understood as pleasant areas of neighbourhood relationship and open to the outside, towards the green lung of the south of the capital: the Casa de Campo.³³⁵

The layout plan and its insertion into the place has also obvious reminiscences from the Scharoun's site plan of the *Siemensstad Housing Estate* (Berlin, 1929-31, see Fig.3.11) and even the *Plan Obus* from Le Corbusier (see Fig.3.12) for the city of Algiers (1932). In the project of Madrid, the strategy consisted in arranging a straight block and another slightly curved on the edge of the river, which fostered a favourable and appropriate environment for the concentration of community spaces on the ground floor. This movement between the two main blocks ensured the maximum use of daylight and ventilation, while it reflects Sáenz de Oíza's sensitive perception and understanding of the place as they would adapt to the riverbank naturally, in a similar way as the draft designed by the American architect Eli Rabinow in that same year for an apartment block with free visual axes towards the Hudson River: the *Hudson Terrace Apartments* (New York, 1953).

As for the housing solution, Madrid's two blocks did also provide several changes or improvements on the model of Le Corbusier. Sáenz de Oíza, who was 35 years old by that time and was also involved in the construction process of *Arantzazu*, did not hide or deny the reference of Le Corbusier, but placed it next to their own proposal in a drawing (see Fig.3.14) in which he criticized Le Corbusier's solution and defended why their project was an improvement of the prototype from Marseille. In much the same way as he had previously done with Böhm in his earlier proposals of religious architecture, Sáenz de Oíza dared to question his references by suggesting improvements.

³³⁵ All project drawings and details can be found in: HURTADO TORÁN, Eva: *Proyecto para la construcción de 600 viviendas en la urbanización del río Manzanares 1953. Fco Javier Sáenz de Oíza, Manuel Sierra Nava, José Luis Romany Aranda, Adam Milczynski Kaas*. COAM. Madrid, 2002. Print. p.35.

The first obvious difference is the height. With the same number of apartments in cross-section (11) and the same clear height in each floor (2.40 metres), Le Corbusier used 16 modules that produce a total height of the building of 44.40 metres. As a result, each housing unit required two 2.55 metres high modules in parallel. In Madrid's block, the modules were interspersed, so that only 14 modules were required to produce a lower height (39.30 metres) of the building (See Fig.3.14).

In addition, a half-duplex with a width of 3.70 metres³³⁶ was proposed as typical floor plan in Madrid, with a half floor that articulated the sloping relationship between the daytime and private areas, allowing direct sunlight throughout the day and cross ventilation. While in Marseille this height difference between living and rest areas was solved with 14 steps, the half of them were necessary to bridge the unevenness in the dwellings on the Manzanares River (see Fig.3.11, Fig.3.15).

Five types of housing³³⁷ were generated to accommodate families from four to eight members (see Fig.3.16), providing a higher level of privacy in the rooms and greater use of the surface through the elimination of unnecessary distribution spaces. On the other hand, the dwellings had two opposite façades and accesses to them were planned through an exterior gallery opened to the sun, the air and the landscape, so that Le Corbusier's interior street in Marseille was replaced in Madrid by a continuous community corridor with a more friendly and pleasant atmosphere. Furthermore, the communal areas were located on the ground floor and not on a roof terrace, thus contributing to further enrichment of the street, and the relationship of the dwellings with the pedestrians, the river, and therefore, with the city.

³³⁶ The width per residential unit in the *Unité d'Habitation* is 3.66 metres. See the comparison between the floor plans in Marseille and Madrid in: FERNÁNDEZ NIETO, *op.cit.*, p.219.

³³⁷ See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.179).

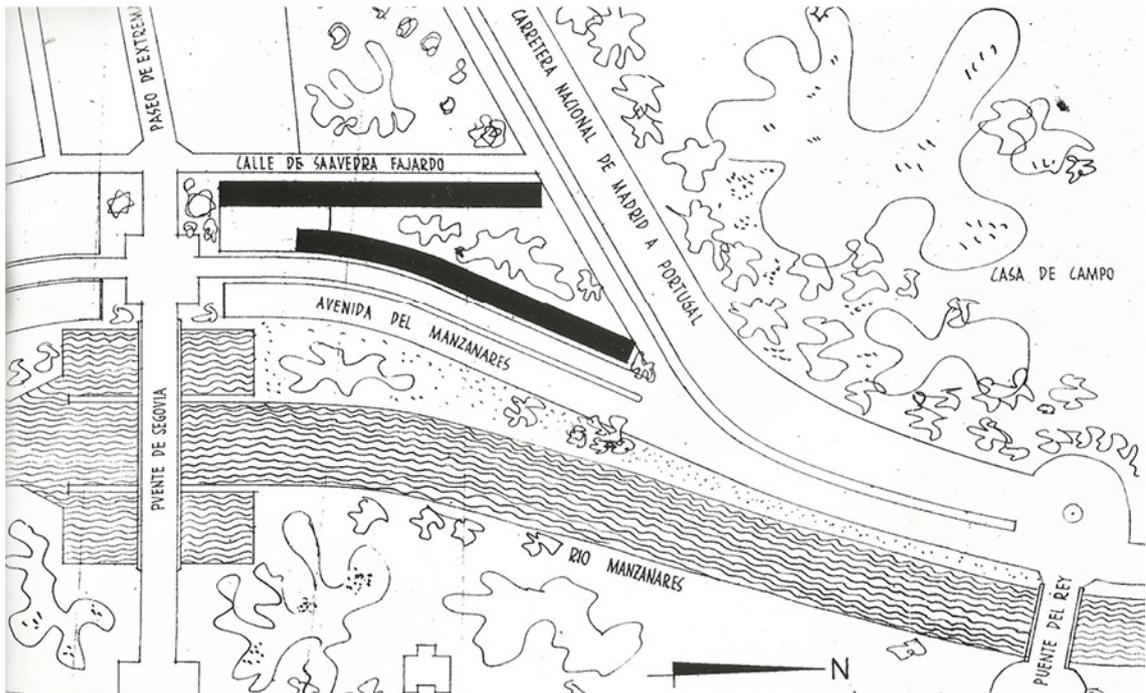


Fig.3.10 600 Houses in the Urbanization of the Manzanares River (Madrid, 1953). Site plan.

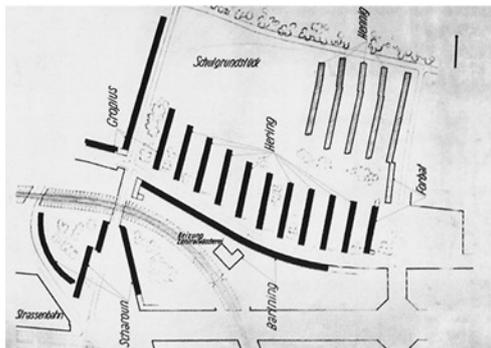


Fig.3.11 Hans Scharoun, Siemensstadt (Berlin, 1929-31).

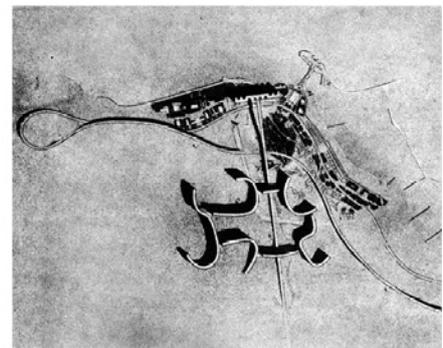


Fig.3.12 Le Corbusier, Plan Obus (Algiers, 1932).

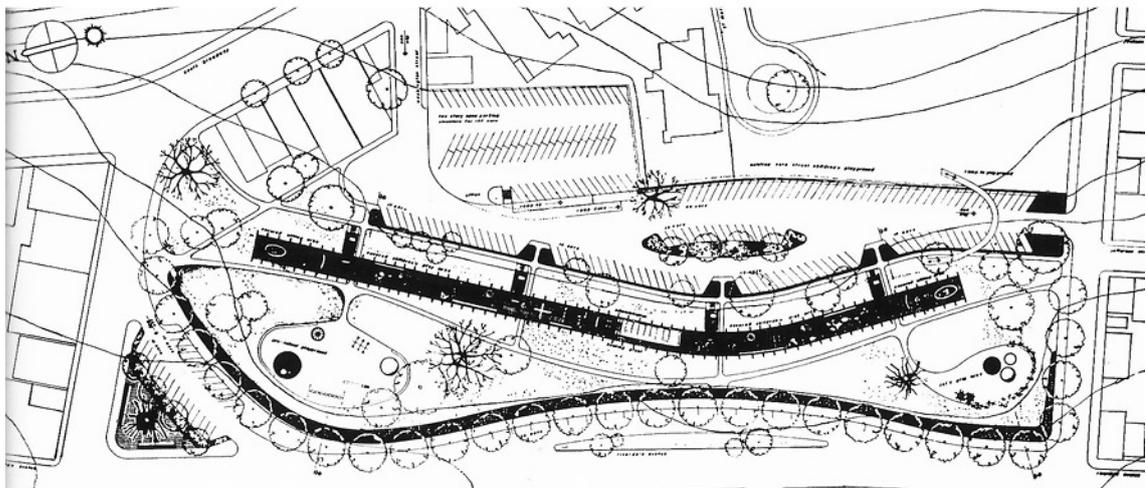


Fig.3.13 Eli Rabineau, Hudson Terrace Apartments (New York, 1953). Site plan.

Resumen de la solución. Comparación con otras realidades análogas.

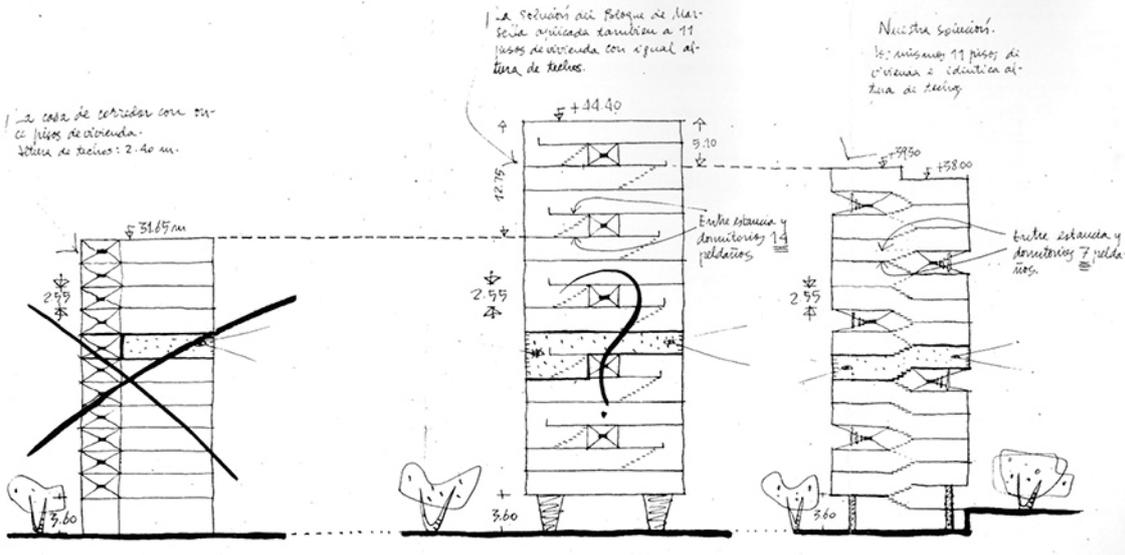


Fig.3.14 600 Houses in the Urbanization of the Manzanares River (Madrid, 1953). Improved solution.

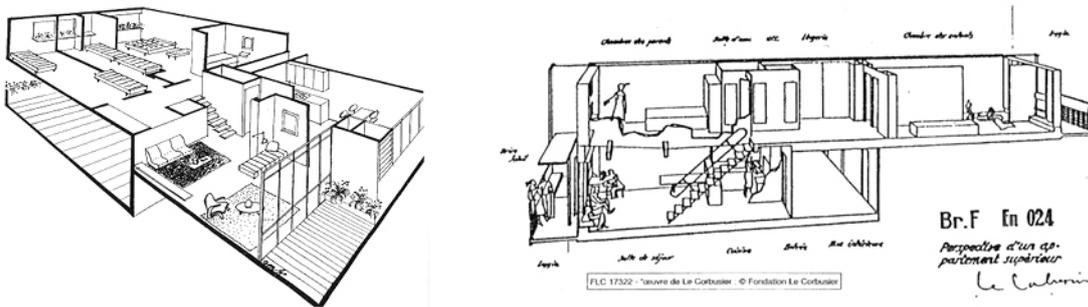


Fig.3.15 Dwelling in Madrid (left) versus dwelling in the Unité d'Habitation of Marseille (right).

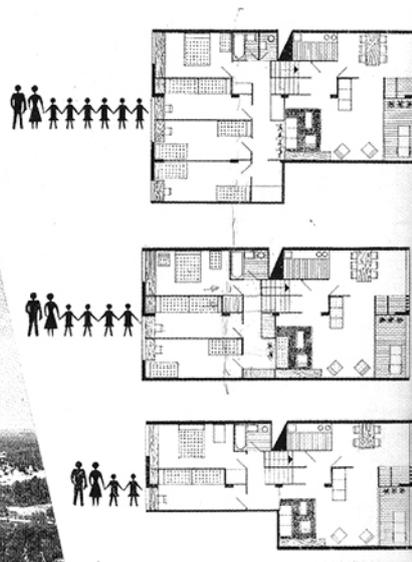


Fig.3.16 600 Houses in the Urbanization of the Manzanares River. Housing typologies depending on the family size.

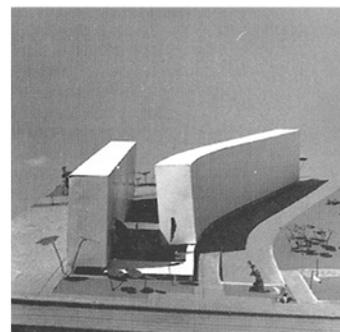
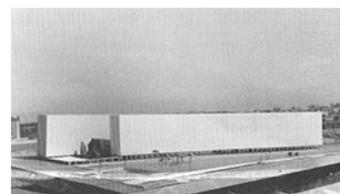


Fig.3.17 Model of the proposal in Madrid.

It is nevertheless possible to establish further design relations between Madrid's colony (see Fig.3.18) and Max Bill's proposal for a competition in 1937 (see Fig.3.19) to remodel the lakeside next to the National Exhibition of Switzerland (1936) in Zurich, with a high vertical garden city on concrete piles and with collective roof gardens; as well as with Walter Gropius' *Set of Four Blocks on the Shores of Wannsee* (Berlin, 1931) and his subsequent *Apartment block in Hansaviertel* for the IBA'57 (see Fig.3.20, Fig.3.21). The decision to place blocks of large dimensions on unique green spaces, breaking the scale of the whole and reorganizing it, the delicate, homogeneous façade with terraces and wide elongated windows, the buildings' contact with the ground and the treatment of the ground floor as an open space in which the vegetation grows freely and the air passes through, as well as the relations between pedestrians and the river...They are all common features in the three projects. Besides, the external image of Madrid's buildings, finished in white plaster and with a careful treatment of the window frames, evoke the cleaning of Bill's proposal, but especially the architecture of Gropius and the Bauhaus.

Hence, the contact with the ground level was sensitive and enhanced by the placement of all facilities and community services on the ground floor and open to the city, so that the relations with the river environment and the views of the historic Madrid were intensified, and therefore, a distinct, friendly urban interaction was proposed. The team's concern about hygiene and technical issues loomed in their intensive sun study as well as in the use of a strict modulation both in the floor plans and building elevations, allowing ordering the window frames, flooring and facilities, which were thoroughly detailed in the draft project. This first draft meant a laboratory for experimentation with major innovations for the Spanish social housing, which was still ideological and materially remote from the Spanish reality of the time. Still, it would serve as a basis for future proposals made by this team, in particular for Sáenz de Oíza, who would retake the subject of collective social housing resolved in a curved volume and with duplex dwellings thirty years later with his *Housing on the M-30*.

The *600 Houses in the Urbanization of the Manzanares River* were rejected by the INV because they did not meet the aesthetic nor urban planning requirements of the area, and because the homes were considered an inadequate response to the type of user to whom they were addressed. But, above all, the project was not a suitable solution for a city model established by the government agencies, who were more concerned with seeking economic solutions and a rapid implementation to address the pressing problem of the increasing growth of slums in Madrid.³³⁸

³³⁸ For a thorough understanding of this project and the official refusal to build it, see: *Proyecto para la construcción de 600 viviendas en la urbanización del río Manzanares 1953*. Fco Javier Sáenz de Oíza, Manuel Sierra Nava, José Luis Romany Aranda, Adam Milczynski Kaas, *op.cit.*, pp.7-32.

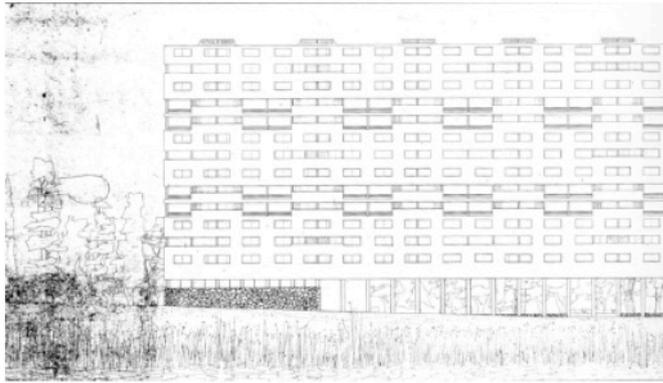


Fig.3.18 600 Houses in the Urbanization of the Manzanares River (Madrid, 1953). Elevation plan.

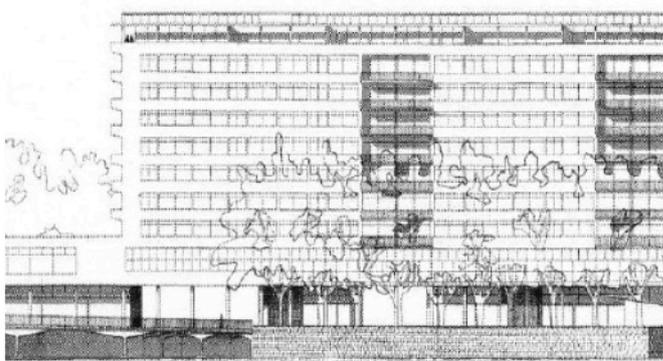


Fig.3.19 Max Bill, *Proposal for a Garden-City at the Lake Zürich* (1953). Elevation plan.

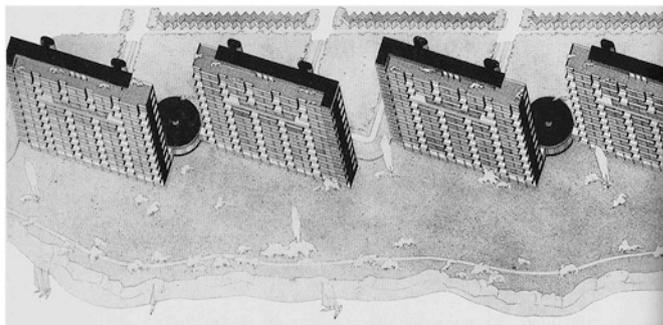


Fig.3.20 Walter Gropius, *Set of four blocks on the shores of Wannsee* (Berlin, 1931).

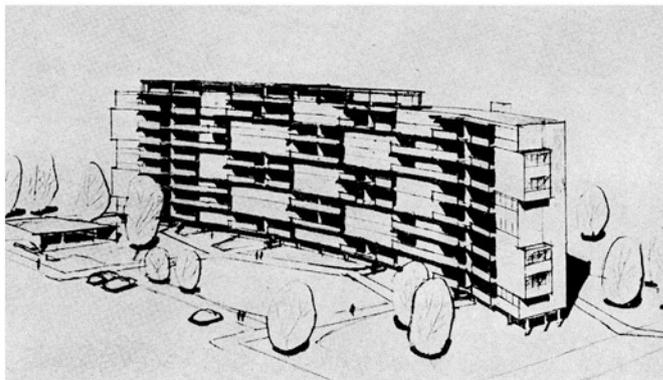


Fig.3.21 Walter Gropius, *Interbau Apartment block in Hansaviertel* (Berlin, 1956).

One year after this first failed experience and just a few metres away from the previous urban plot, the same team projected the *Puerta del Ángel Colony*³³⁹ (1954), situated in front of the Casa de Campo, which is considered the green lung of the city, and parallel to the Paseo de Extremadura, a consolidated axis that provides access and exit to Madrid in a southwesterly direction. The first project of this neighbourhood unit built by Sáenz de Oíza and his team colleagues was resolved by the aggregation of housing units vertically and horizontally arranged northwest and east in the perimeter of the site. These units are deployed and positioned in a staged manner to suit the terrain of the plot, with a slope that falls towards the Manzanares River. The staggered arrangements on the ground plan break the scale and perception of the block as unitary volume, while they allow to understand the whole set as an association of residential units and intensify its domestic character.³⁴⁰

The colony consists of 195 residential units distributed in different types and arranged in the boundaries of the plot with a north-south (Types E, D) and east-west (Types A, B and C) orientation (see Fig.3.22, Fig.3.24). Thus, the whole colony is organized around a large central space as a square with lush greenery, intended for children's play and the exclusive pedestrian use, which also functions as a small green lung within the dense urban fabric (see Fig.3.23). The road access is restricted to the existing external routes in the periphery of the colony. In this sense, and despite the apparent distance in terms of aesthetics and scale, this and other colonies for the *Hogar del Empleado* rescued the Viennese *Hof* issue by proposing a housing organization that responds to a socialist concept of community life.³⁴¹



Fig.3.22 *Puerta del Ángel Colony* (Madrid, 1954). Site plan.

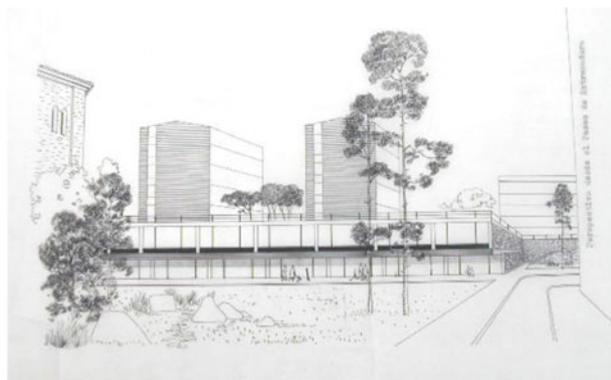


Fig.3.23 *Puerta del Ángel Colony*. Perspective with the experimental block at the background (right).

³³⁹ Also known as "Grupo Covadonga".

³⁴⁰ For a thorough understanding of the *Puerta del Ángel Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.85-106.

³⁴¹ These influences from the Viennese *Höfe* in these colonies have already been studied in: *Ibid.*, pp.200-202.

The dwellings in *Puerta del Ángel Colony* were resolved through the execution of three housing typologies³⁴²: two exempt blocks with two equal bays (type A and B), blocks with three bays and interior courtyard (type C and E, see Fig.3.24), and five single-family houses arranged in a row³⁴³(type D, see Fig.3.24). Standardized building types with maximum lighting and ventilation of the rooms as primary criteria were used in all of them. However, among them, the study and construction of an experimental prototype block, which corresponds to the smaller block in the set (see Fig.3.26), played the most significant role in the project. The experimental block comprises two types of dwellings per floor, with three and four bedrooms respectively, and separated by a staircase with two flights and its corresponding landing area. Each apartment was designed from a rationalistic idea of minimums, so that all facilities are grouped in a common compact and functional core of wet rooms made up of one kitchen, a bathroom and a laundry room that provides ventilation and natural lighting, a solution that was repeated in all the case study colonies, which was also a maxim in all Sáenz de Oíza's social housing projects. The kitchen is linked to the living room and the entrance of the house, while the bathroom is related to the bedrooms, so that the houses are developed in two distinct areas: a daytime area, where family relationships occur, and a private area farthest from the entrance door.

The importance of this experimental block lies in two facts: It was the fundamental typology that generated the rest of the colonies that were subsequently designed and built in *Batán*, *Erillas* and *Calero*, with the exception of *Loyola*, in which Sáenz de Oíza had a minimum involvement; and the housing solution provided in this prototype is fundamentally similar to several German solutions of interwar *Siedlungen*, particularly in the floor plan, and in the case of Ernst May's *Bruchfeldstraße Siedlung* (Frankfurt-Niederrad, 1926-27), Walter Gropius' block in *Dammerstock* (Karlsruhe, 1928-29) and Hans Scharoun's block in *Siemensstadt* (Berlin, 1929-31). Both in Madrid and in the German case examples, the dwellings were grouped around the nucleus of the building's staircase, so that there were two contiguous apartments per floor, with natural light and cross ventilation, enjoying two orientations and with two bays parallel to the façades, which are equal in the experimental block of *Puerta del Ángel* (4.31 metres) in order to use one single type of joists, and thus, to help reduce the construction costs (see Fig.3.26, Fig.3.27, Fig.3.28, Fig, 3.29).

³⁴² See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.179).

³⁴³ Sáenz de Oíza lived and had his studio for some years in one of these two-storey row houses, designed with a clear Nordic architectural language. Due to their surface (135.61 sqm), which is well above the standard of social housing, and their influence from Arne Jacobsen's *Søholm Row Houses* (1946-1950), which has already been well studied, they have not been considered in this research study. For further information on these row houses, see: FERNÁNDEZ NIETO, *op.cit.*, pp.100-103, 239-242.

However, amongst the German references cited, May's block is the closest example to Madrid's block. Both projects provided a dwelling with east-west orientation, but whereas the experimental block has a smaller width and less surface than that of the *Bruchfeldstraße's* dwelling³⁴⁴, the solution from the *Hogar del Empleado* consists of three bedrooms and a separated living room, while the apartment designed by Ernst May is distributed in two bedrooms, but with a more generous living room. The structure solution also coincides, with three parallel brick load-bearing walls, as well as the decision to restrict the total area of the house to the interior spaces, without terraces or small balconies, as it happens in *Dammerstock* and *Siemensstadt*. Furthermore, both dwellings concentrate the bathroom and the kitchen in one single nucleus orientated to the west, but, while the kitchen is linked to the living room in both cases, the bathroom in *Puerta del Ángel Colony* appears more associated to the bedrooms, to the private area, as in the case of *Dammerstock* o *Siemensstadt*. Once the experimental block was tested, a second four-storey block with two three-bedroom dwellings per floor was built next to it (Type B, see Fig.3.24).

Furthermore, the constructive system of brick load-bearing wall appears in this colony (see Fig.3.25), which will be the most repeated construction system in the rest of the colonies for the *Hogar del Empleado*, but also in the case of Sáenz de Oíza's radical social housing model.³⁴⁵ Consequently, the image of the housing buildings in the different colonies was determined by this construction system and the brick as the protagonist material. In this sense, the architecture of this and other colonies is an exercise in constructive sincerity: an open block of exposed brick with a façade of vertical windows ranging from floor to ceiling in the case of the main bedroom, the living room and the laundry area, the latter two protected by wooden shutters painted in white that bring rhythm and movement in the building elevation. The open staircase of exposed brick, where the air circulates freely, reinforces the materiality of the block and casts a deep shadow that breaks the continuity of the façade composition, a widely used resource in Sáenz de Oíza's social housing, particularly in the housing block typology developed during the 1950s, which can also be found in later projects as well.

³⁴⁴ The width in the experimental block of *Puerta del Ángel Colony* is 8.90 metres and in *Bruchfeldstraße* is 10.00 metres. The surface of the experimental block in Madrid is 63.75 sqm, while the surface of May's dwelling in Frankfurt is 65 sqm. In: DIPPOLD-THEILE, Brigitte: *Mayführung. Siedlung Bruchfeldstraße / Zick-Zackhausen*. ernst-may-Gesellschaft e.V. Frankfurt a.M., October 2005. PDF File. 20 April 2016. p.2.

³⁴⁵ The use of a brick façade as structural solution is fulfilled in all the case study colonies, with the exception of the *600 Houses in the Urbanization of the Manzanares River*, *Batán's towers* and the super-block in the *Calero Colony*, in which the structure was solved with a reinforced concrete frame. Besides, in the *Calero Colony*, the buildings were coated with the same ceramic tiles used in the *Batán's towers* to provide the set with a unitary image.

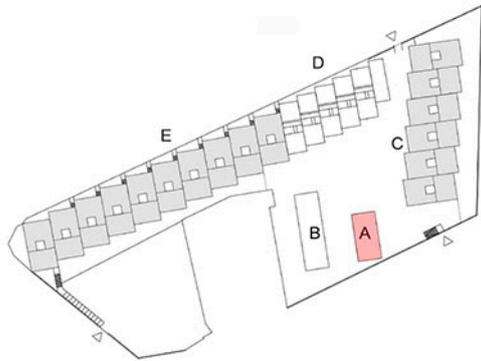


Fig.3.24 *Puerta del Angel Colony*. Housing typologies. (In red: Type A: Experimental block).



Fig.3.25 Type A: *Experimental block*. Detail of the east façade.

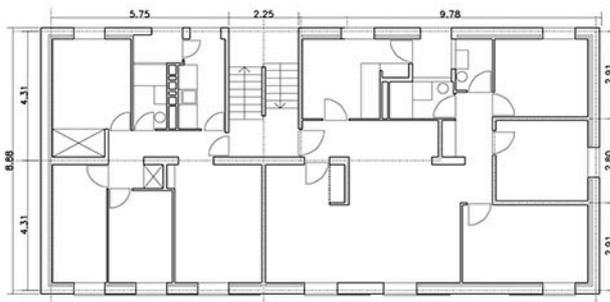


Fig.3.26 Type A: *Experimental block*. Floor plan_1:250. (3-bedroom + 4-bedroom apartments).

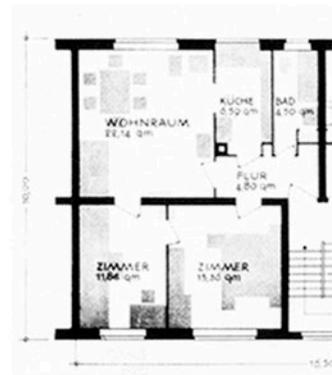


Fig.3.27 E. May, *Bruchfeldstraße*. (Frankfurt-Niederrad, 1926-27). Floor plan_1:250.

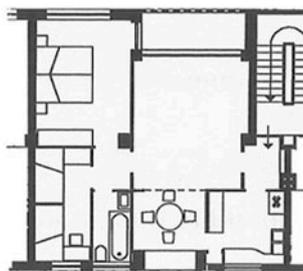


Fig.3.28 H. Scharoun, *Siemensstadt* (Berlin, 1929-31). Floor plan_1:250.

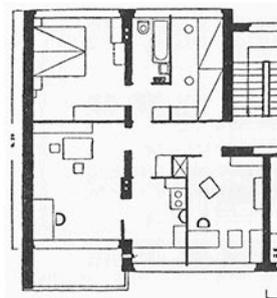


Fig.3.29 W. Gropius, *Dammerstock*. (Karlsruhe, 1928-29). Floor plan_1:250.

As for the facilities in the colony, the initial project intended to locate a residence for singles in the basement of the building type "E" (see Fig.3.24) aligned to the northwest area of the plot and with access from the interior garden. Today, most of these areas have been occupied by a secondary school and the rest of them are used for the community meetings. No commercial premises were planned inside the *Puerta del Ángel Colony* because it is inserted in a plot next to the Paseo de Extremadura, an important access and exit route to the capital with a consolidated residential and commercial fabric. *Puerta del Ángel* is also the only colony, along with *Batán*³⁴⁶ and the *600 Houses in the Urbanization of the Manzanares River*, in which the architects designed social housing with terraces (types E and C, see Fig.3.24) due to its privileged location with views over the pine forest of the Casa de Campo.

Of all the colonies studied, *Puerta del Ángel Colony* is possibly the one presenting a higher level of maintenance and conservation, without changes in the overall layout of the residential estate. Its image has been favoured with the passage of time and the growth of vegetation in the interior garden, which is now a leafy, friendly and quiet place. The east façade of the experimental block, as well as other façades in the colony, has been coated with a maroon monolayer mortar, and many windows have been modified in their proportions and materials, so that the wooden frames and shutters have been replaced by aluminum.³⁴⁷ With the exception of the row houses, which are the ones that have respected most of their original configuration, the façades have been generally degraded by the placement of air conditioners and the clothes hanging from the windows. Besides, the staircase in both the experimental block and the block 'B', along with many terraces in the other typologies, have been closed with glass without respecting the homogeneity in the window frames, thus altering the original image of the project. These terraces have awnings for sun protection that distort the original image of the buildings and therefore, of the whole colony. In addition, the population of this colony has aged, and the new owners are mostly young middle-class professionals.

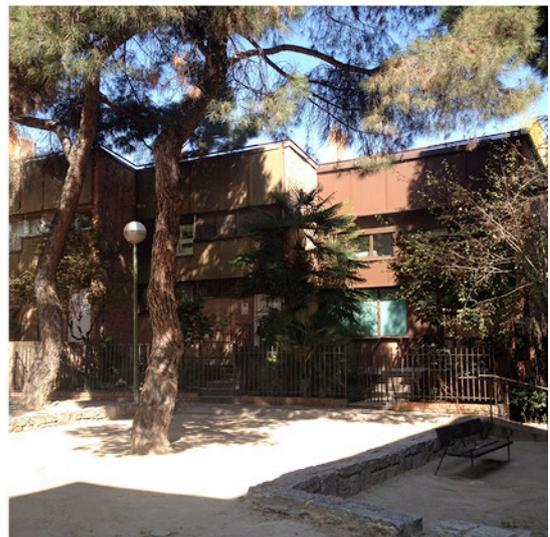
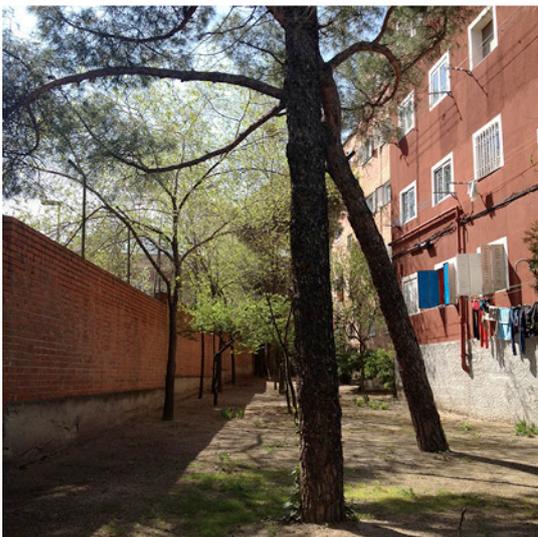
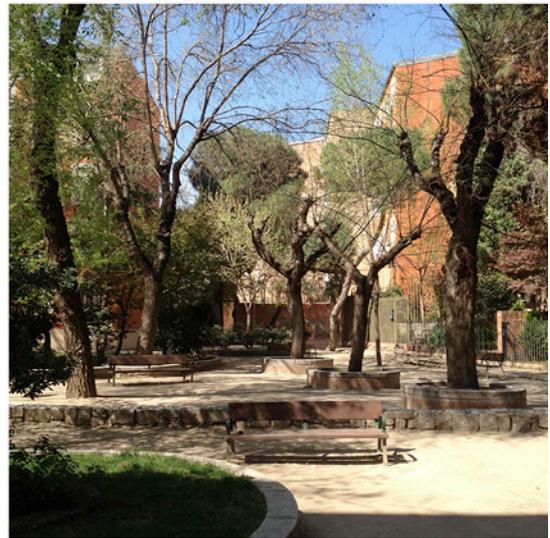
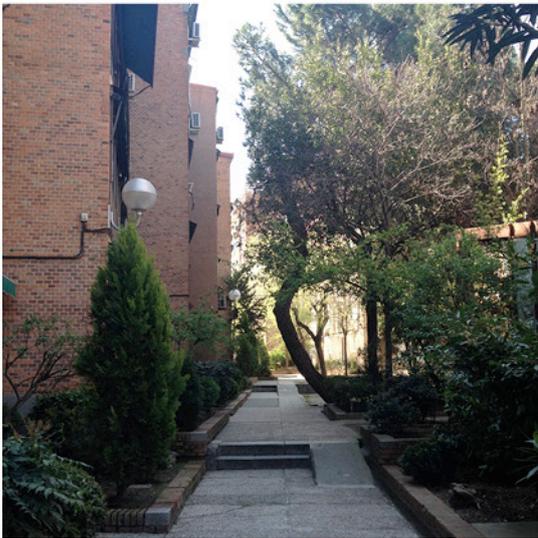
Building on this expertise in *Puerta del Ángel Colony*, the planning of the subsequent colonies for the *Hogar del Empleado* by this group of architects from its Technical Office was determined by the variation of the residential types introduced in each of them, with the experimental block as a constant typology, which varied according to the circumstances of the project, the greater or lesser complexity of the association of these types and the constraints of the place in which they were inserted.

³⁴⁶ In the case of *Batán*, the terraces appear in the tower housing typology.

³⁴⁷ The same resource has been carried out in all the colonies studied.

Photographic report on the Current situation of *Puerta del Ángel Colony* (2015)





In 1955, Sáenz de Oíza and the same team that had worked on the previous two projects designed the *Batán Colony*³⁴⁸, a project that was published in *Werk* in 1962, and whose construction continued until the early 1960s (1963) with the development of the complementary buildings such as the school, designed by Sáenz de Oíza in 1961 and completed in 1963 in an organic language.³⁴⁹ *Batán* is a suburban neighbourhood located five kilometres far from Madrid's urban centre, at the entrance of the Casa de Campo and limited in the south by the Extremadura road, a major national highway connecting the capital with the west of Spain. Situated in a land with undulating topography and an ideal orientation towards south-east, the neighbourhood of *Batán* was planned for 3,760 inhabitants³⁵⁰, and it became an opportunity for this young team of architects to build social housing through urban design experimentation. To this end, the *Batán Colony* was planned as a great neighbourhood with an autonomous entity, made up of linear open blocks inserted in a large green area and nine towers arranged on the north side of the plot as dominant visual elements crowning the assembly.

From the standpoint of its urban strategy, the project for the *Batán Colony* was the most radical solution of all colonies for the *Hogar del Empleado* in which Sáenz de Oíza participated, since the open blocks are arranged in parallel on the basis of optimal sun exposure and adapting to the land, on a green plot inherited from the Casa de Campo and around three central nuclei (school, church and commercial premises), located in pedestrian squares, which is an urban strategy that represented one of the great successes of the project. In this regard, the urban complex was resolved on the basis of a green boundary, the park, and not with the existing urban fabric, so that it met both the principles of rational and organic urbanism, with large blocks structured towards an interior space full of green areas that preserve the original pines of the land. In addition, the open spaces between the blocks were not treated as waste spaces left by the constructions, but were landscaped for purposes of collective use, thus becoming the most interesting element in the set (see Fig.3.52).

The urban solution held in *Batán* is comparable to some German large urban complexes such as *Grünhöfe* (Bremerhaven, 1954-55) or "*Alte Vahr*" *Garden City* (Bremen-Hastedt, 1954-57, see Fig.3.53), developed by Ernst May while he led the

³⁴⁸ Also known as "Unidad vecinal de Nuestra Señora de Lourdes". There was a first proposal with an urban project, which dates back to 1954. For a thorough understanding of the *Batán Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.107-123; and: ALBERDI, Rosario, SOUSA, Ángel Luis and FUNDACIÓN CULTURAL COAM: *Cinco proyectos de vivienda social en la obra de Oíza*. Editorial Pronaos. Madrid, 1996. Print. p.15.

³⁴⁹ With regard to *Batán's* school project and Sáenz de Oíza's organic experience, see: FERNÁNDEZ NIETO, *op.cit.*, pp.247-257.

³⁵⁰ Finally, the number dropped to 3.760 inhabitants. In: <<Unidad vecinal de Batán>> (N.p). *Hogar y Arquitectura*, n.33. Madrid, 1961. Print. p.4.

planning department of the «*Neue Heimat*» in Hamburg after his return from Africa and the Soviet Union. The *Siedlung Hegholt* (Hamburg, 1954), a housing development that was never executed and where he worked together with the Hamburg architects Herbert Sprotte and Peter Neve, stood out among them. The project consisted of a neighbourhood with mixed housing typologies, such as row houses and four- and six-storey blocks, whose variable height depended on their location on the site, thus favouring the views and the correct sun exposure. As in the *Batán Colony*, May's proposal in Hamburg, surrounded by generous green spaces, with a church, a school and commercial premises, was topped by different towers distributed throughout the site as visual landmarks in the urban set (see Fig.3.30, Fig.3.31).³⁵¹



Fig.3.30 *Batán Colony* (Madrid, 1955-63). Site plan.

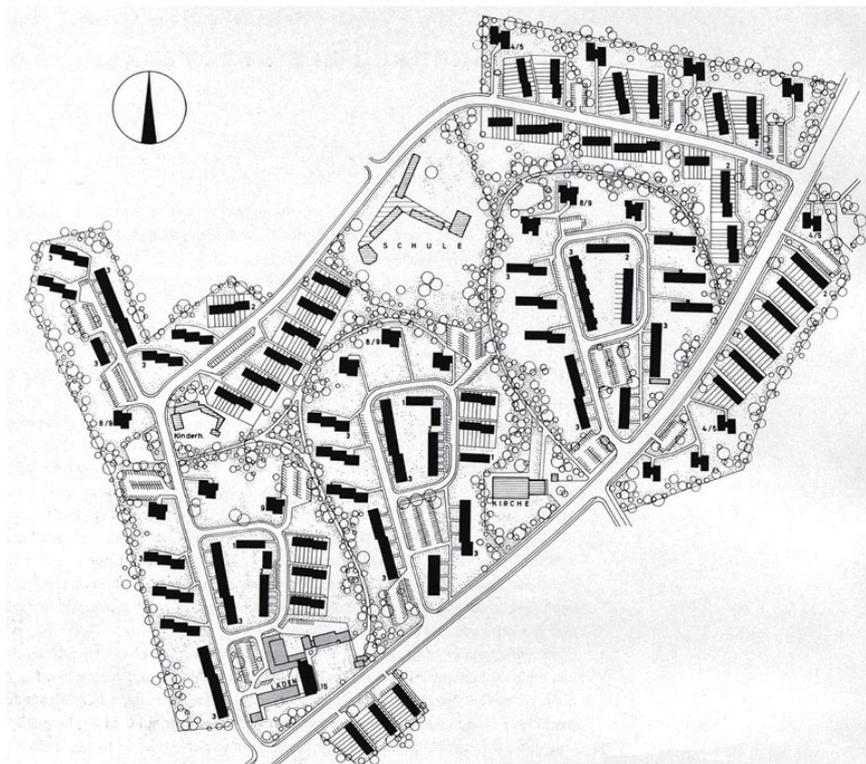


Fig.3.31 *Siedlung Hegholt* (Hamburg, 1954). Site plan.

³⁵¹ With regard to Ernst May's *Siedlung Hegholt*, see: BUEKSCHMITT, Justus: *Ernst May. Bauten und Planungen. Band 1*. Verlagsanstalt Alexander Koch. Stuttgart, 1963. Print. pp.110-111.

On the other hand, in the *Batán Colony* a hierarchy of circulations and accesses to the different housing blocks was carried out by distinguishing between pedestrians and cars. Furthermore, the road traffic was also put into hierarchy (see Fig.3.32): the external perimeter road is restricted to vehicles outside the estate, and there is only one access road that reaches the civic centre, which is complemented by some secondary local streets to supply the neighbourhood and open parking spaces in the north façades of the blocks. This decision stems from an idea that was already implemented by Mies in the *Weissenhof Estate*: the arrangement of housing blocks with a single access road to the centre of the assembly that emerges from the main communication artery around it.

Moreover, independent pedestrian paths that link with the small open gardens and facilities in the neighbourhood were created inside the colony, and all free interstitial spaces were considered as prominent as the constructed spaces. In this regard, many connections can be established between the urban solution of *Batán* and the *District of Stuttgart Rot* (Stuttgart-Zuffenhausen, 1949-57), which was the first *Siedlung* built in the postwar period in Stuttgart, and is characterised by a strong presence of vegetation, with low-density buildings and a central green space (see Fig.3.33). As in *Batán*, *Rot's* neighbourhood is crowned by high-rise buildings which are labeled as dominant urban points in the settlement (see Fig.3.34, Fig.3.35). Furthermore, *Rot* was also solved through a network of hierarchical communications, with four main axes from which different communication routes begin and penetrate in the quarters. The housing buildings, which followed the standards of the German social housing of the 1950s, are linearly arranged and accessed by pedestrian interconnected paths with the permanent presence of lush green spaces.³⁵²



Fig.3.32 *Batán Colony* (Madrid, 1955-63).
Road circulation.



Fig.3.33 *Rot* (Stuttgart-Zuffenhausen, 1949-57).
Site plan.

³⁵² With regard to the *District of Stuttgart Rot*, see: HAFNER, Thomas, and SIMON, Christina: *WohnOrte. 50 Wohnquartiere in Stuttgart von 1890 bis 2002*. Karl Krämer Verlag Stuttgart. Stuttgart 2002. Print. pp.110-113.



Fig.3.34 *Batán Colony* (Madrid, 1961).
Open blocks and towers.



Fig.3.35 *District of Rot* (Stuttgart).
Low-rise buildings and towers.

The *Batán Colony* is infused with a quiet urban environment, away from the road traffic and with easy internal communications, with the dwellings surrounded by pre-existing trees (see Fig.3.36), and vast gardens that can sometimes serve as an extension of the school located in the centre of the urban set, and be used as children's play areas. These elements enhance the identity of the neighbourhood and have been intensified with the passage of time, with spaces in shade that are much appreciated by the neighbours, especially in the summertime, since the climate in Madrid is generally fairly hot. But moreover, these qualities produce a similar effect than that of the *Siedlung Siemensstadt*, where large linear blocks are interspersed with the existing dense tree-lined surface (see Fig.3.37). Furthermore, the ground unevenness along the whole plot forced the architects to propose some accesses with stairs and low retaining stone walls that mark of the boundaries of the urban space and distinguishes the image of the neighbourhood, with a uniform appearance which is only broken by the differentiation of buildings (see Fig.3.38). This urban effect is similar and comparable to that of the *Weissenhof State*, where low white walls demarcate the plots and streets, arranging them while accompanying the pedestrians (see Fig.3.39).



Fig.3.36 *Batán Colony* (Madrid, 1955-63).
Green areas between buildings.

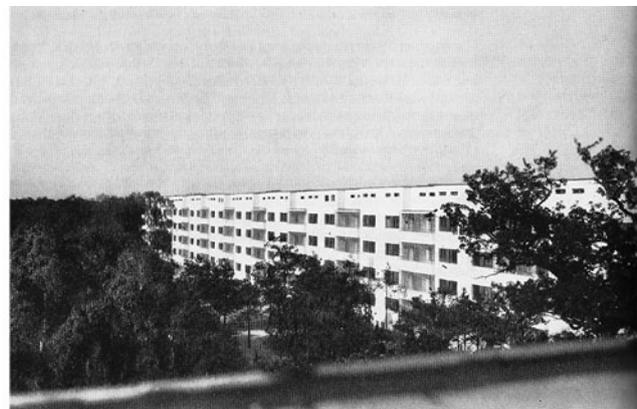


Fig.3.37 *Siedlung Siemensstadt* (Berlin, 1929).
Buildings embedded into existing vegetation.

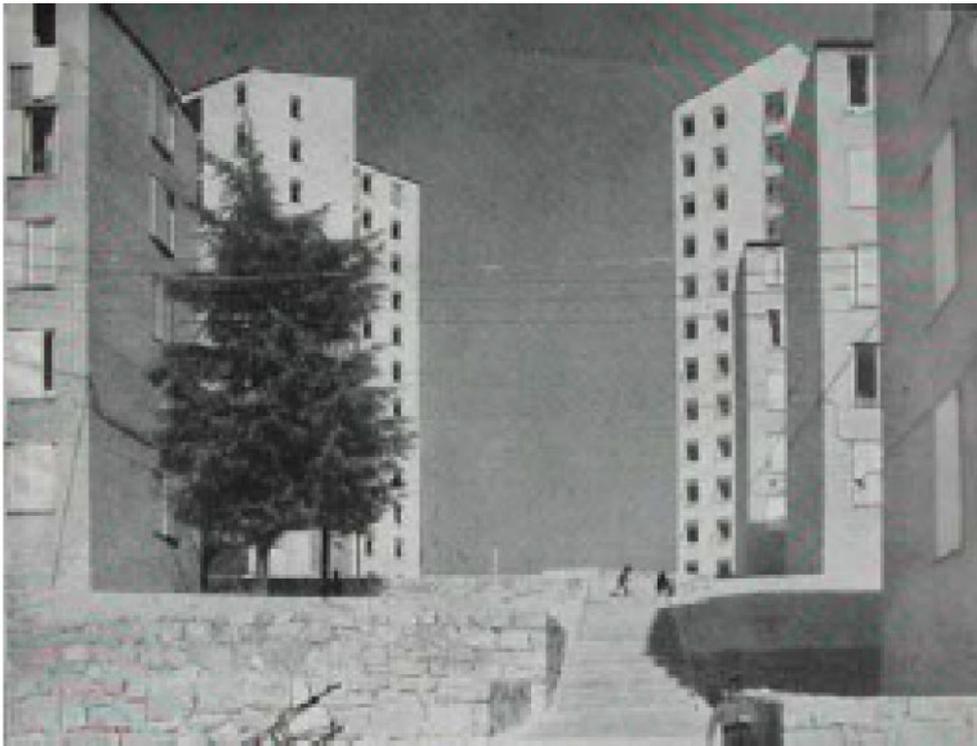


Fig.3.38 *Batán Colony* (Madrid, 1961). Retaining stone walls along the neighbourhood.



Fig.3.39 *Weissenhof Estate* (Stuttgart, 1927).

The social housing units of the *Batán Colony* were organized in two distinct typologies embedded in the inherited vegetation: 752 dwellings distributed in five-storey open blocks, which are arranged in parallel and with north-south orientation, and 284 residential units developed in nine twelve-storey towers³⁵³, that are situated on the northern edge of the plot next to the Casa de Campo, so that the urban complex is topped by the high-rise buildings in order to break the monotony of the ensemble and allow optimal conditions regarding noise, sunlight and views. In this sense, the orientation of the buildings was determined by their location on the ground. The idea of creating a neighbourhood with mixed typologies and different heights in Madrid was particularly innovating for the time, and it was implemented in other contemporary examples like *Fuencarral <<A>>*. However, it is a strategy that had already been tested in Germany during the 1920s, and was materialized in different *Siedlungen* such as the *Weissenhof Estate* and *Dammerstock*.

The linear open blocks of *Batán* were an evolved solution of the experimental block of *Puerta del Ángel Colony* and they consisted of two symmetrical apartments per floor which are accessed through the same type of open staircase of the previous colony. This evolution of the experimental block results, in turn, in two distinct types of blocks: five-storey open blocks with two three-bedroom apartments per floor (63.75 sqm each dwelling, with the same typology and surface as that of the three-bedroom apartment in the experimental block in the *Puerta del Ángel Colony*³⁵⁴; and five-storey open blocks with two four-bedroom apartments per floor (96.50 sqm each dwelling, see Fig.3.40).³⁵⁵ In relation to the three-bedroom apartments (see Fig.3.41), the floor plan of the dwellings is still closely linked to the German experiences described above in the *Puerta del Ángel Colony*, especially to Ernst May's approach in *Bruchfeldstraße*. However, a variation was introduced in the project plans of *Batán* (see Fig.3.42): the living room is extended by the cession of the adjoining room, which is like a semi-open space that can be closed as a bedroom, if required. The façades are also virtually identical to the experimental block in *Puerta del Ángel*³⁵⁶, built with a careful brick structure which gives an abstract composition of simple windows and outer sliding wooden shutters with metal rails (see Fig.3.43, Fig.3.44, Fig.3.45), a solution that these architects would also apply in the subsequent social housing projects developed for the *Hogar del Empleado*.

³⁵³ The blocks were developed in the first place, and then the towers. See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.180).

³⁵⁴ The open block with two three-bedroom dwellings per floor was already built in *Puerta del Ángel* in the Type 'B'-block; therefore, the block with two four-bedroom dwellings per floor, which was tested in the initial experimental block (Type A) was introduced in *Batán Colony* for the first time.

³⁵⁵ See: <<Unidad vecinal de Batán>>, *op.cit.*, p.10.

³⁵⁶ A window was introduced on the side wall of the five-storey block with two four-bedroom dwellings per floor in order to illuminate the central bedroom. See: FERNÁNDEZ NIETO, *op.cit.*, pp.113-114.

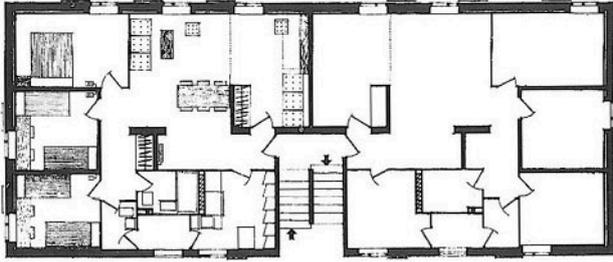


Fig.3.40 *Batán*, 4-bedroom apartments. Floor plan.

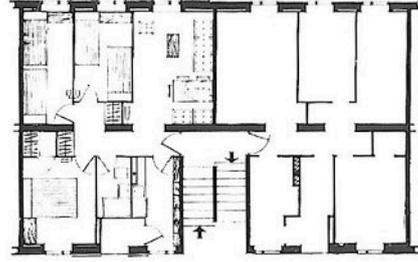


Fig.3.41 *Batán*, 3-bedroom apartments. Floor plan.

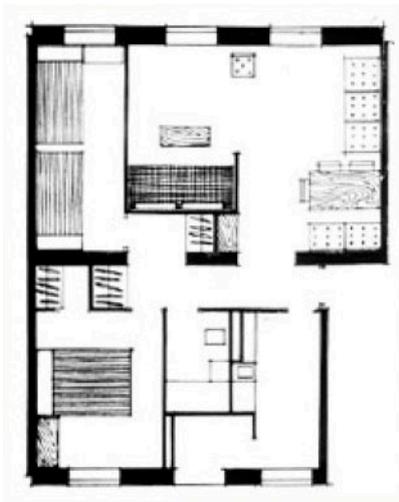


Fig.3.42 *Batán*, 3-bedroom apartments. Floor plan variation.

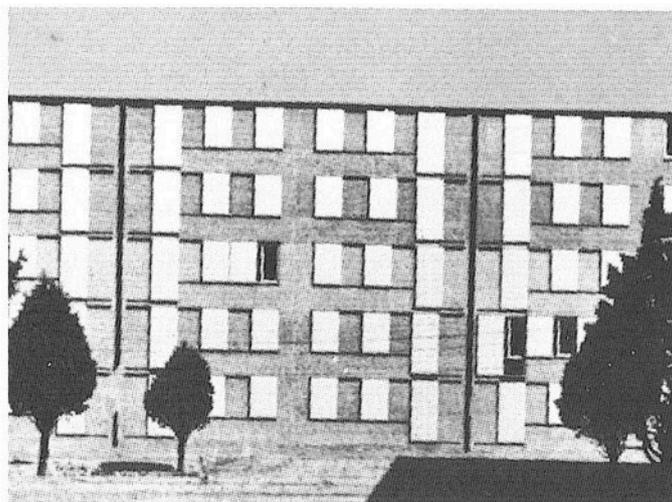


Fig.3.43 *Batán*, 3-bedroom apartments. Southeast façade.



Fig.3.44 *Batán Colony* (1961). Linear open blocks.



Fig.3.45 *Batán Colony* (1961). Open blocks and towers.

On the other hand, the kitchen planning was a key issue in all dwellings units designed and built for the *Hogar del Empleado*, because it was regarded as a prominent space in the design of the house, and therefore, it was studied and understood both as a workspace separated from the living room and as a technical space grouped with the toilet. That is, the kitchen was not treated as a place where the family gathers to eat (<<*Wohnküche*>>), but it was a minimal and optimized laboratory, in the same line of the German houses for minimal existence (<<*Existenzminimum*>>), in which the need to streamline the work and reduce the costs involved the design of specific, modern and standard furniture to increase the space efficiency and simplify the housework. While it is true that in Spain this change did not arise as a social improvement for women as it had happened in Germany during the twenties, where due to the rationalization of the domestic economy and housework the tenants –particularly the housewives– had more time for the education of their children, for the culture and leisure activities, the kitchens of these projects in Madrid provided women with the possibility to perform these tasks in a more comfortable and fast way. In short, the type of solution adopted in these colonies was very much influenced by the successful experience of the *Frankfurt Kitchen* (see Fig.3.46), and it was considered a minimum workplace, a laboratory with a narrow layout (see Fig.3.47): one wall with cabinets and one sink, a window that enables proper natural light and ventilation and a separate open drying room with access from the kitchen, which allows washing the clothes, but also ventilate and illuminate the bathroom.

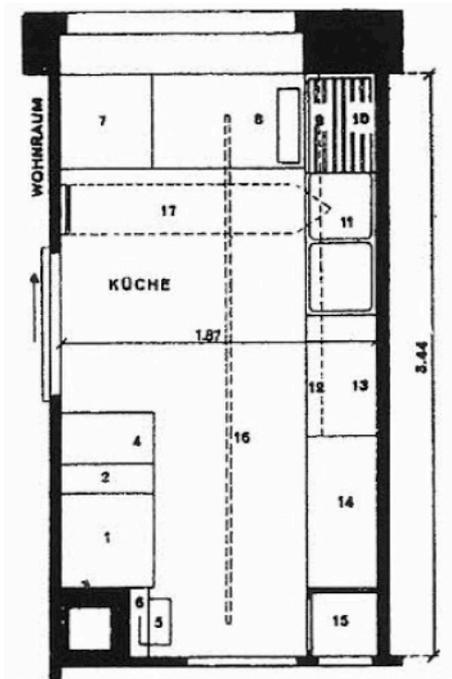


Fig.3.46 Schütte-Lihotzky, *Frankfurt Kitchen* (1926). Floor plan.

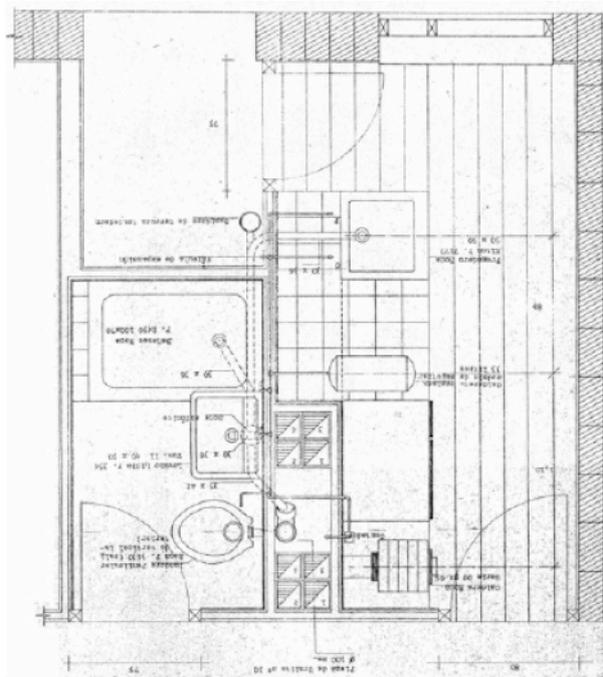


Fig.3.47 Experimental block (3-bedroom apartment). *Wet nucleus in Batán and Erillas*. Floor plan.

The second housing typology characteristic in the *Batán Colony* were the nine twelve-storey towers that were built subsequently and evoke similar Scandinavian solutions³⁵⁷ of the second postwar period. These high-rise buildings were solved with four dwellings per floor and distributed in two bodies with triple orientation, which are separated by one vertical communications nucleus (see Fig.3.48). As Scharoun's high-rise building proposals³⁵⁸, the residential towers in the *Batán Colony* are opened in different directions seeking optimal light for all rooms and allowing better views than those offered by the open blocks, as well as an optimal ventilation of the dwellings.

The dwellings of the residential towers are organized in two types³⁵⁹: three-bedroom apartments (80.30 sqm) and four-bedroom apartments (101.00 sqm). Both apartments have similar distributions, with a private area for the bedrooms and away from the main entrance, a separate living-room with space for a dining area and a terrace, a drying room linked to the wet nucleus (bathroom and kitchen), and no distribution corridors, so that greater flexibility of the floor plan was achieved along with a maximum use of the surface, a cheaper construction and optimal orientation with all rooms open to the light, air and the views, a spatial aspiration in the line with Giedion's *Befreites Wohnen* (1929) or *Liberated Living* (see Fig.3.50, Fig.3.51). The difference between the two types of dwellings in the towers is given by their surfaces and the room linked to the living room, which can be closed at night and function as separate bedroom, a solution adopted also in the linear blocks. In the case of the four-bedroom apartments, this room is separated from the private area of the rooms.

The structural system of the towers was resolved with a reinforced concrete frame, and the façade is clad with an independent facing wall covered with ceramic tiles in yellow ochre of 15x15 cm., which combine with the window frames and wooden shutters, while they contrast with the glass and the black painted metal profiles used in the railings of the terraces and the glass enclosures, a design resource that was used again in the *Calero Colony*. In this way, the individual elements integrating the façade of each apartment are not emphasized, thereby enhancing the abstraction of the overall composition (see Fig.3.49). On the other hand, the contact of the towers with the ground is distinguished by a sensitive gap, a small longitudinal strip that illuminates the basement and allows proper ventilation of the building and, at the same time, it produces a shadow that accentuates the feeling and perception of a floating construction. Consequently, the construction design became simultaneously a compositional resource.

³⁵⁷ With regard to these Scandinavian references, see: FERNÁNDEZ NIETO, *op.cit.*, pp.244-247.

³⁵⁸ That is the case of his *Rome and Julia* high-rise apartments (Stuttgart-Zuffenhausen, 1954-59), or his housing development in *Charlottenburg-Nord* (Berlin-Charlottenburg, 1955-60).

³⁵⁹ See: "General Annex 1: Characteristics of the Colonies" at the end of this chapter (p.180).



Fig.3.52 *Batán Colony* (1961). Assembly view with the open blocks and the twelve-storey towers.

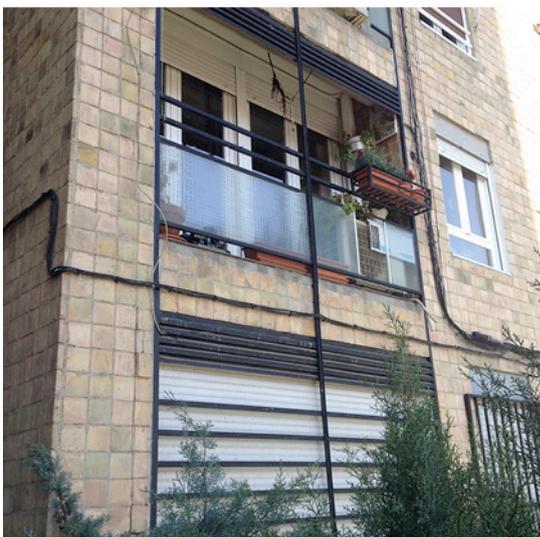
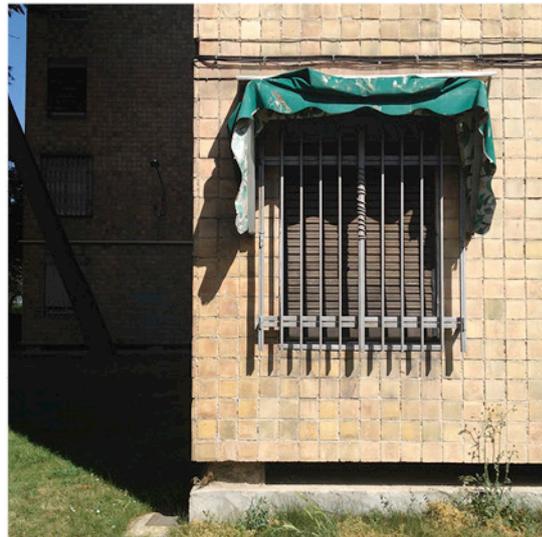
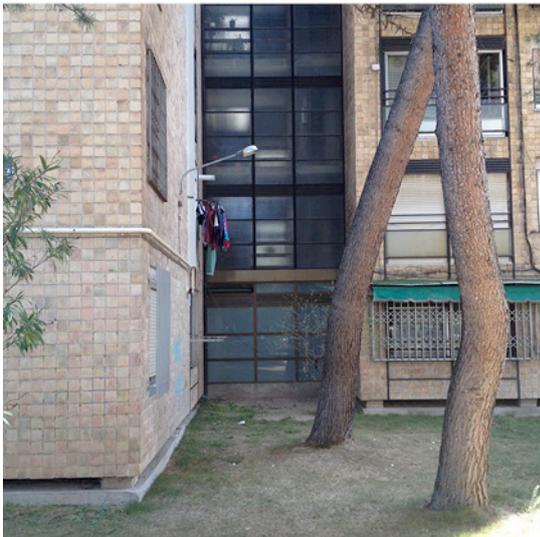


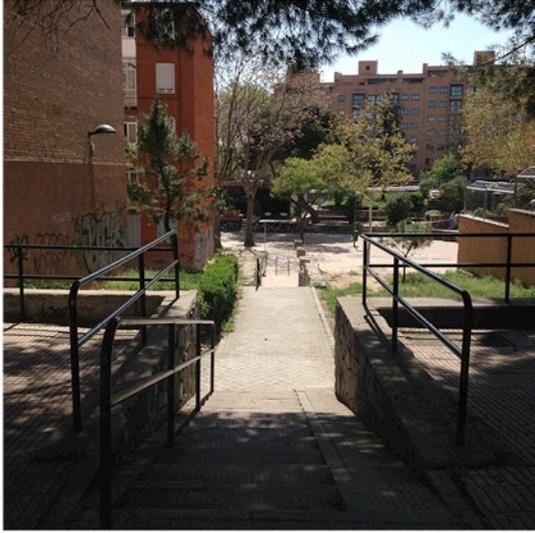
Fig.3.53 E.May, *(Alte) Vahr Garden City* (Bremen-Hastedt, 1954-57). Assembly view from the southern playground with the thirteen-storey tower in the background.

Nowadays, the *Batán Colony* has an ageing population and a large immigrant community, and both the buildings and open spaces present an acceptable state of conservation, with a friendly and peaceful wooded environment, although the blocks closest to the highway have suffered the consequences of pollution on their façades. The neighbourhood has undergone various changes in the layout of the estate to facilitate access to the dwellings in case of emergency, and many accesses originally designed with stairs have been replaced by ramps to eliminate architectural barriers. On the other hand, most of the commercial premises have been abandoned, so that the neighbourhood is no longer self-sufficient, and the school remains as the only urban facility currently fully operational.

With regard to the façades of the linear blocks, most of them have been gradually coated with an orange monolayer mortar, so that the original image of exposed brick is disappearing. Besides, the façades have also been degraded by the presence of graffiti, air conditioners and the clothes hanging from the windows, which cause a very deteriorated image with respect to the original project. Although the outer sliding shutters have been maintained, the original wooden slats have been replaced by aluminum. As in the case of the *Puerta del Ángel Colony*, the staircases in the linear blocks have been closed with glass, thus entirely distorting the original design of the building elevations and the external image of the dwellings, which currently appear more private and closed to the street and the gardens.

Photographic Report on the Current Situation of *Batán Colony* (2015)





The next project developed in parallel with the design and construction of the *Batán Colony* by the same team of architects³⁶¹ was the *Erillas Colony*.³⁶² Designed in 1955 and executed in 1957, the colony is situated in the working-class district of Vallecas, located in the south-east of Madrid, and its 340 residential units were solved by repeating the same type of five-storey blocks with double bay that was used in *Batán*, including both the three-bedroom and four-bedroom apartments, but adapting them to the particular circumstances and realities of the site. The whole plot in *Erillas* is inserted in a consolidated urban pattern, with elongated and compact plots, without green spaces and surrounded by an irregular grid of streets (see Fig.3.54). Therefore, although the housing solution is identical to that used in *Batán*³⁶³ (see Fig.3.55), the blocks are arranged in a spiral pattern as a barrier to the city on the perimeter of the plot, thus creating a pedestrian unit block which is adjusted to the surrounding road, and distributed in three areas with an urban scale proportionate to the environment, with private, lush and tranquil interstitial landscaped areas, protected from traffic and properly bounded by the treatment of the irregular topography with platforms and stairs.

The greatest success of this colony possibly lies in the richness of the interior open spaces that provide access to the housing blocks. These garden areas are articulated as empty spaces that result from the placement of the buildings (see Fig.3.56), which are all equal and enjoy double orientation and proper ventilation. As in the case of *Puerta del Ángel Colony*, the optimal orientation of the open blocks is subject to the creation of gardens, and it depends on the orientation of the streets with which they are aligned. Moreover, the internal circulations of the colony are exclusively pedestrian and the whole housing estate included a small kindergarten inside the plot, so that *Erillas* was the colony in which less urban facilities were introduced.

At present, the state of preservation of the colony is quite acceptable and there has not been major changes in its urban layout.³⁶⁴ As in previous cases, the most significant changes have been introduced in the housing blocks. The façades have undergone the same transformation as the buildings in the *Batán Colony*, so that their image has also been degraded by the presence of numerous clotheslines, the elimination of many sliding shutters, the replacement of the original wooden window frames through new ones made of aluminum, and the placement of air conditioning

³⁶¹ Luis Cubillo de Arteaga joined the team in this project.

³⁶² For a thorough understanding of the *Erillas Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.124-131; and: MOYA GONZÁLEZ, Luis: *Barrios de promoción oficial: Madrid 1939-1976: la política de promoción pública de vivienda*. COAM, Servicio de Publicaciones, D.L. Madrid, 1983. Print. p.188.

³⁶³ See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.180).

³⁶⁴ One of the free spaces inside the colony is currently used as parking area for the neighbours, which is not part of the original project.

and smoke extractors on the outside of the dwellings. On the other hand, the original brick façade has also been coated with a salmon-coloured monolayer mortar, and the cores of staircases have been closed with glass. As in most of the colonies studied, the staircases currently have a rougher appearance, with solid risers and the introduction of materials that pervert the simplicity of the original lightweight design of the fifties. Lastly, the vegetation of the interior gardens is poorer than in other cases such as *Batán* and *Puerta del Ángel*, with sandy areas and deciduous trees.

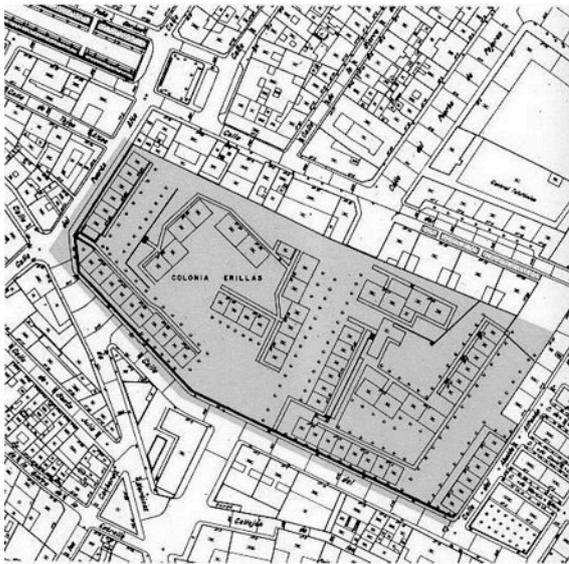


Fig.3.54 *Erillas Colony*. Site plan.



Fig.3.55 *Erillas Colony* (1959).
Sliding shutters on the façade.

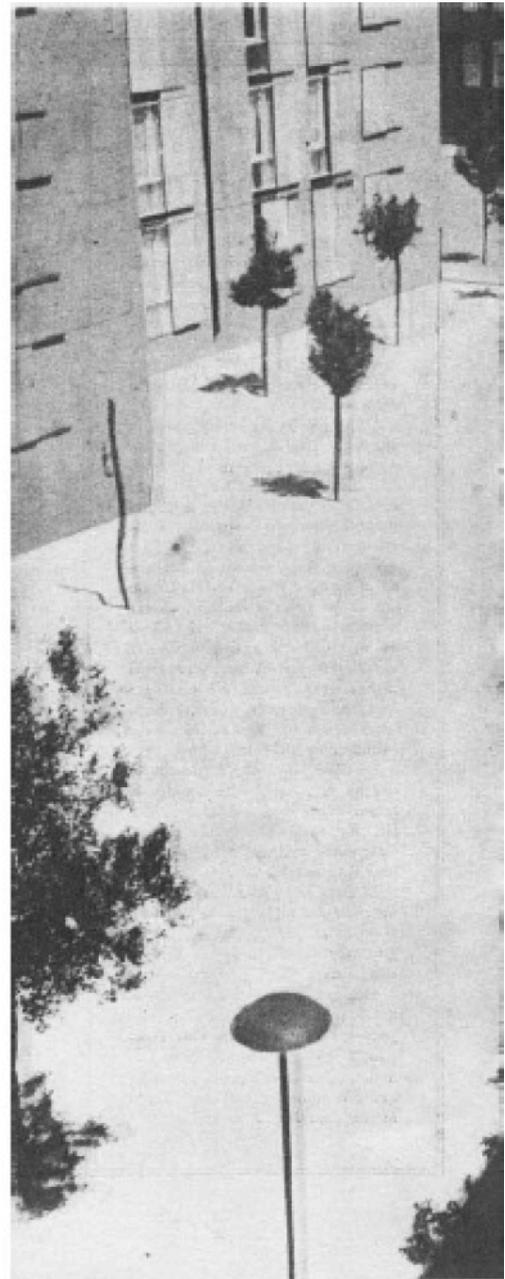


Fig.3.56 *Erillas Colony* (1959).

Photographic Report on the Current Situation of *Erillas Colony* (2015)





The construction of *Erillas* in 1957 coincided with the design of the project for the *Calero Colony*³⁶⁵, built between 1959 and 1961 in the Barrio de la Concepción, on the east side of Madrid. This colony, which is also inserted into a consolidated urban pattern, is divided in two plots delineated by an urban grid of perpendicular streets and situated next to a large sports complex and the Calero Park, which singularize the environment of the colony (see Fig.3.57). In *Calero*, the arrangement of the housing blocks follows the urban structure logic of the streets that delimit the colony and consequently, they are located on the perimeter of the plot and perpendicularly to each other, adapted to the topography of the plot and its different levels. For this reason, no house has an optimal north-south orientation, but they all have proper ventilation. On the other hand, as is the case of *Puerta del Ángel* and *Erillas*, the internal circulation of the colony is also limited to pedestrians, and is organized by stairs, ramps and retaining granite walls that solve and bridge the difference in height between the ground levels, as well as they define the internal paths of the settlement. All interstitial gardens and adjacent pedestrian access roads to the dwellings are smaller in this project given the high density of built area in relation to the plot size.

The settlement was organized in 403 housing units³⁶⁶ that are distributed in two typologies: Five- and six-storey open blocks with two bays and three-bedroom apartments per floor³⁶⁷, following the experimental block of the three preceding colonies; and a twelve-storey block with three bays, which is a second version of the draft project proposed in 1953: the *600 Houses in the Urbanization of the Manzanares River* (see Fig.3.58). Despite the fact that the location and urban environment of this housing development do not offer the same urban qualities that the first project of this series for the *Hogar del Empleado* in which Sáenz de Oíza intervened, whose blocks were in direct contact with the river and the historic centre of Madrid, the situation of the two plots in *Calero*, next to a large park and sports area, became an opportunity to build the straight block designed in 1953, but with nuances, although the idea of a ground floor with spaces destined to be used as community areas such as a school centre, a chapel and commercial premises was kept.³⁶⁸ In comparison to its precedent prototype, whose social housing standards were far beyond the limits of the time, the size and proportion of the superblock of dwellings in *Calero* were reduced.³⁶⁹

³⁶⁵ For a thorough understanding of the *Calero Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.132-144.

³⁶⁶ See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.181).

³⁶⁷ Sometimes, a change was introduced in the type of block used in *Batán* and *Erillas*, which is identical in *Calero*, by placing adjoining blocks connected by the staircases.

³⁶⁸ Today, the school occupies the entire ground floor of the twelve-storey block, so that the commercial and residential use that was intended has disappeared, although the chapel has been maintained.

³⁶⁹ The width of the block was reduced by almost two metres. See the differences between the two projects in: FERNÁNDEZ NIETO, *op.cit.*, pp.341-342.

In addition, the open gallery located in the middle of the block as access to the dwellings, which was also proposed in the first draft project of 1953, has been glazed over time, thus losing its quality as open community street that could promote or reinforce social relations between the neighbours.

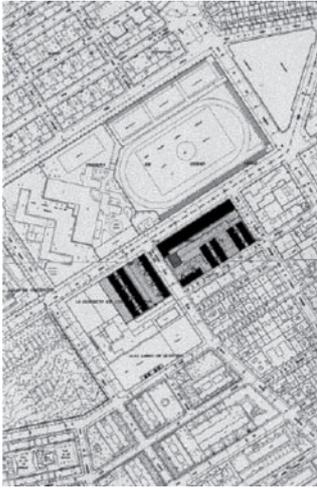


Fig.3.57 *Calero Colony* (1957). Site plan. **Fig.3.58** *Calero Colony* under construction (1960).

In the *Calero Colony*, the German influence is still present in the floor type of the linear open blocks, which remains constant with respect to the previous cases, and the external image of the nucleus of the staircase³⁷⁰ leading to the lower blocks (see Fig.3.59), which can be seen as a reminiscence of those in Ernst May's housing project in *Neu-Altona* (Hamburg, 1955-60, see Fig.3.60). Despite the disparity of typologies used, a unitary image of the whole urban set was achieved in the *Calero Colony* through the treatment of the façades, their materiality and composition, with the same coating of ceramic tiles in yellow ochre used in the *Batán Colony*, which are gradually being replaced by monolayer mortar of the same colour due to its incremental detachment from the walls.

However, today, the changes introduced chaotically and independently on the façades of the superblock by the neighbours have led to a compositional separation between the two typologies of the colony. Even so, and despite the specific transformations carried out in the buildings by their tenants, which are similar to those undertaken in previous cases such as the replacement of wood by aluminum in the window frames, the colony has an acceptable level of maintenance, with an ageing population who is not much different from the social group to whom these social housing were allocated.

³⁷⁰ Due to the lack of original documentation, it is unknown whether these stairways were open or glazed, as they appear today.

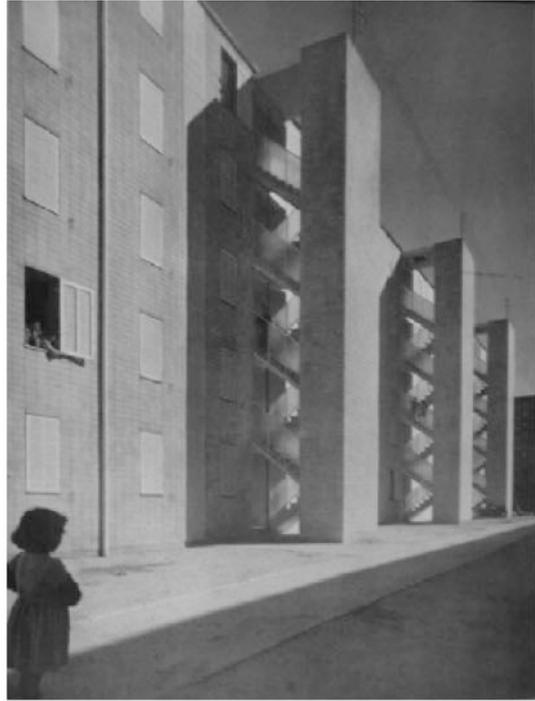


Fig.3.59 *Calero Colony* (Madrid). View of the external staircases.



Fig.3.60 E. May, *Neu Altona* (Lübecker Straße, Hamburg).
View of the external access galleries and staircases.

Photographic Report on the Current Situation of *Calero Colony* (2015)







The last neighbourhood unit in which Sáenz de Oíza participated as part of the team of architects³⁷¹ working for the *Hogar del Empleado* was the *Loyola Colony*³⁷² (1960-65), built in the south of Madrid, in the working class district of Carabanchel. However, although many of the ideas raised by Sáenz de Oíza in the former colonies were materialized in this project, his participation was minimal, since he was already immersed in the *White City of Alcudia* project (Palma de Mallorca, 1961-63). Therefore, his partner José Luis Romany was the one who dealt with the urban organization of *Loyola*, with an organic-based design and a hierarchy of circulations (see Fig.3.61), as it had also been proposed in *Batán*. The low participation of Sáenz de Oíza in this project also resulted in the architectural references, mainly located in Italian, Dutch and English projects built after World War II. The uniqueness of the *Loyola Colony* with respect to the previous analyzed colonies lies mainly in the type of housing solution, because it is the only colony where the experimental block of the previous experiences was not used.

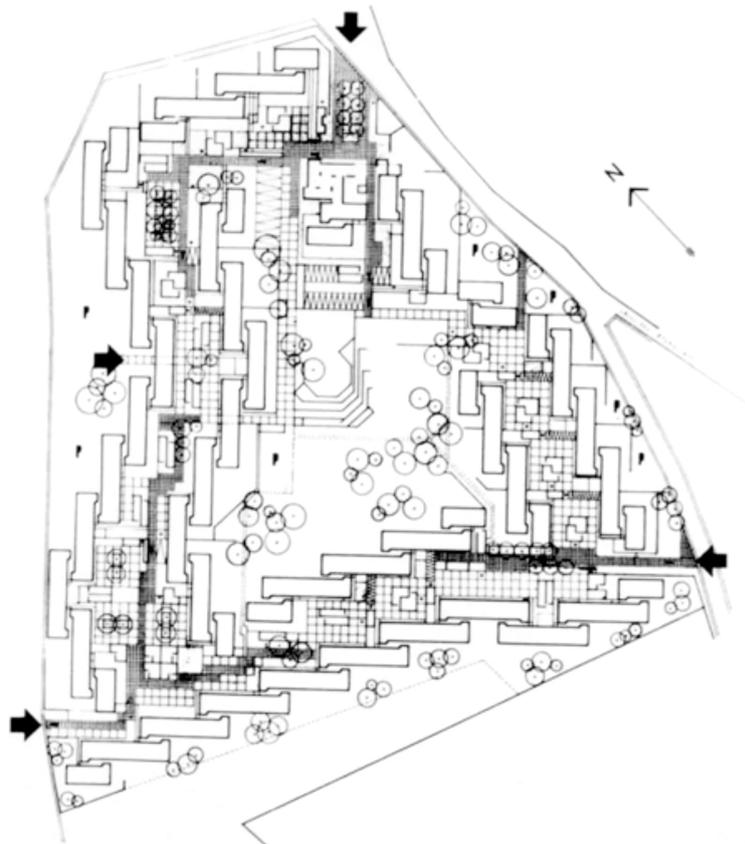


Fig.3.61 *Loyola Colony* (1960-65).
Site plan.

³⁷¹ Manuel Sierra and Luis Cubillo de Arteaga did not participate in this project, and the young architects Carlos Ferrán and Eduardo Mangada, who had already participated as collaborating architects in the projects of *Batán* and *Erillas*, appeared as co-authors of the *Loyola Colony* along with Sáenz de Oíza and José Luis Romany.

³⁷² For a thorough understanding of the *Loyola Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.145-156; *Cinco proyectos de vivienda social en la obra de Oíza*, *op.cit.*, p.14; and: CHURTICHAGA, José María: «El grupo de viviendas Loyola». In: *Un siglo de vivienda social: 1903-2003*, *op.cit.*, pp.222-223.

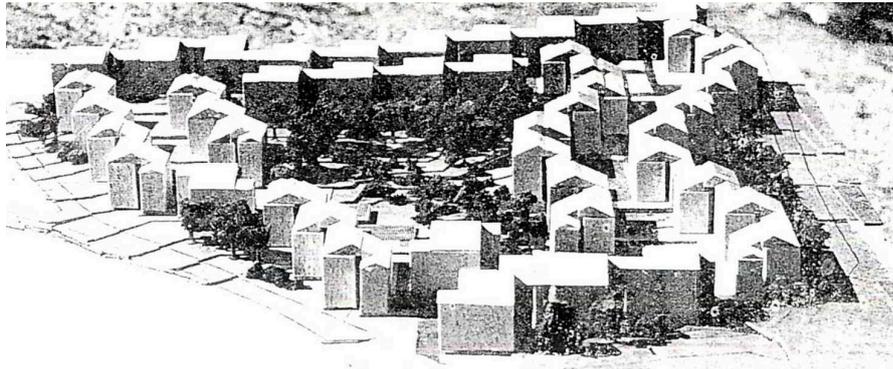


Fig.3.62 *Loyola Colony*. Model of the urban set.

The plot of the colony, appreciably triangular, was resolved by two concentric rings of circulation: an outer ring with a road bordering the buildings that allows access to a second level of pedestrian and a second ring organizing the road traffic, which is enclosed by the housing blocks, bounded by gardens and substantially parallel to the outer streets (see Fig.3.62). Henceforth, as in the former colonies, but also in the *Weissenhof Estate*, the pedestrian is the protagonist of the urban space. The housing blocks and stores were arranged on both sides of the internal pathway, while a green area was left in the middle of the whole plot, a protected space reserved for pedestrians to potentiate social relations, where children could play. This urban centre is not explicitly closed to road traffic, but both the soil treatment and the placement of urban elements make it remain subordinated to pedestrian activities. Access to this central space is made through holes or tunnels in the basement of the housing blocks, thus creating direct routes between the streets and small squares and the central urban space, which is the intimate heart of the neighbourhood.

Of all the case study colonies, *Loyola* is the one that presents a more complex organization, while it maintains the strategy of giving prominence to the urban configuration against the right sun exposure conditions of the dwellings. Under this concept, the colony had a program of 762 residential units with a kindergarten, proposed as a separated pavilion situated in the centre of the urban complex, one high school and commercial premises integrated on the ground floor of the apartment blocks, a strategy that was carried out in former colonies³⁷³ because it is precisely in these spaces where neighbourly relations are more intense, and community service spaces.³⁷⁴ In addition, there were community dry rooms in the gardens, a concept that was also used in the German interwar *Siedlungen*, where these open spaces were situated on roof terraces, thus favouring air circulation and sun.

³⁷³ Specifically, this solution appeared in two of the six colonies analyzed in this dissertation: in the *600 Houses in the Urbanization of the Manzanares River* and in the *Puerta del Ángel Colony*.

³⁷⁴ See: "Annex 1: General Characteristics of the Colonies" at the end of this chapter (p.181).

Loyola's urban complex is an example of rationality and mathematical logic, since the whole plot was modulated with a raster of 3x3 m, the housing block type was built from a module of 21x21 m, while a sub-module of 60x60 cm was used to solve the housing unit.³⁷⁵ Therefore, the colony was configured by adding a basic unit that consists of two blocks³⁷⁶ with two apartments per floor connected by a narrow bay where the staircase is inserted, thus creating a cluster of four houses with a half-height difference between them. The two types of housing (see Fig.3.63) of less than 60 square metres and with minimal variation on their surface³⁷⁷ are the smallest dwellings of all colonies studied. Both types of dwellings follow the logic of optimized and rational minimum space and they are distributed into a living room, two or three bedrooms, and a wet nucleus composed of: one kitchen, which receives direct natural light and ventilation, and the bathroom, which is vented through vertical ducts. As a novelty, the toilet and the bathroom are separated, being adjacent but with separate entrance. Moreover, circulations within the house are eliminated and vertical installations are once again concentrated in a single point, so that the dwelling reaches a maximum optimization and functionality in the floor plan with a minimum area. In addition to this flexible distribution, both the slight displacement of the blocks and the elimination of the patios allow the dwellings to have double orientation and cross ventilation, favoring, in turn, the emergence of spaces for interaction and coexistence, a condition that is also translated into a more attractive external image of the colony, while it enables a richer, more intense and less-aligning perception of the urban set.

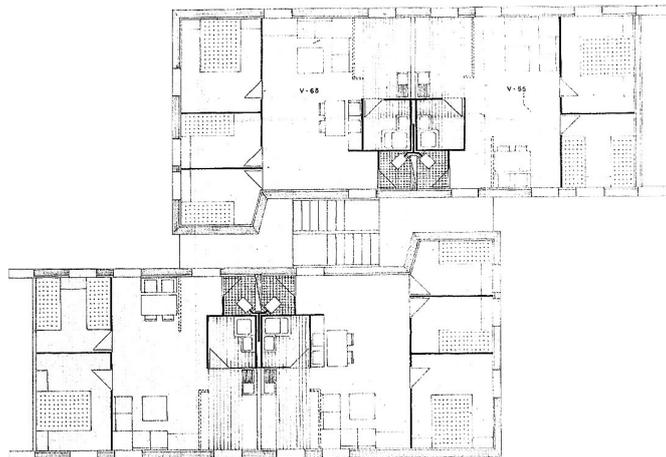


Fig.3.63 *Loyola's* housing blocks with two types of dwellings. Floor plan (1960).

³⁷⁵ A larger module of 21x21 m was also used in the block type. In: FERNÁNDEZ NIETO, *op.cit.*, p.147.

³⁷⁶ In the project, these contiguous block units were joined by terraces, which were removed in the execution project. See: *Cinco proyectos de vivienda social en la obra de Oíza*, *op.cit.*, p.14.

³⁷⁷ One dwelling has a surface of 59.22 sqm and the other 51.84 sqm. The difference between the two housing surfaces in the same block is given by the addition of a bedroom. In: FERNÁNDEZ NIETO, *op.cit.*, p.149.

In this colony, the housing is not subject to an optimal north-south orientation, so that the «New Building» principle and strategy of a linear urbanism planned from the housing unit to the block, and from the block to the urban set is abandoned. In this sense, and in a line reminiscent of proposals of Candilis-Josic-Woods, Van den Broek-Bakema, or even Jørn Utzon³⁷⁸, the housing development was resolved through the aggregation of housing typologies and giving priority to the open space inside the set, which was not an empty space resulting from the construction, but it was perfectly dimensioned, bounded and understood as a protagonist landscaped space where community relations are intensified, where the neighbours could walk and talk and children could play, oblivious to the noise and danger of road traffic.

On the other hand, given the uneven ground, the soil was treated in detail by establishing platforms connected by ramps and stairs (see Fig.3.64), that were adapted to the topography and organized both the public squares and the access to the housing blocks, while they created a friendly environment. This circumstance of the sloping terrain forced the abovementioned vertical displacement of the blocks, a feature that allowed a rich heterogeneity of the building elevations with their different heights, providing the entire colony with a degree of uniqueness thanks to the combination of the movement in the volumes and the creation of changing perspectives (see Fig.3.65).



Fig.3.64 Original treatment of urban spaces in the *Loyola Colony*.

³⁷⁸ These foreign references in the *Loyola Colony* have been pointed out and studied by María Antonia Fernández Nieto. In: FERNÁNDEZ NIETO, *op.cit.*, pp.226-227, 270-275, 287-289.

Furthermore, the housing development had a uniform composition due to the materials used: brick and concrete. The structure of the housing blocks was solved by half-foot ceramic brick for the load-bearing walls, whose materiality is visible in the exterior façades and interior finishes of the entry portals, and concrete was used in all bands and bases, which are also visible on the façade and contribute to create different textures in all pedestrian areas that contrast with the abundant greenery. The gabled roofs are made up from ceramic tiles with closed air chambers with hollow bricks, and topped with characteristic eaves of reinforced glass and metal supports painted in black³⁷⁹, which have been maintained until today. Besides, the typical sliding wooden shutters of the previous colonies were not used in this project, but instead the architects opted for the use of exterior rolling wooden shutters³⁸⁰ as a sun protection measure. Despite the economical, technical and constructive constraints, the design features such as the strengthening of the common areas and the unitary treatment of the housing and materials meant the great value of this project.

Over time, the colony has undergone significant changes, particularly with respect to the treatment of these common spaces, which were a fundamental concept of the project, as they have been degraded by the removal of the platforms in favour of a road traffic that has become a public road, thus deleting the original domestic sense of the project. The image of the residential complex has been neglected by the removal of the common open drying spaces, so that the clothing appears lying next to air conditioners on the façades, and the exposed brick has been homogenously covered with cream and blue paintings, while the red colour has been chosen to cover all concrete strips in the building elevation. On the other hand, the lightness and transparency of the access stairs and interiors of the houses (see Fig.3.66, Fig.3.67), originally built with precast concrete steps through which the light penetrated, have disappeared due to the construction of solid risers.

Nevertheless, and despite the ageing and obsolescence of the standards of the neighbourhood along with the substantial change in the external image of the blocks, which is no longer unitary, and the inside transit, currently conceived as a public road, the neighbourhood is still one of the most interesting urban spaces in Madrid, a positive example of how modern and rationalist architecture is not incompatible with community life, especially when an adequate treatment and definition of the domestic urban spaces, today fully covered with vegetation, invite to coexistence.

³⁷⁹ According to María Antonia Fernández Nieto, these eaves were introduced at the end of the construction, when the blocks were already occupied, in order to solve a problem of moisture inside the dwellings caused by rain. In: FERNÁNDEZ NIETO, *op.cit.*, p.151.

³⁸⁰ Currently, external metal shutters have been incorporated in some apartments.



Fig.3.65 *Loyola Colony*. Open landscaped areas between the blocks.



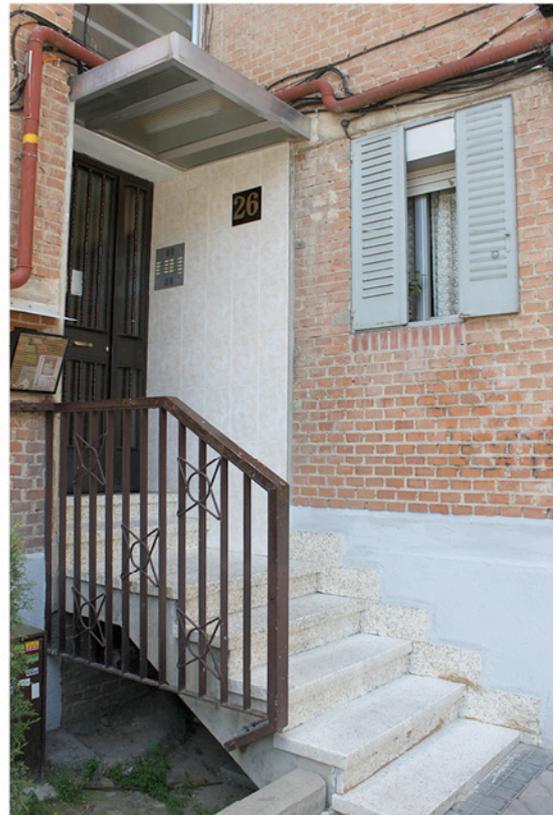
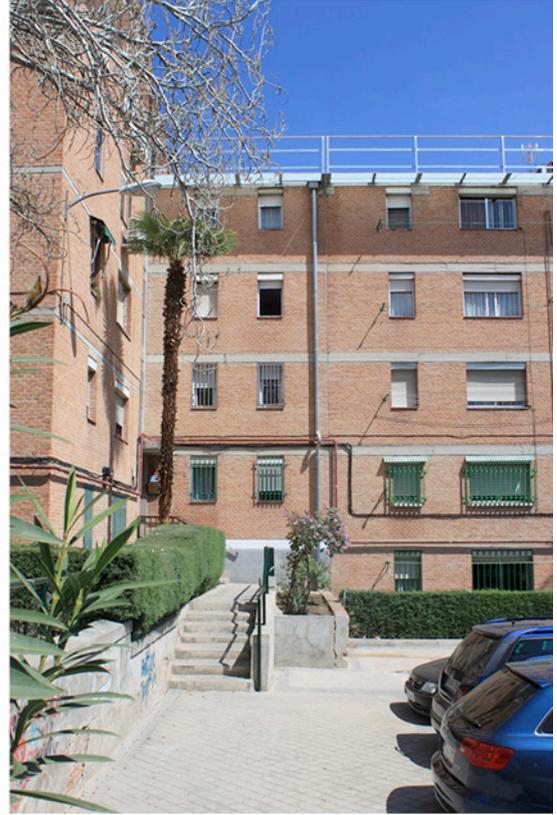
Fig.3.66 *Loyola Colony*. Entrance stairs to the blocks.



Fig.3.67 *Loyola Colony*. Interior staircase.

Photographic Report on the Current Situation of *Loyola Colony* (2015)





Annex 1: General Characteristics of the Colonies³⁸¹

Name: *600 Houses in the Urbanization of the Manzanares River.*

(«Grupo Covadonga»)

Location: Manzanares River, Madrid.

Project and Execution Date: July 1953 (Project). Not built.

Number of housing units: 600

Housing Typologies: 11-storey block with 4 bays, alternating central gallery as access to the dwellings: Half-duplex with 2, 3 or 4 bedrooms and one-storey dwelling on the access level.

Orientation: WE (half-duplex dwellings); W or E (one-storey dwelling).

Total Area: 14,185 sqm.

Total Housing Area: 5,625 sqm (40%).

Dwellings Surface:

Type A: 112.50 sqm (basic typology: half-duplex, 3 bedrooms, 6 people).

Type B: 96.10 sqm (half-duplex, 2 bedrooms, 4 people).

Type C: 128.90 sqm (half-duplex, 4 bedrooms, 8 people).

Type D: 92.50 sqm (1-storey dwelling, 3 bedrooms, 6 people).

Type E: 74.00 sqm (1-storey dwelling, 2 bedrooms, 4 people).

Open Areas: 8,560 sqm (60%)

Service Areas: 2,839 sqm (20%). Situated underneath the dwellings. Kindergartens and schools, commercial premises and community service spaces, residence for singles.

Architects: Francisco Javier Sáenz de Oíza, Manuel Sierra, José Luis Romany and Adam Milczynski.

Name: *Puerta del Ángel Colony.* («Grupo Covadonga»)

Location: Puerta del Ángel, Madrid.

Project and Execution Date: Project: 1954 (experimental block), January 1957 (rest of the complex). Execution: 1955 (experimental block), 1957 (rest of the complex).

Number of housing units: 195

Housing Typologies: Type A: 5-storey experimental block (2 dwellings/floor); Type B: 4-storey block (2 dwellings/floor); Types C and E: 5-storey blocks with central courtyard (2 dwellings/floor); Type D: 5 single-family row houses with studio.

Orientation: NS (Types E and D); WE (Types A, B and C).

Total Area: 10,334 sqm.

Total Housing Area: 4,143 sqm (40%).

Dwellings Surface:

Type A: 5-storey experimental block, 2 equal bays, 2 dwellings/floor:

Dwelling 1: 63.75 sqm (3 bedrooms, 6 people).

Dwelling 2: 96.5 sqm (4 bedrooms, 8 people).

Type B: 63.75 sqm (4-storey block, 2 equal bays, 2 dwellings/floor, 3 bedrooms, 6 people).

³⁸¹ Sources: FERNÁNDEZ NIETO, *op.cit.*, pp.76-154; MOYA GONZÁLEZ, Luis: *Barrios de promoción oficial: Madrid 1939-1976: la política de promoción pública de vivienda*. COAM, Servicio de Publicaciones, D.L. Madrid, 1983. Print. p.188; GONZÁLEZ AMÉZQUETA, Adolfo: «Grupo de viviendas Loyola». *Hogar y Arquitectura*, n.59. Madrid, 1965. Print. p.21; and: «Unidad vecinal de Batán» (N.p.). *Hogar y Arquitectura*, n.33. Madrid, 1961. Print. pp.3-10.

Types C, E (1957): 76.50 sqm (two sets of 10+6, 5-storey blocks with central courtyard, 2 dwellings/floor, 3 bedrooms, 6 people).

Type D: 135.61 sqm (5 single-family row houses with studio, 3 bedrooms, 6 people).

Open Areas: 6,105 sqm (59%).

Service Areas: 86 sqm (1%). Situated underneath the dwellings. High school, one community service space.

Architects: Francisco Javier Sáenz de Oíza, Manuel Sierra, José Luis Romany and Adam Milczynski.

Name: *Batán Colony (<<Nuestra Señora de Lourdes>>)*

Location: Batán, Madrid.

Project and Execution Date: Project: 1955-59. Execution: 1955-63

Number of housing units: 752 (in blocks) and 284 (in towers).

Housing Typologies: Evolution of the experimental block in *Puerta del Ángel*. 5-storey block (2 dwellings/floor) and 12-storey towers (4 dwellings/floor).

Orientation: NS (slightly modified depending on level curves).

Total Area: 60,709.16 sqm.

Total Housing Area: 7,990.30 sqm (13.2%).

Dwellings Surface:

Type A: 63.75 sqm (evolution of the Types A and B in *Puerta del Ángel*: 5-storey experimental block, 2 equal bays, 2 dwellings/floor, 3 bedrooms, 6 people).

Type B: 96.50 sqm (5-storey block, 2 equal bays, 2 dwellings/floor, 4 bedrooms, 8 people).

Type C: 80.30 sqm (12-storey tower, 4 dwellings/floor, 3 bedrooms, 6 people).

Type D: 101.00 sqm (12-storey tower, 4 dwellings/floor, 4 bedrooms, 8 people).

Open Areas: 49,961.80 sqm (82.3%).

Service Areas: 2,757 sqm (4.5%). School, high school, commercial premises and community service spaces.

Architects: Francisco Javier Sáenz de Oíza, Manuel Sierra, José Luis Romany and Adam Milczynski. Collaborating architects: Eduardo Mangada and Carlos Ferrán.

Name: *Erillas Colony*

Location: Vallecas, Madrid.

Project and Execution Date: Project: 1955. Execution: 1957

Number of housing units: 340

Housing Typologies: Same Type A and B from *Batán Colony*.

Orientation: Blocks adapted to perimeter: NS, NW-SE.

Total Area: 20,584 sqm.

Total Housing Area: 4,597 sqm (22%).

Dwellings Surface: Same Type A and B from *Batán Colony*.

Open Areas: 15,835 sqm (77%).

Service Areas: 152 sqm (1%). Kindergarten and community service spaces.

Architects: Francisco Javier Sáenz de Oíza, Manuel Sierra, José Luis Romany, Adam Milczynski and Luis Cubillo de Arteaga. Collaborating architects: Eduardo Mangada and Carlos Ferrán.

Name: *Calero Colony*

Location: Barrio de la Concepción, Madrid.

Project and Execution Date: Project: 1957. Execution: 1959-61

Number of housing units: 403

Housing Typologies: Same Type A from *Batán* and *Erillas*, with small changes: 5-storey and 6-storey block (2 dwellings/floor), 2 bays (this type can be associated in pairs of two blocks and one common staircase); Type B: 12-storey block, 3 bays, external gallery and 28 3-storey dwellings (second version of the block developed in the *600 Houses in the Urbanization of the Manzanares River*).

Orientation: Blocks adapted to perimeter (45% rotation with respect to the NS axis).

Total Area: 9,074 sqm.

Total Housing Area: 3,674 sqm (40.5%).

Dwellings Surface:

Type A: 57.62 sqm (5-storey and 6-storey block, 2 dwellings/floor, 3 bedrooms, 6 people).

Type B: 105.60 sqm (12-storey block, 3-storey dwelling, 2 dwellings/floor, 4 bedrooms, 8 people).

Open Areas: 5,250 sqm (58%).

Service Areas: 150 sqm (1.5%). School, residence and commercial premises.

Architects: Francisco Javier Sáenz de Oíza, Manuel Sierra, José Luis Romany and Luis Cubillo de Arteaga.

Name: *Loyola Colony*

Location: Carabanchel, Madrid.

Project and Execution Date: 1960-65

Number of housing units: 762

Housing Typologies: 4-storey block (4 dwellings/floor: half floor distance between dwellings, central staircase with 2 dwellings/landing).

Orientation: NW-SE, NE-SW.

Total Area: 46,560 sqm.

Total Housing Area: 10,854 sqm (25%).

Dwellings Surface:

Dwelling A: 59.22 sqm (3 bedrooms, 4 people or 6 with bunk beds).

Dwelling B: 51.84 sqm (2 bedrooms, 4 people).

Open Areas: 32,387 sqm (74%).

Service Areas: 406 sqm (1%). High school, kindergarten, commercial premises and community service spaces.

Architects: Francisco Javier Sáenz de Oíza, José Luis Romany, Eduardo Mangada and Carlos Ferrán.

3.2 Sáenz de Oíza's Radical Housing Model: Dialogues with the *Siedlungen* of the 1920s

In parallel to the work developed for the *Hogar del Empleado*, Sáenz de Oíza undertook three public housing projects promoted by the INV and the COUM, where he had already worked³⁸² after he finished his studies in Architecture in 1946. These three contemporary projects represented an experimental unit, a conceptual design based on the research of minimum housing that was developed in a short period of time of barely two years, and they can be viewed and understood as a “work in progress”³⁸³, because it began with a first low-income housing model –*Fuencarral <<A>>* (1955)– and its urban settings, which was progressively developed and improved in Sáenz de Oíza's next two radical housing projects: the *Experimental Housing Competition* and *Entrevías* (1956).

In addition, due to the short timeframe of frantic activity between public promotions and the colonies for the *Hogar del Empleado*, and given the size the projects that were carried out in a period of a decade, the results were inevitably conditioned, and this circumstance allowed Sáenz de Oíza to transfer many ideas, reflections and concepts that he had already studied and analyzed in the dwellings of the colonies, polishing and adapting them to the specific cases.³⁸⁴

Two of these housing experiences (*Fuencarral <<A>>* and *Entrevías*) were integrated in the well-known and studied urban plan of the *Relocated and Directed Settlements*³⁸⁵ in Madrid, an urban strategy promoted by the COUM and the INV³⁸⁶ with the aim of solving the problem of mass immigration of rural population to Madrid. These settlements were the most promising architecture experiences in the field of minimal housing, and their execution was directed by the architect Julián Laguna, Commissioner of urban planning in Madrid, who was instrumental in their development

³⁸² Sáenz de Oíza began his employment at the *Urban Planning Board of Madrid* (COUM) in 1946, a collaboration that he resumed in 1948, when he returned from his trip to the United States.

³⁸³ This definition, regarded as valid by the author, was first given by Javier Boned Purkiss and José Luis Jiliberto Herrera. In: BONED PURKISS, and JILIBERTO HERRERA, *op.cit.*, p.5.

³⁸⁴ At that time, Sáenz de Oíza worked on the project of *Fuencarral <<A>>* in the mornings, and in the evenings he was dedicated to the colonies for the *Hogar del Empleado*, whose solutions are indebted to the experience of *Fuencarral <<A>>* and *Puerta del Ángel*.

³⁸⁵ Known as “*Poblados de Absorción*” and “*Poblados Dirigidos*”. The most comprehensive study published to date on Madrid social housing from the 1950s, developed in the *Directed Settlements*, is: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.* However, there are other complementary studies on the issue: ESTEBAN MALUENDA, <<La vivienda social española en la década de los 50: Un paseo por los poblados dirigidos de Madrid>>, *op.cit.*, pp.55-80; and: ESTEBAN MALUENDA, <<Poblados dirigidos de Madrid>>, *op.cit.*, pp.18-23.

³⁸⁶ The work carried out by the COUM, the INV and the OSH was coordinated: the COUM defined the location of the villages and prepared all management projects, the INV analyzed and coordinated the operation, and the OSH carried out the construction of social housing.

and trusted the youngest and most talented architects graduated from the School of Madrid. Laguna gave them the opportunity to design new neighborhoods, designed with a durable urban structure, which were located alongside existing urban nuclei on the outskirts of Madrid to save on infrastructure.

The personality of Sáenz de Oíza, who was already immersed in the design and construction of the colonies for the *Hogar del Empleado*, highlighted among these architects. The freshness of these young architects, their availability and willingness to build, and their great enthusiasm to intervene in the city, created the favourable atmosphere to design and raise the settlements in record time, with the freedom to carry out the works with their backs to what was being promoted from the official bodies of the regime, and for an undemanding customer who was suffering unsatisfactory living conditions and was prepared to settle for very little.

Besides, the fact that these actions were carried out in Madrid's periphery in order to clean up the suburb and limit the uncontrolled growth of the city, meant that the authors also had a certain freedom to raise the new urban developments, as well as their building types. Again, the need for housing allowed to find a scope for action in which to experiment with the new city model and implement European interwar rationalist urban and social housing models for the working class, adapting them to the Spanish historical and architectural context.

As in many of the *Hogar del Empleado*'s colonies, these public constructions on the outskirts of Madrid were carried out without urban planning basis, without a common guideline, and were executed on the cheapest rural land, conceived as clusters composed of autonomous urban centres and within a radius of 5 km with respect to the city centre, close to the areas where the location of the industrial zones was expected.

The allocation of social housing was carried out in two ways: while the housing in the *Relocation Settlements* were under rental status, in the *Directed Settlements*, the access to housing was possible through home ownership combined with personal allowance.³⁸⁷ The future occupant had two choices: First, to pay for the land, project fees and a portion of the materials; and second, to provide his own work in the housing construction, so that he should only pay for the land and the general costs of the work. Therefore, the cost of construction determined the price of housing, and, since the work was carried out by an unskilled labour, the projects had to be based on a handcrafted construction.

³⁸⁷ The name «Directed Settlements» refers to the fact that the future tenants built their own houses designed by the architects, who also managed the site work.

Therefore, the limited means determined the type of housing proposed in these urban developments. While in the colonies for the *Hogar del Empleado* the linear open block was the social housing prototype upon which the urban project was proposed and developed, but always on the basis of the specific cases of action and in combination with other typologies that were also tested and introduced into the whole solution; in these parallel public housing experiences, Sáenz de Oíza opted for a social housing settled in two-storey row houses³⁸⁸ in order to save on performance and running costs and, in the case of the housing in *Entrevías*, to encourage self-construction carried out by the future owners, who worked directly on site, but mainly unskilled and under the supervision of the architects.³⁸⁹

A common feature of the performance of these settlements was that they were designed from the residential unit. The urban planning was secondary, and it was reduced to resolve a block-type that would be repeated and configured the urban space between the houses. For this reason, the new settlements were projected with a lack of infrastructure and transport, without a solid urban connection with the city, and with an architectural language that connected with the Modern Movement in its European organic aspect. Notwithstanding, the references to the organic urban planning of the English New Towns, the Garden City, the most radical European interwar *Siedlungen* –especially those built in Germany– or even the Nordic style represented by Arne Jacobsen were likewise present and assumed.

In the particular case of Sáenz de Oíza, his radical minimum housing solutions are clearly indebted to the experience of the interwar *Siedlungen* for the low income families and the ideals of the «*Existenzminimum*», particularly in Holland and Germany. The reason to look at these first modern experiences is not surprising, since the prevailing situation in Spain, specifically in Madrid, was comparable to the German or Dutch situation after the First World War. Although the two countries did

³⁸⁸ In the cases of the *Relocation Settlement of «Fuencarral A»* and the *Experimental Housing Competition*, Sáenz de Oíza also used the block typology, but with solutions that are closely linked to those carried out in the colonies built for the *Hogar del Empleado*. Their study in this thesis would be redundant and unrevealing, since the relationships between the block-type projects have been identified and studied in the published doctoral thesis *Las colonias del hogar del empleado: la periferia como ciudad*. (FERNÁNDEZ NIETO, *op.cit.* pp.171-188). For further information on these two housing blocks, refer to: *Cinco proyectos de vivienda social en la obra de Oíza, op.cit.*, pp.6,9.

³⁸⁹ *Entrevías* was the first settlement where the personal economic benefit was used. Cooperatives formed by the future owners were created and they were assisted by construction technicians who watched over the constructive work that the owners themselves were doing. The most specific work required the hiring of specialized companies that used to prepare the work crews. These groups were made up of 20-24 people –the number of dwellings in a row– working on their future homes on Sundays and holidays during a year and a half. During the week, an auxiliary company was responsible for the foundations and concrete decks, as well as the supply of materials and the setting-out work and control measurements on the construction site to prepare the work crews. However, the do-it-yourself-construction only took place in the masonry work. If no member of the family unit could cope with the personal economic benefit, they resorted to redemption fee paid with cash.

not suffer the destruction during the war, the serious lack of housing as a consequence of massive migration from rural areas to the industrialized cities, and the fact that the construction could not continue advancing according to the technical and theoretical progress of the time, were the breeding ground to develop a new system that could offer individual houses, small but distributed in thoughtful spaces, with individual gardens for daily sustenance, rejecting the previous housing models (<<*Mietkaserne*>>, in the case of Germany), marked by overcrowding and deplorable sanitary conditions. In this regard, Sáenz de Oíza's radical housing did not only absorb the modern European (but also American) experiences of the first half of the century through a strict rationalistic approach, but it attempted to adapt their main spatial qualities and constructive principles to the reality and needs of the Spanish society, culture and economy of the fifties.

As previously mentioned, Sáenz de Oíza's radical housing model was initiated in the *Relocation Settlement of Fuencarral* <<A>>, which was commissioned by the *Urban Planning Board of Madrid* to relocate the massive rural population that had arrived in Madrid seeking a better life. The aim of the project was the establishment of a group of low-income housing that should allow the shanty dwellers to relocate *in situ*, but with new residential units built under better hygienic conditions. Located in a small village on the outskirts of Madrid, the intervention was divided into two villages, *Fuencarral* <<A>> and <>, designed by Francisco Javier Sáenz de Oíza³⁹⁰ and Alejandro de la Sota, respectively. These two projects were relevant because it was the first time that the model of single-family dwellings as a feasible typology of social housing was socially accepted after the Civil War.

The project of *Fuencarral* <<A>> consisted of the construction of 500 ultra-affordable residential units divided in two typologies: 300 two-storey houses with their own courtyard and three bedrooms (see Fig.3.68), and 200 apartments in four-storey blocks with two dwellings per floor and two bedrooms.³⁹¹ The land, located on the northern outskirts of Madrid, was bordered by two roads and built part of the town of Fuencarral, so that its development involved the accession of a new neighbourhood with orderly urban expansion. Sáenz de Oíza had to face a project for an undeveloped land, with a geometry without references, no roads, no vegetation, no scale or urban identity.

³⁹⁰ Once again, Manuel Sierra and José Luis Romany worked as collaborators.

³⁹¹ The block-type solution in *Fuencarral* <<A>> is directly related to the experimental block of the colonies for the *Hogar del Empleado* and it allowed flexibility in its distribution. With regard to the project of *Fuencarral* <<A>>, see: *Cinco proyectos de vivienda social en la obra de Oíza, op.cit.*, pp.6-7; <<Poblado de Fuencarral "A">> (N.p.). *Revista Nacional de Arquitectura*, n.176-177. Dirección General de Arquitectura. Madrid, August-September 1956. pp.63-66. Print; and: SÁENZ DE OÍZA, Francisco Javier: <<Poblado de absorción "A": Fuencarral, Madrid (España)>>. *Hogar y Arquitectura*, n.6. Madrid, September-October 1956. pp.3-10. Print.

The settlement had to meet certain minimum requirements of hygiene, sanitation and construction costs, so that this economic factor was applied to the urban space, the dwellings and the rational concentration of the complementary services. The building complex was organized around a central open space as a social place for the neighbourhood, where the planting of rugged trees and vegetation was also foreseen. The buildings were isolated from the external traffic through another green ring of protection, so that the village was set up as a densely built-up ring between two surrounding green rings (see Fig.3.69).

The whole urban planning had a landscape design which followed the same line as the projects from the *Hogar del Empleado* in which Sáenz de Oíza was working, so that his constant concern for proper ventilation, light and capacity for the use of the minimum spaces also showed up in *Fuencarral <<A>>*. Because the settlement should respond to the needs for immediate rehousing, Sáenz de Oíza followed strictly functional criteria, with minimal spaces optimized to the limit and an urban plan that sought the maximum land use. Under these premises, the urban set was organized through a complete rigid layout based on a raster with a module of 3.5x3.5 metres, followed by a binomial system of high density (housing block) and low density (row houses), with the blocks placed depending on the orientation on the perimeter, and the single-family homes arranged inside the complex (see Fig.3.69).

The module was also used to organize the two-storey single-family homes with a courtyard. As in almost all his social housing projects during those years, the road network was hierarchically structured in two levels: the road street and the pedestrian street. The only road street was a paved commercial route that served the dual purpose of allowing access to the core of the settlement by connecting it with the existing adjacent town, as well as organize the commercial life of the neighbourhood. The secondary urban roads, with a width of 3.50 metres and aimed exclusively for pedestrians, derived from this road and allowed direct access to the dwellings.

The soil of the free spaces was not specifically treated, so that the buildings appeared as small islands on an abrupt and undefined ground. In addition, the equipment of the neighbourhood was scarce, with a church, a school and a kindergarden, and, with the exception of the central square, no special attention was paid to the treatment of the community spaces to improve the socialization. Therefore, the efforts focused on the resolution of the dwelling.

The proposal for two-storey row houses (see Fig.3.70), which were grouped into large, elongated plots with a courtyard as a corral of 3.5x14 metres (1x4 modules), stood out among the two proposed typologies, and they meant the first version of

Sáenz de Oíza's experimental unit. The orientation of the houses followed a rigid approach as well, assuming that the daytime living areas should always look east or south, as in the *Weissenhofsiedlung*, thus forcing the arrangement of the buildings to ensure optimal lighting in each housing unit (see Fig.3.71). Consequently, the access to the dwellings changed depending on the orientation, which resulted in three different solutions for the entrance: through the courtyard (see Fig.3.72), direct access on the façade (see Fig.3.73), and a third option in which the entrance was produced through a threshold under the cantilevered volume of bedrooms on the upper floor.

This game and freedom in the disposition of the courtyard in the plot to suit the best conditions of sunlight allowed to break the monotony of the assembly because, despite being resolved on a regular basis and in a continuous row, the composition of the façades turned out to be of greater variety and interest, thus configuring a changing elevation with planes of light and shadow.

The *Relocation Settlement of Fuencarral <<A>>* was conceived with the vocation of being a small modern rural village with affordable, simple and austere housing units that were a suitable response to the precarious situation of the moment, which prevented the use of industrialized or prefabricated construction elements. For this reason, the construction materials used were cheap: the half-foot ceramic brick was the basic material for the load-bearing walls (almost an internal partition wall) disposed perpendicular to the façade, whose materiality appeared exposed and clean in some interior walls, but also in the external cladding (see Fig.3.75), along with slab floors with ceramic joists and fibre-cement gabled roofs. Thus, Sáenz de Oíza's row house model was a dwelling of minimum interior width and developed in depth, resolved by an architecture of brick load-bearing walls disposed in parallel and with symmetrical arrangement, separated by a module of 3.50 metres (interaxes). This logic enabled Sáenz de Oíza to reduce the costs by grouping all water and sanitation facilities together in pairs, so that this social housing model expressed again Sáenz de Oíza's special attention to the rationalization and economy of all accommodation facilities.

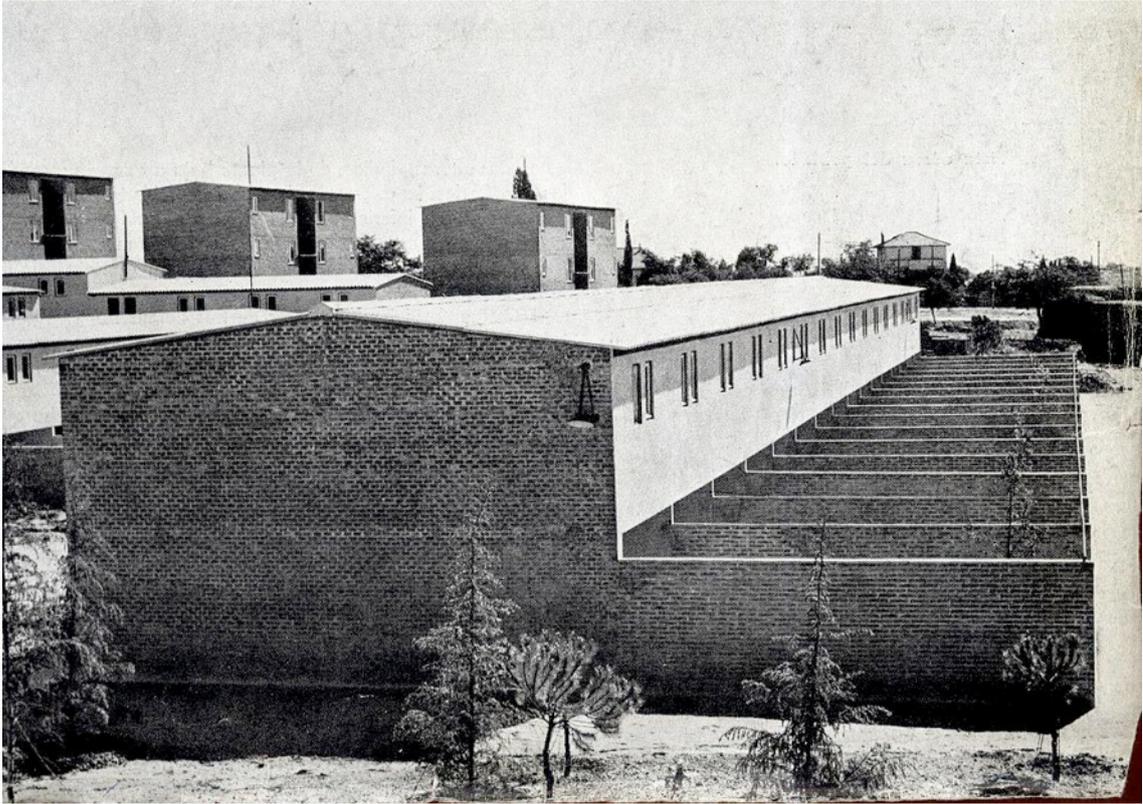


Fig.3.68 Sáenz de Oíza, *Relocation Settlement of Fuencarral <<A>>* (1955).
Row houses in two floors and with courtyard.

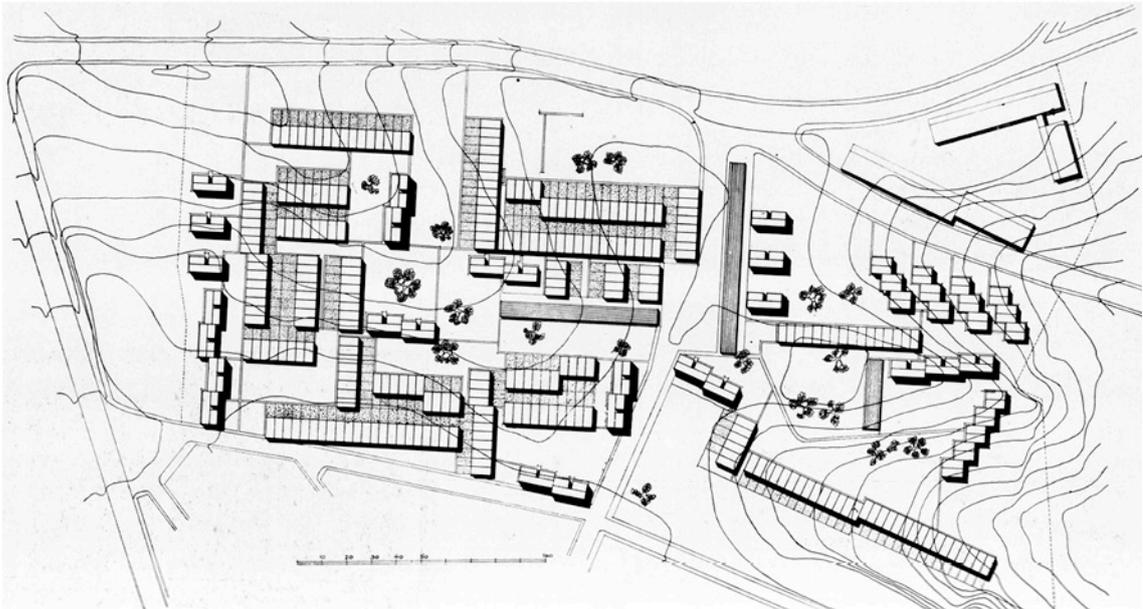


Fig.3.69 Sáenz de Oíza, *Relocation Settlement of Fuencarral <<A>>* (1955). Site plan.

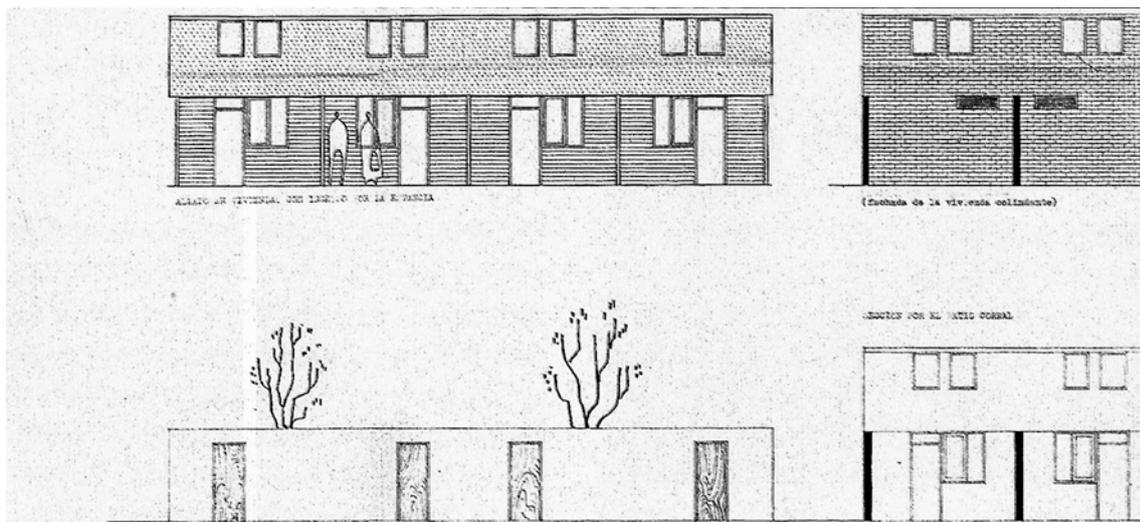


Fig.3.70 Sáenz de Oíza, *Fuencarral <A>* (1955). Elevation plans of the two-storey houses in a row.

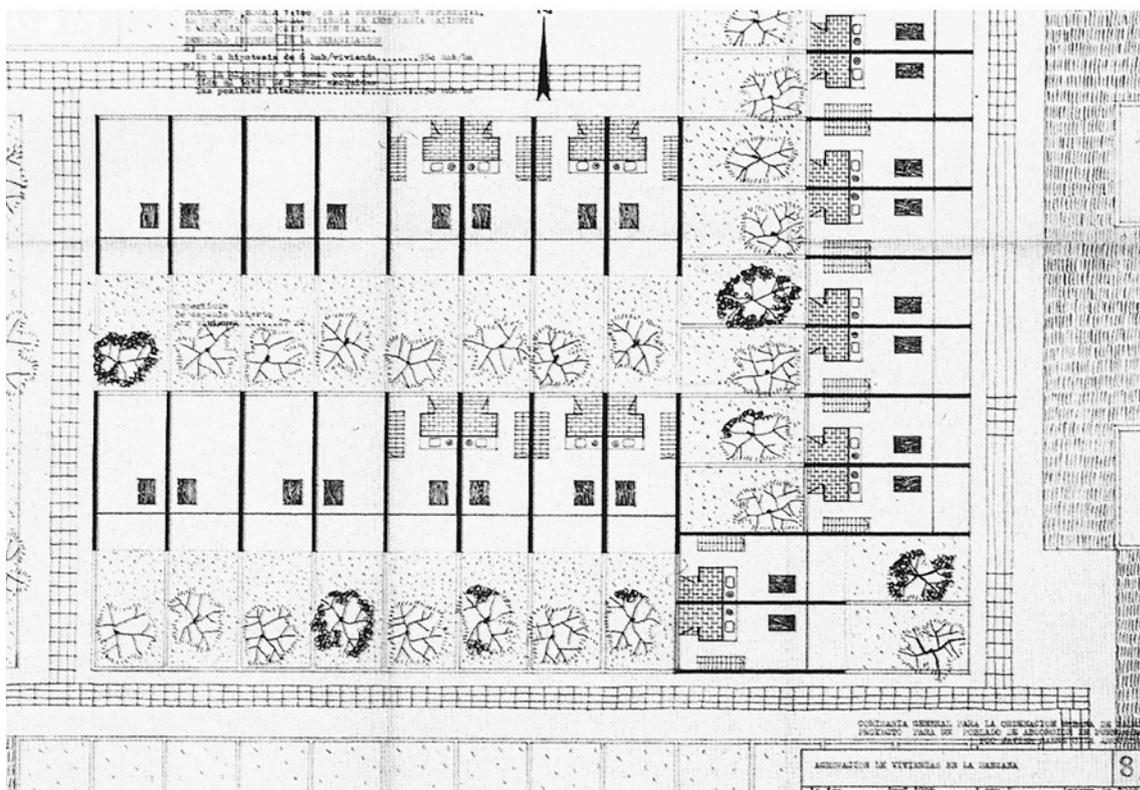


Fig.3.71 Sáenz de Oíza, *Fuencarral <A>* (1955). Grouping of row houses in a block.

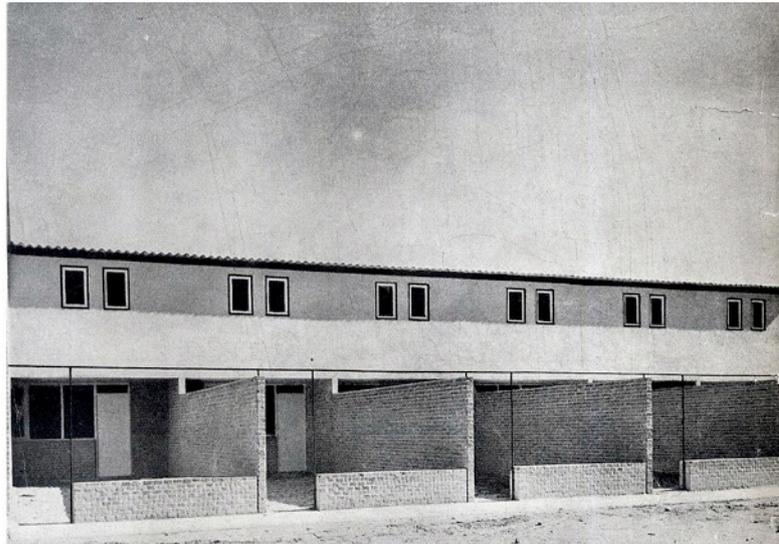


Fig.3.72 Sáenz de Oíza, *Fuencarral <A>* (1955). Main façade of the row houses under construction.

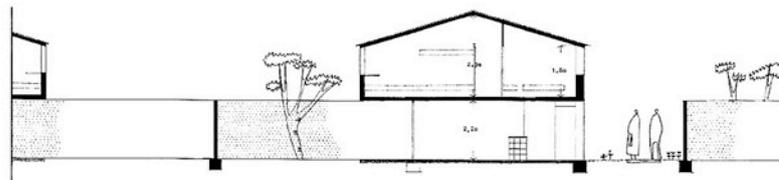
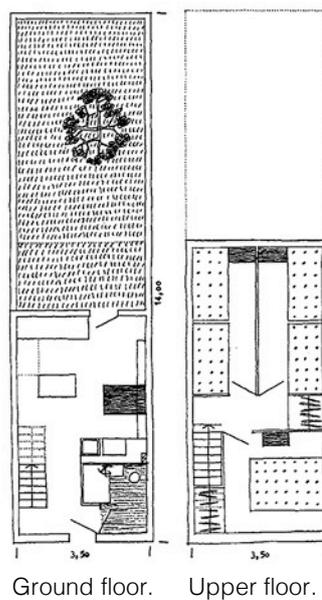


Fig.3.73 Sáenz de Oíza, *Fuencarral <A>* (1955). Longitudinal section of the two-storey house.



Ground floor. Upper floor.

Fig.3.74 Sáenz de Oíza, *Fuencarral <A>* (1955). Floor plan of the two-storey house.

Ultimately, the two-storey house of *Fuencarral <<A>>* (see Fig.3.74) was an inexpensive standard dwelling with a constructed surface of 50 sqm and 42 sqm of living area³⁹² distributed in two floors and with a courtyard. On the ground floor there was a kitchen-dining-living (see Fig.3.76, Fig.3.77, Fig.3.78) room and a bathroom, and the upper floor included three bedrooms (six beds). Since Sáenz de Oíza considered that “the bedrooms are very intimate spaces”³⁹³, the solution of having three bedrooms in a more private area situated on the upper floor remained constant in the three analyzed projects, but with slight modifications. The parents' bedroom occupied the whole bay width (3.38 metres) in this first model, while the both children's bedrooms were located in front of it with beds arranged in a row, and separated from the parents' room by a narrow communicating hallway, with enough width to incorporate one built-in cupboard. The second built-in cupboard was situated in the parents' room, taking advantage of the width of the stairway.

This distribution of the bedrooms speaks well of one of the main features in Sáenz de Oíza's radical housing: it was a house bordering the limits of acceptable minimums, since the module of 3.50 metres is the limit that allowed Sáenz de Oíza to accommodate two adjoining rooms. Besides, the solution raised a possible variation of the dwelling through the removal of one bedroom to incorporate it into the adjacent unit without modification of the typical floor plan. Thereby, Sáenz de Oíza enriched the whole plot with a simple operation that allowed him to build larger or smaller units with a capacity that ranged between six and twelve beds.

The clear intentions behind the project were described by Sáenz de Oíza himself as follows:

“Very inexpensive units –only 25,000 *pesetas* each– were proposed. In this experience we were able to learn that those units which had the living room looking onto the garden had a cared garden, and those with the kitchen looking onto the garden used it as storage room. We tried to have all the units with the living room oriented toward the midday sun. Half-foot brick walls were used throughout, an extremely economical dwelling with minimum sanitations. Some things made sense, such as the entrance which closed off the bathroom door.”³⁹⁴

³⁹² From the project description in: <<Poblado de absorción “A”: Fuencarral, Madrid (España)>>, *op.cit.*, pp.7-10.

³⁹³ SÁENZ DE OÍZA, Francisco Javier: <<Disertaciones>>. In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.21.

³⁹⁴ Quoted in: *Cinco proyectos de vivienda social en la obra de Oíza, op.cit.*, p.7. Translation by the author (R.J.J.).

The fundamental elements that define and configure Sáenz de Oíza's three minimum housing projects appear already in this first proposal, some of which remain as constant solutions in all of them (along with the arrangement of the bedrooms upstairs, the living room is maintained in direct contact with the garden), while there are other key features with which he played and experimented on the floor plan: the entrance, the staircase, the kitchen, the bathroom and the layout of the courtyard.

Furthermore, in all three models we can emphasize a clear intention in the design of the interior space: the diaphanous ground floor that allows a transparent view through the dwelling from façade to façade, without wasting spaces and thus eliminating unnecessary movements, as well as the flexibility of the layout as a valuable quality of the home, which can be seen in the possibility of transforming the living room into a sleeping area by incorporating two extra beds. In other words, the maximum flexibility with minimal surface is achieved by a rigid modular scheme.

Although the variable placement of the courtyard allows to play with the access to the dwellings, in this first case, no transition occurs at the entry door, which is direct, and therefore, less intense. Furthermore, the grouping of wet spaces is a fixed decision along the three projects, although their situation and way of grouping in the dwelling also varies in the three experiences (see Annex 2, p.240). In *Fuencarral <<A>>*, the bathroom is situated on the ground floor next to the entrance to the home and separated from the bedrooms, so that it is hidden when the entry door is opened, thus enhancing its privacy. On the ground floor, the kitchen is incorporated into the main room, which is not a very successful solution given the presence of unpleasant fumes and odors that vitiate the living room, conceived as a space open onto the garden.

On the other hand, the wooden staircase (see Fig.3.76, Fig.3.77) was another singular element in Sáenz de Oíza's social housing. In this first proposal, it was located attached to the load-bearing wall. This placement of the stairs allowed him to incorporate the kitchen into the living room, so that greater transparency of the ground floor between the house and the backyard could be achieved. However, this scheme of the stairs parallel to the dividing walls disappeared in the subsequent proposals in order to facilitate their construction (see Annex 2, p.240). Furthermore, while the extremely adjusted height at the lowest point on the upper floor was maintained throughout the development of the housing model, the idea of a gabled roof tilted to the garden and the street was also abandoned in the two following projects.³⁹⁵

³⁹⁵ In *Fuencarral <<A>>* the height at the lowest point is 1.80 metres, and in *Entrevías*, 1.90 metres. See: "Annex 2" (p.241).

Nevertheless, there is a constant element that generates the most tension on the ground plan in these row houses: the courtyard/backyard (see Fig.3.75). Since the tenants came from rural areas, Sáenz de Oíza designed this outdoor space as a corral that was intended to adapt the rural families to the city life in the least possible traumatic way. Although the size and layout of the patio was modified according to the project requirements, it always appeared linked to the main room of the house and was understood as an open green extension of the interior space and not as a cul-de-sac. The courtyard was therefore a sociological and psychological response to facilitate the adaptation of rural families to a hostile environment.

In this way, Sáenz de Oíza's social housing model was able to offer modern and coherent typological and sociological answers, capable of adapting to the rural background of the future tenants, although many of these courtyards were soon to be transformed in another room or ended up being used as an open storage room, due to the minimum surface of the dwellings.³⁹⁶ The different surfaces between the two floors (see Annex 2, p.240) created a covered outdoor space, a shadow that often served as the entry threshold but, as it was usually situated on the side of the courtyard, it could be generally used as a workplace for the tenants.

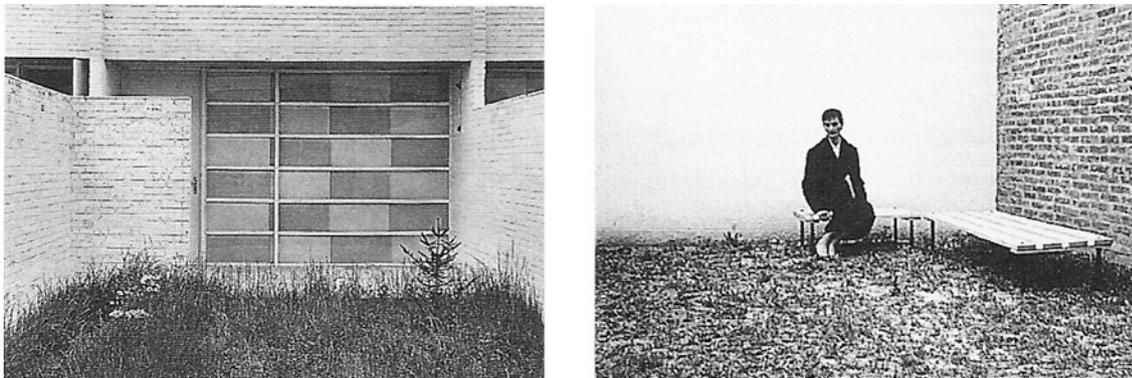


Fig.3.75 Sáenz de Oíza, *Fuencarral <<A>>* (1955). Views of the backyard.

The external image of the row houses in *Fuencarral <<A>>* was resolved with an apparent popular, yet little refined architecture, but their composition was still a modern gesture that was developed through strong minimalist rigour, away from an architecture ideologically linked to a rural image, and closer to the radical, strict and rigorous urban proposals from Hilberseimer.

³⁹⁶ In the dwellings of *Fuencarral <<A>>* and *Entrevías*, this courtyard ended up being used as a storage place. The only case in which this courtyard remained open and unmodified was in the row houses of the *Experimental Housing Competition*.

In spite of the fact that the supporting graphic documentation about the interior spaces of the *Experimental Housing* and *Entrevías* is missing, the pictures from the interior of *Fuencarral <<A>>* (see Fig.3.76, Fig.3.77, Fig.3.78), which is the previous model and whose furniture was also designed by Sáenz de Oíza himself, may ultimately allow an intuitive approach to the inner quality of the two subsequent projects. *Fuencarral <<A>>* was demolished in 2005³⁹⁷, but it is still considered as an exercise of technical and formal freedom that was able to implement adequate solutions to the functional and economic minimum, and all this was achieved with a technological level that was able to adapt to the precariousness of the situation, assimilating the thoughts and concerns of the Spanish social architecture of the time.



Fig.3.76 Sáenz de Oíza, *Fuencarral <<A>>*. Interior view to the living-dining room.

³⁹⁷ The *Comisión de Patrimonio del COAM* ("Madrid Association of Architects Heritage Commission") reported this demolition through an article published in the magazine *Arquitectura*. See: <<Demoliendo oportunidades históricas: los poblados de Fuencarral (de Sáenz de Oíza y de la Sota) destruidos o amenazados por las piquetas oficiales>>. *Arquitectura*, n.341, Third Quarter. COAM. Madrid, 2005. pp.114-115. Print.

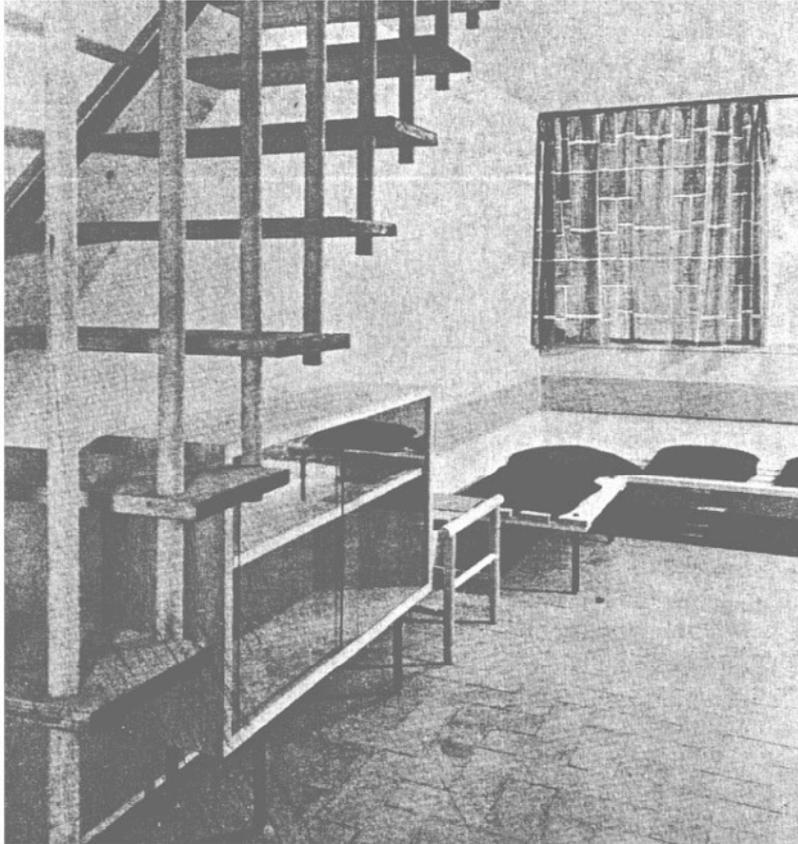


Fig.3.77 Sáenz de Oíza, *Fuencarral* «A». Interior view to the living room.

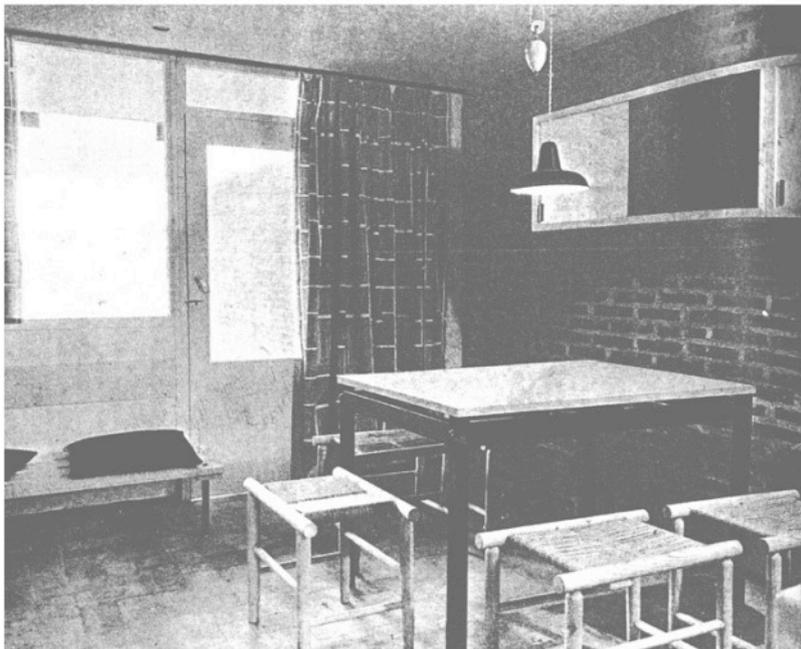


Fig.3.78 Sáenz de Oíza, *Fuencarral* «A». Interior view to the dining area.

In december 1955, the INV announced a national contest with the aim of promoting the use of affordable housing addressed to urgent relocation of marginal suburban populations and with limited means. Along with it, the competition intended to pursue the investigation and development of the poor and handcrafted construction industry in Spain, in the same way as it had happened in Europe since the beginning of the century, and especially after World War I. The competition was judged in 1956, and attracted the participation of the best Madrid architects of the moment (see Fig.3.79), many of whom had extensive experience in the field of social housing through their works developed for the INV and the OSH, and whose different proposals for the typology of row houses took similar approaches.³⁹⁸

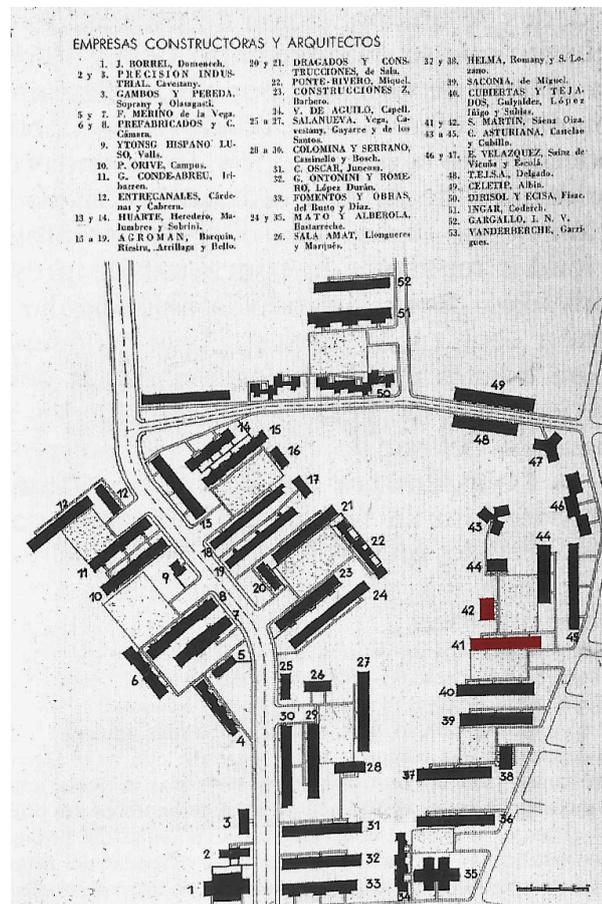


Fig. 3.79 *Experimental Housing Competition (1956).*
 Assembly plan with all participants and built works.
 (In red: Sáenz de Oíza's block and row houses).

³⁹⁸ Three of the winners, José Luis Romany (first place), Luis Cubillo (second place) and Francisco Javier Sáenz de Oíza (fourth place), were part of the team of architects working for the *Hogar del Empleado*. See: FERNÁNDEZ NIETO, *op.cit.*, pp.173-177.

The novelty of the contest lay in the possibility of comparing the proposed projects with the constructed reality, thus trying to emulate the success of the German exhibition experiences like *Weissenhof* and *Constructa 51*. All contest participants had to seek advanced proposals or prototypes investigating on minimum housing, the floor plans and building systems, materials and textures. To this aim, the teams presented solutions for minimal housing types of two-storey single-family houses with a courtyard and apartment buildings, which could be grouped to configure larger units. The different proposals were built in the district of Carabanchel, located in the southwestern suburbs of Madrid. In order to be submitted to the contest, it was necessary to participate with a construction company, and Sáenz de Oíza participated with the *Constructora San Martín*, finishing in fourth place in both typologies: housing block and single-family houses (see Fig.3.79).³⁹⁹

Sáenz de Oíza excelled in the competition for his residential building block with a system of reinforced concrete porticoes perpendicular to the façade, a structure solution that he would apply later in the *Batán Colony*.⁴⁰⁰ But, above all, for his proposal of single-family homes in a row, which served as an experiment to continue the evolution of the model started in *Fuencarral <<A>>*, because it was a step forward in the research of the free plan and in the experimentation with the flexibility of uses in the dwelling, a study that was consolidated months later in the project of *Entrevías*. The first variant was introduced in the arrangement of the entrance: Sáenz de Oíza organized the dwellings with two possible entrances through the two façades, which allows simultaneously to save on streets in the case of larger housing groups, as well as the entrance of daylight and air through the dwelling (see Fig.3.80).

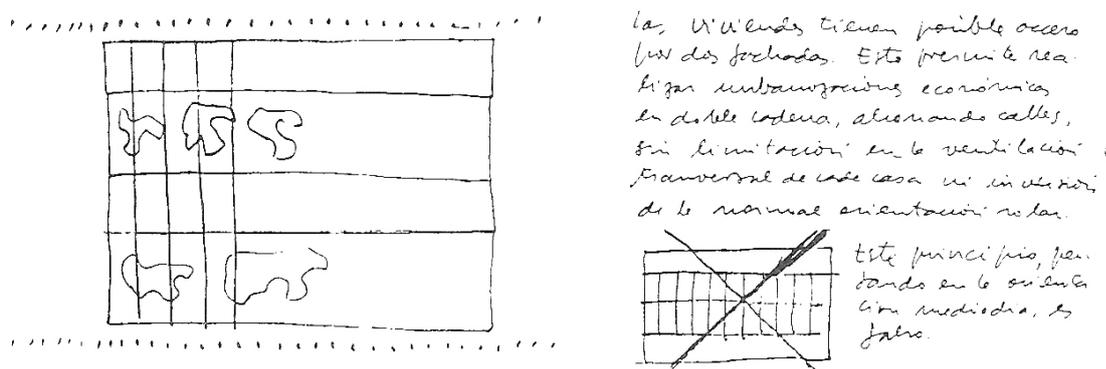


Fig.3.80 Sáenz de Oíza, *Experimental Housing Competition* (1956). Study of the implementation.

³⁹⁹ For a thorough understanding of the *Experimental Housing Competition* celebrated in Madrid in 1956, see: SAMBRICIO (ed.), *La vivienda experimental. Concurso de viviendas experimentales de 1956*, op.cit.

⁴⁰⁰ With regard to Sáenz de Oíza's block solution in the *Experimental Housing Competition*, see: *Cinco proyectos de vivienda social en la obra de Oíza*, op.cit., p.9, and: FERNÁNDEZ NIETO, op.cit., pp.178-180.

The solution for the typology of single-family houses (see Fig.3.81) was not far from that of its precedent *Fuencarral* <<A>>, so that four dwellings with a structure of load-bearing walls of brick arranged perpendicular to the façade were built. Sáenz de Oíza based the structural solution on a cross floor plan (see Fig.3.81) to ensure the assembly rigidity of the whole. Besides, he emphasized again the need for the grouping of services and maintained the solution of a flexible, rectangular floor plan with fixed elements that, however, do not interfere in the interior layout, which is equally adaptable and flexible with the possible programmatic conditions that could be requested by the families. Regarding the industrialization, Sáenz de Oíza understood that his proposal should be carried out gradually and through the enhancement of traditional construction techniques, so that he accepted an industrial mass production of those elements or parts of the building that could be mass-produced for different projects and localities. Therefore, rather than comply with the request of the competition to create housing prototypes that could be standardized in their entirety and thus be mass-produced throughout the Spanish geography, Sáenz de Oíza advocated an industrialization of sanitary installations and specific construction details.⁴⁰¹

Sáenz de Oíza's row houses in the *Experimental Competition* of 1956 were an economical solution resolved in a modern language and with a clean and austere composition, and their façades were painted in white because he proposed to place the houses in Andalusia. But, in this case, the module used is 4.00 metres, the largest of the three analyzed experimental proposals, with a built surface of approximately 74 sqm⁴⁰², and a flat roof was introduced in contrast to the gabled roof of the previous model (see Annex 2, p.241). Sáenz de Oíza used again the same concept of minimum dwelling that he had already tested in *Fuencarral*, with the courtyard-house distributed in two floors: Downstairs, all daytime living areas (living room, kitchen and dining area); and upstairs, three bedrooms and one bathroom. The difference in depth between the two storeys⁴⁰³ generated a small threshold, a covered porch that extends the space of the living room towards the backyard, which is a design resource that he had used in the previous housing of *Fuencarral* <<A>> and remains constant throughout the whole experimental unit. The dwellings were noteworthy for their natural cross-ventilation, the flexibility of use and optimization of circulations, as well as the grouping of all sanitary facilities as a rational response to the demands of economy

⁴⁰¹ See: SAMBRICIO, Carlos: <<Contemporaneidad vs. modernidad. El concurso de vivienda experimental de 1956>>. In: *La vivienda experimental. Concurso de viviendas experimentales de 1956*, op.cit., p.19.

⁴⁰² The ground floor has a surface of 35 sqm, while the upper floor has a surface of 39 sqm. In: JILIBERTO HERRERA, *El Poblado de Entrevías. Oíza, Sierra y Alvear. Experimentación y síntesis de un modelo de vivienda*, op.cit., p.32.

⁴⁰³ The ground floor has a depth of 8.80 metres, while the upper floor is 9.70 metres deep.

and technical minimums. In this project, there was already an effort to modulate all constructive elements and apply technical standards, which resulted in an economic house of strong, abstract and modern character (see Fig.3.81).

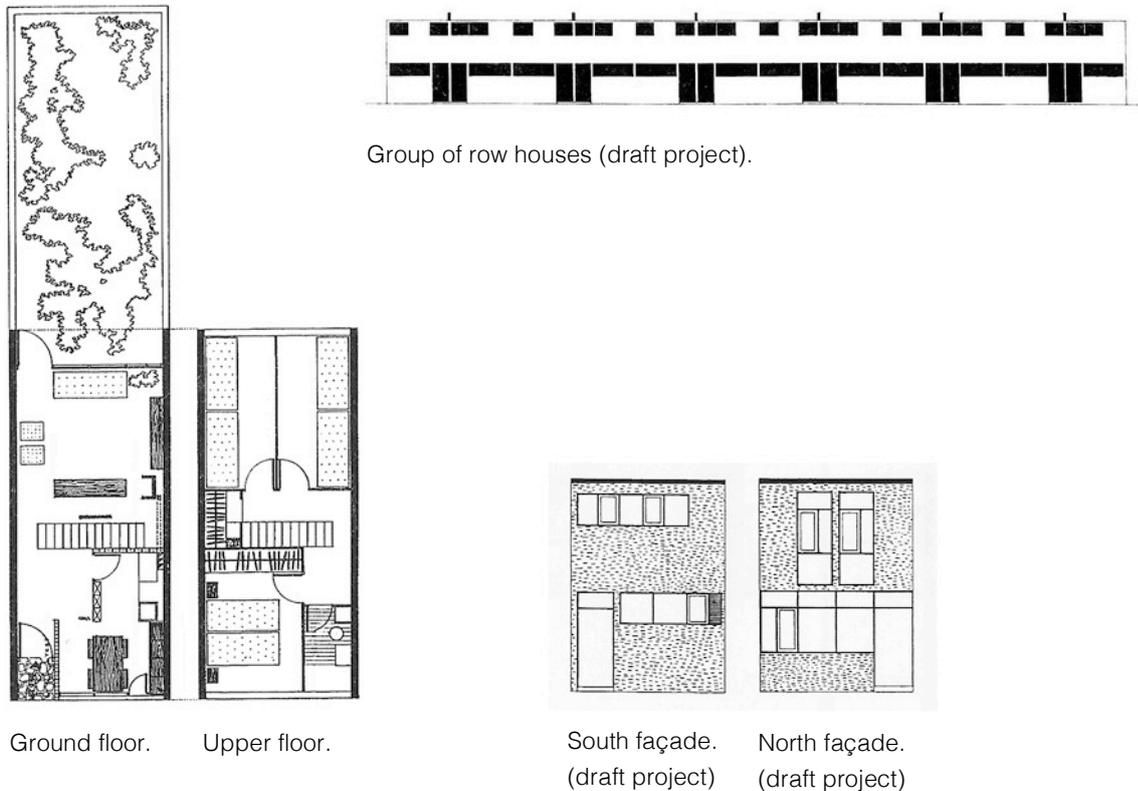


Fig.3.81 Sáenz de Oíza, *Experimental Housing Competition* (1956). Floor and elevation plans.

In this second proposal for radical social housing a fundamental element in Sáenz de Oíza's housing model –but also in his complete works– is intensified and plays a relevant role: the front door of the home, which is understood as a minimum threshold that creates the primary spatial tension. The quality of Sáenz de Oíza's radical social housing can also be measured in his ability to resolve the entrance door, because it is the epicentre where the highest visible spatial tension is generated. The front door, which is almost always covered in shade like an austere hallway, is the exact point where both human worlds meet and live together: the outside, loud and public, and the interior, intimate and quiet. It is precisely at the entrance door where social and intimate relationships coexist, a transitional space between inside and outside that plays an absolute main role in Sáenz de Oíza's social housing. Because, ultimately, it is the place where human relationships happen. In this regard, Sáenz de Oíza described his concern about the important role of the entrance door with the following words:

“(…) When we talk about the door I say it is the centre of the world in architecture. When you see a popular neighbourhood and you see the people on their doorsteps, you know that they are at the centre of their world, attentive to the conversation of the neighbours, the events in the city, taking care of the fire or the household chores”.⁴⁰⁴

Furthermore, Sáenz de Oíza decided in this case to fix the courtyard's position, which is similar in size to the dwelling and is located on the rear façade, with access from the street and the living room, so that it is still conceived as an extension of the interior spaces and the overall visual perception of the house occurs directly and transparently. In fact, unlike his solution *Relocation Settlement of Fuencarral <<A>>*, in the *Experimental Housing* the wooden staircase is disposed transversely to the walls, a solution that remains constant and coherent in the last two projects from the structural and spatial point of view. The staircase (see Fig.3.82) works not only as a point of communication between the two floor plans, but also as a filter or central partition between two distinct environments on the ground floor : the access and kitchen area from the living room; and between two private areas upstairs: the parents' bedroom and the bathroom, oriented to the main entrance, from the childrens' bedrooms, with views towards the courtyard. The bathroom is located on the upper floor, connected to the private area of three bedrooms and above the kitchen, so that all pipes and downspouts are shared. Once again, the housing economy is understood through the resolution of the facilities, since the dwellings are grouped in pairs and therefore, the kitchens, bathrooms and fireplaces, which are situated in the living room, are concentrated at a single point (see Annex 2, p.240).

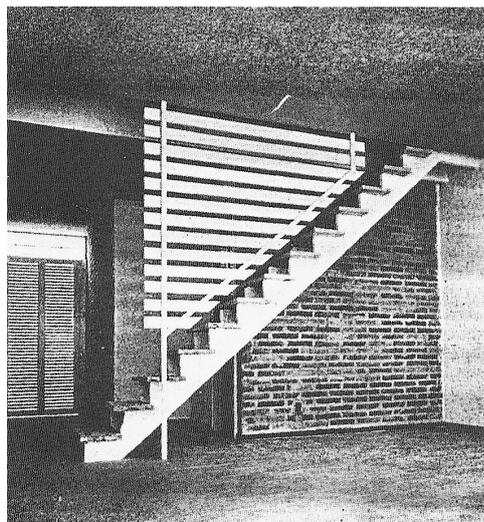


Fig.3.82 Sáenz de Oíza, *Experimental Housing Competition*. View of the stairs from the living room.

⁴⁰⁴ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.32. Translation by the author (R.J.J.). Extract of the interview: <<En conversación con Vicente Patón y Pierluigi Cattermole, 1986>>., *op.cit.*

The kitchen also evolves in this case into a central and independent space on the ground floor, with a door and a generous dining area. It is designed as a working room next to one load-bearing wall, thus freeing the views that are produced from the main entrance and from the living room. Indeed, the living room is understood as an open space without visual interference and remains connected to the garden, a peaceful place where people could enjoy fresh air and relax, and whose separation from the exterior courtyard is diluted by a large window. In this regard, the backyard, with access from the living room, is conceived as an extension of the interior, the intimate space; it is an open space bounded by a continuous wall extending the line of the walls containing the house. Besides, the concept of a built-in cupboard in the communication area on the upper floor and situated behind the stairs is maintained, and, as in *Fuencarral <<A>>*, a second built-in cupboard occupying the width of the parents' bedroom was incorporated (see Annex 2, p.240).

Sáenz de Oíza's understanding of the domestic space is clearly reflected in the freehand sketches that he submitted to the competition (see Fig.3.83). These sketches reveal another quality of Sáenz de Oíza: the sensitivity of his drawings, the cleanliness of the floor plans and the graphics...These qualities recall the drawings of Mies van der Rohe for his *Courtyard Houses*, but also Le Corbusier's perspectives with interior spaces. These studies of the floor plans and interior spaces of the dwelling also reveal Sáenz de Oíza's search for a cleaning in the way of explaining the intentions of the project, his clarity of ideas and approaches. In them, Sáenz de Oíza's fundamental intentions of the project can be intuited, with interior spaces that are also in the line of the American *Case Study Houses*. But they also reveal another fact: the first intuition, the initial idea is what counts and prevails. After all the inherent twists and turns in the design of a project, Sáenz de Oíza always returned to the first sketch, in which, in essence, all the more powerful ideas are concentrated and clearly outlined. Therefore, the first gesture, the primary intuition, is also the definitive one. The floor plan is his fundamental working tool with which he faced the housing problem, and therefore, it is the clearest and most objective material to analyze his intentions and vocation to build social housing in response to the functional analysis of its spaces of recollection and coexistence, which are capable of responding to those basic human needs, to set up a shelter without means, humble but dignified, without having to condemn the user. Sáenz de Oíza wrote in these drawings that:

“From the interior, the garden penetrates the living-room, prolonging it. The yard wall continues the line of the walls of the room.”⁴⁰⁵

⁴⁰⁵ Handwritten annotation in the sketch presented for the *Experimental Housing Competition*. Published in: *Cinco proyectos de vivienda social en la obra de Oíza, op.cit.*, p.8. Translation by the author (R.J.J.).

"The services are grouped in the centre of the house, freeing the garden views from the room, and into the street, from the eating corner."⁴⁰⁶

In other words, in these small explanatory texts included in his sketches, Sáenz de Oíza spoke of open-aired space at ground level, transparency, the greenery and the tree in the backyard, the sky, the inner brick wall, which is a solid filter between the living room and the kitchen. In them, the importance of grouping all facilities in a single strip and every two residential units was also emphasized. These operations of interior lighting, as well as the treatment of the garden as a gifted space donated to the dwelling, in dialog with the dining room or the kitchen, were a common strategy and priority in his whole conceptual unit for a radical social housing model, where low-income families could be able to dwell in and enjoy their homes with comfortable and desirable living spaces full of light, air circulation, privacy and transparency.

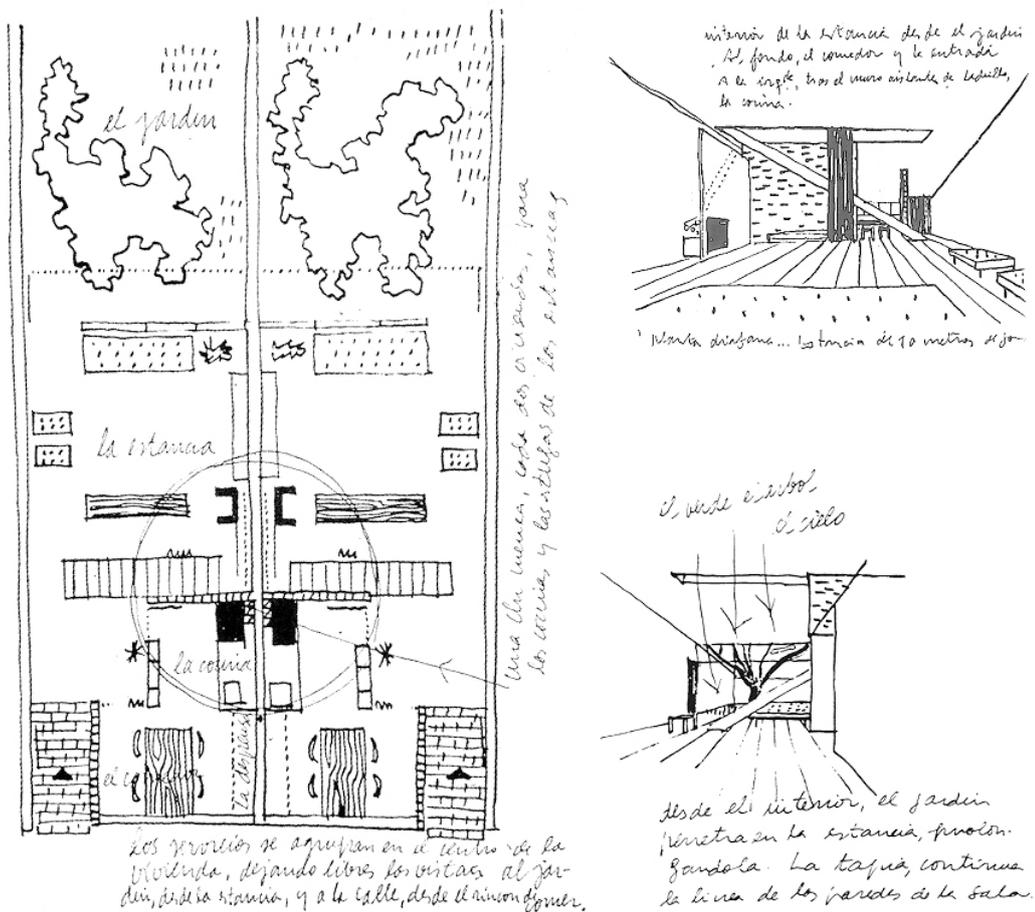


Fig.3.83 Sáenz de Oíza, *Experimental Housing Competition* (1956).

Study of the floor plan (left) and study of interior spaces (right).

⁴⁰⁶ Handwritten annotation in the sketch presented for the *Experimental Housing Competition*. Published in: HURTADO TORÁN, «El concurso de vivienda experimental». In: *Un siglo de vivienda social: 1903-2003, op.cit.*, p.65. Translation by the author (R.J.J.).

The façade also evolved towards a more modern language in this second model of minimum housing. The composition of simple and regularized openings in the façades of *Fuencarral <<A>>* was replaced by a horizontal window with sliding shutters (see Fig.3.84), as it was executed in the colonies for the *Hogar del Empleado*, so that the parents' bedroom and the bathroom are unified in a single strip window towards the entrance. However, it should be noted that Sáenz de Oíza proposed two types of façades (north and south) differentiated by the type of window (vertical and horizontal) in the draft drawings submitted to the competition (see Fig.3.81), but the built work shows otherwise: when visiting the buildings, it was possible to verify that the façades could have been executed only with horizontal windows, whose proportion, material and protections against the sun have been gradually altered by the tenants individually, and this produces a chaotic building elevation of the whole set as seen in the case of the colonies for the *Hogar del Empleado*. However, it is possibly the best preserved example of all his social housing projects, since the white brick walls are maintained and the gardens keep their original use as open landscaped spaces, a pleasant filter between the interior spaces and the street (see Fig.3.85).

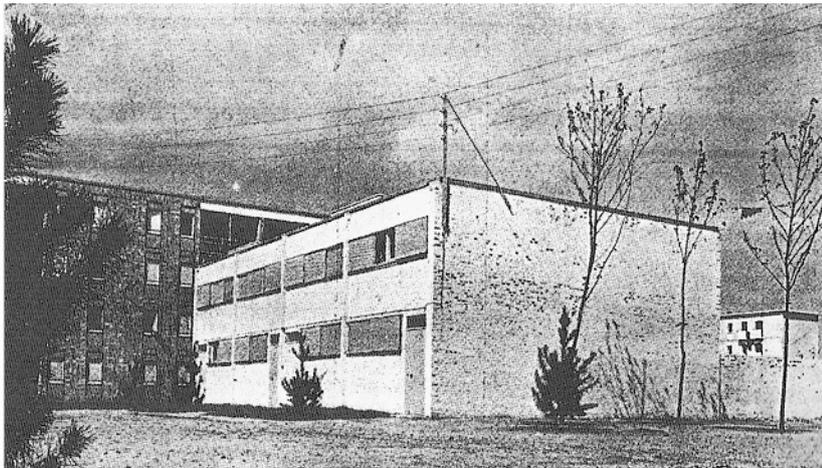


Fig.3.84 Sáenz de Oíza, *Experimental Housing Competition*. Exterior view of the row houses (1956).



Fig.3.85 Sáenz de Oíza, *Experimental Housing Competition*. Exterior view of the row houses (2016).

In the summer of 1956, while Sáenz de Oíza was enjoying his honeymoon, Julián Laguna entrusted him with the task to design and build the first example of the *Directed Settlements* of Madrid in collaboration with Manuel Sierra Nava and Jaime Alvear Criado: *Entrevías*, which was the most radical, abstract, and poorest proposal among all *Directed Settlements* built during those years (see Fig.3.86). The plots of *Entrevías* are located in the southeast of Madrid⁴⁰⁷, in one of the most densely populated informal settlements of the capital in the mid-fifties, on an urban ledge facing west and next to the railway tracks for the trains arriving in the capital from the south and east of Spain. The intervention tried to solve the problem of the heavy growth of unhealthy settlements in the area, mostly inhabited by peasants from Andalusia that arrived in the city to work in the construction. Therefore, the aim of the project was the relocation of slum dwellers occupying the land where the new settlements would arise. To this end, the architects directed the future tenants to build the typologies designed by the architects, despite the meagre resources at their disposal. There were no drinking water supply systems or sanitation networks in the area, nor an urban infrastructure on which to begin to raise the new settlement, so that the working conditions were minimal. The technicians work on site, drawing plans and responding to potential problems that could arise during the construction. In addition, many university students helped in the works during their free time, a sum of combined efforts that turned the project of *Entrevías* into a collaborative experience.⁴⁰⁸

In this connection, self-construction and time limitation conditioned the project of *Entrevías*, which was resolved by low-density housing forming an abstract, radical and rationalist urban complex, designed in treelike structure (see Fig.3.87). The settlement was therefore also set up with organic principles, on the understanding that nature is also governed by a strict, clear and unequivocal order. The influence of the radical and rough city of Hilberseimer, whose work was known and read by Sáenz de Oíza⁴⁰⁹, is present in this project. Although Sáenz de Oíza had experience in managing urban complexes, acquired both in the different projects of the colonies for the *Hogar del Empleado* as in the *Relocation Settlement of Fuencarral <<A>>*, he had to face a new challenge in *Entrevías*, a project that also meant the opportunity to design a new piece of city, albeit on a wider scale than that of his precedent projects.

⁴⁰⁷ *Entrevías* is located in the *Pozo del Tío Raimundo* neighbourhood, which belongs to the district of Vallecas.

⁴⁰⁸ With regard to the *Directed Settlement of Entrevías*, see: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, pp.52-57; and: MONEO, Rafael: <<El poblado dirigido de Entrevías>>. *Hogar y Arquitectura*, n.34. Madrid, 1961. Print. pp.3-28.

⁴⁰⁹ Be reminded that there are two books from Ludwig Hilberseimer included in Sáenz de Oíza's personal library from 1968: *The New Regional Pattern* (ed. Chicago, 1955) and *The Nature of Cities: Origin, Growth, and Decline, Pattern and Form, Planning Problems* (Chicago, 1955).

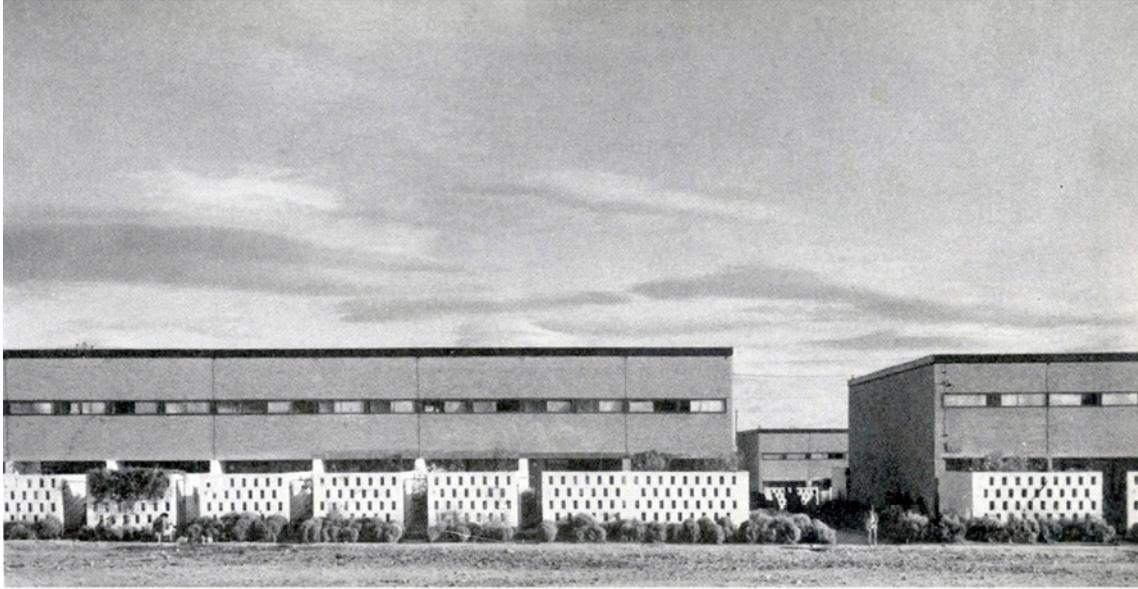


Fig.3.86 J. Alvear, F.J. Sáenz de Oíza and M. Sierra, *Directed Settlement of Entrevías* (1956-60).
Exterior view of the row houses.

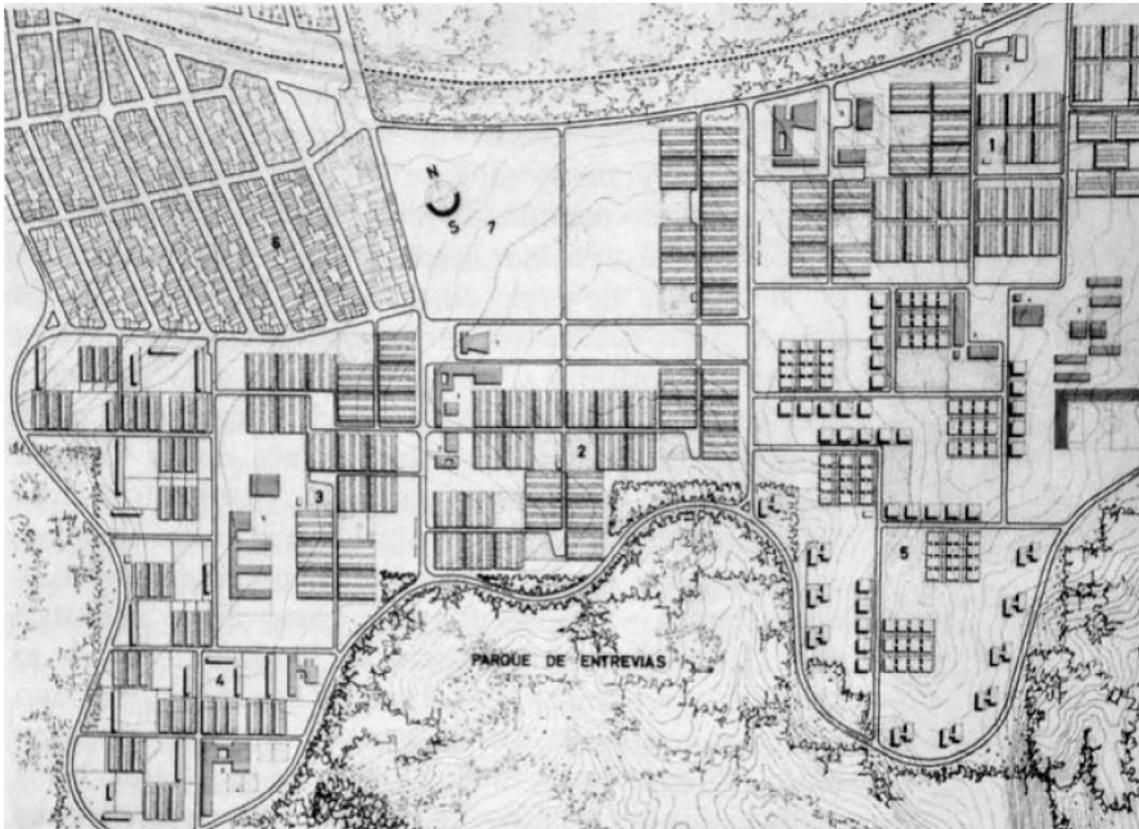


Fig.3.87 J. Alvear, F.J. Sáenz de Oíza and M. Sierra, *Directed Settlement of Entrevías* (1956-60).
Site plan.

Since a swift and urgent action to resolve the project was needed, a single housing settlement model was adopted by the grouping of modular units in blocks as a cluster and located on a street grid (see Fig.3.88). The previous experiences in *Fuencarral <<A>>*, the influence of the American neighbourhoods that Sáenz de Oíza had visited during his one-year scholarship in the United States, the modern *Siedlungen* of the twenties and the fundamentals of <<*Existenzminimum*>>, and his conviction that social housing should be designed from a strict and rigorous rationalism, are the fundamental principles on which the urban concept of *Entrevías* rests, as well as its reticular organization. Thereby, and taking the project of *Fuencarral* as a model, the urban structure in the *Directed Settlement of Entrevías* was resolved by a modular orthogonal grid that could organize the buildings, road and general services of the settlement, which lacked the basic urban facilities, almost non-existent.⁴¹⁰ Sáenz de Oíza was able to improve the two previous versions through the maximum possible adjustment of the costs, which was achieved again through modulation. While the modules used in the previous experiences of *Fuencarral <<A>>* and the *Experimental Housing Competition* were, respectively, 3.50 and 4.00 metres, in *Entrevías*, the standard module used is 3.60 metres, which is the module of the residential unit, and thus, the basic unit in which the whole urban set is organized.

In line with that principle, the module allowed Sáenz de Oíza and his team colleagues to generate the logic of the settlement: the residential units, the block, the streets, the superblock and the overall pattern of the settlement, so that the landscaped pedestrian streets are equivalent to a module, the roads are obtained from the sum of two modules, and the residential block consists of 9x12 modules. The houses were arranged on platforms that saved the rough uneven terrain and organized groups of 6 blocks (superblocks), separated by pedestrian streets and a central hub for traffic. In turn, the block was organized from two rows of 12 facing dwellings (24 units per block), while an unbuilt open space was always left in each group and with a corresponding size to one block, which helped to release the dense built-up areas, thus providing some relief in the rigid schematicism of the urban set.⁴¹¹ The urban planning was therefore reduced to the resolution of a block type, whose basic unit was the dwelling, and the configuration of pedestrian streets between the blocks. As a result, a new place in the city was created through an experimentation that was made possible by the experience, the abstraction of geometry and rigour of the modulation, and the study of foreign references.

⁴¹⁰ The project included the construction of a church (*Santa María del Pozo Chapel for Father Llanos*) and a *Parish Centre*, which were also designed by Sáenz de Oíza and built in 1958 and 1959, respectively. See: ALBERDI, and SÁENZ GUERRA, *op.cit.*, pp.90-91.

⁴¹¹ For a detailed explanation about *Entrevías'* urban configuration and its urban data, see: MONEO, <<El poblado dirigido de Entrevías>>, *op.cit.*, pp.14-17.

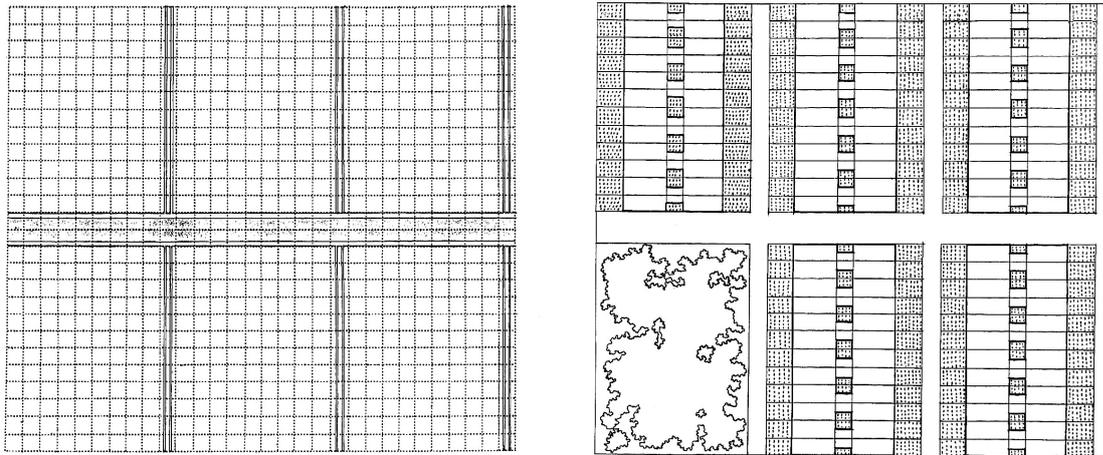


Fig.3.88 *Directed Settlement of Entrevías* (1956). Elemental planning unit (superblock).
Superblock road network (left) and superblock configuration (right).

In the project of *Entrevías*, Sáenz de Oíza had already learned from previous mistakes and he had a mature learning about proportion, economy, minimums and appropriate use of the means to produce a cheap and simple, but accurate construction. Indeed, under these assumptions, in Sáenz de Oíza's three radical social housing models, but especially in *Entrevías*, as it is the most radical and refined case of the three, the whole design arises from a primary reason: the minimums, as if they were a rigid, inflexible, dominant and necessary law that gives meaning and logic to the social housing layout and its grouping in larger blocks. But moreover, Sáenz de Oíza reached these minimum through a tool in which he based the whole of his architectural work: the module. In this sense, it could be argued that his architecture is essentially understood and explained from the modulation. In other words, the project of *Entrevías* was configured and can be explained from a mathematic perspective, that is, the basic module of 3.60 metres and its variants: multiples of three that generate the elemental units of the superblock (9x12 modules and 6 blocks), as well as the sub-module of 1.80 metres that allowed Sáenz de Oíza to configure specific spaces in the dwelling.

It should nevertheless be underlined that, rather than being a constructive-type reason, the modulation applied in these houses reflects Sáenz de Oíza's fundamental design criteria: order and metric rigour of the project above all else. In addition, this modulation is the tool that allowed him not only to design the whole urban layout, but to coordinate many constructive elements, which was reflected in the simplification and reduction of the construction work. The module is the starting point that marks the boundaries in which the architecture is produced, its distributions and tensions on the floor plan, as well as the optimization and organization of all housing facilities. The social dimension in Sáenz de Oíza's architecture is given by the module.



Fig.3.89 *Entrevías*. Front façade of the elementary block of twelve row houses.

Although the scale of action was significantly different⁴¹², the social housing of *Entrevías* represented the final and most refined part of the process of a developing model that started in *Fuencarral <<A>>* and continued with the *Experimental Housing Competition*. In it, Sáenz de Oíza brought the possibilities of the minimum housing model to the limit after the two previous experiences.⁴¹³ Thus, the dwellings were resolved through the implementation of one single typology of two-storey houses in a row with small variants, which lie perpendicularly to the orthogonal grid of walkways and road traffic, and are organized in blocks of 24 dwellings (12 per façade, see Fig.3.90) with a front courtyard and a small backyard (see Fig.3.88). The row houses are arranged in an abstract modular grouping with diagonal solar orientation in two opposite directions: northwest-southeast orientation, and northeast-southwest orientation, so that a contrast between the rough and rotund image of the blind walls and the open and landscaped yards in the opposite façades architecture occurs (see Fig.3.89). Therefore, priority was given to the organization of the whole urban plot, to the detriment of the proper orientation of all dwellings.

⁴¹² While in *Fuencarral <<A>>* the general plan consisted of 500 dwellings and in the *Experimental Housing Competition* the aim was to resolve a type of housing unit (4 units in total), *Entrevías* consisted of planning a brand new neighbourhood for 20,000 inhabitants. (In: MONEO, <<El poblado dirigido de Entrevías>>, *op.cit.*, p.9).

⁴¹³ In 1988, on the occasion of the publication of his monograph in *El Croquis*, the architect confessed that the construction of *Entrevías* coincided with his honeymoon, and that he was not included as an architect in the project nor was he paid for his work, despite the fact that he redesigned the project *Fuencarral <<A>>* and adapted it very quickly to the specific needs of *Entrevías*. In: SÁENZ DE OÍZA, <<Disertaciones>>. In: *El Croquis 32/33. Sáenz de Oíza. 1946-1988, op.cit.*, p.25.

The settlement of *Entrevías* was, among other things, an exercise in economics and efforts. The economy of means forced Sáenz de Oíza to find a housing solution with minimum dimensions:

“The biggest highlight of the <<invention>> of the settlements is the dedication we put into it. It was about building a modest home and spend the day and night studying the materials, to make it as economically as possible.”⁴¹⁴

Under such economical and social circumstances, the standard type of dwelling has a useful surface of 52 sqm⁴¹⁵ and is developed in a deep rectangle with a module of 3.60 metres, which is the minimum measure that allowed Sáenz de Oíza to concentrate two adjacent bedrooms on the interior width of the house (see Fig.3.91, left). The housing unit in *Entrevías* maintains the structure of load-bearing walls of brick arranged perpendicular to the façade of the previous models, and the interior layout is based on a similar distribution concept, which is evolved and taken to the extreme. On the ground floor: a front yard, one living room, one kitchen, a small backyard that can be used as a drying room, and a washroom (toilet, sink and shower). On the upper floor, the previous solutions to accommodate one main bedroom and two children's rooms was repeated, even in a more reduced form, maintaining the scheme of one single built-in cupboard in the hallway and situated behind the stairs (see Annex 2, p.240), similar to that of the *Experimental Housing Competition*. As in the previous models, the rest area can be expanded by the addition of two extra beds in the living room. The decision to distribute the three radical housing models similarly reveals another fact in Sáenz de Oíza's social housing model: he understood that intimate family relationships should be developed vertically. This verticality of the house was a matter defended by Sáenz de Oíza even thirty years later, when he stated that:

“(...) it seems to me that originally the home (...), is a vertical being. In the basement occurs, as Bachelard says, all rotting, dirt, murders and more, and in the attic, however, there is enlightenment, transcendence and elevation. (...) even in the smallest cabin vertical relationships are present.”⁴¹⁶

⁴¹⁴ SÁENZ DE OÍZA, Francisco Javier: <<Conversaciones sobre poblados: la experiencia en el recuerdo de sus protagonistas>>. In: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, p.179.

⁴¹⁵ The ground floor has a useful surface of 26.70 sqm, while the upper floor has a useful surface of 25.30 sqm. The total useful surface of living spaces (dwelling+open spaces) is 62.40 sqm. For further data on the useful surfaces of each floor and each room, see: MONEO, <<El poblado dirigido de Entrevías>>, *op.cit.*, p.25; and: GIVCO, <<Poblado Dirigido de Entrevías = Satellite settlement of Entrevías: F. J. Sáenz de Oíza, J. de Alvear Criado, M. Sierra Nava: Madrid, 1956-60>>, *op.cit.*

⁴¹⁶ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*, *op.cit.*, p.33. Translation by the author (R.J.J.). Extract of the interview: <<En conversación con Vicente Patón y Pierluigi Cattermole, 1986>>, *op.cit.*

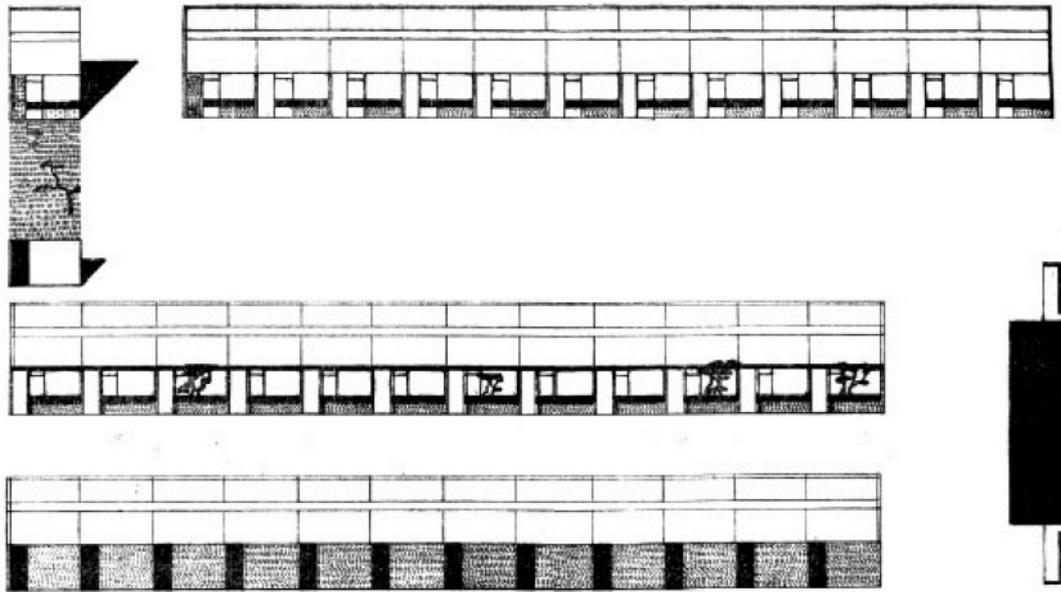
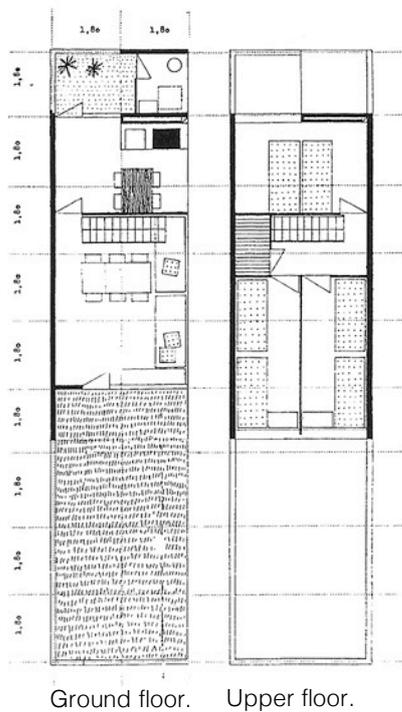


Fig.3.90 *Directed Settlement of Entrevías*. Elevation plans of the dwellings.



Ground floor. Upper floor.

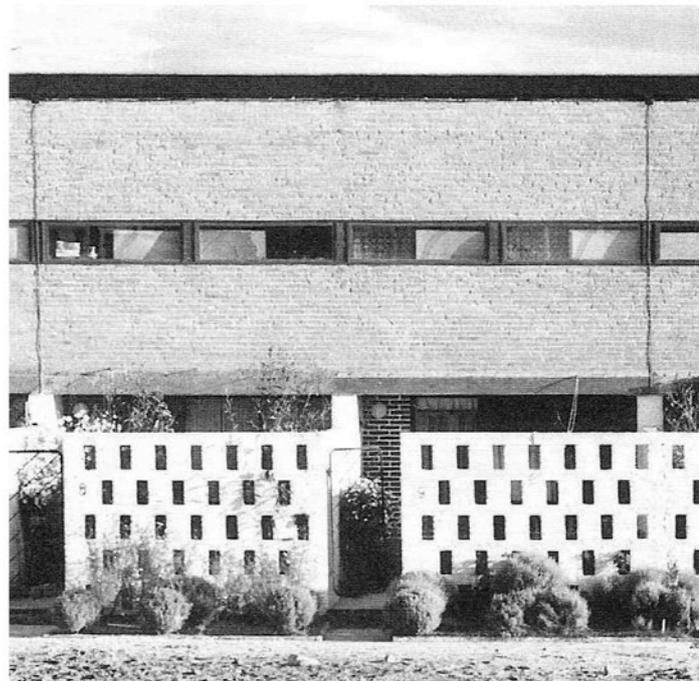


Fig.3.91 Sáenz de Oíza, *Entrevías* (1956). Floor plan (left) and front façade of the dwellings (right).

The first change introduced in the dwelling of *Entrevías* was the position of the courtyard in the plot (see Annex 2, pp.240-241), which remained an essential space in the configuration of the home, allowing light, air and neighbourhood relations to flow naturally. But, unlike the first project of *Fuencarral <<A>>*, where Sáenz de Oíza experimented with two positions of the courtyard depending on the best sunlight conditions, or in the *Experimental Housing Competition*, where the dwellings are always attached to the street and have two possible entrances, in the case of *Entrevías*, the house is recessed to the back of the rectangular plot, thus creating a front courtyard, a garden filled with plants and flowers that leads to the entrance of the house, so that it is perceived as a transition between the social space, that is, the street, and the intimacy of the private dwelling (see Fig.3.91, Fig.3.92). The limit between the dwelling and the street is equally sensitive to social distances, and is set by a perforated brick wall painted in white, allowing air circulation and transparency from the street.⁴¹⁷ Besides, the entrance is accentuated by a shadow produced by the dissimilar depth between the ground and the upper floor. In this way, this threshold produces a widening of the section in the pedestrian street. Once again, the threshold, the small universe between private and public spaces, becomes protagonist to Sáenz de Oíza:

“The threshold is the space that links the inside and the outside and, therefore, is your existence. You have privacy, but you also have your public screening. The threshold is thus the centre of the world. This is very important for architecture, because as its edge, its threshold, turns thicker, the architecture becomes more significant.”⁴¹⁸

The reiterated importance of the entrance in Sáenz de Oíza's social housing talks about the social and spatial qualities of the home: privacy and intimacy combined with neighbourly relations, equally important. This implies that an architectural response to the housing and social needs of the user is provided, but also to the pedestrians that see the façades from the street. The front gate configures a social space where children play and neighbours talk. These concerns about the design of housing and the user who inhabits and enjoys it were constant during his work. In his own words:

“When I am commissioned to design a house, I try to create a space enough welcoming and personal for the one who lives in it, and enough social for the one who sees it from the outside.”⁴¹⁹

⁴¹⁷ The perforated wall was one of the most rejected elements by the neighbours and it is currently an opaque wall with many different decorative finishes (although the prevalent solution is the white plaster), possibly because of the excessive exposure to the street and, consequently, a lack of privacy.

⁴¹⁸ Quoted in: BONED PURKISS, and JILIBERTO HERRERA, *op.cit.*, p.9.

⁴¹⁹ SÁENZ DE OÍZA, <<Respuestas polémicas>>, *op.cit.* p.108. Translation by the author (R.J.J).

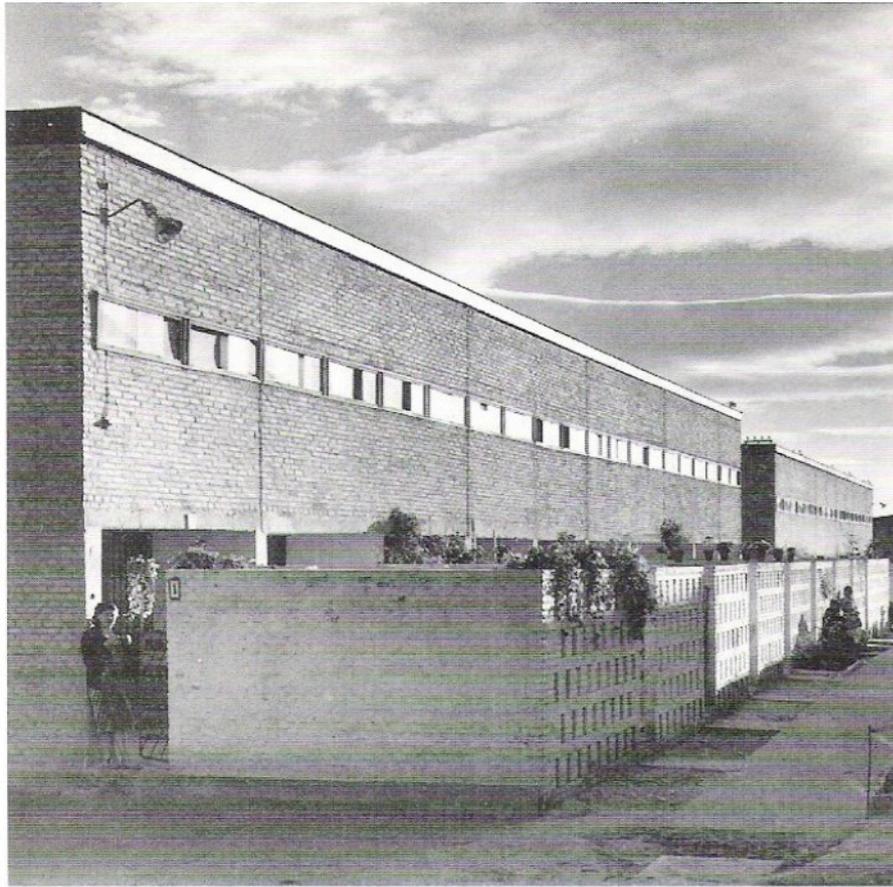


Fig.3.92 *Entrevías*. View of the front façade and the front courtyards.



Fig.3.93 *Entrevías*. Views of the front courtyards and their relation with the street.

The front gate, with a height of 1.90 metres, produces a visual game of gaps and built-up parts in contrast with the background, the shadowless surface of the façade, as well as it modulates the pedestrian street (see Fig.3.93). It also allows the pedestrian to look through it, thus bringing together the street life and the open courtyards of the households. But, most importantly, the gate serves to emphasize the perception of the threshold in the front courtyard, while it reinforces the sense of privacy and ownership. Once the front gate and the courtyard have been crossed, the entrance into the house occurs directly into the living room⁴²⁰, which remains linked to the larger courtyard, and through a door which is off-centre with respect to the front façade, so that the order of spaces in the dwelling is reversed with respect to the two previous experimental proposals, and thus, both the kitchen and bathroom are located at the back of the house (see Annex 2, p.240).

Having tried two positions of the stairway on the above proposals and due to narrowing of the dwelling in *Entrevías* with respect to the *Experimental Housing Competition*, in this case, Sáenz de Oíza chose to keep them perpendicular to the load-bearing walls and developed in a straight flight of stairs⁴²¹, a decision that facilitated the resolution of the structure of the floor. As in the previous proposals, the staircase divides the apartment into two areas: on the ground floor, it separates the kitchen-dining room oriented to the rear yard from the living-room, which remains attached to the main open space in the three proposals. Nevertheless, the effect of transparency between the two façades achieved in the previous housing is lost in favor of a more independent use of space with well-defined functions, which are delimited by a partition wall and a door, so that the dwelling is understood as a transition of concatenated and delimited spaces on the ground floor. Upstairs, the dwelling is divided in two parts (parents and children) by a filter that includes a hallway, a shared built-in cupboard and the stairway. In all three cases, it was decided to orient the children's room to the main courtyard (see Annex 2, p.240).

The kitchen of *Entrevías*⁴²² is a central space adjacent to the rear façade, which effectively serves as a transition or communication between the two façades, and has enough size to include the dining area. This space evolves in the three proposals from being an integrated open space in the living room, as it was the first case of *Fuencarral <<A>>*, to a space adjacent to the living room but isolated by a door, so that

⁴²⁰ Be reminded that, in the case of *Fuencarral <<A>>*, some dwellings were accessed through the courtyard, depending on the arrangement and orientation of the house on the plot.

⁴²¹ As in *Fuencarral <<A>>*'s solution, the staircase in *Entrevías* was solved with 12 steps (each step comprises a 20 cm tread and 20.5 cm-high stair riser), while the width of the house of the *Experimental Competition* allowed him to develop the stairway more comfortably, with 14 steps.

⁴²² The dwellings were allocated with a coal stove which was gradually replaced by the tenants with modern gas or electric systems.

the tenants would enjoy more hygiene, health and comfort when cooking or eating inside it. Access to the bathroom, which is a small cabin fully equipped but without natural lighting⁴²³, was proposed through a small backyard, an open transition attached to the kitchen that could be used both as laundry and drying room. The size of this backyard connected to the kitchen had to be reduced considerably because, in Sáenz de Oíza's own words:

“(...) we had learned from the Fuencarral project that if the patio overlooked the kitchens it became a storage room, and the neighbours only took care of the patio overlooking the living room.”⁴²⁴

Despite the fact that the *Experimental Housing* model offers the most suitable solution for the bathroom from the point of view of the housing and the user, the solution in *Entrevías* solved the network of urban sanitary facilities more optimally and efficiently, so that it proved to be the most cost-effective solution. Once again, all facilities were easily grouped together in order to keep costs to a minimum; therefore, Sáenz de Oíza streamlined the domestic installations in a compact block by joining four wet nuclei of two adjacent rows of houses (see Fig.3.94), so that the urban sanitation system was solved with one collector per block placed in a straight light. This conceptual and architectural approach of designing a compact core of facilities is also close to the machine for living inasmuch as the housing is a manifest of constructive minimums, economy and austerity of materials and sanitation networks. In this connection, Sáenz de Oíza stated that:

“A house is an economic issue, and an economic issue is a problem of the environment, cost, and maintenance. Back then we did the budgets, and my wife went through the shops asking the price of the kitchens. It was a time of hardship that forced to use a certain rationality.”⁴²⁵

The economy and rationality of the minimum social housing raised by Sáenz de Oíza reaches its climax with the facilities, a subject that he mastered due to his activity as assistant professor of 'Health and Hygiene of the Building' at the School of Madrid since 1949. The optimization and radicalization of the sanitary facilities, led to the extreme of the minimum, is also an evolutionary process in these three proposals: from the grouping of sanitary facilities and kitchen in pairs implemented in *Fuencarral*

⁴²³ Over time, the majority of residents have modified this bathroom by adding a skylight to provide natural lighting and ventilation, a solution used by J.J.P. Oud in the bathroom and toilet in his *Weissenhof Row Houses*.

⁴²⁴ Quoted in: ALBERDI, and SÁENZ GUERRA, *op.cit.*, p.71. Translation by the author (R.J.J).

⁴²⁵ SÁENZ DE OÍZA, Francisco Javier: «Conversaciones sobre poblados: la experiencia en el recuerdo de sus protagonistas». In: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, pp.179-180. Translation by the author (R.J.J).

<<A>>, to the absolutely economic solution of *Entrevías*, where four nuclei of sanitation facilities are concentrated in one single point.

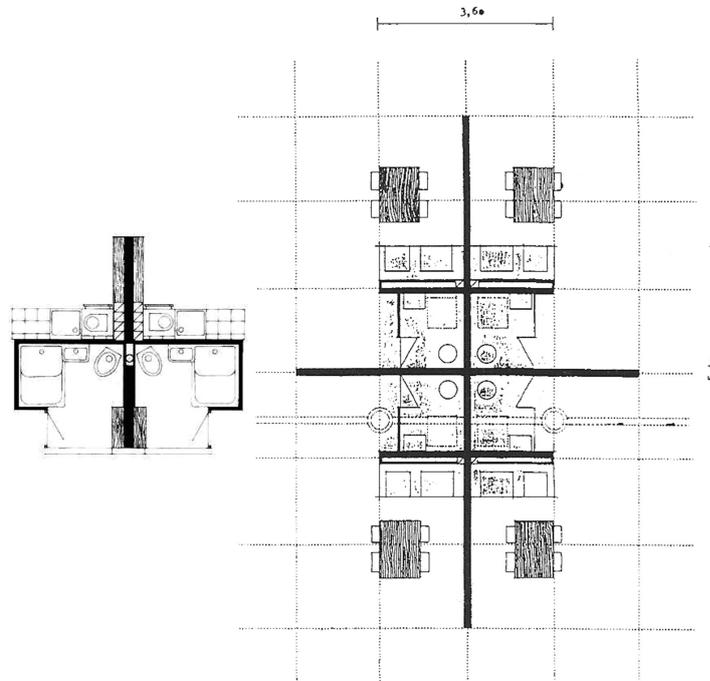


Fig.3.94 Evolution of wet areas in Sáenz de Oíza's radical housing model.
From *Fuencarral <<A>>* (left) to *Entrevías* (right).

Sáenz de Oíza's concern about the economy and rationalization of all sanitary facilities led him to make detailed drawings of plumbing and sanitation facilities in plan, section and with axonometric views. Indeed, in April 1956, he published an article with Mariano Rodríguez-Avial in *Revista Nacional de Arquitectura*, where they presented and described a "sanitary installation unit for affordable housing" ("Unidad de instalación sanitaria para viviendas económicas" ⁴²⁶). In order to explain their design, they used very detailed drawings at scale 1:50 that clearly defined the elements of an installation unit designed for the social housing built by the *Obra Sindical del Hogar*. The sanitary installation unit proposed in the article once again expresses the main features in Sáenz de Oíza's social architecture: the minimums, resource economics and rationalization of facilities, and the clarity of ideas, which is reflected in the graphics, all of them aspects that Sáenz de Oíza undoubtedly knew and embraced during his American tour.

⁴²⁶ In: SÁENZ DE OÍZA, Francisco Javier, and RODRIGUEZ-AVIAL, Mariano: <<Unidad de instalación sanitaria para viviendas económicas>>. *Revista Nacional de Arquitectura*, n.172. Dirección General de Arquitectura. Madrid, April 1956. pp.12-13.

This sanitary unit was composed by the kitchen and bathroom facilities concentrated in a single junction point. In the article, the architects spoke of 'minimal kitchen' with a fireplace for mineral coal and a sink in porcelain, while the bathroom included a toilet, a sink (also in porcelain), a shower, and a single tap that could rotate and serve the sink and bathtub at a time. This proposal for a sanitary unit recalls the contemporary prototypes at a scale of 1:1 shown in the *Constructa Building Exhibition* in Hannover 1951, but they also resemble those drawings of prefabricated bathrooms in vertical panels and horizontal sections from 1931 and 1934 collected and presented in Giedion's *Mechanization Takes Command: a Contribution to Anonymous History* (1948), a book that Sáenz de Oíza had read and knew well (see Fig.3.95, Fig.3.96, Fig.3.97). This may not be coincidental, because if we go back to Sáenz de Oíza's personal library of 1968, we find the following books published by Sigfried Giedion: *Space, Time & Architecture: the growth of a new tradition* (1941), *Mechanization Takes Command: a contribution to anonymous history* (1948), and the two volumes of *The Eternal Present: a Contribution on Constancy and Change* (1964).⁴²⁷ The legacy of Giedion's published drawings in Sáenz de Oíza is noticeable, whose representation of the details of the bathroom also resembles the installations drawings for *Entrevías*.

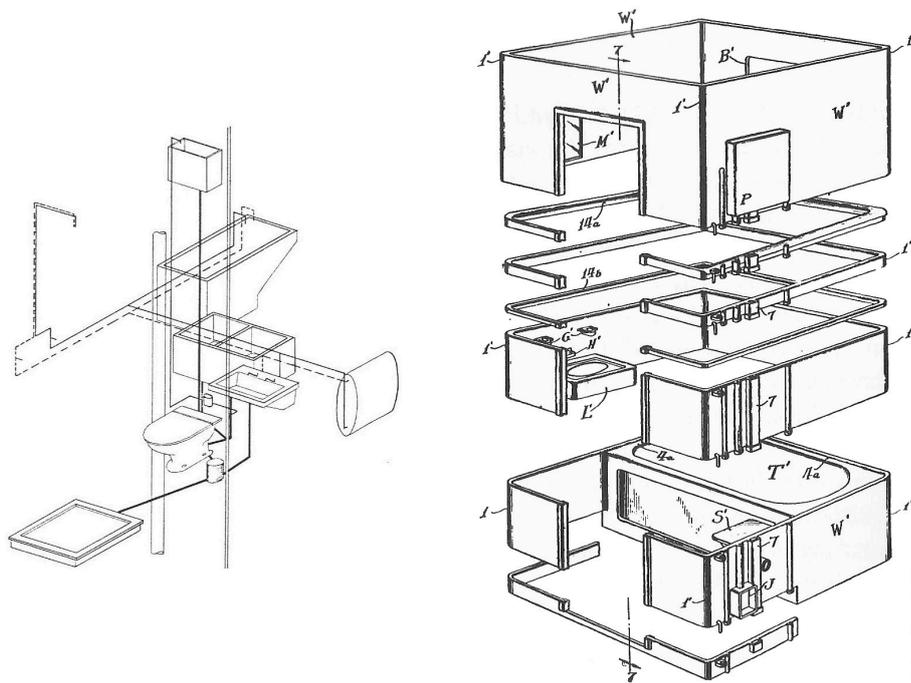


Fig.3.95 Left: Sáenz de Oíza, *Detail of sanitary installation in Entrevías* (1956);
Right: S. Giedion, *Prefabricated Bathroom in Horizontal Sections* (1934).

⁴²⁷ In his monograph for *El Croquis*, Sáenz de Oíza spoke of the 100 books that he would take with him if he ended up in jail. Among them, he mentioned Giedion's *Space, Time & Architecture*. In: SÁENZ DE OÍZA, Francisco Javier: «Disertaciones». In: *El Croquis* 32/33. Sáenz de Oíza. 1946-1988, *op.cit.*, p.23.

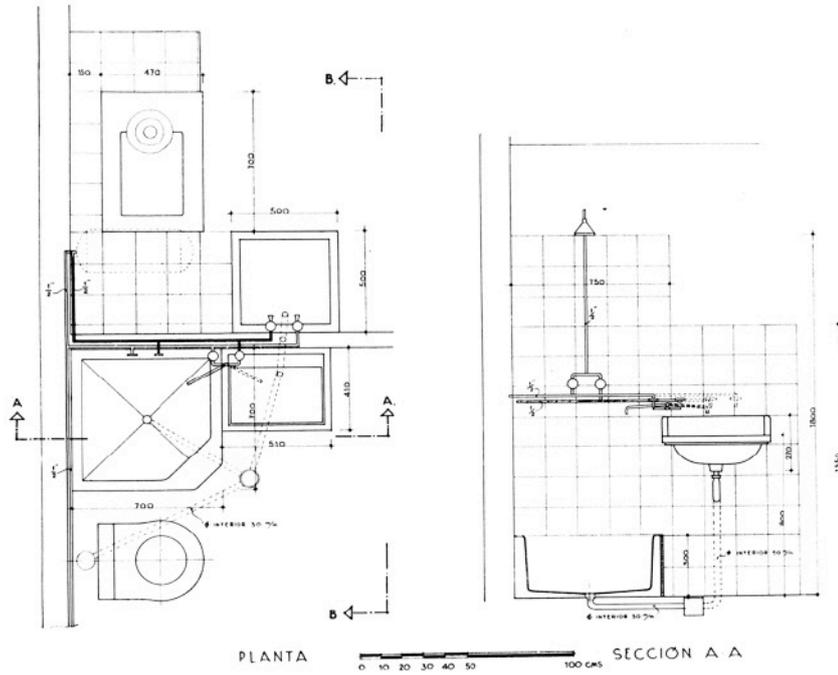


Fig.3.96 Sáenz de Oíza & Rodríguez-Avial, *Sanitary installation unit for affordable housing* (RNA, 1956).

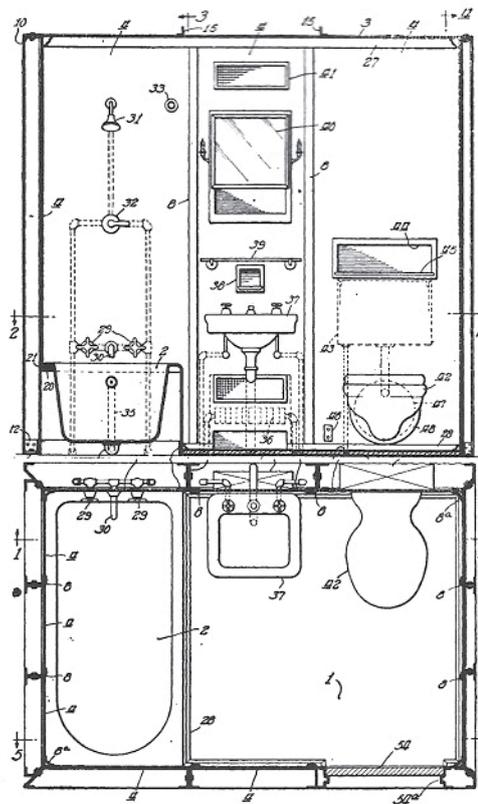


Fig.3.97 S. Giedion, *Prefabricated Bathroom*, 1931 (*Mechanization takes Command*, 1948).

Regarding the external composition of the dwellings in *Entrevías*, Sáenz de Oíza opted for a closer solution to the *Experimental Housing Competition*, with a modern composition of pure, abstract geometries. Both the materials and construction system were chosen following the same minimum criteria that characterizes the whole project, so that they were a coherent response to the precariousness. Therefore, and due to the lack of new materials and adequate prefabrication systems, a basic craft technique and unskilled work, Sáenz de Oíza used half-foot ceramic brick in the load-bearing walls and façade enclosure systems⁴²⁸, as well as in the perforated walls of the front gate, while concrete was only used for the slabs. The façade underwent an evolution compared to the previous two cases (see Fig.3.98), so that the glazing areas in *Entrevías* are grouped in an elongated window, a horizontal line of glass on the continuous wall of brick, which meant a step forward in the formal radicality and modernity of the composition of the façade, but also in the technical and constructive aspects. This elongated windows were harshly criticized by Franco at the opening of the settlement, where he stated that “they looked like stables”⁴²⁹, an event attended by the architect Antonio Vázquez de Castro in replacement of Sáenz de Oíza.⁴³⁰ These windows did not have a long life, as Rafael Moneo already commented their poor condition due to the use of inappropriate materials and a lack of quality in their execution in an article on the settlement published in *Hogar y Arquitectura* in 1961.⁴³¹

Moreover, he used some architectural resources to have clear building elevations without inclined surfaces. The roof has a mixed solution which is halfway between the flat and sloping roof (see Annex 2, p.241), so that each dwelling is crowned by a monopitch roof sloping into the small backyard and built with flat ceramic tiles, which makes it appear as a clear flat roof from the street. On the other hand, the façades and walls protecting the inner courtyards from the street were topped with a black horizontal cornice (see Fig.3.98), which emphasizes the vision of a flat roof and the

⁴²⁸ The transverse walls on the ground floor were built with half-foot solid brick, while on the upper floor the façade area was solved with the same wall thickness, but with hollow brick. With regard to the construction system used in *Entrevías*, see: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, pp.142-143.

⁴²⁹ Reported by Pedro Casas, who has been living in one of the dwellings of *Entrevías* since its inauguration, during an interview by the author that took place in his home in April 2015. This tenant related that these elongated windows were mocked by Franco when he inaugurated the settlement. He also declared that the dwellings were built and delivered with a cement floor, and a bathroom with no light.

⁴³⁰ M^a Felisa Guerra, Sáenz de Oíza's widow, related in an interview in 2002 that the relationship between the dictator and the architect was never good and, therefore, he was advised not to attend the opening of the settlement. In: ARANGUREN, Begoña: «Capítulo IX: M^a Felisa Guerra». *La mujer en la sombra. La vida junto a los grandes hombres*. Editorial Aguilar. Madrid, 2002. Print. p.240.

⁴³¹ See: MONEO, «El poblado dirigido de Entrevías», *op.cit.*, p.23.

formal abstraction of the dwellings.⁴³² The external compositional clarity was thus reinforced by the exposed brick in the exterior and interior walls and the black lines in the cornice and window frames (see Fig.3.98), a formal resource that is connected with the rationalism of the interwar *Siedlungen*, but without giving up to a Spanish traditional construction. Sáenz de Oíza's rigorous interpretation of the canonical language of the modern architecture is appreciated in the design of these façades, which are a clear tribute to Mies' purist aesthetics and the Bauhaus architecture, perhaps because "it was much easier to follow the great masters than to be aware of what was happening in Europe."⁴³³

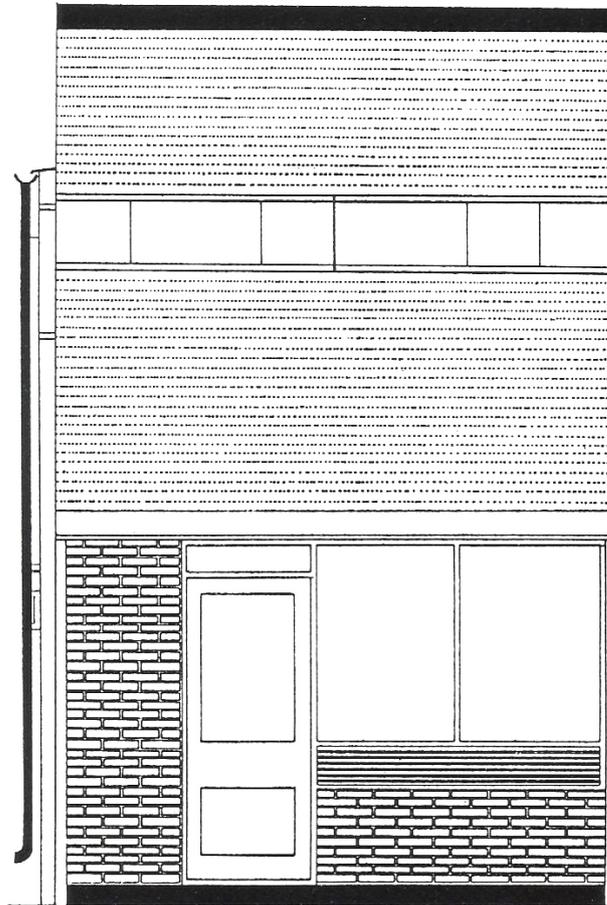


Fig.3.98 Elevation of the front façade of a standard dwelling in *Entrevías*.

⁴³² This façade solution was not well accepted by the users, who later proceeded to clad the walls chaotically.

⁴³³ Mangada, Eduardo: «Conversaciones sobre poblados: la experiencia en el recuerdo de sus protagonistas». In: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, p.192. Translation by the author (R.J.J).

Sáenz de Oíza's dwellings in the *Directed Settlement of Entrevías* are important for various reasons: Firstly, because it was the first positive result of the *Directed Settlements* operation in Madrid, while at the same time fundamental for the history of the Spanish modern architecture of the second half of the twentieth century; and secondly, because it has a special meaning and place in the overall work of Sáenz de Oíza. *Entrevías* satisfactory results meant an indisputable reference and prototype for all subsequent social housing projects in Spain, but they did also reflect Sáenz de Oíza's high maturity as designer and in his particular understanding of architecture which, from his point of view, "is the function of living"⁴³⁴. In this regard, Sáenz de Oíza's three proposals for minimum housing constitute an experimental unit, a concept that highlights not only his ability and sensitivity to the problem of social housing, but also his intransigence and resignation to the superfluous and the formalist attempt, his chameleonic ability to absorb styles and foreign solutions and adapt them to particular conditions without being subordinated to the form. Moreover, the type, density, structure and spatial approaches of his radical social housing models clearly show the weight and influence of the interwar *Siedlungen* in their solutions. The *Courtyard Houses* designed by Mies van der Rohe, the single-family houses developed in a row by Gropius in *Dammerstock* (1928-29), or Hilberseimer's urban proposals are some examples on which Sáenz de Oíza based these projects. Alongside these German influences, it is worth noting that his three radical social housing projects are also nourished by the Dutch architecture, exemplified in two particular projects designed by J.J.P. Oud: *Kiefhoek Worker's Housing* (Rotterdam, 1925-30) and the *Weissenhof Row Houses* (Stuttgart, 1927). Oud's influence on Sáenz de Oíza's social housing projects (see Fig.3.99, Fig.3.100) is not surprising considering the significant practice of Dutch architects –particularly Oud– in the field of social housing and, therefore, in the design of efficient domestic spaces. However, the external image of these projects, in the typical exposed brick, is the result of inheriting the Nordic architecture which, like Spain, based its modern aesthetics on a simple, traditional construction developed through a clear and refined regionalist architecture language. In this connection, Rafael Moneo noted the foreign influences on the project of *Entrevías* in the above-mentioned article of 1961:

"The healthy rationalist spirit, seeker of scientific minimum, which encouraged much of the European architecture of the 1920s, was also the spirit that inspired the architects of *Entrevías*. *Entrevías* is, therefore, the contact with Gropius, Taut or Oud's worker's housing in our country after the war."⁴³⁵

⁴³⁴ SÁENZ DE OÍZA, Francisco Javier. Interview by PÁNIKER, Salvador. In: *Conversaciones en Madrid*, *op.cit.*, p.137.

⁴³⁵ MONEO, «El Poblado Dirigido de Entrevías», *op.cit.*, p.19. Translation by the author (R.J.J.).

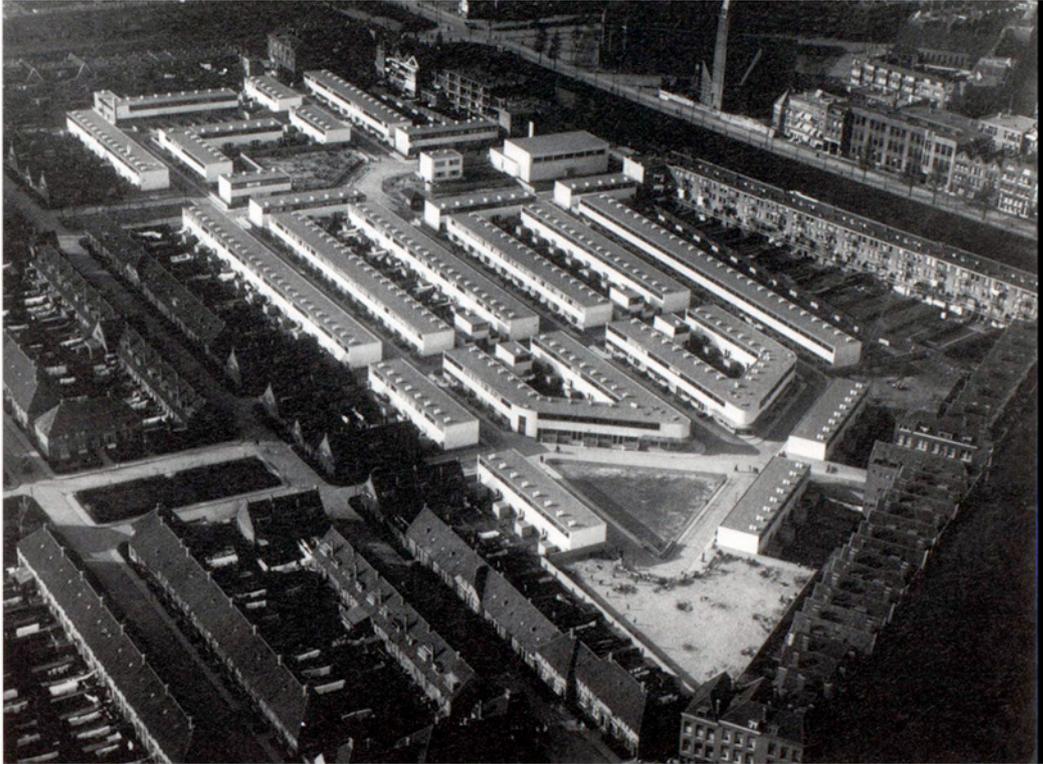


Fig.3.99 *Kiefhoek* (Rotterdam, 1925-30). Aerial photo.



Fig.3.100 *Directed Settlement of Entrevías* (Madrid, 1956-60). Aerial photo.

In effect, and taking Moneo's appreciation as still valid, the three social housing proposals designed by Sáenz de Oíza, with a mechanic-based approach in the ground plans and whose rigour and logic is given by its strict modulation, is indebted to the European workers' housing prototypes of the 1920s, notably those representatives of the «New Objectivity». Sáenz de Oíza sought inspiration in these models and brought them to the limit, exaggerating the concept of minimum, both in the analysis and understanding of domestic space, the study of distribution and flexibility of use, as well as in the technical and constructive solution. But, as has already been seen and demonstrated in other cases, he did not copy with the aim of reproducing models through a vague mimesis, without evaluating them with a filter or analysis, but he made these references their own, always keeping his constant critical and intuitive eye. This ability to dialogue with his precedents is visible in the common ideas or concepts between these remote experiences, separated by a temporal distance of thirty years. But, paradoxically, the dialogue is even more exciting and enlightening when the differences are identified. Because the dialogue with the precedent masters does not imply agreeing on everything, nor accepting all the assumptions as valid, but they are the basis on which one relies to continue his own evolution.

In accordance with these assumptions, it has been considered both appropriate and clarifying to establish a graphical comparison between the original floor plans drawn by Sáenz de Oíza, which correspond to his experimental unit, with three specific European *Siedlungen* models that had a more evident influence on his three minimum social housing projects, which are: Oud's row houses in the urban developments of *Kiefhoek* and *Weissenhofsiedlung*⁴³⁶, and Gropius' eight row houses («Group 9») in *Dammerstock* (see Annex 3, p.242), all of which were built under the slogan of standardization and experimentation of the minimum housing for the low-income families. Nevertheless, it is important to note that, although Oud's *Five Row Houses in the Weissenhofsiedlung* are not representative of a social architecture, since they were designed with an experimental and expository purpose and, above all, with more budget, the floor plans do have many connections with Sáenz de Oíza's row houses, especially with *Entrevías*, although the building techniques, materials, finishes and furniture exhibited in Stuttgart were still far from the project in Madrid, whose image was determined by the lack of resources and self-construction. Comparing Sáenz de Oíza's floor plans with these particular European models is particularly illustrative because they reveal more similarities and greater in-depth study and assimilation by Sáenz de Oíza, but primarily because his dialogue with the European masters is not reduced to a mere mimesis of their formal language, their

⁴³⁶ With the exception of the *Weissenhof Row Houses*, from which the floor plans drawn by Gerhard Kirsch (1985) have been used, due to their clearance and simplicity. See: "List of Figures".

compositional gesture or material expression implemented on the façades. His analysis and interpretation of these foreign projects is not as banal or direct as it might appear at first sight, but there really is a research work, learning and criticism of his referents behind his housing solutions.

On the other hand, it has been understood that, by failing to subject these floor plans to the cleaning and corrections of a computer drawing, the design intentions, gestures and decisions, as well as the commonalities and differences, can be seen in a more direct and authentic, accurate, even clumsy and natural, but sincere and intentional way. But, above all, because all these influences, which he assumed and put into critical perspective, resulted in his floor plan layouts. These drawings tell how the architect understood and resolved the interior spaces, their distribution and transitions, their natural lighting, the threshold depth, the volume of air in the courtyard, the orientation of the daytime living areas, the location of the kitchen and the bedrooms, the relation with the street and the environment, the structure and solution of all facilities, and the intimacy and social relations of their tenants. In short, the floor plans contain the analysis, criticism and social answer given to a specific environment and the needs of the individual through the architecture and its design tools.

The first similarity is immediate: all dwellings are set on two floors⁴³⁷ in a row between two parallel load-bearing walls, with a narrow bay, and they are relatively deep. However, Sáenz de Oíza's housing models, without basement to save on construction costs and facilitate the work to unskilled labor, without storage room nor balconies⁴³⁸, are even more radical, minimum and spartan: the span between walls narrows⁴³⁹, which results in an interior space with a highly reduce width and minimum surface (see Annex 3, p.242). Besides, the house gains depth and thus, the proportion changes, resulting in a house that, despite its minimal size, contains vibrant spaces that are intense and welcoming, and whose possible choking sensation is relieved with the proper use of the courtyards that provide light and air circulation, so that the house extends beyond the built limits. Despite the fact that Sáenz de Oíza assumed the precedent models as a valid work basis, what appears

⁴³⁷ Both the mentioned row houses in *Dammerstock* and in the *Weissenhofsiedlung* have a basement. The full detailed drawings can be consulted in: GROPIUS, Walter, and SCHWITTERS, Kurt: *Ausstellung Karlsruhe Dammerstock-Siedlung. Die Gebrauchswohnung. 23 Typen, 228 Wohnungen. Oberleitung Prof. Dr. Walter Gropius.* [Katalog]. Miller-Gruber. Karlsruhe, 1997. Print. p.36; and: VV.AA.: *J.J.P. Oud: A Poetic Functionalist: 1890-1963 / The Complete Works.* NAI Publishers. Rotterdam, 2001. Print. pp.290, 292.

⁴³⁸ In the particular case of *Entrevías*, the protruding parts on the front and rear façades (balconies and terraces) were incorporated by the tenants in subsequent years.

⁴³⁹ As María Antonia Fernández Nieto pointed out in her doctoral thesis, this new ratio is explained by the lack of domestic steel, which prevented the construction of longer spans with simple beams. In: FERNÁNDEZ NIETO, *op.cit.*, pp.205-206.

certain is that his solutions radicalized their foreign influences in both their size⁴⁴⁰ and their equipment, so that he used the limited means available to create a fully-fledged dwelling with reduced, open, and flexible spaces that intensify and boost the minimum subsistence level.

At the level of graphism, the simplicity and cleanliness prevail in the six types of housing, although the composition and distribution in the foreign examples seem more complex at first glance, especially in the dwelling of the *Weissenhof* and *Dammerstock*, which include more distribution spaces, cabinets, partitions and doors. In that sense, Sáenz de Oíza's drawings are clearer and more simple, without distortions, thus allowing a quick and unitary reading, and they highlight three main common features among his proposals: the quality of the dwelling as an optimized machine, the radicalisation of spaces, and the perception of its longitudinality and transparency.

Another common element is given in the design of the courtyard as an essential element in the house. Arranged adjacent to the dwellings and generally placed in the more intimate and quiet, rear façade, they are understood as an expansion of the dwelling and usually linked to the living room, with the exception of the *Kiefhoek* housing, in which the living room is oriented to the street side in the front façade (see Annex 3, p.242). The courtyard, which could be used as a workshop or garden, was the recapture of a portion of land in the city and, therefore, it allowed the tenants to reconcile the urban life with their habits in the field. Besides, while the backyard in *Dammerstock* and in *Kiefhoek* is fixed in the overall urban plan, the courtyard can sometimes be considered as a fundamental element to organize the main entrance to the dwellings. In Stuttgart, Oud designed two courtyards of different size and proportion located in opposite orientations (north and south), thus establishing two entries of different use and character: while the small frontyard oriented to the north was meant to be used as an entrance for daily supplies for the family, the elongated courtyard oriented to the south was conceived as a private entrance for the tenants and their guests (see Fig.3.102). Having the patio as a connection between the street and the dwellings was also a common strategy adopted by Sáenz de Oíza in some particular cases in which the adjusting position of the courtyard allowed him greater flexibility in configuring these accesses.⁴⁴¹

⁴⁴⁰ It should be noted that all surfaces provided in the "Annex 3" section (p.242) are useful surfaces, except for the *Experimental Housing Competition*, in which case the only reliable data that was found was their built area.

⁴⁴¹ In *Entrevías*, the courtyard is situated on the front of the house and provides the only possible access to it; in *Fuencarral <<A>>*, the courtyard was situated depending on the orientation of the dwellings; and in the *Experimental Housing Competition*, the backyard is not conceived as a main entrance but does have access from the street.

In short, the six projects were to build row houses opened out onto gardens bordered by minimalist, sleek and light fences that are represented through a thin line in the drawing. The courtyards of Sáenz de Oíza's houses are delimited by walls that are an extension of the walls containing the house, with a height that allows the view from the street into the dwellings, particularly in the case of *Entrevías* and the *Experimental Housing Competition* (see Fig.3.101), while it reinforces the sense of privacy of the dwellings, so that the shelter is ajar.



Fig.3.101 Sáenz de Oíza, *Experimental Housing* (Madrid, 2016).



Fig.3.102 J.J.P. Oud, *Weissenhof Row Houses* (Stuttgart, 2016).

Given the weight of the courtyard as an essential element of the concept, as it was in all cases to facilitate the adaptation of families to a hostile environment, while it favoured the outdoor family or neighborhood relationships, it is striking, however, that it had little prominence in the original drawings of the three projects of the 1920s (see Annex 3, p.242), in which the housing appears isolated, without references to this fundamental open space. In addition, when the yard is included in the drawing, it does not receive the same attention or has the same informative character as the rest of the house, since it is only a rectangle drawn with a thin line.

By contrast, in Sáenz de Oíza's drawings, the courtyard is drawn delicately, with vegetation and trees, because it is understood that it is a key part in the whole concept. The interior of the house, its walls, the floor plans and sections can not be understood without the courtyard that complements, qualifies, extends and amplifies the overall layout of the house. Sáenz de Oíza's three social housing projects are set up as an entity with two parts: one open space and one private interior, which functions because they are balanced and they complement and reinforce each other.

Another important aspect that deserves a particular mention is the entrance to the interior of the house. The three European referents of the 1920s are accessed through a vestibule with a windbreak that divides the interior spaces from the outer area, which is a way to enhance the first interior space as a threshold. Despite the fact that the entrance door solution in the *Experimental Housing Competition* is quite similar, in the sense that the door is recessed and creates an open transition space that is covered and functions as a porch, this intensity and sensitive way to enter the house is lost in the dwellings of *Fuencarral <<A>>* and *Entrevías*, where the entrance to the houses occurs more directly, but also under a shadow cast by the cantilever upstairs. This coverage at the entrance is emphasized by a balcony situated on the upper floor and at the rear side of each *Weissenhof Row Houses*, which allows the ventilation of the beds, while the external space in Gropius' dwellings in *Dammerstock* is covered by a small cantilever over the ground floor and situated on the front façade, which is the same procedure followed by Sáenz de Oíza in his three social housing proposals.

The staircase is also an essential component in the distribution of these social housing projects. On the one hand, the final solution of *Entrevías*, which was tested in the two previous models, incorporated a steep staircase designed in a single straight flight and perpendicular to the load-bearing dividing walls, so that the communication between both floors is established by a compact distribution core with narrow hallways situated in the centre of the house, which defines and structures the interior

spatiality with two parts on each floor, thus boosting the transparency and richness of situations around the communication core.

On the second hand, in Gropius' dwellings, the staircase plays the same role by dividing two independent domestic environments inserted in a wider bay and with opposite orientations, without such an open visual and spatial relationship, but with adequate lighting and air circulation (see Annex 3, p.242).

Regarding the private area of bedrooms, the six projects conformed to a minimum standard of family life, so that they incorporated three bedrooms upstairs designed to ensure the parents' privacy and sex segregation between the children (see Annex 3, p.242). Under these conditions, the distribution of *Kiefhoek's* row houses⁴⁴² is clearly closer to Sáenz de Oíza's social housing models, since they were all resolved with programmatic and budgetary austerity, and adapted to accommodate six family members, so that the two children's bedrooms fit in the width of the house, and they are of equal size and have sufficient depth to place two beds arranged in line.

Moreover, both the houses designed by Oud and Gropius incorporate a lot of built-in cupboards in the bedrooms and in the distribution areas upstairs. Among them, Oud's dwellings in the *Weissenhofsiedlung* are specially well-equipped⁴⁴³, with plenty of household conveniences and storage rooms arranged on both floors. In comparison with his referents, the high proportion of storage rooms is substantially reduced in Sáenz de Oíza's experimental unit, with two built-in cupboards situated upstairs in the first two experiences, one for the parents and one common closet located in the hallway, an equipment that was further reduced in the dwellings of *Entrevías* where, as in *Dammerstock*, a single generous closet appears upstairs behind the staircase, with a similar size and distribution to that of the built-in cupboard placed upstairs in Oud's dwellings in Stuttgart.

The grouping of wet nuclei studied under the minimum threshold to reach the most feasible solution from an economic point of view is another common characteristic among Sáenz de Oíza's solutions and those of his European predecessors. Special attention is given to the rationalization of facilities in all study cases, which are unified

⁴⁴² The *Kiefhoek Worker's Housing* were originally equipped with built-in conveniences such as cupboards, an extra fitted wash basin, a folding ironing board, a serving hatch and a shower under the spiral stair. This design was rejected by the committee because the per dwelling building costs were regarded as too high by the majority of its members. In: J.J.P. Oud: *A Poetic Functionalist: 1890-1963 / The Complete Works, op.cit.*, p.274.

⁴⁴³ For a thorough description and understanding of Oud's project in Stuttgart, see: KIRSCH, Karin: *Die Weissenhofsiedlung: Werkbund-Ausstellung »Die Wohnung« Stuttgart 1927*. Deutsche Verlags-Anstalt. Stuttgart, 1987. Print. pp.90-99. For the English version, see: KIRSCH, Karin: *The Weissenhofsiedlung. Experimental Housing Built for the Deutscher Werkbund. Stuttgart, 1927*. Axel Menges. Stuttgart, 2013. Print. pp.77-87.

in a compact core composed by the kitchen and the bathroom –with the separation of the toilet in the three projects of the 1920s–, either situated contiguously downstairs (*Fuencarral <<A>>*, *Entrevías* and *Kiefhoek*) or by placing the bathroom upstairs and above the kitchen in order to optimize all down-pipes and household facilities (*Experimental Housing Competition*, *Weissenhof Row Houses* and *Dammerstock*). Besides, Gropius situated the toilet next to the kitchen located downstairs and, above the kitchen, the bathroom, which is next to the parents' bedroom, as it happens in the case of the *Experimental Housing Competition* (See Annex 3, p.242).

As for the kitchen area, its distribution also evolved throughout Sáenz de Oíza's social housing models and it has certain common features with the examples of the twenties. In a first proposal, Sáenz de Oíza linked the kitchen and dining area with the living room (see Fig.3.107), but the kitchen of the *Experimental Housing Competition* is situated on a corner attached to a load-bearing wall and the entrance façade and open to the outside, in much the same way as in the dwellings of *Dammerstock* and *Kiefhoek*⁴⁴⁴, so that the cooking space receives direct light and proper ventilation.

On the other hand, in *Entrevías*, the position of the kitchen in the house is clearly closer to Oud's row houses in the *Weissenhofsiedlung*, since it is located downstairs in the heart of the dwelling and serves as a practical and functional communication space between the two façades, so that is the central space from which the mother could control what was happening on both sides of the house at any time.

Despite the fact that Sáenz de Oíza's social housing layout is more radical, reduced and simplified, in the context of spatial distribution, the distribution of spaces and the transitions between them in the housing of *Entrevías* and the *Five Row Houses* in Stuttgart are generally alike (See Annex 3, p.242) and organized as follows: courtyard, living-room, stairway, kitchen and a small patio with a laundry room as a rear block adjacent to the kitchen, thus favouring natural lighting and privacy for the kitchen, and appropriate ventilation for the laundry. These small utility courtyards, with significantly different surfaces⁴⁴⁵, could be used as open drying rooms adjacent to the washing rooms in both cases, although it is more private in Sáenz de Oíza's project.

⁴⁴⁴ The kitchen in *Kiefhoek's* dwellings, with a smaller size, is situated in a corner at the rear side of the house and facing the garden, not the entrance. In addition, as in Sáenz de Oíza's *Experimental Housing*, Oud's project incorporated a stove in the living-room. See: "Annex 3" (p.242).

⁴⁴⁵ While the small courtyard in *Entrevías* has a surface of 3.50 square metres (In: MONEO, <<El Poblado Dirigido de Entrevías>>, *op.cit.*, p.25) the utility frontyard in Oud's houses measures 3 x 3.1 metres (In: KIRSCH, *The Weissenhofsiedlung. Experimental Housing Built for the Deutscher Werkbund. Stuttgart, 1927, op.cit.*, p.78).

With regard to the composition of the front elevations, both Sáenz de Oíza's radical social housing, especially the *Experimental Housing Competition* and *Entrevías*, and the selected European workers' housing developments of the 1920s were notable for the rational use of few materials on the façades, a brief design and the thorough study of the construction techniques (see Fig.3.103 – Fig.3.106). In general, the virtuosity of the elevations in these dwellings is abandoned in favour of the adoption of a rational approach focused on the functionality of the floor plans. The structure of load-bearing walls parallel to each other and perpendicular to the façades allowed a certain liberation of the façade and the use of ribbon windows that helped to enhance the horizontality, abstraction and compositional continuity of the grouping of dwellings.

As in the design models of the 1920s, Sáenz de Oíza's social housing proposals responded to formal austerity and simplicity of the housing, and their volumes were enriched by the different layout combinations of the courtyards in the plots, which provided greater plasticity on the exterior of the buildings. In *Entrevías*, the continuous strip windows in the bedrooms and the living room are like a scratch on the brick wall and they create a unified image and formal abstraction of the set, which is comparable to Oud's *Kiefhoek* housing or Gropius' row houses in *Dammerstock*.

Moreover, while the use of colour plays an important role in the composition of the façades in *Kiefhoek*, which is materialized in the galvanized steel window frames painted in grey and intermingled with the roof gutter made of zinc that crowns the façade, in the red doors, the low walls delimiting the plots along the urban set and the light yellow skirting boards in contrast with the cleanliness of the upper finish of the white wall, in Sáenz de Oíza's social housing, the simplification of the brick façades was enriched through the colours of the pots full of flowers, the black window frames and the setting of a vibrant volumetry marked by the succession of shadows and modest, plain surfaces under the sun. This plasticity of *Entrevías* is enhanced by the courtyards, the front gates and the cubic volumes corresponding to the bathrooms at the rear of the homes, thus creating a movement or rhythm in the façades of timeless modernity comparable to that of the north façade of the *Weissenhof Five Row Houses*.

It should nevertheless be noted that, along with the aforementioned European references, Sáenz de Oíza was aware of the American architecture and the projects that the European masters had already built there, whose influence was assumed by him after his trip to the USA and implemented in his initial projects and in the colonies for the *Hogar del Empleado*. In this regard, the *Wellesley Veterans Housing* from Hugh Stubbins (Massachusetts, 1948) has often been pointed out⁴⁴⁶ as a clear reference on

⁴⁴⁶ This reference was first mentioned by Justo Isasi in: «La traza de los poblados dirigidos». In: *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50, op.cit.*, pp.109-110.

the front gate delimiting the boundaries of the street and the private dwellings of *Entrevías*, as the same type of perforated walls were used to delimit the courtyards at the entrance.

Additionally, in 1941, Walter Gropius and Marcel Breuer collaborated on a residential community to accommodate workers during the Second World War: the *Aluminium City Terrace* (New Kensington, Pittsburg).⁴⁴⁷ With a different constructive approach and floor plan layout, the same formal scheme of the façades used in Gropius's row houses in *Dammerstock* is repeated, and both their composition and their volumetry resemble those in *Entrevías* (see Fig.3.107, Fig.3.108).

With regard to this reference, see also: JILIBERTO HERRERA, *El Poblado de Entrevías. Oíza, Sierra y Alvear. Experimentación y síntesis de un modelo de vivienda, op.cit.*, p.64.

⁴⁴⁷ This reference appears in: FERNÁNDEZ NIETO, *op.cit.*, p.206. Further information on the *Aluminium City Terrace* project can be found in: GIEDION, Sigfried: *Walter Gropius. Mensch und Werk*. Gerd Hatje. Stuttgart, 1952. Print. pp.223-225.

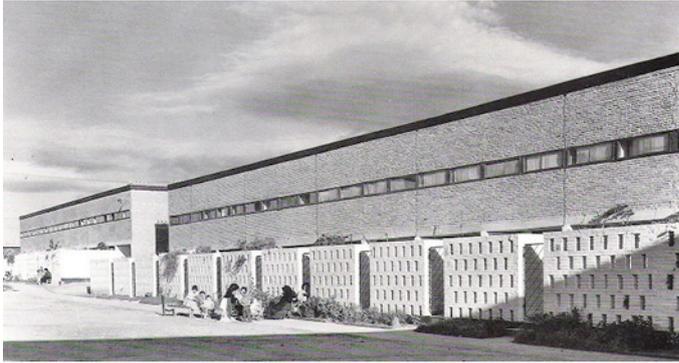


Fig.3.103 Sáenz de Oíza, *Entrevías*.
(Madrid, 1956).

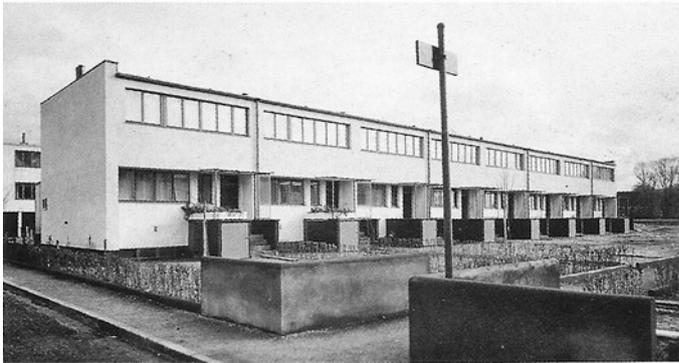


Fig.3.104 W.Gropius, *Dammerstock*.
(Karlsruhe, 1928).



Fig.3.105 J.J.P. Oud, *Five Row Houses*,
Weissenhof Estate.
(Stuttgart, 1927).



Fig.3.106 J.J.P. Oud, *Kiefhoek*.
(Rotterdam, 1925).

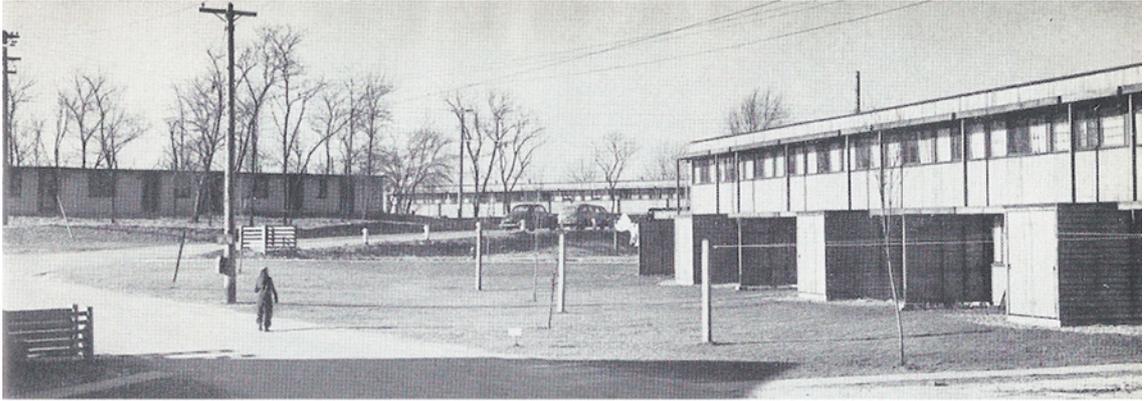


Fig.3.107 W. Gropius & M. Breuer. *Aluminium City Terrace* (New Kensington, Pittsburg).

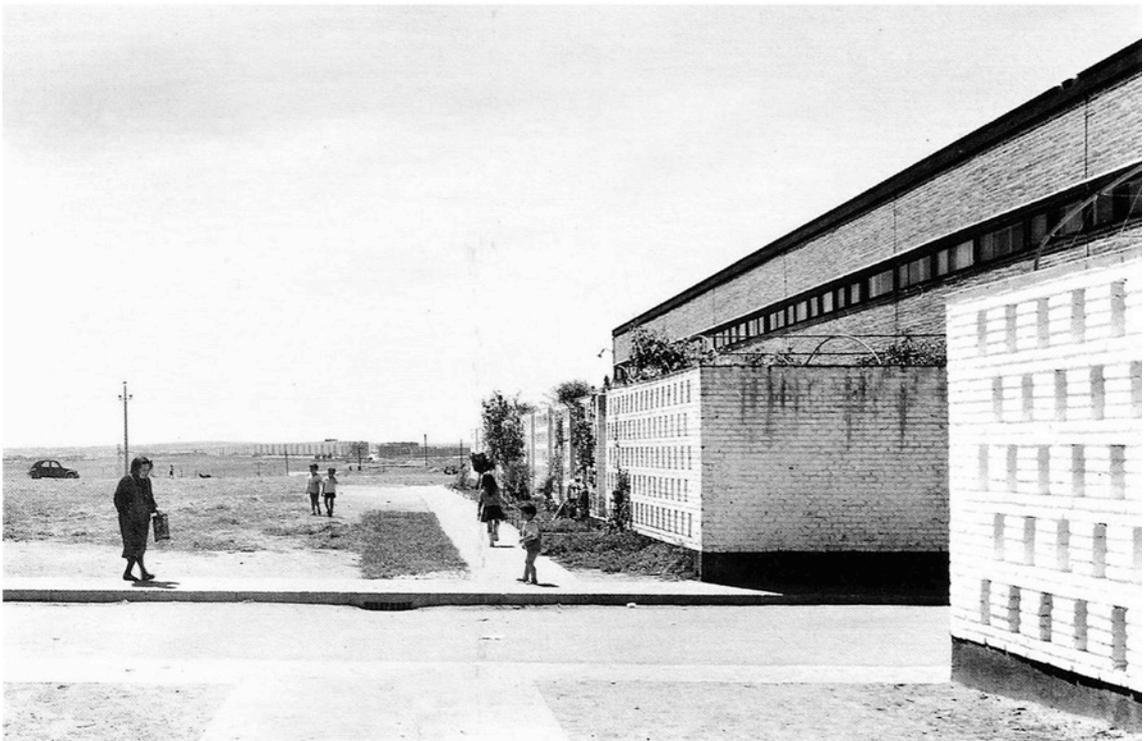


Fig.3.108 *Directed Settlement of Entrevías* (Madrid).

For Sáenz de Oíza, the dwellings of the *Directed Settlement of Entrevías* were the culmination of a model for radical and minimum social housing that he proposed and developed through his whole experimental unit initiated in *Fuencarral <<A>>*, as well as the creation of one of the most interesting and successful architectural experiences of the history of social housing in Madrid over the twentieth century. But, above all, *Entrevías* demonstrated the architect's deep learning and understanding of the social housing problem, his capacity to study and embrace foreign influences, especially German, and the manifestation of his sensitivity towards the future users, their vital needs of housing and sociability, since he tried to offer a decent minimum dwelling where the families could fully develop their existence, an aspiration that was directly connected with the postulates of the *Siedlungen* of the 1920s. Sáenz de Oíza's social housing project was minimum in terms of time, size, hygienic conditions, lighting and ventilation, but also in relation to its construction means, the elementary technique, and the financing. Under these precarious conditions, the whole design implied an awareness of decent housing that was achieved not only by the hygienic treatment of the interior spaces, but also through the careful design of all outdoor spaces, equally necessary, in a way that they are an extension of the house: open, private, and quiet spaces in Madrid's periphery that encouraged the inhabitants to enjoy a healthier and safer living in community, thus strengthening relations between the neighbours.

But moreover, *Entrevías* and the experimental process carried out by Sáenz de Oíza represented the opportunity to think about the city and the social housing, while it allowed to establish a real commitment between the architect, the society and the individual, even though its architectural quality was overshadowed by the clear urban problems raised by its questionable link with a city that did not have a regulated and consolidated general urban plan on which to base the design and develop of the new settlement. Sáenz de Oíza analyzed the social concerns behind the project as follows:

“The foundation of architecture is in the place, on the street, in the environment, in the economy, in the occupier...We did the things as we thought they should be done, as best we could, and above all considering the people who would later occupy the dwellings.”⁴⁴⁸

Unfortunately, the lack of infrastructure, services or adequate accesses, along with its difficult location in a depressed, shanty area, are the main causes that prevented to increase the possibility of creating a new friendly urban life in contact with the city, without social conflicts. Today, the urban settlement of *Entrevías* is in an important neglected state and has a marginal environment. While the German *Siedlungen*,

⁴⁴⁸ Sáenz de Oíza, Francisco Javier: Interview in *La Quimera Moderna: los Poblados Dirigidos de Madrid en la Arquitectura de los 50*, *op.cit.*, p.180. Translation by the author (R.J.J).

especially the *Kiefhoek Housing Development* were planned and built as self-sufficient neighbourhoods along the periphery of the cities, with social housing and community buildings and services, in the urban settlements in Madrid, these services were built afterwards because there was not a joint action plan, and this resulted in a rapid deterioration and abandonment of their buildings. *Entrevías* and most of the *Directed Settlements* built in Madrid during the 1950s were not projected with a strong and solid concept of urban composition, nor with the idea that they were conceived as new neighbourhoods that could offer decent social housing and a way to access to it, as well as new ways of establishing human relations and a coherent urban interaction with the expanding city of Madrid. Their urban isolation, together with an evident lack of community spaces that could stimulate neighbourly relations appropriately, the ageing population and their disempowerment, including their economical and social marginalization, are some of the many reasons that could have possibly led to the disappearance of the majority of these settlements sixty years after their construction.

With regard to the open spaces and, above all, to the small patio situated next to the kitchen and in communication with the bathroom, which is a key part in the housing concept, they did not have the success that Sáenz de Oíza could have expected, since they were underutilized by the owners, who felt the need to expand their homes throughout the years. Thus, the courtyards lost their initial vocation of being open spaces that could extend the homes and encourage social interactions, an architectural response to all pedestrians strolling down the street, who are the real users of the façades. Thirty years after, Sáenz de Oíza lamented the neighbours' lack of sensitivity toward these open spaces with the following words:

“Popular architecture puts flowers and birds for the neighbours, (...); there was a transfer from one to the other. (...) The present moment is very clear, the terraces of the houses are used to leave old possessions, broken refrigerators and household waste; ie we are no longer concerned about the others, then we aren't social beings.”⁴⁴⁹

Over time, the dwellings of *Entrevías* have lost the original features that contributed to the modern, uniform, repetitive but elegant image of the whole urban settlement, due to the big amount of heterogeneous details and elements added on the façades by the neighbours across the years. Numerous extensions and reforms have been carried out in the houses, such as the construction of different balconies, terraces or additional roofs that break the original volumetric composition of the whole urban set,

⁴⁴⁹ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.32. Translation by the author (R.J.J.). Extract of the interview: <<En conversación con Vicente Patón y Pierluigi Cattermole, 1986>>., *op.cit.*

the use of many combinations of materials and finishes in the front gates and on the façades, or the replacement of the original strip windows by individual openings of conventional proportions protected by bars of different materials and forms. Besides, the typical exposed brick has been covered by white painting in all homes, a change that breaks the purist materiality of the original project, but paradoxically results in an aesthetic that is closer to the aforementioned European *Siedlungen*.

Yet there are glimpses of calm and brightness in the settlement. The sky, the air and the warm atmosphere have a strong presence between the streets, and they have helped to configure a peaceful and quite place in the city. Despite all the significant changes that have been introduced by the owners, the whole housing estate remains friendly, with urban spaces of human scale and common places where neighbours meet and talk about their daily lives. Even nowadays, the pedestrian and road streets of *Entrevías* (see Fig.3.109, Fig.3.110) still preserve the original concept of being a small, quiet village, which is very much the same sensation that one can feel when walking through the *Dammerstock* (see Fig.3.111) or the *Weissenhof* (see Fig.3.112) colonies. Although the original gaps of the front gates have been walled up with different materials, thus losing the open visual connections between the street and the private spaces, they still retain the original height of 1.90 metres and they remain a key element to enhance this urban 'friendliness' of the whole urban set, much like the effect produced by the narrow streets with low white walls of the *Weissenhof Estate*.

Sáenz de Oíza's three radical social housing models in Madrid have remained as a unique testimony of some of the most honest and interesting Spanish social housing experiences of the second half of the twentieth century, because they are works that undoubtedly represented an avant-garde respite from a dark, complicated historical environment marked by economic and social difficulties. With them, Sáenz de Oíza was able to demonstrate and exemplify that, despite the families' social conditions and the economic hardship, it was possible to offer a more humane and cultivated way of inhabiting and enjoying a modest but decent home through a rational architectural design, but sensitive to the user's needs. Because, as he would argue almost four decades later:

"(...) the act of inhabiting does not originate in the accommodations, but, on the contrary, the accommodations arise and originate in the human habitation. Because <<inhabiting>> is not the same as <<staying>>. The first thing means to fully develop the existence; the second, to have a roof."⁴⁵⁰

⁴⁵⁰ SÁENZ DE OÍZA, Francisco. Interview by PÉREZ BODEGAS, Marisa: <<La opinión del arquitecto>>. *Telva*, November, 1990. n.172-15. Print. n.pag.



Fig.3.109 *Entrevías* (Madrid, n.d.).



Fig.3.110 *Entrevías* (Madrid, 2015).



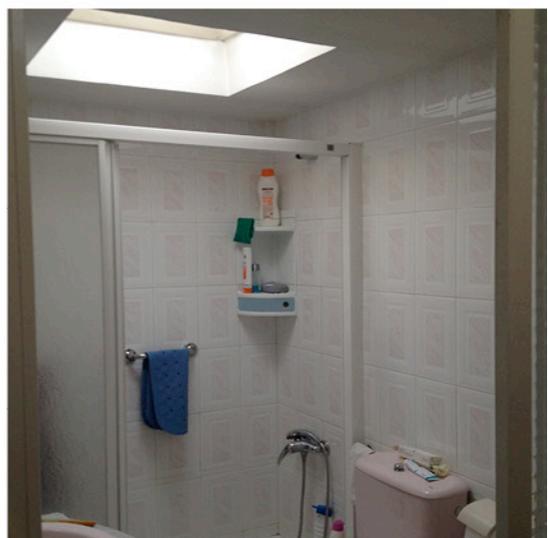
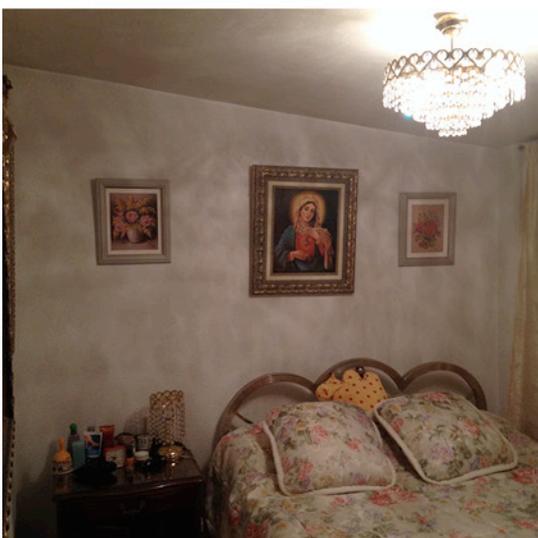
Fig.3.111 *Dammerstock* (Karlsruhe, 2015).



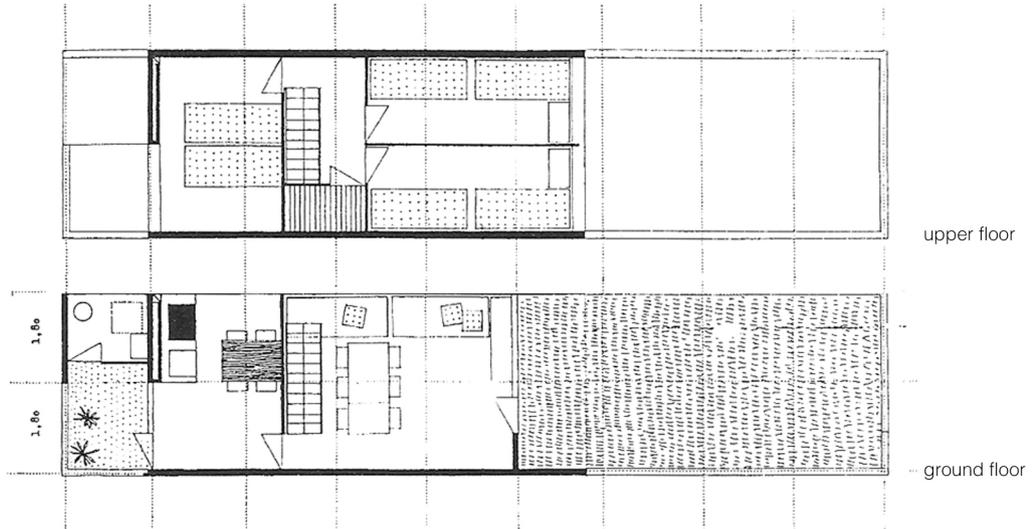
Fig.3.112 *Weissenhof Estate* (Stuttgart, 2015).

Photographic Report on the Current Situation of *Entrevías* (2015)

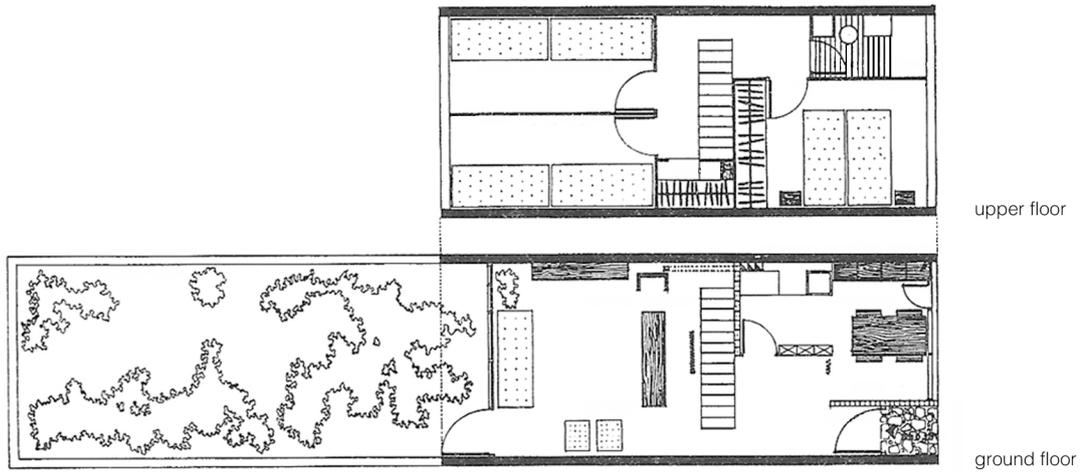




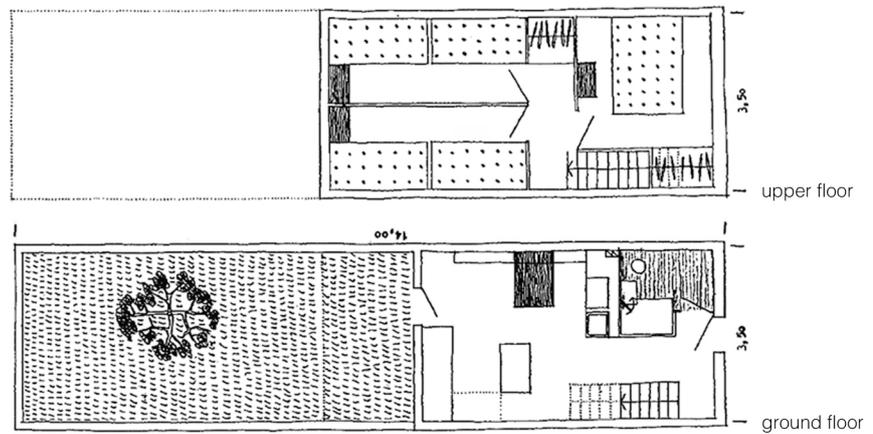
Annex 2: Sáenz de Oíza's Radical Housing: Comparison Between Dwellings



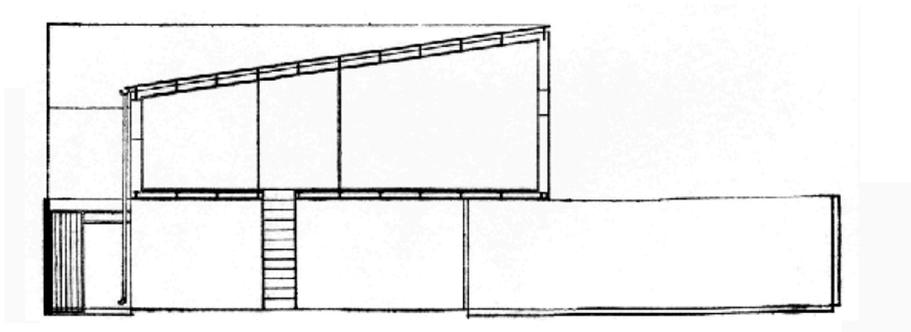
Entrevías (1956)_Floor plans_1:150



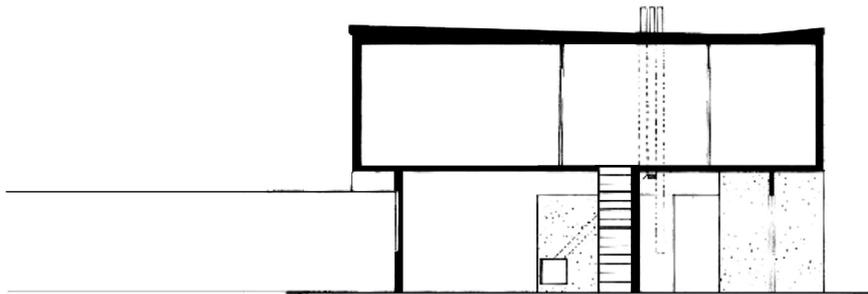
Experimental Housing Competition (1956)_Floor plans_1:150



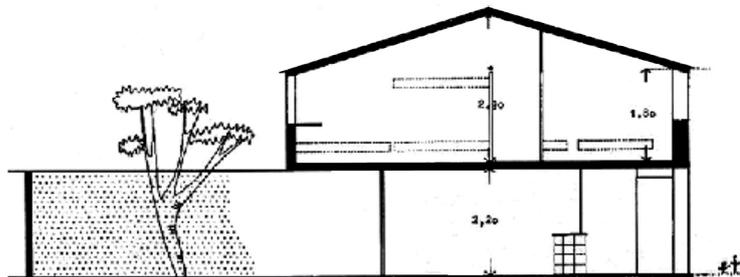
Fuencarral <<A>> (1955)_Floor plans_1:150



Entrevías (1956)_Longitudinal section_1:150

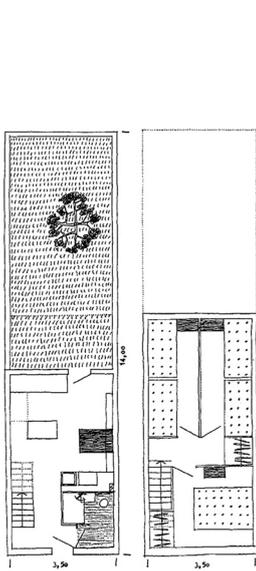


Experimental Housing Competition (1956)_Longitudinal section_1:150



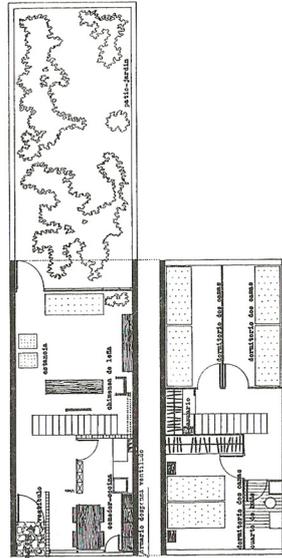
Fuencarral <A> (1955)_Longitudinal section_1:150

Annex 3: Influences on Sáenz de Oíza's Radical Housing:
Comparison Between Floor Plans (1:250)



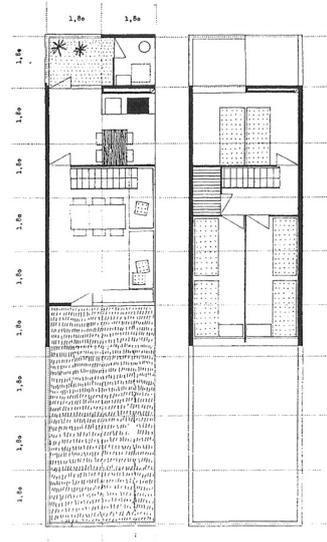
Fuencarral <A> (1955)

Module: 3.50 m
Width/Span: 3.38 m
Useful surface: 42 sqm



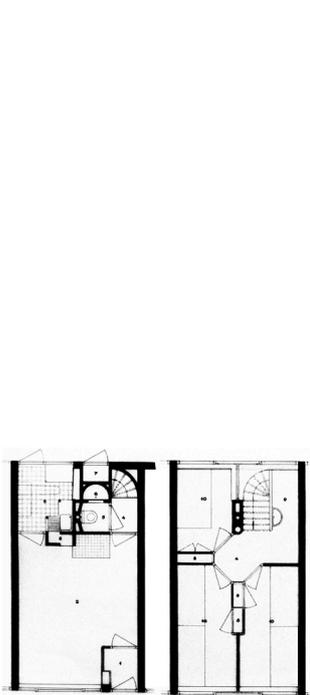
Experimental Housing Competition (1956)

Module: 4.00 m
Width/Span: 3.88 m
Built surface: 74 sqm



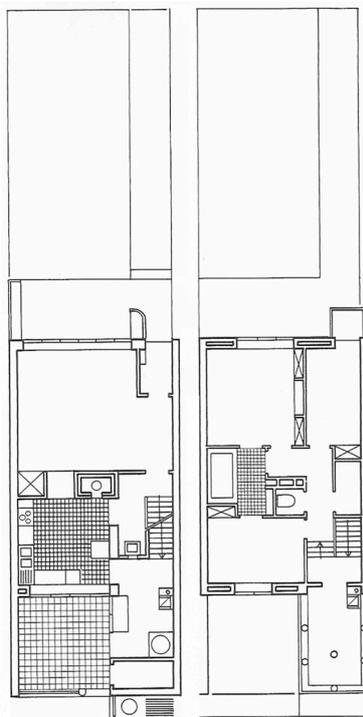
Entrevías (1956)

Module: 3.60 m
Width/Span: 3.48 m
Useful surface: 52 sqm



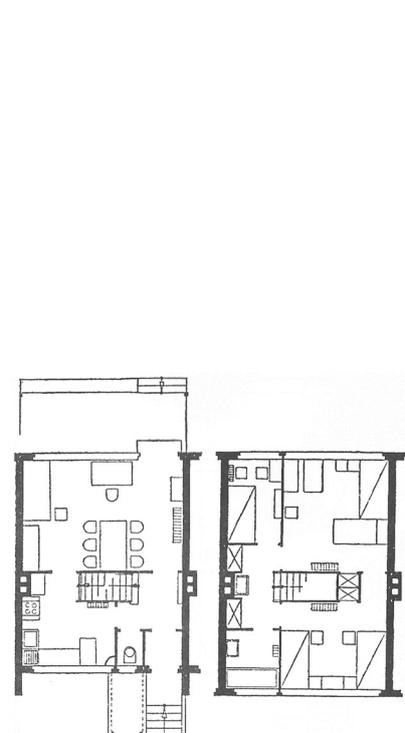
Kiefhoek (1925)

Module: 4.10 m
Width/Span: 3.88 m
Useful surface: 61 sqm



Weissenhof Row Houses (1927)

Module: 5.45 m
Width/Span: 5.30 m
Useful surface: 73 sqm



Dammerstock <Group 9> (1928)

Module: 5.50 m
Width/Span: 5.25 m
Useful surface: 73 sqm

In the late fifties and once the Franco regime was settled, it was time to make an economic transition. The end of this decade also coincided with a new period of openness and economic growth⁴⁵¹ in Spain. From the 1960s onwards, the debate on social housing, its policies and industrialization was abandoned and, since then, private developers were the ones who defined and set out the guidelines to follow with regard to social housing and city planning, so that the cycle that was initiated in the Spanish postwar period came to a close. In addition, the demand for this type of construction was reduced in the mid-sixties, partly due to the Spanish migration to foreign countries, especially to Germany.

On the other hand, the majority of architects involved in the experience of Madrid's social housing during the 1950s initiated a new professional stage, with other type of clients and private commissions that promoted the construction of slightly and monumental buildings as an image and testimony to the period of growth and openness that had started in Spain. Once again, the architecture served as an instrument to reflect the political, social and economic circumstances of the country. After an intense period of social housing experimentation, a new stage was started, in which the architectural culture of the unique projects and the architectural landmarks dominated the Spanish architectural scene, thus overshadowing the path followed by the architects like Sáenz de Oíza who, under the pretext of solving the housing problem, were able to recover the architectural culture and discourse and rebuild the communication pathways with the foreign modern architecture that were lost because of the war.

Therefore, the end of the decade of the 1950s represented a critical moment that marked a real turning point in Sáenz de Oíza's career, as it involved his transition from the social housing experience and the heritage of the rationalist orthodoxy to a more organic and intuitive language, a stage that was initiated with a private project for a single-family house in Durana (Vitoria) in 1959. Again, on completion of a professional stage, Sáenz de Oíza expressed his constant need for cultural review, his capacity to reinvent himself and change his architectural language as part of his *modus operandi* and his own essential nature. In this sense, and being true to his constant change of interests along his heterogeneous architectural production, his work did not only experience a change of style, but also changed the type of commissions and customers. While the presence of Julián Laguna was of great importance during the

⁴⁵¹ The Spanish economic growth was driven by the *Plan Nacional de Estabilización Económica* ("National Economic Stabilization Plan") of 1959, which was the instrument used by the ideologues of developmentalism, who defended the need to modernize and expand the Spanish economy to ensure the continuity of the regime. This developmentalism was mainly based on tourism and the flourishing national industry, by promoting the private sector. The economic growth was intended to ensure public peace and to eliminate potential social conflicts.

1950s as a person who promoted and trusted Sáenz de Oíza from the INV, in the 1960s, a different type of promoter emerged and crossed Sáenz de Oíza's path: Juan Huarte. This Spanish industrialist, entrepreneur and patron of artists accompanied Sáenz de Oíza on his new organic stage, in which two projects stood out among other works: the <<*Torres Blancas*>> *Apartment Block*, (Madrid, 1961-68) and the *White City of Alcudia* (Palma de Mallorca, 1961-63).

Besides, another significant fact occurred in this new phase: Sáenz de Oíza put an end to all his previous collaborations, so that a period of collaboration between Sáenz de Oíza-Laorga, Sáenz de Oíza-Sierra and Sáenz de Oíza-Romany did not happen again. Indeed, each of them followed a different path: while José Luis Romany, Eduardo Mangada and Carlos Ferrán continued with the design and construction of the *Juan XXIII Colony*⁴⁵² (Carabanchel, Madrid, 1963-66), which was the last colony promoted by the *Hogar del Empleado*, Sáenz de Oíza got involved in the projects promoted by Juan Huarte. He began his solo adventure and, in a way, the path to his consecration. In truth, these changes do no more than reinforce the idea that Sáenz de Oíza often changed his masks, his readings, his style, his architectural language, his partners, references and interests, but always keeping his most intimate and personal features as an architect.

At this organic stage, Sáenz de Oíza focused his architectural interests on other architects and theorists such as Frank Lloyd Wright, Jørn Utzon, John M. Johansen, Carlo Scarpa or Bruno Zevi, and most of his architectural production was then based on the design of monumental buildings, whose architectural language, function, budget and urban scale were very distant from the social housing experiences of the 1950s. Moreover, he left his post as assistant professor of 'Health and Hygiene of the Building' in 1961, and this allowed him to devote more time to his 'Projects Design' classes, where he exerted a undeniable strong influence in the following generations of architects studying at the School of Architecture of Madrid, which was spread nationwide among the profession, and which still feels very present. However, after the social housing experience of the fifties, the <<*Existenzminimum*>> ideals and his concerns about light, air, the individual and the pursuit of harmonious balance between privacy and spaces of social relationships remained as constant and fundamental features throughout his architectural career, especially in the subsequent social housing projects that he would develop in Madrid almost three decades later.

⁴⁵² For further information on the *Juan XXIII Colony*, see: FERNÁNDEZ NIETO, *op.cit.*, pp.157-170.

4. Epilogue: Permanence of German Influences Thirty Years Later

*"...and society will discover that the house in which it lives is distant from the one in the architect's dream..."*⁴⁵³

Francisco Javier Sáenz de Oíza

Sáenz de Oíza resumed the issue of social housing in Madrid at the end of the decade of the 1970s, specifically in 1979 and with a housing project in Orcasur (Madrid), after the experiences of his two most emblematic works in the Spanish capital, which are also the most recognized and published abroad: the <<*Torres Blancas*>> *Apartment Block* (1961-68) and the *Bank of Bilbao Tower* (1971-78). Seven years later, in 1986, he would build what would be his most controversial work of social housing: the *Housing on the M-30 Highway* (1986-90). In these years, Sáenz de Oíza returned to the development of domestic proposals, both for collective housing as for single-family housing, although his architectural production would be more focused on public competitions, mainly for the construction of office buildings.⁴⁵⁴

It may be interesting and illustrative to fix our gaze on these social housing projects because, despite the temporal distance of thirty years and the fact that they occurred in a later professional stage, with a different architectural style, greater maturity and after having gone through a more organic stage, in which Sáenz de Oíza designed and built much more showy and monumental projects for another type of customer, the entrepreneur and his patron Juan Huarte, it is surprising to recognize in them a desire to return to the same attitude of the 1950s, with an architectural language and a way of understanding the social housing projects which are not too far from that young architect who was working on the colonies and radical settlements of those early years. In fact, his works were again based on a rationalist language, imbued with the spirit and formal organic expressiveness of the previous decade, the sixties, which is not abandoned, but is diluted among other styles in accordance with the historical and social reality of their time.

Among the many European references that can be identified in these social housing projects, Sáenz de Oíza returned to the German benchmark to think and develop his architectural –and conceptual– proposals, or rather to the rationalism of the *Siedlung* of the 1920s, with hints of European projects built after the Second World War. For this reason, a few specific German projects have been considered, although

⁴⁵³ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.25. Translation by the author (R.J.J.). Extract of the interview: <<Entrevista con Francisco Javier Sáenz de Oíza>>, *op.cit.*

⁴⁵⁴ With regard to Sáenz de Oíza's work during the period of time between the years 1971 and 1980, see: CABEZA GONZÁLEZ, *op.cit.*, pp.327-337.

these references are not unique because, as is usually the case in Sáenz de Oíza's whole work and recalling the words of Moneo on the Spanish master, his architectural references multiply.

In 1979, and in collaboration with Francisco Oíza Cuadrado and José Manuel López-Peláez, Sáenz de Oíza intervened in the area of Orcasur. The proposal aimed to carry out an urban regeneration in the *Directed Settlement of Orcasitas*⁴⁵⁵, a contemporary project of the *Directed Settlement of Entrevías*, located in the southeast area of Madrid and which was demolished in 1984. The intervention was divided into various sectors that were awarded to different teams of architects⁴⁵⁶, who were responsible for developing social housing projects that should respect the original layout of the settlement. The projects would be previously approved by the Neighbourhood Association, and then be sent to the INV, who was responsible for the final approval of each intervention.

Sáenz de Oíza participated in the project designing 198 dwellings distributed in five four-storey blocks and one single ten-storey building. The urban proposal (see Fig.4.3) is clear and powerful, with linear open blocks arranged in parallel and narrow open spaces limited by them (see Fig.4.1), the doorways on the south façade and one core of staircase and elevators every two houses, which is illuminated and ventilated through a skylight. The construction of the lower blocks, with the brick as protagonist material, recalls again the experiences of the 1950s, but with a more complex distribution. The linear blocks maintain the orthodox and rigid north-south orientation, allowing optimal lighting and natural cross ventilation in all rooms of the house. Under these conditions, the dwellings were resolved with the same floor plan layout (see Fig.4.2): with two, three, four and five bedrooms which can be added or subtracted depending on each family requirements. The correct orientation is a decisive factor in the housing solution; therefore, the daytime rooms (living room and kitchen) are aligned to the south façade, while the bedrooms face north. Both the living and private areas are separated by a central strip in which all services such as the bathrooms, the communication spaces, lifts and accesses into the housing from the landings of the interior staircases are integrated. On the south façade, a large terrace modulates the rear elevation of the buildings, and it functions both as an open gallery with access from the living room and a semi-open laundry room adjacent to the kitchen.

⁴⁵⁵ With regard to the *Directed Settlement of Orcasitas*, See: PINO, Fernando, and GARCÍA DE PAREDES, Manuel: «Orcasitas, dentro del Plan de Urgencia Social». In: *Un siglo de vivienda social: 1903-2003, op.cit.*, pp.227-229.

⁴⁵⁶ For further information on Sáenz de Oíza's intervention in *Orcasur*, see: SÁENZ DE OÍZA, Francisco Javier: «Plan parcial de remodelación de Orcasur. Sector Noroeste. Polígono P-5». In: *Arquitectura*, n.216. COAM. Madrid, January-February 1979. Print. pp.40-41.

Sáenz de Oíza designed and built this social housing project in Orcasur when he was 61 years old, a level of maturity and experience that is reflected in its precision, clarity and simplicity, with an approach to urban planning and formal expression that can be seen as a reminder of the rationalism of his social housing of the 1950s, a connecting thread with the language of the German *Siedlung* that had not been lost. It is a fact that the floor plan solutions in Orcasur, with a different housing program and larger surfaces, do not have the powerful and radical features proposed within the minimum houses of his first social housing projects, which are works of youth that could be seen as simple and naive, but that were nonetheless thoughtful proposals. But still, the materiality of the brick façade remains a constant formal language, and it appears to be even lighter, with an aestheticism which is both dispossessed and pure. The two façades are well defined and contrasted through the different treatment of the openings, which are a consistent translation of their interior spaces. Therefore, the north façade (see Fig.4.5, Fig.4.6) is ordered and modulated by the repetition of two types of square windows: the largest glazing area generally corresponds to the double bedrooms adjacent to the staircase, while the rest of the bedrooms are illuminated and ventilated through smaller square windows, resulting in an abstract and monotone external composition. Conversely, the south façade (see Fig.4.8, Fig.4.9) opens to the interstitial spaces between the blocks through the square windows of the laundry rooms with protected clotheslines and, above all, through the terraces, which are a shadow along the façade plane enhanced by the black railings, a contrast that provides lightness and an increased plasticity. This compositional device is similar to that used in the colonies for the *Hogar del Empleado* and, as it had happened in those social housing projects of the 1950s, most of these terraces and windows have been closed or altered by the neighbours. By contrast, the exposed brick in the *Housing in Orcasur* still maintains its strong presence and reddish colour.

In relation to the urban answer given to the place and the volumetry of the blocks, Sáenz de Oíza's project recalls the clarity, radicality and roundness of the theoretical urban proposals of his admired Ludwig Hilberseimer, specifically to the drawings of the *Project for a Highrise City (Hochhaustadt)* of 1924 (see Fig.4.7); but also to Walter Gropius's planning for a *Large Housing Estate in Berlin for 5000 families* from 1929 (see Fig.4.4, Fig.4.10), a radical urban design where several narrow and elongated blocks are arranged in parallel, clearly delimited by a flat and continuous façade that contrasts to the open garden galleries that cover the entire opposite façade, enclosing narrow open spaces inbetween the blocks. Both Hilberseimer and Gropius had theorized with their proposals for the city of the future, with large linear blocks as star formula that proved to be the embryos of the future German mass housing, and these theories did not go unnoticed to Sáenz de Oíza, who was always attentive and eager for knowledge.



Fig.4.5 Sáenz de Oíza, *Housing in Orcasur* (Madrid, n.d.). North façade.



Fig.4.6 Sáenz de Oíza, *Housing in Orcasur* (Madrid, 2016). North façade.



Fig.4.7 L. Hilberseimer, *Project for a Highrise City* (1924).

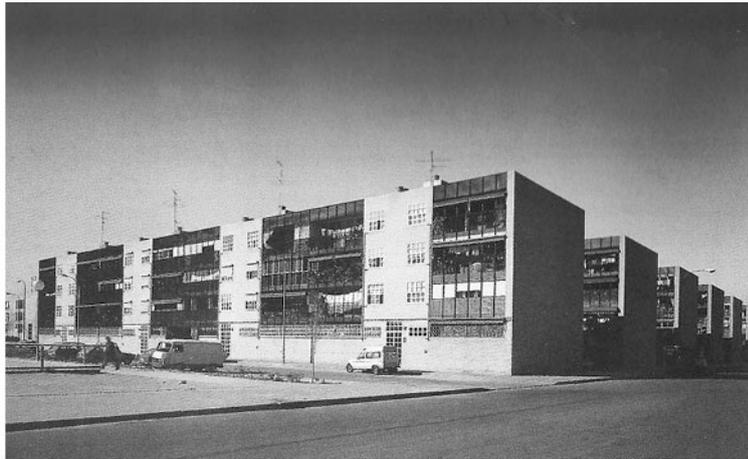


Fig.4.8 Sáenz de Oíza, *Housing in Orcasur* (Madrid, n.d.). South façade.



Fig.4.9 Sáenz de Oíza, *Housing in Orcasur* (Madrid, 2016). South façade.

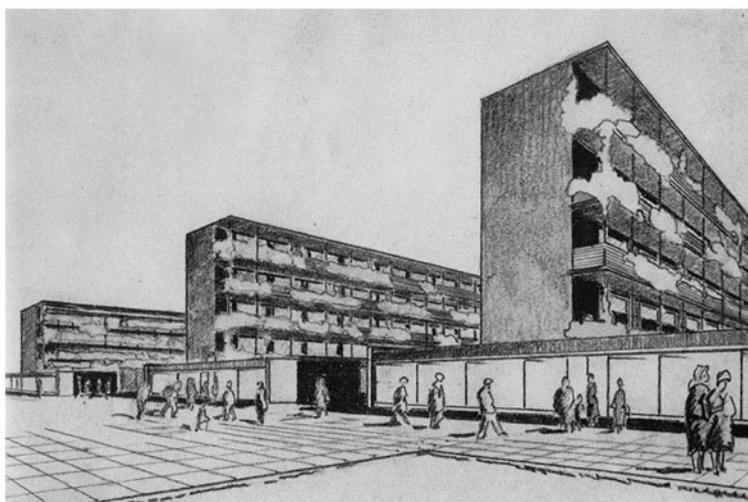


Fig.4.10 W. Gropius, *Large Housing Estate for 5000 families* (Berlin, 1929).

In the mid-1980s, Sáenz de Oíza's experience with the social housing of the fifties and the recent *Housing in Orcasur* resurfaced with his *Housing on the M-30*, a project that belongs to the last phase of his work⁴⁵⁷, developed from the 1980s until his death, which has been defined as postmodern. In June 1986, the *Regional Ministry of Land Planning, Environment and Housing of Madrid*⁴⁵⁸ awarded first prize in a restricted design competition for a social rental housing building located in the southeastern district of Moratalaz to a Sáenz de Oíza who was close to 70 years old. Six reputable architects or architecture offices⁴⁵⁹ participated in the competition, which was not only intended to give an urban response to an uncomfortable place in Madrid, next to the noisy and polluting M-30 highway (see Fig.4.11), but was also meant to provide accommodation for a maximum of 400 families –although only 346 dwellings were finally built– that had previously lived in shacks in the area of El Pozo and were in absolute state of social marginalization.

Sáenz de Oíza's project was the only one who formalized and respected the main guidelines of the urban proposal of the *General Urban Development Plan of Madrid of 1985*⁴⁶⁰, because he raised an eight-storey building with a length over 600 metres and a continuous helical shape arranged on the sides of the M-30 on a slope above the motorway, and substantially adapted to the contour of the site (see Fig.4.12). The building was designed as a continuous block, a ring as a red brick wall with a discontinuous and staggered crown, which is closed to the highway and open inwards (see Fig.4.13). Sáenz de Oíza did not only decide to completely accept the harsh rules of the competition with his design solution, so that, as José Manuel López-Peláez pointed out, "the solution is contained in the program approach itself"⁴⁶¹, but he also assumed the site conditions and its urban layout by giving new meaning to it with an architectural gesture and the scale of the building, thus monumentalising the social housing and the city. Again, Sáenz de Oíza gave response to a specific urban problem with architectural means, from the rigour and consistency. Moreover, the orthodoxy of simple and rectilinear forms characteristic of his social housing projects of the fifties, which was also followed in his *Housing in Orcasur*, is somehow abandoned in this project, since the orientation is no longer a rigid guideline in the project, and the freedom and flexibility of the curved shape is accepted.

⁴⁵⁷ With regard to the works carried out by Sáenz de Oíza in this stage, see: CABEZA GONZÁLEZ, *op.cit.*, pp.339-363.

⁴⁵⁸ *Consejería de Ordenación del Territorio, Medio Ambiente y viviendas de Madrid.*

⁴⁵⁹ The teams involved in the competition were: Aroca, Gallego-Jorroto, Martorell-Bohigas-Mackay, Peña Ganchequi and Sáenz de Oíza.

⁴⁶⁰ Further information on this Urban Plan can be found in: *Plan General de ordenación urbana de Madrid. 1985: Normas Urbanísticas 1.* Ayuntamiento de Madrid, Area de Urbanismo e Infraestructuras, D.L. Madrid, 1985-1988. Print.

⁴⁶¹ LÓPEZ-PELÁEZ, «Oíza y el reflejo del Zeitgeist», *op.cit.*, p.206. Translation by the author (R.J.J.).



Fig.4.11 Sáenz de Oíza, *Housing on the M-30* (Madrid, n.d.).

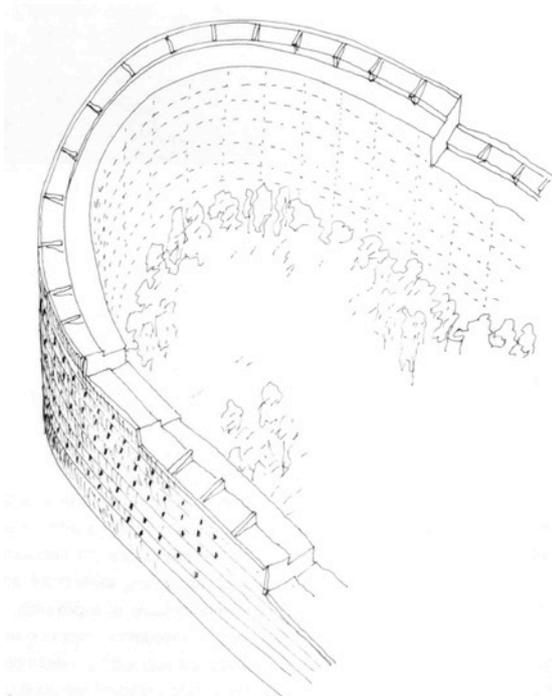


Fig.4.13 Sáenz de Oíza, *Housing on the M-30* (Madrid, 1986). Schematic view.



Fig.4.12 Sáenz de Oíza, *Housing on the M-30*.
Detail of the general plan.

The discourse behind Sáenz de Oíza's entire project approach therefore relies on two fundamental premises: the spatial and environmental conditions of the site to be intervened, and the conditions defined by the urban plan. The solution implemented was consistent with these urban premises and denotes the architect's absolute awareness of the urban impact of architecture when a building is inserted in an a priori uncomfortable place for the construction of housing. The *Housing on the M-30* has the character of a <<grand ensemble>> and it was conceived with a design that is both functional and organic. The building is a powerful gesture, which is almost brutalist (see Fig.4.14): a volume that folds on itself like a defensive wall to protect itself from external aggressions. Two days after submitting the competition entry, Sáenz de Oíza described the fundamental idea, his inspirations and intentions behind the project as follows:

“My battle has been to give shape of an art object. I dreamed of the Colosseum in Rome, with an interior which is very different to the exterior, the latter closed and the interior opened-up in stands, filled with spaces of relation with the outside world and the outside as content.”⁴⁶²

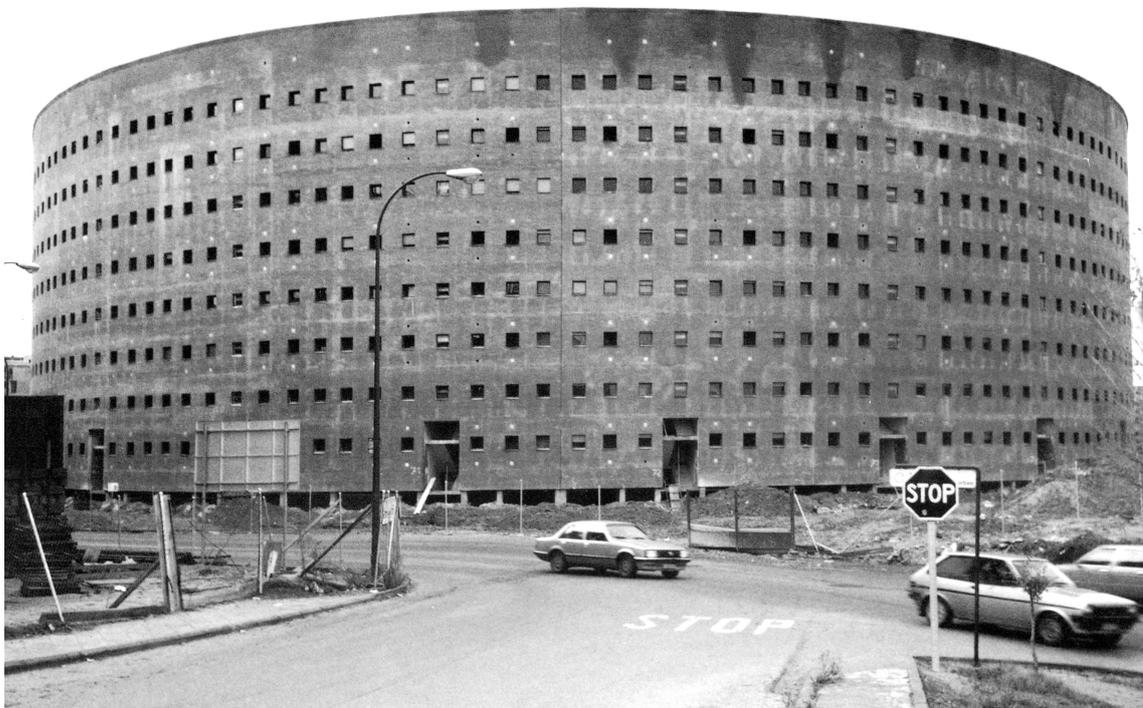


Fig.4.14 The *Housing on the M-30* (Sáenz de Oíza's Colosseum) under construction (n.d.).

⁴⁶² Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.27. Translation by the author (R.J.J.). Extract of the interview: <<Entrevista con Francisco Javier Sáenz de Oíza>>, *op.cit.*

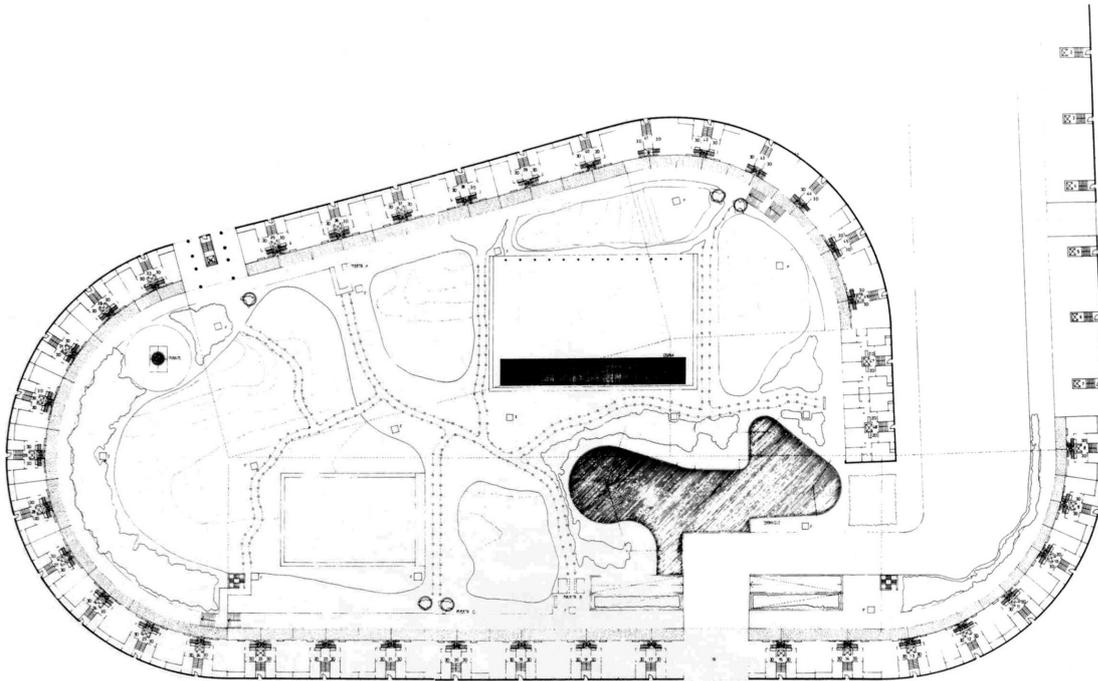


Fig.4.15 *Housing on the M-30. General assembly plan.*

The continuous red wall is formed by two types of housing blocks (see Fig.4.15): straight blocks between five and eight floors, and curved blocks between three and eight floors, although there is a mixed block as the sole exception of the whole estate. In addition, the housing development includes a three-storey social service centre which is integrated into one of the blocks, along with various commercial premises located on the ground floor and large underground parking spaces. The dwellings are distributed in 48 house units and organized around a triple bay that structures the floor plan. With this project, Sáenz de Oíza resumed the issue of social housing developed in duplex, which appeared for the first time in the proposal on the Manzanares River of 1953, and was finally put to the test in the *Calero Colony* six years later. In this sense, the housing estate on the M-30 reaffirms Sáenz de Oíza's permanent defense on the vertical direction of the modest dwelling, who based and supported this position on the following argument:

"Every popular house has two levels; the duplex is not an invention launched by the Modern Movement, or by Le Corbusier when he imitated the *atelier* (...) in which the artists slept, but it really is the vernacular house, the historic house."⁴⁶³

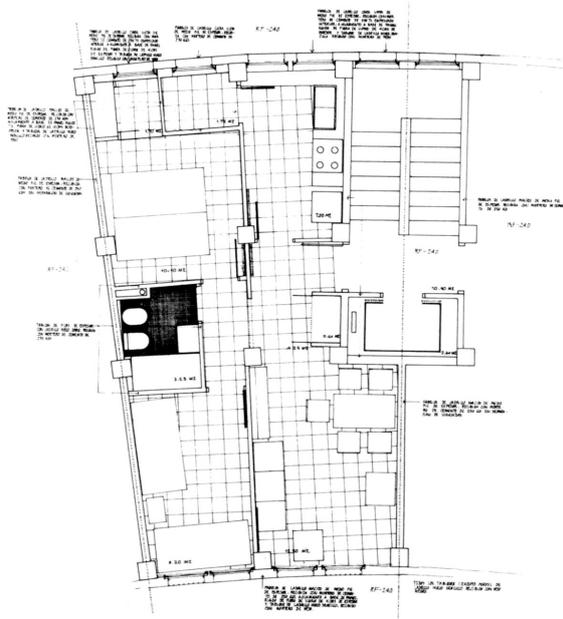
⁴⁶³ Quoted in: *Ibid.*; p.33. Translation by the author (R.J.J.). Extract of the interview: «En conversación con Vicente Patón y Pierluigi Cattermole, 1986», *op.cit.*

The housing in «*El Ruedo*» (“The Bullring”) were devised and built from the canons of the minimum housing, following the functionality and space concept of Le Corbusier's *Immeubles Villas*.⁴⁶⁴ Single-storey apartments and duplexes were developed in the whole set, and they should be understood as a sum of terraced blocks resolved into three types (see Fig.4.16): one-storey-two-bedroom apartments (54,7 sqm), and three-bedroom and four-bedroom duplex (85,05 sqm each). The cell-like two-bedroom residential units are resolved in a single level, while a housing solution in duplex was adopted for the three- and four-bedroom apartments. In the case of the duplex, the house is distributed as follows: the lower floor comprises one kitchen, an adjacent washing/drying room, the dining area and the living room opened up to the interior garden with a terrace that occupies the double height of the housing façade; and the private areas, such as bedrooms and bathrooms, are situated on the upper floor. In fact, each house can be read as the sum of two cells per floor, with a distribution that follows the main idea of the project: the services and communication areas are oriented to the street noise, and the common rooms and bedrooms to the quiet inner courtyard. However, some bedrooms were located on the side of the exterior façade by logical necessity of maximising the use of space, but they incorporate an adjacent dressing room that serves as a filter to noise and pollution.

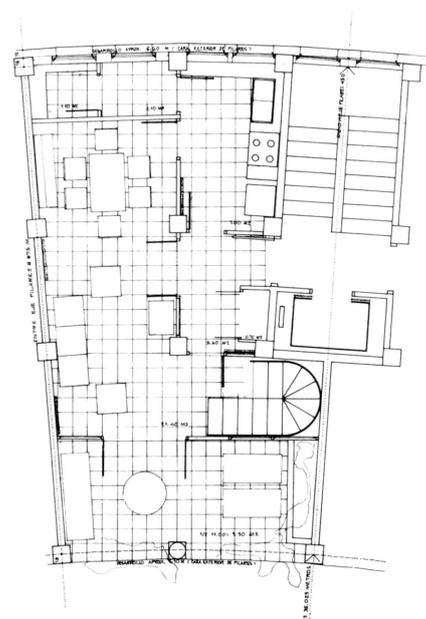
Both the interior layout of the dwellings and the exterior façade of Madrid's housing block have a clear defensive character, with a sculptural, solid volume that responds to the aggressive urban conditions. Thus, the materialization of the wall is different on its both sides: on the outside, one can appreciate a unitary image of small windows corresponding to the kitchens, laundry-storage rooms and dressing rooms, with the red brick as main material. Once through the wall, the interior space is found to be full of colourful terraces and large openings that extend withing the curve of the building and opened-up towards the garden, with green spaces that suggest organic landscaping with free, curved shapes and include a sheet of water, trees, benches and a spacious game area. The interior façade appears fragmented by the use of different colours (green, bright blue, pink and orange), bright and pure, that mimic classical motifs and are intermingled with the washing hung out, the stored objects and the wide range of uses introduced by the inhabitants on the terraces. This image contrasts with the roundness of the outer, continuous and monotonous layer, so that the interior space is endowed with a more human character. In this way, Sáenz de Oíza offered an economical solution by orientating the dwellings into the inner space, with large openings, and placing the wet rooms (kitchen and bathroom) next to the highway, with small windows that mislead the perception of the dwellings from the

⁴⁶⁴ Fullaondo pointed out Le Corbusier's influence on this project, especially his proposal for the *City of Algiers* (In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit., p.13). Furthermore, Manuel Cabeza referred to his *Immeubles Villas* as clear model followed in the dwelling's solution (In: CABEZA GONZÁLEZ, op.cit., p.353).

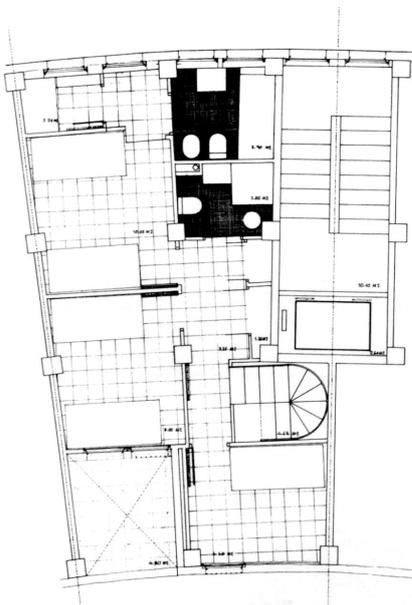
outside and have been strongly criticized because they resemble a prison, although Sáenz de Oíza defended that “the smaller the window, the bigger the house can be.”⁴⁶⁵ Therefore, there is a discontinuity between two worlds: the outer wall, monochrome and rigid, and the inner courtyard, polychrome and peaceful.



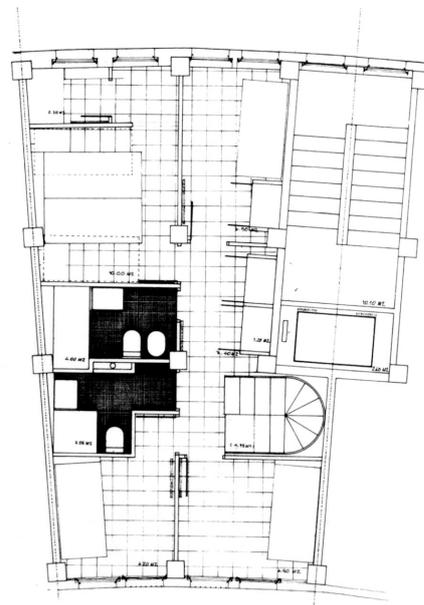
2-bedroom-type apartment.



3- and 4-bedroom-type duplex. Ground floor.



3-bedroom-type duplex. Upper floor.



4-bedroom-type duplex. Upper floor.

Fig. 4.16 *Housing on the M-30*. Typical floor plans of the dwellings.

⁴⁶⁵ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones, op.cit.*, p.130. Translation by the author (R.J.J). Extract of the interview: <<La Arquitectura. Hablando con Francisco Javier Sáenz de Oíza>>, *op.cit.*

As Juan Daniel Fullaondo already pointed out in *La bicicleta aproximativa*⁴⁶⁶, the *Housing on the M-30* can be interpreted as an attempt to cohesion between the social experimentalism of the 1950s and a summary of the architecture that was being developed during the 1980s, with its evident classicism and clear postmodern gestures, especially in the façade oriented to the inner courtyard. However, the intention of Sáenz de Oíza in his housing development in Madrid is very far from the social approaches of his housing projects developed during the decade of the fifties, although his constant concern for the design of a building as an object still appears.

Considering that the architectural influences on Sáenz de Oíza are never unique nor unambiguous, it is precisely in this project where the numerous foreign references are manifested more clearly, although they are still intermingled. Thus, his eclecticism or indifference to the styles pointed out by Fullaondo⁴⁶⁷ in the abovementioned publication is borne out once again. On the one hand, the stepped culmination of the building on the M-30 Highway, as well as the dynamism and fluidity of its volume has clear similarities with the expressiveness of the façade in Hans Scharoun's draft proposal submitted to the competition for an administration building in Wroclaw in 1927, named by Scharoun as '*The House as a Ship*' (see Fig.4.17, Fig. 4.18).

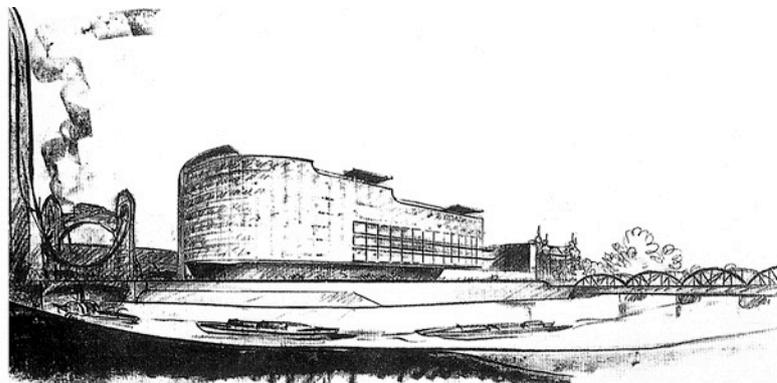


Fig.4.17 H. Scharoun, '*The House as a Ship...*' (Wroclaw, 1927).

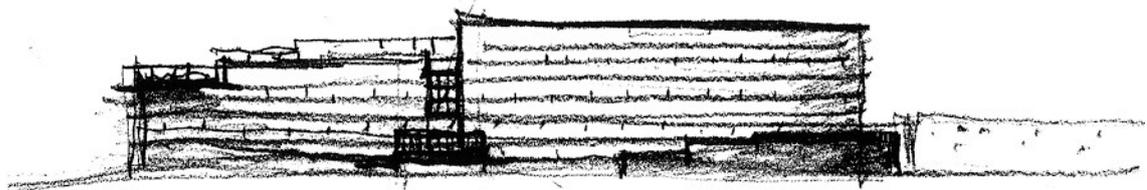


Fig.4.18 Sáenz de Oíza, *Housing on the M-30's sketch* (Madrid, 1986).

⁴⁶⁶ In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit., p.142.

⁴⁶⁷ Fullaondo referred to Sáenz de Oíza's <<indifferentism>> towards all architectural styles. In: *Ibid.*, pp.14,70.

Most foreign influences in this project are located in contemporaneous works or projects that were built not many years before. On the one hand, we can appreciate the connections with the monumentality, theatricality and the cult of geometry and the classical world of Aldo Rossi⁴⁶⁸ in Sáenz de Oíza's building, especially in the interior terraces and accesses to the housing blocks. But one could also find a clear tribute to Mario Botta⁴⁶⁹ in the vertical rectangular entrance porticos, whose oversizing breaks the monotony of the exterior façade by contrasting with the minimum size of the square windows, while they mark an orderly and continued rhythm in the composition of the building elevation. The entrance to the housing is once again distinguished in a project designed by Sáenz de Oíza, but not by the use of colour, but through a large threshold that breaks the feeling of continuity of the defensive wall. As he did in his social housing projects in the fifties, the simplicity and monotony of the outer shell of the building is enriched by the play of illuminated planes and shadows which are multiplied thanks to the curved shape, thus softening the well-rounded image, almost harsh, of the brick red.

On the other hand, both the volume and protective use of Madrid's wall are evident references to Ralph Erskine's architecture, particularly to his project *The Byker Wall*⁴⁷⁰ (Newcastle-on-Tyne, 1969-81), designed in collaboration with Vernon Gracie. *Byker's* enormous, high structure of its defensive wall responds to a comparable project strategy and similar conditions of the environment (see Fig.4.19, Fig.4.20): the one-and-a-half-kilometre long building is a high-rise block developed along a continuous curved red brick wall that was designed to shield the site from an intended motorway which which eventually was never built. In it, Erskine used patterns of brick in five different colours to reduce the scale of the massive wall, while they also indicate the visitor how to find the entrances. The rotundity and sense of closure of the outer wall also contrasts with the interior space that it defines and protects, which is full of life, with gardens and pedestrian paths. The inner face offers wonderful views over the Tyne River, and the apartments are duplex with terraces alternately up and down and with access galleries full of activity. Despite the initial critical positions toward the building, its inhabitants seem to be satisfied⁴⁷¹ with the project, a social reaction that is far from the negative broad-based citizen response in the case of Madrid's housing block, which has been surrounded by controversy since its inception.

⁴⁶⁸ Pointed out by José Manuel Cabeza in his doctoral thesis. In: CABEZA GONZÁLEZ, *op.cit.*, p.353.

⁴⁶⁹ In: *Ibid.*, p.353.

⁴⁷⁰ Juan Daniel Fullando already pointed out Erskine's architecture as a clear influence on the *Housing on the M-30* project, although he did not mention any particular project. In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, *op.cit.*, p.141. *The Byker Wall* was also mentioned as an influence in the following article: «Conjunto residencial en la M-30: Madrid» (n.p). *ON Diseño*, n.127. Barcelona, 1991. Print. p.110.

⁴⁷¹ In: EGELIUS, Mats: *Ralph Erskine, architect*. Byggförlaget. Stockholm, 1990. Print. p.148.

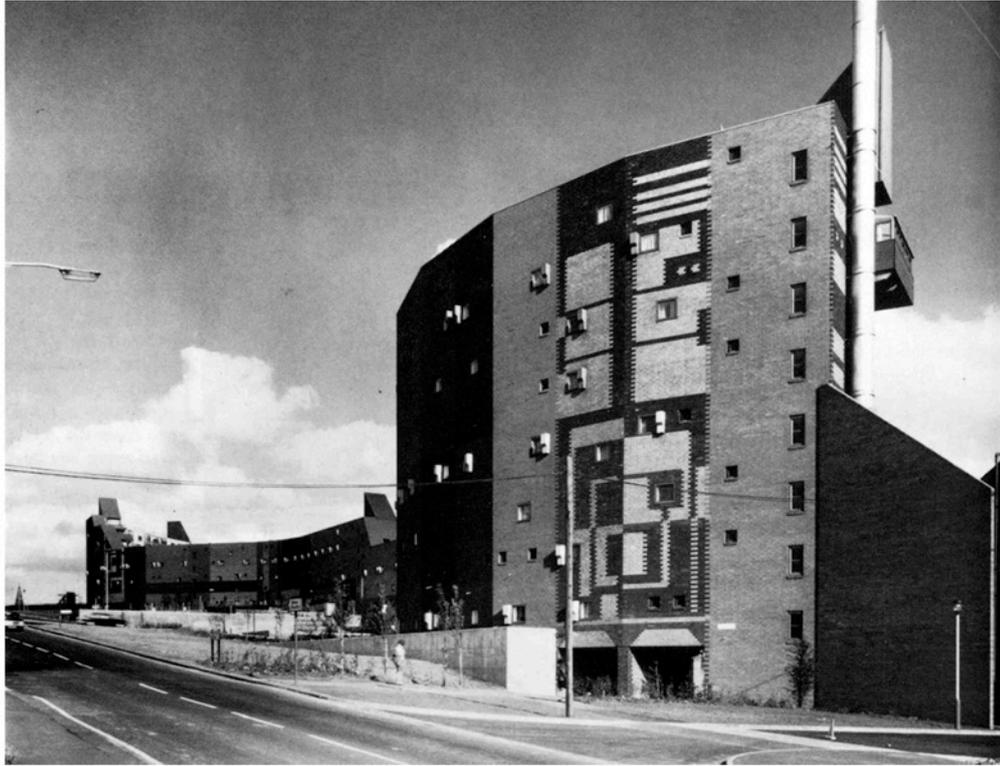


Fig. 4.19 R. Erskine, *Byker Wall* (Newcastle-on-Tyne, 1969-81).



Fig. 4.20 Sáenz de Oíza, *Housing on the M-30* (Madrid, n.d.).

However, the interior space enclosed by the spiral structure in Madrid is a nod to the monumental and postmodern architecture of the time, which is a feature that tells of an architect concerned about the architectural trends and discussions of his time. Thus, the architecture of Venturi⁴⁷² appears as an influence on the patio and in the radical and conceptual contrast between the external and internal façade. But one can also understand Sáenz de Oíza's building as a Viennese *Hof*, organic, curved and closed, with all homes towards a generous green inner courtyard. Given the importance of the organic ideas in the previous stage of Sáenz de Oíza, it is not surprising to find them here. But above all, the atmosphere of this interior space has noticeable similarities with the architecture of Ricardo Bofill⁴⁷³ and his project *Les Espaces d'Abraxas* (Marne-la Vallée, 1978-83). The public housing for workers of Abraxas is a postmodern palace, whose classical exterior resembles a fortress castle. This monumental presence of the exterior volume contrasts with the calm and silence that permeates throughout the interior space (see Fig.4.21). The composition of the interior façade, with different historic references to the classic architectural styles, the changes of scale and volumetric proportions produce interesting visual distortions of the whole, which are compensated by the tranquility of the interior open space. Nevertheless, while Bofill made use of the volumes to enclose the interior, public space, Sáenz de Oíza resorted to flat surfaces with geometric forms of different scales and painted with pure colours in order to organize the façade and emulate the movement of the decorative motifs, which contrast with the shadows in the terraces.

Moreover, it has been noted the relationship between the social housing development in Moratalaz and the radicalism of the proposals built in Berlin's housing estate of *Märkisches Viertel*⁴⁷⁴ (see Fig.4.22, Fig.4.23), since the dwellings on the M-30 are also folded around a semi-open courtyard, and the use of pure colors that enhance the natural light is the protagonist feature in the luminous, welcoming interior space of the building. In this sense, it might be worth citing the already mentioned *Interbau Apartment blocks* (Berlin, 1956-57) designed by Gropius with The Architects' Collaborative and Wils Ebert, in which a large slightly curved building with an open terraced polychrome façade is disposed around a large semi-open courtyard intended to function as large green areas and playgrounds by way of extension of the Tiergarten, thus favouring harmony between the users and the life in nature.

⁴⁷² Again Fullaondo mentioned the connections between Sáenz de Oíza's housing building and Venturi's architecture of those same years (the 1980s). In: FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit., p.141.

⁴⁷³ Ricardo Bofill was cited by Fullaondo as the clearest influence in the interior space, but Fullaondo did not mention any specific project designed by him. In: *Ibid.*, p.141.

⁴⁷⁴ See: Sáinz Guerra, José Luis: «La vivienda masiva en Alemania durante la postguerra y su influencia en los modelos españoles». In: *Modelos alemanes e italianos para España en los años de la postguerra*, op.cit., pp.225-233.



Fig.4.21 R.Bofill, *Les Espaces Abraxas: Le Théâtre, Le Palais and L' Arc* (Marne-la Vallée, n.d.).

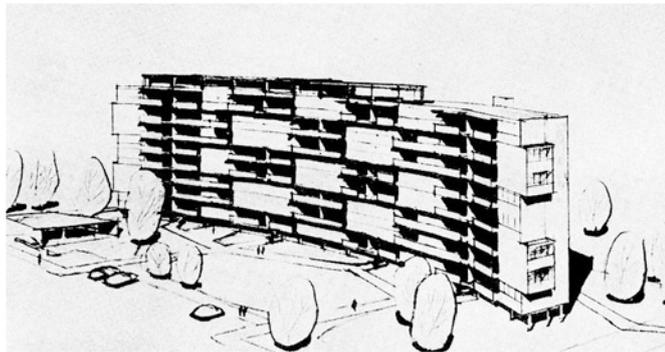


Fig.4.22 W.Gropius, *Interbau Apartment block in Hansaviertel* (Berlin, 1956).



Fig.4.23 Sáenz de Oíza, *Housing on the M-30*. Interior space (Madrid, n.d.).

Along with these foreign influences, the *Housing on the M-30* allows one more possible reading or interpretation, another German influence that can be valid in the equation and coexist with the abovementioned eminent precedents that inspired this project. Despite the clear nods to recent or contemporary projects to the social housing development in Madrid, and Sáenz de Oíza's changes of architectural style and language, he returned –in a conscious or unconscious manner– to the experience of the modern *Siedlung* of the 1920s and used it again as a reference. In particular, it is possible to establish a dialogue between the 'arena' on the M-30 and the *Hufeisensiedlung Britz* (*Horseshoe Housing Development*, Berlin, 1925-30), which was promoted by the GEHAG and designed by Bruno Taut, who worked in partnership with Martin Wagner, and whose urban concept was based on the Garden City model but adapted to the modern style of the housing developments of the 1920s. Among the 1,963 residential units built for approximately 5,000 inhabitants⁴⁷⁵ in the southern part of the periphery of Berlin, Taut placed a 350 metre-long, three-storey building as a distinctive core of the *Großsiedlung Britz* (*Large Development Britz*), a horseshoe-shaped wall opened towards the east around a large green area whose landscaping was designed by Leberecht Migge.

Although both projects have apparent volumetric and structural relations, there are, nevertheless, some subtle differences in the way in which their architects approached the urban issues of the form, scale and location of their buildings (see Fig.4.24, Fig.4.25). In Madrid's building, Sáenz de Oíza was the only one who assumed the complicated urban form of the site and its location: with curved forms, next to the aggressive and noisy highway of the M-30, with high levels of pollution. In short, he had to deal with a defined and consolidated urban structure that did not allow him to have the same freedom and freshness that characterised the experiences of the new settlements of the 1950s, in which everything was to be done and the architects were free to think and make architecture and urban planning in areas that were fields away from the historic city, where they could play with the volumes, the arrangement of streets and plots, the module and the open spaces. For this reason, Sáenz de Oíza responded to the urban and environmental conditions with a building shape which is not capricious as in the case of the *Horseshoe Estate*, but is the direct consequence of the original urban form. Considering that the design tool of modern urban planning was based on simple and abstract forms and volumes following Hilberseimer's way of thinking and designing the cities, it seems that suddenly Sáenz de Oíza rejected this logical and simple language and decided to adopt a new attitude towards the city and the social housing, which could be interpreted as the architect's acceptance of the

⁴⁷⁵ In: DEUTSCHER WERKBUND BERLIN e.V (ed.), and BRENNE, Winfried: *Bruno Taut: Meister des farbigen Bauens in Berlin*. Verlagshaus Braun. Berlin, 2005. Print. p.93.

fact that urban design can also be a game, or at least can imply an opportunity to work with more complex shapes, even ingenious, freer and playful.

The second difference is more subtle: while Bruno Taut used a continuous flat roof but with staggered slabs that soften the hard horizontal profile along the *Horseshoe*, Sáenz de Oíza resorted to a stepped moulding, thus causing a shadow that clearly defines the crowning of the building and facilitates its perception from afar.

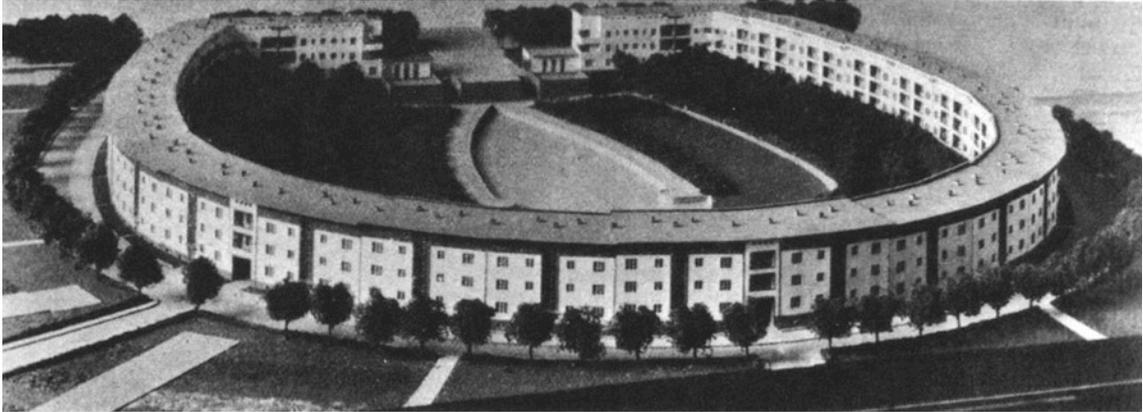


Fig.4.24 Model of the *Horseshoe Estate* (1926).



Fig.4.25 The *Housing on the M-30* under construction. (Madrid, n.d.).



Fig. 4.26 The *Horseshoe's* pond in a photograph taken in the 1930s.



Fig. 4.27 *Housing on the M-30*. View of the courtyard with the sheet of water, and the game area (n.d.).

Notwithstanding the above, both Sáenz de Oíza and Bruno Taut gave the same sociological and typological response to the issue of social housing, as they tried to put the user in contact with nature through the design of large balconies and windows that open onto the landscape, a garden bounded by the curved structure of the brick building, where the two architects highlighted the presence of water, air and sunlight, in an attempt to humanize the high-density housing and meet the basic human need for socialization (see Fig.4.26, Fig.4.27). Likewise, other common key features to be emphasized among the two projects are: The architects' full awareness of the urban impact of architecture within a set and their experimentation with different housing types and sizes, and their effective management and control of the urban scale through the organization and arrangement of the openings of the windows and terraces. But they also integrated natural light as a fundamental compositional element in the design, thus playing with the plasticity produced by the combination of illuminated surfaces and shades; and the use of colour, which contributes to emphasize a certain perception of the scale on the façades in both cases, and simultaneously, it gives a special atmosphere to the street or the interior garden, depending on whether the coloured surfaces are illuminated by morning light or the evening light.

On the other hand, the visual tension generated by the lack of details, the colour and texture of the façade, with the red brick in the case of the building in Madrid and the white continuous surface of the horseshoe-building in Berlin, is also highlighted in both cases. This tension is enhanced by the homogeneity of the elevations, although Taut made a combination of different size and proportions of windows and balconies, while Sáenz de Oíza designed a minimalist and abstract façade, reducing all openings to a single type that is repeated along the outer wall and does not allow direct identification of the interior use corresponding to each window. Even so, in both buildings, there are several interruptions in the continuous curved plane through the thresholds that provide access to the houses and the interior garden space. These porticoes of square shape in the *Horseshoe Estate* and of rectangular shape in Madrid's 'arena', are indicated by the use of the bright blue colour on the outside, which gives vitality and chromaticism to the outer surfaces and has become a symbol of the large housing development in Britz; while red brick was used on the interior façade to signalize the entrances and facilitate the user identification with his own place, thus subordinating the use of color to the function.

In addition to these similarities, the typical floor plans of the *Housing on the M-30*, particularly the layout of the two-bedroom-type apartment, have a clear antecedent in the *Hufeisensiedlung's* two-and-a-half-bedroom-type apartments. It is curious to observe that, as was the case in the houses of the colonies built for the *Hogar del*

Empleado, or in his three radical social housing models, where the foreign influences are many and varied, however, when designing the floor plan of the dwellings, Sáenz de Oíza always based his solutions on a German social housing model.

The horseshoe-shaped apartment block has a quite conventional structure, and it contains two apartments per flight of stairs whose spatial distribution was kept as indeterminate and flexible as possible, so that the rooms are of a similar size but without designated use in order to accommodate a wide range of occupants and satisfy their housing needs. Hence, the arrangement of rooms allows different ways of spatial occupation, so that the user is free to decide which of the rooms should be a living, a dining room or a bedroom or whether all rooms should be used as bedrooms. Conversely, the one-storey-two-bedroom apartments in the social housing building on the M-30 have clearly defined spaces and uses. Both housing types, with similar surfaces⁴⁷⁶ and distribution of spaces (see Fig.4.28), are organized into two bays separated by a central distribution corridor, and all rooms are accessible from it, although Sáenz de Oíza gave a more private identity to this area of dormitories by separating it from the common areas through a door. Besides, Sáenz de Oíza dissociated the bathroom from the kitchen and situated it in the centre of the house, related to the bedrooms. The kitchen is placed in front of the living room –or chamber– in both cases, although this use as common room is well defined in the dwelling of the M-30, while this space has no specific use in Taut's dwelling, where the eat-in kitchen (<<*Wohnküche*>>) can double up as a living room in case of need. Lastly, despite their different functions and orientations, in both types, two rooms (one of them is always a kitchen) also have an adjacent loggia space.

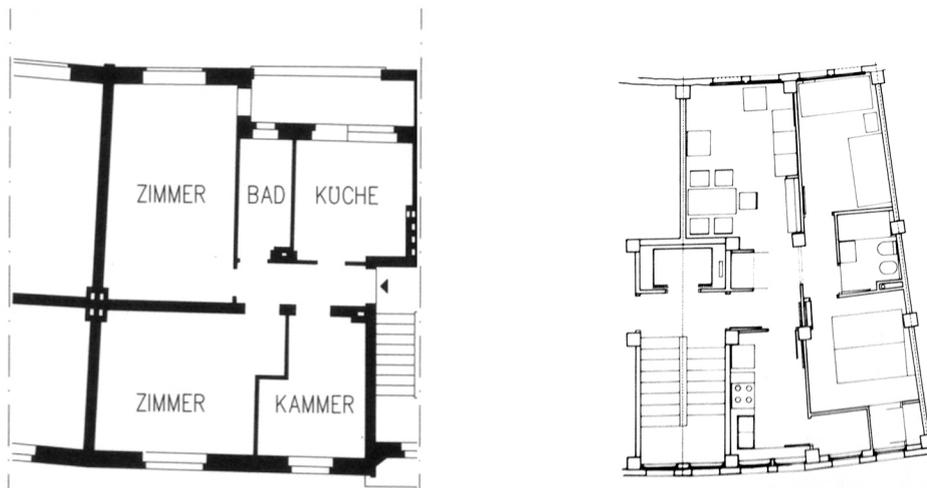


Fig.4.28 Left: 2^{1/2}-bedroom-type apartment in the *Horseshoe*_1:200.

Right: 2-bedroom-type apartment in the *Housing on the M-30*_1:200.

⁴⁷⁶ The surface in the two-bedroom-type apartment in the *Housing on the M-30* is of 54.7 sqm, whilst the smallest apartment of the *Hufeisensiedlung* is 49 sqm.

The *Housing on the M-30 Highway*, with its multiple interpretations and notable influences, was a highly complex work due to its location, the building's programme and, above all, because of the marginal profile of the future tenants. Despite this, it has always been considered an important and unique project among Sáenz de Oíza's extensive work, because it meant the summary work of those last years of his long and productive professional life. This social housing project was also a polemic work, between negative criticism and praise among the profession, and the subject of social controversy, since it has always been compared to a prison or it has been seen as a safety way to isolate the neighbours from the neighbourhood.

With regard to the controversy surrounding the project, the social response to the building and Sáenz de Oíza's vision on the matter, his widow María Felisa Guerra gave the following declaration:

"My husband didn't have a special fondness for any of his works. And neither was he very angry with the controversy generated by the large public building built in Moratalaz, the famous dwellings of the M-30. An idea which was more fascinating for the architects than for the neighbours of the houses. But he was convinced that these were quality houses and they were perfectly integrated. In his opinion, what really bothered people was that they put marginal collectives inside."⁴⁷⁷

A possible explanation for the rejection of the project by the society and the users may be that the allocation of social housing often poses a new sociological problem, because the users are not the ones who choose their homes, but the architect makes the decision for them. But one could even turn this reasoning around by defending the opposite side of the matter so that the reader could choose the best option, as was advocated by Sáenz de Oíza when he spoke of the book he would have liked to have written, in one of the many demonstrations of his passionate and contradictory personality and his constant willingness to open a discussion in order to analyze and understand the problem from different perspectives. From his point of view, the reason for the failure of this project lay in the fact that:

"...the architects are not free, because they are moved by the dictates of the society which thinks and builds..."⁴⁷⁸

⁴⁷⁷ GUERRA, <<Capítulo IX: M^a Felisa Guerra>>. *La mujer en la sombra. La vida junto a los grandes hombres*, *op.cit.*, pp.240-241. Translation by the author (R.J.J.).

⁴⁷⁸ Quoted in: *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*, *op.cit.*, p.24. Translation by the author (R.J.J.). Extract of the interview: <<Entrevista con Francisco Javier Sáenz de Oíza>>, *op.cit.*

With the passage of time, the original paintings of the façades have deteriorated or have been covered with graffiti, most of the terraces have been closed, the entrances to the parking were bricked up and the idyllic garden of this 'Coliseum' of enormous dimensions dreamed by Sáenz de Oíza, which is flooded by the sunlight throughout the day, where the silence dominates the space and which still offers optimal spatial qualities needed for leisure, walking and children's play, has been vandalized and neglected by the neighbours.⁴⁷⁹

Nonetheless, the building on the M-30 stands out as one of the most emblematic, radical and experimental buildings of the Spanish capital. But, above all, it remains a fundamental and unquestionable example for every architect who has the enthusiasm and the desire to think and build a more sensitive and humane social housing that is able to provide spaces that meet the vital needs of housing and socialization of its inhabitants, despite all criticisms that have led it to be one of the most misunderstood buildings in Madrid, and the reality of the families who did not understand the qualities of the homes in which they were relocated.

Even so and despite social criticism and protests, the great red defensive wall is still a coherent and consistent response to the site and its surroundings, with decent and affordable houses and a bright, peaceful inner outdoor space protected from external aggressions that were naturally integrated in the consolidated city. <<*El Ruedo*>> was, in short, a dreamed paradise for Sáenz de Oíza, who once again knew how to adapt some previous renowned housing models built mainly in Europe –and among them, especially in Germany– to the programmatic and social circumstances of the architectural and social problems he had to face in Madrid. To this aim, and as he had always defended in all his social housing projects, Sáenz de Oíza put the functional character and rigour of the dwellings above the beauty of the object, because good quality architecture is not always the most beautiful, and vice versa.

⁴⁷⁹ Nevertheless, the Spanish daily *El País* published an article in October 2015 that was entitled "The Bullring is no longer scary" recounting the social and urban improvements carried out in the housing development and its surroundings. See: CASTELEIRO GARCÍA, Rodrigo: <<El Ruedo ya no da miedo>>. *EL PAÍS*. EL PAÍS S.L. 15 October 2015. Web. 26 July 2016.

5. Conclusions

*"I would have liked to spend the time building my own house, but I've used it to make the houses of others..."*⁴⁸⁰

Francisco Javier Sáenz de Oíza

The years 1936-1945 in Spain saw catastrophic Civil War followed by a postwar period characterised by fierce repression, political isolation and economic misery. Families were torn apart and social relations were disrupted by death, exile and defeat. During the years following the stage of the Spanish autarchy, the biggest cities in Spain were overwhelmed with problems of town planning, health and hygiene, caused by war destruction and the massive slums and shanty towns that were built to provide shelter for the large number of entire families who had left the countryside looking for new opportunities and better life conditions in the industrialized cities. Madrid was the city that was more seriously affected by these circumstances.

As it had happened in Germany, where the two most destructive and traumatic World Wars in the modern history of humankind had an enormous importance in the development of social housing policies, the Civil War fueled many debates about the housing problem in the postwar years, as well as in relation to the reconstruction of the cities destroyed by bombing. The history of social housing in Madrid between 1939 and 1959 can be defined as a first phase focused on the reconstruction of the city that motivated the concern to establish an industrialization of construction in the late 1940s, and a final period that was focused on the social housing policies of the new settlements built in the outskirts of Madrid during the fifties, in order to meet the economic and social need of providing decent homes and appropriate answers to a new standard of living.

Although the Franco regime was contrary to the experiences of social housing developed in the European social democratic countries because they were related to the leftist ideology, the serious housing problem caused by the destruction of war and the rural exodus allowed many architects working in Madrid in the Spanish postwar period to regain the modern architectural language that was interrupted in 1936 due to the outbreak of the Civil War. The most important urban work and social concern of the fifties, which was popularly known as <<the housing problem>>, was used as a pretext to recover the lost modernity. In particular, the German interwar *Siedlungen* were assumed as valid models for many interventions in the Spanish capital, as was

⁴⁸⁰ Quoted in: LÓPEZ-PELÁEZ, José Manuel: <<La casa de Oíza>>. *Arquitectura*, extraordinary number. COAM. Madrid, September 2000. Print. p.62. Translation by the author (R.J.J.).

the case of the economic and standardized *Directed Settlements*, and, at the same time, the Spanish architects were beginning to know about the European experiences built after World War II.

The architects building in Madrid during the 1950s, who were young graduates from the School of Architecture of Madrid, among which was prominent the figure of Francisco Javier Sáenz de Oíza, had studied during the Spanish autarchy and the academicism of the 1940s, with a programme of study rooted in the tradition and without a solid background in urban planning, in a country that was outdated from the rest of the Western world due to the trauma caused by the national conflict, but was beginning to wake up after the long years of autarchy and national isolation. Upon completion of their studies, they lived a period of openness in relation to international politics, economy and culture of the country that inexorably affected their training and first works, since they could travel abroad (in the case of Sáenz de Oíza, to the United States), and these trips allowed them to recontact with the modern European and American architecture, or the works and theories of the masters who had migrated to the United States.

In the early 1950s, the economic circumstances of the country, which was in the process of abandoning its autarchy, represented, paradoxically, the opportunity for these architects in Madrid to contribute with their work to a rich period in singular and experimental projects that excelled in the context of Spanish social housing production of the time, and in which they developed an architecture that responded to the postulates set out in the first *International Congresses of Modern Architecture*, and giving special attention to the CIAM II held in Frankfurt in 1929 on «The Minimum Dwelling», precisely at a time when they were already being criticized in Europe after the Second World War. Therefore, the collective ideal of the architects involved in these social housing built in the Spanish capital during the fifties, who proved their willing to improve society through a new ideal of modern living that was raised in their works, was based on strict rationalism and the modern language of minimums. Furthermore, this rationalism of social housing was also the necessary and valid instrument for the politicians that had to assume the social responsibilities that the state should fulfill.

The architects and technicians working in public agencies such as the INV and the OSH, which were responsible for the approval, promotion and construction of the social housing projects in Spain, were aware of the need to promote a serious debate to reactivate the Spanish construction industry. After their attendance at the main German architecture exhibitions from those years such as *Wie Wohnen?* (Stuttgart, 1950), *Constructa* (Hannover, 1951) and the *Interbau* (Berlin, 1957), where they could

get a first-hand look at the German social housing policies, various national and international competitions were celebrated in Madrid and promoted from these institutions, in which the German exhibition format was followed and experimental housing prototypes at a scale of 1:1 were presented with the aim of stimulating the housing industrialization. That was the case of the *Experimental Housing Competition* that was held in Madrid in 1956, in which Sáenz de Oíza participated and stood out for his proposals for a multi-family apartment block and single-family houses in a row, in which the influence of German and Dutch prototypes of the 1920s is clear. However, due to the Spanish economic reality, both the housing policies and the attempts to promote a serious industrialization in Spain were a failure, and it ended up being based on a rationalization of traditional methods through the normalization of constructive elements.

It is against this historical and architectural background, that Sáenz de Oíza intervened in Madrid with some housing models in which he revealed his learning, his undeniable ability as designer, his intuition and his large capacity to study previous projects carried out by other architects and assume the architectural qualities that were valid for him to face the architectural problem that he had at hand. These qualities of Sáenz de Oíza can be appreciated in all his social housing projects and, with greater clarity and intensity, in his proposals of minimum social housing.

But Sáenz de Oíza was not alone on the path to rational architecture, because it was not a new problem he had to deal with, using unfamiliar tools or his own inventions. The Spanish architects of the previous generation, who had already embraced modernity during the 1920s and the first half of the 1930s, had to look outside the country and study everything that was being done in Europe since the beginning of the twentieth century. After the Civil War, and with a different national scene, the European modern architecture remained valid for the young generation of architects who had to face the design of urgent social housing in Madrid. Furthermore, the economic conditions in Spain in the fifties were not more favourable than those in Germany and Holland throughout the twenties. Thus, all models and experiences of minimum housing, which had been previously tested and proven in both countries, served as firm inspiration and effective base for confronting the problem of Spanish social housing.

Sáenz de Oíza, who was a frank admirer of Hilberseimer, Mies van der Rohe, Le Corbusier and Gropius, among many other masters of the Modern Movement, came into contact with the German architectural culture while he was studying at the School of Architecture of Madrid during the 1940s, in a cultural and intellectual climate that was also marked by Spain's autarchy and its isolation from the rest of the world. The

Spanish-German cultural and architectural ties and exchanges that had flourished before the Civil War were not paralyzed, but were somewhat dormant or slowed down.

Under the guise of giving an urgent and fast solution to the problem of the lack of decent housing in the capital, the generation that studied or worked in Madrid during those years, to which Sáenz de Oíza belonged, was able to restore these contacts or influences through punctual trips abroad, publications on foreign architecture in native magazines, and foreign publications which, though less and less frequently, continued to reach the bookstores and libraries that were frequented by architects. Among them, the work of Latin American publishers, particularly from Argentina, stood out in the translation into Spanish of foreign specialized books and their disclosure of international architecture in Spain. With them, the few Spanish architecture magazines of the time such as *Arquitectura*, *Informes de la Construcción*, *Revista Nacional de Arquitectura*, *Reconstrucción* and *Hogar y Arquitectura* played a key role in the dissemination of foreign –and national– domestic architecture and social housing policies because they were dedicated, in many cases, to the difficult task of maintaining some communication with the outside during the period of cultural isolation in postwar Spain.

Sáenz de Oíza's connection with modernity occurred mainly through his own work, by making architecture. His fascination for the European and American modern culture aroused, however, thanks to his one-year tour around North America, where he visited and photographed buildings of the masters of Bauhaus working in the United States. Upon his return, he was specially fascinated by the work of Mies in America, by technology, machines and building facilities, a subject that he mastered and taught at the School of Madrid for over a decade, and he continued his learning through books, architectural magazines and other disciplines for which he felt curiosity or special interest, like poetry and psychology, among which is remarkable the presence of works of German authors or related to the German architectural culture. Therefore, one can speak of an absorption of the German principles in a self-taught way. These influences are embodied in his initial architectural work, in which a mimesis between his own projects and those designed by the great European pioneers of the interwar period occurs. In addition, some examples built after the Second World War, sometimes even in the same space of time, are also participants in this dialogue between Sáenz de Oíza and his references. In this regard, the reinterpretation of the architecture that was being done in Europe and in the United States by then was a permanent and evident constant work method during his social housing production, in which he embraced the modern architectural principles of the German and other European *Siedlungen* in order to adapt them to the Spanish idiosyncrasy of his time and with his very own pragmatism.

After a first professional stage in collaboration with Luis Laorga between the end of the 1940s and the beginning of the 1950s, with whom Sáenz de Oíza developed his first stage of spiritual and religious architecture, mostly influenced by the work of Dominikus Böhm among other significant projects built in Germany after the First World War such as Paul Bonatz's *Stuttgart Main Station*, Sáenz de Oíza designed a middle-income housing project in Madrid in 1949, in which the influence of the Bauhaus architecture, and especially from the *Atelierhaus* designed and built by Walter Gropius, is evident. A new architectural phase began in his career path in the decade of the 1950s, marked by a large and fruitful social housing production developed in Madrid and in collaboration with José Luis Romany, Manuel Sierra, Adam Milczynski, and other younger collaborators such as Carlos Ferrán and Eduardo Mangada, with whom he was involved in the Technical Office of the charitable construction company *El Hogar del Empleado* since 1952.

Sáenz de Oíza's interest in modern European architecture is reflected in his rationalist professional stage, and in particular, in his social housing production developed, almost entirely, throughout the fifties. He designed and built social housing in Madrid through two concurrent experiences that, although different, they share some concepts because both took place in parallel, and above all, because they are primarily based on German projects developed in the interwar period or built after World War II: the six colonies for the *Hogar del Empleado* and his radical social housing model, initiated in the project of *Fuencarral <<A>>* in 1955, developed in the *Experimental Housing Competition* in 1956 and refined in the housing solution of the *Directed Settlement of Entrevías* almost at the same time. In both experiences, a parallel project strategy was followed: an experimental housing model was designed (distributed in block of houses or in a row, as appropriate), whose interior space layout was clearly based on prominent German precedents designed by Ernst May, Hans Scharoun, Walter Gropius and Mies van der Rohe, among others, and these two models were developed in the subsequent proposals and adapted to each project requirements. Both architectural experiences meant a unique experimentation in terms of architecture, construction and urban design that exerted a very significant influence on later Spanish social housing projects.

In the particular case of Sáenz de Oíza, his conceptual unit developed throughout three successive experimental projects contributed to a new understanding of Madrid's social housing during the beginning of the second half of the 20th century, because it raised again the concept of minimum spatial and distribution solutions that were close to the European experiences of the Modern Movement, since they were clearly influenced by the *<<Existenzminimum>>* and the designing of social housing following the ideal of a *<<machine for living>>*. Sáenz de Oíza did not accidentally reach

the radical model of minimum housing in *Entrevías*, nor by improvising. His radical housing solution was a work that he had been developing and improving since his previous experiences in social housing in Madrid. Besides, the tight budget with which the architects and the families had to deal in these residential units, led to the need of testing the purest concept of minimum of all settlements in the capital during the fifties, which was based on a very radical rationalist designing. It seems evident, then, that the success of *Entrevías* was primarily due to Sáenz de Oíza's ability to design and make social architecture placed at the service of man and his vital needs, but also because it meant the final push to adapt a rationalist attitude in the Spanish social housing through experimentation, functionality and material honesty as design values.

In *Entrevías*, Sáenz de Oíza culminated a design experimentation initiated in *Fuencarral <<A>>*, an exercise of economy and rationality that attempted to approach the language of modern European architecture, but adjusted to the reality of Spain in the fifties. It was a work of minimum, a manifesto of radical rationalism which was permanently defended by Sáenz de Oíza among his students and professional colleagues. As with all his projects, the functional analysis of the problem and the priorities is what determined the design process. On the other hand, Sáenz de Oíza studied and adapted German references in these projects, which are mixed with other influences, especially with that of the Dutch architect J.J.P. Oud, whose proposals for row houses in *Kiefhoek* and the *Weissenhofsiedlung* were taken by Sáenz de Oíza as fundamental basis to develop his own minimum housing model, which is even more radical than its European antecedents. In short, in relying on the typologies developed by the architects of the Modern Movement during the interwar years in order to conceive his own housing projects, Sáenz de Oíza embraced the modern tradition as main reference.

But, while the influences of *Kiefhoek*, *Dammerstock* and *Weissenhof Row Houses* in the floor plan layout and façade composition of his radical social housing model developed along the three row houses projects of his experimental unit is clear and noticeable, but not unique, in the colonies for the *Hogar del Empleado*, however, the German references appear in specific issues and features such as the floor plan layout and distribution of spaces in the dwellings of the experimental block that configures the whole set of each colony, the urban concept, rationalization of sanitary facilities, or the kitchen, which was understood and designed as a workspace in the line of the *Frankfurt Kitchen*. But, as they are not obvious at first glance, they are lost among other foreign influences like the Anglo-Saxon (British and American), Italian, Scandinavian or Latin American, whose influence responds rather to a formal or compositional mimesis that can be especially appreciated in the façade solutions.

Sáenz de Oíza copied compositional elements in floor and elevations plans, and he materialized them from a Spanish constructive reality, adapting them to the poor constructive means and the almost artisanal techniques of his time.

The planning of these new settlements and colonies in the 1950s was an excellent testing ground for the young architects and urban designers working in Madrid during those years, and it is precisely in Sáenz de Oíza's social housing where these criteria of rationality and maximum constructive economy were put to the test more radically. The shortage of material resources, labour and funds to build new houses, as well as the social and political climate in Madrid during those years and the traditional spirit of the government that promoted these constructions, were not the ideal circumstances to boost housing typologies that were developed and understood as «too modern». Even so, the interest, youth, and willingness to work of a group of architects working in Madrid allowed a coherent response to the need for accommodation without sacrificing modern design and a typical architecture that was characterised and conditioned by the time in which they lived and practiced architecture.

The atmosphere of teamwork, with young architects that brought fresh air to the profession and shared the illusion to change things, who matured and learned to work under minimum with social housing projects, and that were able to work at the margin of the conventionalism around them were the clear embryo of these experiences in Madrid. Both experiences were built in record time and despite the lack of material resources, and they were an investigation into new ways of living, a search of affordable and decent housing solutions that could ensure a minimum architectural quality, with solutions adapted to the rural character of the future inhabitants. Thus, they did not only manifest the constructive expertise of their architects, but also their great sensitivity toward the families that would occupy the homes.

In his social housing projects, Sáenz de Oíza performed an evolution from a more rationalist architecture towards more organic approaches, assuming from the start the concept of minimum housing with strict control of the private and public spaces through the module, which is the fundamental design tool that allowed him to minimize not only the spaces but also the constructive resources, both basic aspects in the organization of the modern German *Siedlungen* developed during the 1920s. His particular way of projecting led him to continually study foreign references that he used in his proposals by transforming them to suit the specific needs and project requirements. As a result, in his social housing models we can appreciate the influences of the *Unité d'Habitation* from Le Corbusier, especially in his first proposal in 1953 for *600 Houses in the Urbanization of the Manzanares River* for the *Hogar del Empleado* and his *Housing on the M-30*, or Mies's *Courtyard Houses* in the *Relocation*

Settlement of Fuencarral <<A>> and the subsequent versions of the *Experimental Housing* and *Entrevías*, especially in his freehand drawings.

Nevertheless, while it is true that in Sáenz de Oíza's social housing of the 1950s there is a clear reference to the European rationalist architecture of the 1920s, there are also perceptible nods to some specific American projects that he could have visited in the United States as well as to the organic and expressionist movements. His references, again, are varied: from Hilberseimer's urban theories and J.J.P. Oud's dwellings in the *Weissenhof Estate* and *Kiefhoek*, to Gropius' row houses in the *Dammerstock Colony*, the *Wellesley Veterans Housing* by Stubbins, the *Aluminium City Terrace* designed by Gropius and Marcel Breuer and Bruno Taut's *Hufeisensiedlung*.

As in the case of the German *Siedlungen*, the colonies for the *Hogar del Empleado*, the *Relocation Settlement of Fuencarral <<A>>* and the *Directed Settlement of Entrevías* were planned from the residential unit to configure the whole urban scale. Furthermore, as these projects are designed and built in a very concentrated period of time and in parallel, the references and architectural solutions are shared and transferred from one project to another, and they are identifiable as particular concepts that he assumed as valid for his design according to his interests or needs in each case. Thus, the floor plans resemble one another, the housing solutions are repeated, improved or adapted depending on each case, and the construction methods and structural systems are the same: the brick load-bearing wall was used as a standard structural solution in the majority of cases and its materiality is expressed and exposed on the façades, except for the unrealised proposal for two high-rise apartment buildings on the Manzanares riverside and the towers of *Batán* and *Calero*, where a structure of reinforced concrete porticoes was used, and the façade is clad with an independent wall covered with ceramic tiles in yellow ochre.

Notwithstanding, the urban concern was also part of the culture of those years in Madrid, so that the main objective was to build new urban complexes to ensure better environmental qualities that were not achieved with the repetitive patterns of the rational city. The *Batán Colony* represented a direct response to this concern because, although the housing type arose from a rationalist point of view and it was the result of an evolution of the previous experience, in which the strict architecture of the <<*Existenzminimum*>> was improved. The whole neighbourhood, with the delicate treatment of the topography and sensitive care for details that configure a pleasant urban space, was able to successfully overcome the schematism of modern cities, since its design took a step forward in the treatment of urban and domestic spaces, and also in the understanding of the vital and spatial needs of the individual.

In almost all the colonies and settlements in which Sáenz de Oíza intervened with the rest of his colleagues, there is always a common feature: they were built ex novo, on an undeveloped periphery without references to an urban area, and with the concentration of urban facilities and community buildings in the centre of the set. Furthermore, the colonies for the *Hogar del Empleado* share the importance that is given to pedestrians by favouring their circulation above the road traffic. In all these colonies and settlements there is a sensitive treatment of all community spaces, with transitions between pedestrian and car, and where the open spaces used as playgrounds for children and to strengthen neighbourly relations take on a special role.

On the other hand, the residential buildings were arranged around a central landscaped green space, which was generally designed with an organic language and, in some cases like the *Batán Colony*, it served to concentrate the urban facilities of the colony such as a school, a church or other commercial premises. In this way, the colonies can also be regarded as a Viennese *Hof* in the sense that they were designed under a socialist understanding of community life. The design and treatment of the exterior green spaces is a key point in these settlements and colonies, as they are not residues left in the city once housing and services were built, but they were also understood as important elements in the overall composition of the assembly, so that its shape and dimensions depend on their specific use and function within the whole city.

Despite their current ageing, modification or degradation, both the five built colonies as well as the single-family houses in a row designed by Sáenz de Oíza have been of great significance for the history of Spanish modern architecture of the second half of the twentieth century, because they all remain a built evidence of the promising rationalist experience of the 1950s, a fertile time in architectural ideas, proposals and cultural exchanges. These and other many projects of the time meant a great enrichment of the Spanish architectural culture because their protagonists were able to propose and build architecture in a modern language with clear foreign influences, and yet so local.

Overall, Sáenz de Oíza's architecture can be understood from an almost mathematical perspective, that is, considering the importance of his metric and constructive rigour, the numbers, the structural and spatial order, and the module. But in particular, these features become key elements in his social housing projects. because they are the tools with which he designed his most radical social housing and urban developments like *Fuencarral <-A>* and *Entrevías*. Therefore, despite the shortage of resources and a craft technique, Sáenz de Oíza was able to offer a high-

quality and expressive architecture, austere but sincere, honest and thrilling, even today. The social housing projects designed by Sáenz de Oíza in the 1950s and in subsequent decades are architectural examples of constructive sincerity, but they are also transparent in their references, multiple and identifiable.

In this sense, Sáenz de Oíza was an opportunist and eclectic architect, because he always knew how to recognize every architectural trend and adapt or transform its language to his own projects according to the time, circumstances or design requirements. This attitude was constant in his practice throughout his long career as an architect. In fact, when the work and career of Sáenz de Oíza is reviewed, or what has been written about him, it is found that his projects can always be explained by making reference to his architectural influences or precedents. Then, if his projects can be explained from other projects, the figure of Sáenz de Oíza can also be explained through other architects who preceded him. Some of these influences have already been outlined to support the comments and criticism of his work, which have always alluded to his ability to absorb and transform the work of others and make it his own, without losing authenticity, his genius and freshness.

When Sáenz de Oíza resumed the issue of social housing in 1979 with his *Housing in Orcasur* and with his controversial *Housing on the M-30 Highway* in 1986, he returned to the reference of the German *Siedlung*, since the imprints of Ludwig Hilberseimer, Walter Gropius, Hans Scharoun and Bruno Taut are noticeable and coexisted among other most closely time-related postmodern or even brutalist influences. The same issues raised in the proposals of the 1950s appear in these two projects in which the brick is still the main material that defines the exterior of the buildings, but from another perspective and historical context, with the maturity and wisdom achieved through his own life experience, self-training and long professional career as an architect and professor at the School of Architecture of Madrid.

Paradoxically, Sáenz de Oíza appears in the project for a social housing development on the M-30 as a younger, more imaginative, liberated and even arbitrary architect, full of freshness. In this project, multiple references emerge and can be detected: the legacy of rationalism of the 1950s, the minimum housing programme of the Central European and Soviet avant-garde architecture, the organic language, the concern for the community space, and the *Siedlung* of the 1920s as a reference for the floor plan solution. These referents are hidden among the influence of other more obvious contemporary styles at first glance.

Hence, his *modus operandi* remained unchanged throughout his career, and especially in his social housing production, in the sense that he carried out thorough study and analysis of projects that he considered close to his own design research. His architecture is thereby not produced from an idea that arises from nowhere, but is the result of the study and analysis of other suitable reference models intermingled with his knowledge and experience.

Sáenz de Oíza's social housing projects and, in general, his complete work, leads to an unequivocal conclusion: No architecture is completely new, nor is it designed or produced without roots and previous references. His uniqueness and virtue as an architect lies in his ability to identify and study previous models that served him for the development of his own projects. In this regard, by analyzing such an important part of his work like the social housing from the point of view of his readings, references and architectural interests or in other disciplines, because Sáenz de Oíza was interested in almost everything, the author has tried to justify or judge his design solutions to the social housing problem in their historical, social and urban context and based on German references –many of which are accepted by the critics–, which are not unique, but are appreciable. The study and analyze of his projects through their particular references also involves a reading of his work methodology that gives meaning to all his architecture: to absorb and adapt influences (even sometimes by improving his referents).

It is evident that if we can point to any one outstanding trait that characterizes Sáenz de Oíza's work, it is his eclectic style: the importance of references, the study of proposals that preceded him and served as a starting point to approach and solve the architectural problem he had to deal with. This maxim was fulfilled in all his work, and with special emphasis in his social housing projects, despite the temporal distance between the experience of the 1950s and the subsequent projects built almost thirty years later. That is, after all, the essence of Sáenz de Oíza's architecture: he multiplied the options, and therefore, the influences that he used to carry out his creative design process. His work can be studied and understood as a manual or summary of the architectural styles that interested him most at any particular time. Or more precisely, Sáenz de Oíza was able to condense and reflect the main concerns of his time (<<*Zeitgeist*>>) through his architecture.

In conclusion, it can be assumed that, fundamentally, the German, Dutch, English and American influences coexist in the work of Sáenz de Oíza, but there is also space for the Soviet, Latin American, French, Swiss and Italian references in this equation, the latter of which is most evident in his organic stage, situated immediately after the

social experience of the fifties, which is previously seen and felt in the colonies of *Batán* and *Loyola*.

The foreign influences studied by Sáenz de Oíza and later adapted to his own work allow us to understand his social housing as a whole, a process of experimentation and maturation of ideas and concepts that resulted in two blocks of lines of action that took place at the same time and complement each other, but they differ in the nuances: the work team, the type of customer or developer, the future user, the type of housing and the urban scale. His social housing models are therefore the result of a process of adaptation of several European and American influences –especially examples of the German *Siedlungen*– that he studied, assumed and transformed through the experimentation and their adaptation to his own project and its specific circumstances.

Fervent and intense advocate of a social and anonymous architecture, Sáenz de Oíza represented for the Spanish architecture of the second half of the twentieth century the permanent artistic and architectural risk, heterogeneity, ingenuity, freshness and modernity above all other considerations, and the enormous capacity to absorb, study and adapt foreign influences, from which he took those aspects that he regarded as valid for his own architectural experimentation. This personal and professional demand, which can be seen as a recurrent design method or a permanent and consistent attitude towards his own work, although it has sometimes been reviled for being considered inconsistent and even frivolous in its results, is evident throughout his career, even in his later works, when the age and illness did not allow him to work with the same force and intensity.

However, it is possible that Sáenz de Oíza would have surely remained true to his own style, and he would have neither confirmed nor denied these foreign architectural influences, even though there is no major architectonic truth than the architecture itself when it is honest and sincere. Why hide the influences or precedents behind a work or architect when they themselves tell us about them?

The architect Francisco Javier Sáenz de Oíza did not start from scratch, but came from previous attempts, approaches, studies, failures and successes. He was the real sum of all his architectural and artistic influences and references, his education, readings, trips and personal experiences. Just like Goethe.

Biographical Information on F.J. Sáenz de Oíza⁴⁸¹

- ★ Born in Cáseda, Navarre 12 October 1918 † Madrid 18 July 2000.
- ★ Graduated as Architect from the School of Architecture of Madrid on 31 July 1946.
- ★ PhD in Architecture from the School of Architecture of Madrid in 1965.
- ★ Long-term Professor at the School of Architecture of Madrid since 1968.

Scholarships and Awards

- 1946** <<Aníbal Álvarez Award>> for the best academic record.
- 1946** <<Carmen del Río Award>> granted by the *Royal Academy of Fine Arts of San Fernando*.
- 1946** National Architecture Prize for his project for the *Azoguejo Square*, Segovia.
- 1947-48** <<Conde de Cartagena Scholarship>> granted by the *Royal Academy of Fine Arts of San Fernando*, with a one-year stay in the United States.
- 1948** First prize in the *Latin American Basilica of Our Lady of Mercy* Competition, Madrid.
- 1949** First prize in the national competition for the *Sancturay of Our Lady of Arantzazu*, Oñate, Guipuzcoa.
- 1954** National Architecture Prize for his proposal for the *Chapel on St. James Way*.
- 1956** Second prize in the competition for the *New Headquarters of the Ministry of Industry and Commerce*, Madrid.
- 1956** Fourth place in the *Experimental Housing Competition*. Single-family dwellings, Carabanchel, Madrid.
- 1956** Fourth place in the *Experimental Housing Competition*. Block of dwellings, Carabanchel, Madrid.
- 1957** <<Eisenhower Scholarship>> (turned down voluntarily because of his work for the administration).
- 1957** First prize in the *Public Finance Ministry Delegation of San Sebastian* Competition.
- 1963** <<Aizpurúa Prize>> from the COAVN (Basque-Navarrese Official Architects Association) for best work of Architecture.
- 1969** Honorable Mention in the competition for the *Autonomous University of Madrid*.

⁴⁸¹ Note: Due to the absence of a public archive about Sáenz de Oíza, the biography described above has been produced and completed through other published (but incomplete) information about his life and work or the testimonials by some of his old friends, colleagues, and collaborators. These main sources of information are: CAMPO BAEZA, Alberto: <<El legado de un maestro: Francisco Javier Sáenz de Oíza = A Master's legacy: Francisco Javier Sáenz de Oíza>>. *Revista Menhir*, n.1. Publicaciones Menhir SL. Bilbao, Februar 2001. Print. pp.61-63; *El Croquis* 32/33. *Sáenz de Oíza. 1946-1988*, op.cit., pp.5-6; FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit.; ALBERDI, and SÁENZ GUERRA, op.cit.; SÁENZ GUERRA, *Francisco Javier Sáenz de Oíza, José Luis Romany, Jorge Oteiza : una Capilla en el Camino de Santiago = a Chapel on St. James Way : 1954*, op.cit., pp.42-43; FERNÁNDEZ NIETO, op.cit., pp.251-252; *Cinco proyectos de vivienda social en la obra de Oíza*, op.cit., p.20; *Francisco Javier Sáenz de Oíza: Escritos y conversaciones*, op.cit., p.139, and VELLÉS, JAVIER: <<Oíza, primera parte>>, op.cit.

- 1971 First Prize in the <<*Banco de Bilbao*>> *Head Office* Competition, Madrid.
- 1972 First <<COAM Prize>> for the best building between 1967-72 (<<*Torres Blancas*>> Apartment Block).
- 1972 Invited to join a restricted planning competition for the <<*Gran Kursaal*>> *Block* in San Sebastian.
- 1974 <<European Excellence Prize>>.
- 1976 Nominated Project for the *New Headquarters of the Architects College of Seville*.
- 1977 First Prize in the *Science Faculty* Competition, Cordoba.
- 1985 First Prize in the *Festival Hall* Competition, Santander.
- 1985 First Prize in the *Museum of Contemporary Art* Competition, Las Palmas.
- 1986 Proposed by several Spanish Architects Colleges for the <<Prince of Asturias>> Award.
- 1987 <<Gold Medal of Merit in the Fine Arts>>.
- 1988 <<Fundación Antonio Camuñas Award>>.
- 1990 Gold Medal from the CSCAE (Higher Council of the Architects College of Spain).
- 1990 First Prize in the Ideas Competition for the *Conference Centre of Marbella*, Málaga.
- 1993 <<Prince of Asturias for the Arts Award>>.

Teaching

- 1949-61 Assistant professor of Health and Hygiene of the Building at ETSAM, Madrid.
- 1952-60 Assistant professor of Architectural Projects at ETSAM, Madrid.
- 1958-61 Assistant professor of Architectural Projects II at ETSAM, Madrid.
- 1962-67 Professor in charge of Architectural Projects II at ETSAM, Madrid.
- 1968 Long-term Professor after competition exam.
- 1970-71 Chair of Architectural Projects III at ETSAM, Madrid.
- 1971-73 On leave between 20 January 1971 and 12 September 1973.
- 1973-86 Chair of Architectural Projects III at ETSAM, Madrid.
- 1981-83 Director of the Higher Technical School of Architecture of Madrid (ETSAM).⁴⁸²
- 1986- Professor Emeritus at Higher Technical School of Architecture of Madrid (ETSAM).

Architecture

- 1946 First job at the *Urban Planning Board of Madrid*.
- 1950 Participation in the "Sesiones de Crítica de Arquitectura" ("Conferences on Architecture") organized by Carlos de Miguel and COAM.
- 1948-57 Second stage at the *Urban Planning Board of Madrid*, where he became Director until 1957.

⁴⁸² Although he stopped giving classes at the School of Architecture of Madrid to be more concentrated on the work of his studio, he maintained his teaching activity through specialized classes and courses.

Built Work

- 1949 *Apartment building in Fernando <<El Católico>> Street, Madrid.*
- 1949-65 *Latin American Basilica of Our Lady of Mercy, Madrid.*
- 1950-55 *Sanctuary of Our Lady of Arantzazu, Oñate, Guipuzcoa.*
- 1954-57 *Puerta del Ángel Colony, Avenida de Portugal, Madrid.*
- 1955 *Relocation Settlement of Fuencarral <<A>>, Madrid.*
- 1955-63 *Batán Colony, Madrid.*
- 1955-57 *Erillas Colony, Madrid.*
- 1956 *Experimental Housing Competition, Carabanchel, Madrid.*
- 1956-60 *Directed Settlement of Entrevías, Madrid.*
- 1960-65 *Loyola Colony, Madrid.*
- 1958 *Santa María del Pozo Chapel for Father Llanos, Entrevías, Madrid.*
- 1957-61 *Calero Colony, Madrid.*
- 1959 *Parish Centre, Entrevías, Madrid.*
- 1959 *Gómez House, Durana, Vitoria.*
- 1960 *Lucas Prieto House, Talavera de la Reina, Toledo.*
- 1961-68 *<<Torres Blancas>> Apartment Block, Madrid.*
- 1961-63 *White City of Alcudía, Palma de Mallorca.*
- 1961-63 *School unit in Batán, Madrid.*
- 1963 *Exhibition Room for the <<Grupo Huarte>> Madrid.*
- 1968 *Juan Huarte House, Formentor, Mallorca.*
- 1970 *Bathroom prototype for ROCA.*
- 1971-78 *Bank of Bilbao Tower, Madrid.*
- 1971 *Arturo Echevarría House Madrid.*
- 1974 *Housing in El Saler, Dehesa del Saler, Valencia.⁴⁸³*
- 1975 *Faculty of Science, University of Cordoba.*
- 1979 *Housing in Orcasur, Madrid.*
- 1981-82 *Restoration architect for <<Santa María de León>> Cathedral, León.*
- 1985 *Intervention on the Museum of Contemporary Art, Las Palmas.*
- 1986-91 *Housing on the M-30 Highway (<<El Ruedo>>), Madrid.*
- 1986 *Proposal for the Universal Exposition of 1992, Sevilla.*
- 1986-87 *Villa Fabriciano, TorreloDONEs, Madrid.*
- 1986-87 *IFEMA Pavilions, Fairground Juan Carlos I, Madrid.*
- 1986-91 *Festival Hall, Santander.*
- 1987 *Technical advisor for the Spanish Embassy in Brussels.*
- 1987-91 *Sports hall, Plasencia, Cáceres.*
- 1988 *Single-family House, Cáseda, Navarre.*
- 1988 *Public University of Navarre, Pamplona.*

⁴⁸³ This project has never been published, although it appears referenced in Sáenz de Oíza's "study-book" (ALBERDI, and SÁENZ GUERRA, *op.cit.*, p.112) and dated in 1963, but with no graphic documentation. The author confirmed the existence of this project at the Municipal Historical Archive of Valencia on 29 February 2016, finding three files (n.7158, n.6188 and a third one with unknown number), all of which relate to a project dated in 1974 in Dehesa del Saler (Valencia), with two settlements and designed by Sáenz de Oíza and the Valencian architect Emilio Giménez Julián.

- 1988-93 *Triana Tower*, Sevilla.
- 1989 *Regional Government Office*, Mérida, Badajoz.
- 1990 *School of Public Administration*, Mérida, Badajoz.
- 1991 *Marbella Congress, Fairs and Exhibitions Centre*, Málaga.
- 1992 <<Grupo 800>> *Housing* in Valdebernardo, Madrid.
- 1992/03-08 <<A Laxe>> *Shopping centre*, Vigo. (Posthumous work)
- 1992-96/03 *Jorge Oteiza Foundation*, Alzuza, Navarre. (Posthumous work)
- 1993 <<La Triada>> *Office towers* for the National Brotherhood of Architects, Madrid.
- 1996 *Department of the Faculty of Law and Philosophy*, Ciudad Universitaria, Madrid.
- 1997 *Cultural Centre*, Villaviciosa de Odón, Madrid.

Unrealised Projects

- 1946 *Azoguejo Square*, Segovia.
- 1950 Proposal for the National Competition for the *Tax Delegation of Valencia*.
- 1953 *600 Houses in the Urbanization of the Manzanares River*, Madrid.
- 1954 Proposal for the *Chapel on St. James Way*.
- 1956 Proposal for the *New Headquarters of the Ministry of Industry and Commerce*, Madrid.
- 1956 Proposal for the restricted competition for the *Spanish Pavilion* in the New York Fair.
- 1957 *Horizonte Project*, Madrid.
- 1957 Proposal for the *Public Finance Ministry Delegation of San Sebastian*.
- 1958 *Rest and Convalescence House for the Hogar del Empleado*, San Rafael, Segovia.
- 1960 Competition for an *Open-air Theatre*, Santander.
- 1962 *Housing Project*, Cadiz.
- 1966 Proposal for an *Apartment Building on Paseo de la Castellana*, Madrid.
- 1968 Proposal for the *Autonomous University of Madrid Competition*.
- 1969 Proposal for the *University of the Basque Country-Lejona-Vizcaya*, Bilbao.
- 1969 *Villa Adriana* (Maria Josefa Huarte House), Mallorca.
- 1969 *Huarte Offices Building*, Madrid.
- 1970 International Competition for the *Entertainment Centre in Monte Carlo*, Monaco.
- 1972 <<Gran Kursaal>>, Playa de Gros, San Sebastián.
- 1972 <<Altos Hornos de Vizcaya>> Competition, Baracaldo.
- 1975 *Madrid National Auditorium Competition*, Madrid.
- 1976 National Competition for the *New Headquarters of the Architects College of Seville*.
- 1980 International Competition for the *Islamic Cultural Centre* in Madrid.
- 1983 Proposal for the <<Parque de la España Industrial>>, Barcelona.
- 1983 <<New Riaño>> Competition, León.
- 1984 Proposal for the *Olympic Ring of Montjuic* (Barcelona '92) Competition, Barcelona.
- 1986 Invited to participate in the Internacional Ideas Competition for the *Universal Exposition of Seville (Expo '92)*.
- 1987 *Madrid Stadium Competition*, Madrid.
- 1988 *Bilbao Underground Competition*, Vizcaya.

- 1990 *Anoeta Stadium* Competition, San Sebastian.
- 1990 *San Francisco Square*, Palma de Mallorca.
- 1990-93 <<La Alhóndiga>> *Cultural Centre*, Bilbao.
- 1992 *Housing Block in Fuencarral*, Madrid.
- 1992 <<Euskalduna>> *Conference Centre and Concert Hall* Competition, Bilbao.
- 1992 *New Coastal Area of Vigo* Competition, Pontevedra.
- 1994 *Arts and Culture Centre for the Regional Government of Madrid* Competition.
- 1995 Ideas Competition for an *Urban Park*, Basauri, Vizcaya.
- 1995 *Temporary Housing Competition*, Madrid.
- 1995 Draft Project for the <<Entrepinos>> *House*, Palma de Mallorca. Extension of the *Juan Huarte House*.
- 1995 Proposal for the *Etnographic Museum of Castilla y León* Competition, Zamora.
- 1995 International Competiton for the *Extension of the Prado Museum*, Madrid.

Unfortunately, and despite the efforts to complete Sáenz de Oíza's biography, the previous list remains uncompleted because some built projects and proposals have been duly published or the available information is contradictory. But in fact, this gaps and absences are somehow part of Sáenz de Oíza's essence and, for this reason, it is worthwhile to mention another appointment made by Juan Daniel Fullaondo:

"I believe that he has built more than what he remembers..."⁴⁸⁴

And one could also add that, without doubt, Sáenz de Oíza built more than what it has been told or published. But that would be another thesis.

⁴⁸⁴ FULLAONDO, *La bicicleta aproximativa: conversaciones en torno a Sáenz de Oíza*, op.cit., p.87. Translation by the author (R.J.J.).

Francisco Javier Sáenz de Oíza died in Madrid in 2000 after a painful cancer that was added to an advanced stage of Parkinson's disease. He left behind a wife and seven children –four of whom followed his professional steps–, many works of great value for the Spanish architecture of the second half of the twentieth century, as well as several generations of Spanish architects who he had taught at the School of Madrid and in his studio. Among them, Rafael Moneo. Considered by those who knew him as a man of culture and a humanist, Sáenz de Oíza, who never saw himself as an outstanding architect, lived his own work as an obsessive love. An anecdote told by his wife⁴⁸⁵ shows that almost unhealthy devotion: One day, after a serious operation and knowing that he was dying, Sáenz de Oíza made a lightning trip to visit the construction site of his last project, the *Jorge Oteiza Foundation* in Alzuza (Navarre). He flew in the morning and returned home at night. He died a few days after, leaving the Spanish architects collective quite orphaned. One possible way to summarize Sáenz de Oíza's professional life (and where appropriate, almost personal) is by quoting once again the words of his widow María Felisa Guerra:

“I know that he had a great time teaching and working on his own creative work. He was happy, he was passionate about it...But at the end of his life he said: 'Actually, I have not done anything'. And I replied to him: 'What do you mean you have not done anything? You have done what you liked, and very well indeed. And that is a lot'.”⁴⁸⁶

⁴⁸⁵ See: ARANGUREN, <<Capítulo IX: M^a Felisa Guerra>>. *La mujer en la sombra. La vida junto a los grandes hombres*, *op.cit.*, p.246.

⁴⁸⁶ GUERRA, M^o Felisa. In: ARANGUREN, *op.cit.*, p.246. Translation by the author (R.J.J.).

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- Fig.3.76, p.197:** [Downloaded from: GIRÓN MORANDO, Paloma: "Arquitectos-Diseñadores del Madrid Contemporáneo: Francisco Javier Sáenz de Oíza (1918-2000)". *PaH!ciencia Wordpress*. 19 September 2014. Web. 14 March 2016. Available on: <<https://pahciencia.wordpress.com/2014/09/19/francisco-javier-saenz-de-oiza-1918-2000/>>]
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