

The “Narkomfin” and “La Nao” apartments. Contributions to section 3-2

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The genesis of section 3-2

After the Russian Revolution of 1917, one of the most pressing problems was the housing shortage due to the sudden concentrations of workers brought about by the country's industrialization programs. The public authorities soon realized that, in a revolutionary society, a change of life would necessarily require the creation of new housing models. With this in mind, the “Mossovet”¹ launched a competition for communal housing in 1925. The competition was poorly attended, with no involvement of avant-garde architects and low-quality proposals. The first successful proposal came from the architects of the “OSA”², led by Moisei Ginzburg. In 1926 they began to publish their magazine “SA”³, through which, in its third issue, they called for a “Comradely Competition” among its members on preliminary designs for workers' housing. The aim was to create a new residential model, encouraging new relationships between users under the idea of community. Eight proposals were submitted, which were generally characterized by their assumption of the language of modernity and by the fact that they were open-plan buildings with special attention to common circulation spaces.

The great impact of the OSA's work in the “Comradely Competition” led the authorities to realize the need for serious residential research. For this purpose, the USSR Standardization Department at Stroikom⁴, headed by Ginzburg, was set up in 1928. The research work was a continuation of the one started for the “Comradely Competition” and, within a few months, several models of standardized residential cells were created. These housing types and their variations set the standards for the construction of subsequent residential buildings throughout the USSR. The projects developed in the Standardization Department were defined using arithmetical formulae for each of the types and allowed them to be compared. The method used was aimed at achieving objective results and questioning certain models' effectiveness.

The best results in terms of the established parameters of economy and quality were

accomplished by the peculiar type F, which intercalated the corridor between two dwellings with half-level floor slabs. A corridor located on the façade enabled access to the day area of the dwellings with a height of one and a half floor, by raising half a floor or lowering an entire floor. From the day area of the upper dwelling, the bedroom could be reached by going up a half floor. In the lower dwelling, access to the bedroom was on the same level. This type was the origin of section 3-2, which combines three and two floors in the same section served by a single corridor that, through one ascending and one descending route, is enclosed by the dwellings.

The F-type became the most popular housing model, and several buildings were built in accordance with it, but undoubtedly the most significant one was the “Narkomfin” building (Moscow, 1928-1930) by Moisei Ginzburg and Ignaty Milinis [Fig. 01]. The origin of this building was based on the superposition of the K-type and the F-type. Type K occupied the first and second floors and it was a duplex dwelling accessed through a corridor in the façade. Type F occupied the third, fourth and fifth floors. The building was built on pilotis, leaving the ground floor free⁵ [Fig. 02].

Other examples

Modernity would provide several examples of the use of section 3-2 [Fig. 03]. While the Narkomfin was being built, Hans Scharoun designed a residential building for the “Werkbundssiedlung” in Breslau⁶ (Poland, 1929) consisting of two types of flats for one and two people. These two types were located in two wings of the same building linked by a central body used as a kitchen and communal dining hall, as they had no kitchen. The larger wing, where the single-person dwellings were located, had three floors with a section very similar to that of the F-type Stroikom models. A side corridor gave access to the day areas of two dwellings, going up or down half a level. The night areas, which consisted of a small bathroom and bedroom, were reached from the day areas by going up or down another half level. The main difference with type F lay in the day area, since in this case, room height was only one floor and not one and a half.

A few years later, Wells Coates (1895-1958) would again propose a project with this type of 3-2 section, specifically the “Ten Palace Gate” building⁷ (London, 1939), acquainted with both the experience of the Narkomfin and Scharoun's proposal for Breslau. Coates would defend the 3-2 system, in line with the Stroikom conclusions, as a much more optimized section than the conventional duplex. The system, like the type F, has a corridor located on the façade from which one can access the day area of the dwellings with a height of one and a half floors, by raising half a floor or lowering an entire floor. From the day area of the upper dwelling, the night area is reached by going up half a floor. In the lower dwelling, the access to the night area is on the same level. The main difference with type F is based on the size of the dwellings: with the same section model, it has changed from minimal workers' housing to housing for London's bourgeoisie.

As a closer proposal in time, we find the residential building in “Hansaviertel” (Berlin 1957-1960) by Van den Broek and Bakema. It is a tower in which a large part of the dwellings is also on half levels. The difference in the section between this project and the previous ones is mainly based on the fact that the corridor is interior, as it also serves as access to the single-floor apartments on the same level.

The “La Nao” apartments

The case of the “La Nao” apartments (Jávea, 1962-1966) by Santiago Artal [Fig. 04] is particularly interesting for its comparison with the work in Moscow, as it is a little-known and much less studied work than the previous ones. Although we are aware that we are dealing with two works on very different scales and in very different urban contexts, we will try to make a comparative analysis that will enable us to highlight Artal's work within the architectural context of the early 1960s.

The Valencian architect promoted and designed apartments on the seafront as a continuation of the work and research carried out on the “Santa María Micaela” residential complex in Valencia (1958-1961). After the intense construction period of the Commercial Agents' Cooperative⁸, he sought a change of direction. Thanks to the publications of the time, Artal learned about the architecture being built in England and considered London to be the best place to grow as an architect. It was there that he began to work at the architectural firm of Yorke, Rosenberg and Mardall. It was a great studio with great projects, but, unfortunately, he had no opportunity to prove his worth, as his job was as a draftsman. Although some authors and even Artal himself said that he stayed several years⁹, the truth is that this period lasted less than a year and a half¹⁰. After not fulfilling his professional expectations, he decided to return to Spain and start a new enterprise on his arrival in Valencia: he decided to develop a block of apartments on a plot of land located by the sea that he owned in Jávea, a town in Alicante. With such an independent personality as his, this initiative allowed him to implement his ideas without experiencing any of the attrition caused by having to justify each of his decisions to a developer.

The initial objective was to build twenty-eight apartments for second residences, with large communal facilities and a dwelling on the ground floor for the property manager, large gardens, and an area for car parking. In the end, only sixteen apartments were built, and the ground floor was used for three more. The reason given was to take advantage of the magnificent conditions of the site. To achieve this, the use of section 3-2 was decisive, which was already part of the architect's references at that time. The Narkomfin building had a great influence on modern architecture, hence he was likely familiar with it. On the other hand, the building for the “Werkbundssiedlung” in Breslau¹¹ and the “Ten Palace Gate”¹² building had been published in *The Modern Flat*, in the first and second editions respectively. It seems reasonable to imagine that Artal had access to this book since he worked at the architectural firm of one of the authors, F.R.S. Yorke.

Circulations

The “Narkomfin” is an exercise in optimizing the common circulation spaces [Fig. 05]. Access to the dwellings is provided by two vertical communication cores, located at the ends of a six-floor longitudinal volume, which give access to two levels of corridors. The lower level, located on the first floor, gives access to the type K dwellings, and connects the block of apartments with the adjacent building for communal use. The second level provides access to the type F dwellings above and below the corridor, in a solution similar to the one used by Le Corbusier in the “Unité d’Habitation” but moving the access street to the interior of the building and without resorting to half-heights.

This ingenious system fully satisfies the ideals of modernity, as it ensures the optimal functioning of the circulations as if it were a machine. With the use of the minimum necessary means and the appropriate dimensioning of these means, access to all dwellings is possible.

The “La Nao” apartments are also a model of optimization of the circulation spaces [Fig. 06]. Access to the apartments is via a single vertical communication core, with a two-flight staircase and no lift, located on the southeast façade. The staircase gives access to two corridors open to the exterior, located on the first and third levels of the southwest façade, through which the apartments are reached. The block as a whole is an open system, based on the repetition of a module, which enables it to grow both in plan and in section. In fact, the constructed building has three fewer modules than the planned one, without this being detrimental to the use of the building. This is a very simple organization in plan, but very complex in section, which allows all the dwellings to enjoy their relationship with the sea in the same way [Fig. 07].

We could conclude that the similarity of the layout of the common circulations of the buildings in Moscow and Jávea, both in plan and in section, is a consequence of the strict application of the principles of the Athens Charter, but in fact, something important has changed. In the “La Nao” apartments, the pedestrian access route is a continuity between the street and the corridors, understood as elevated streets that, with a width of 2.60 m, in addition to being circulation spaces, are exterior extensions of the dwelling, spaces for relationships between neighbors and even potential play areas for children. In some way, the street is brought into the building, blurring the boundaries between public and private [Fig. 08].

This approach to the understanding of circulation spaces is linked to the cultural and architectural climate that prevailed in Europe in the 1950s. During these years, Existentialism was no longer just a philosophical current but became a cultural climate that brought about profound changes in architecture¹³. Humanism

permeated the new scenario and man became the center of attention. From the abstract and generic man of modernity, represented in Le Corbusier’s “Modulor”, we move on to a real, precise, imperfect man, with his views and experiences of specific spaces and times. In this context, the corridor, conceived as an elevated street, is no longer just a space with optimal dimensions to perform its function of communicating but becomes a space designed to be lived in, designed from the experience of the inhabitant who resides in it.

The interest in the experience of common spaces, already observed in the work of “Santa María Micaela”, places Arenal within a European current, revisionist of the standpoints of modernity, which, as far as residential architecture was concerned, was making interesting contributions in the England of the Smithsons¹⁴. Specifically, and regarding the way of understanding circulation spaces, the work in Jávea has many points in common with the approaches of projects such as the “Golden Lane” competition (London, 1952) by Alison and Peter Smithson, the “Park Hill”¹⁵ residential complex (Sheffield, 1953-60), by Jack Lynn and Ivor Smith, or the “Alton West”¹⁶ in Roehampton (London, 1955-1959), by the L.C.C. Architects Department, all of them heirs to Le Corbusier’s postulates in the “Unité d’Habitation”, with the substantial difference of having transferred the street to the façade, in an approach to circulations closer to the “Narkomfin”, the main reference of Le Corbusier’s work in Marseilles.

The domestic spaces

The duplex dwellings, associated with the first level of the “Narkomfin” corridor, have a very clear structure [Fig. 09]. The ground floor is used as a day area, with an entrance area where the staircase is located, a kitchen of strict dimensions, and a double-height living-dining room. The first floor has a bathroom and two bedrooms and is connected to the ground floor, from the circulation space, and from the main bedroom, through to the double height of the living-dining room.

But it is on the second corridor level where our interest is focused as it gives access to the type F dwellings, the origin of section 3-2. Both the ascending and descending dwellings maintain the same basic structure, consisting of an entrance space with a toilet on the same level as the corridor, a day area, with a simple kitchen and a living-dining room with a height of one and a half floors, and a night area, with a bedroom and a bathroom.

This section approach makes it possible to maintain a very clear structure of the dwellings, while at the same time increasing the feeling of spaciousness in the small domestic spaces, as diagonal views are generated between the different levels. The spatial generosity of the domestic space is striking, with double heights and one-and-a-half floor room heights in the day areas, in contrast to the limited dimensions of the communal circulation areas. The dwellings are small in plan but spatially rich.

In the “La Nao” apartments, the block is divided longitudinally into two sections: one for the day area and the other both for circulation corridors and for night areas on the levels above and below the two existing corridors. The connection between these zones does not occur on the same level: the central staircase of each dwelling produces a half-floor displacement between the night and day areas, generating dwellings developed on half levels [Fig. 10].

Section 3-2 only occurs in the lower part of the building associated with the first corridor level; a solution very similar to the one used by Hans Scharoun in Breslau. From the entrance landing, the user goes up or down a seven-step flight of stairs to reach the day area, consisting of a small kitchen, a living room, and a terrace. From this point, the user can continue up or down to reach the sleeping area on the third level, consisting of a bathroom and one or two bedrooms. From the second corridor level, the dwellings with ascending circulation have the same section as those associated with the first corridor level, consisting of three half levels. Those with descending circulation only have two-half levels.

The dwellings are associated with the strict modulation of the structure formed by 3.70 m bays, with 3.50 m of free space between walls. The types consisting of three half-levels are grouped two by two to allow for one of the dwellings to give more space to the other in the sleeping area, so that the two most common types, with one and two bedrooms respectively, are formed. The third type of dwelling, associated only with the second level of the corridor, is formed by two levels in which there is no specific bedroom space. There is a single unit in which the day and night areas coexist.

The arrangement of the day area is common to all apartments and reflects the original idea in the project of “all living rooms opening onto a large terrace overlooking the sea, fully receiving the Levant easterly breezes”¹⁷. This day area consists of a living-dining room facing the sea through a terrace with a parapet made of concrete block latticework, following a similar solution as in “Santa María Micaela”, which in this case provides a certain level of privacy without hindering the entry of the sea breeze into the dwellings.

In contrast to Moscow, dimensional generosity is not found in the dwellings but rather in the common circulation spaces. In addition to the underlying reasons for the use of housing as a second residence, we must add the change in mentality that occurred, in which relational spaces became a priority.

The use of the 3-2 system in residential architecture has given rise to different experiences that prove that the study of the section, using a system of half-heights, provides the possibility to increase the diagonal views inside the dwelling, enlarging the domestic space. It allows for segregation without severing and, at the same time,

establishes a hierarchy that facilitates a progressive transition from the more public to the more intimate. The dwelling goes from being associated with a plan to a three-dimensional element, improving the spatial conditions of the living environments. On the other hand, this solution has low performance in the ratio of the net floor area of the dwellings to the total built surface area, as well as having accessibility issues, as its circulations depend on an interior staircase.

The research carried out presents us here with the origins of the system and has allowed us to show a little-known work by Santiago Artal that, modestly, contributes to the study of a section that can still provide more results.

Although the “Narkomfin” and the “La Nao” apartments are an example of exploiting the benefits of section 3-2 to serve a project, the motivations are different in each case. In Moscow, the aim is to achieve a minimum optimal housing within an optimal system, applying criteria of economy and quality. In Jávea, Artal also seeks a ‘perfect machine’, but, at the same time, encourages spaces for interaction between neighbors and seeks to guarantee that all dwellings enjoy the surroundings equally. The place and the individual user have become a priority. In both experiences, the use of section 3-2 is not a purpose in itself, thus not the argument of the project as such, but a necessary means to achieve an idea.

The “Narkomfin” was a constant point of reference for modern residential architecture, and we believe that it should continue to be so for contemporary architecture. It is an attempt to vindicate the work in section as opposed to the simple floor plan layout of dwellings and shows us the importance of designing in the three dimensions that define the space.

The “La Nao” apartments are the result of a difficult balance between the specificity of the decisions taken with regard to the site and the autonomy of the specific solution that, regardless of the context, follows its own rules of conception and final formalization. There is no doubt that the *raison d'être* of the building is linked to the place where it is located, but at the same time, the approaches on which it is based could be transferable to other sites. The resulting spatial complexity is not the result of a disciplinary practice carried out by a trained and educated architect but arises as a response to a place, a program of needs, a way of building and a way of understanding common circulation spaces. In short, it is a response to the search for the best individual and collective living conditions in that place.

Biography

Ignacio Peris Blat (b. Valencia, 1972) has a PhD in Architecture and an associate professor by the Department of Architectural Projects of the ETSA-UPV. Develops the free practice of the

profession since 1997 and his work has been published in several specialized magazines: *Arquitectura reciente*, Valencia 2014-16; *Muestras de Arquitectura reciente en Alicante 2006-15*; *Biblioteca TC*. His research work, carried out at the UPV, has been published in *EGA*; *Cuaderno de notas*; *RITA*; *VLC*; *Estudios del hábitat*; *Revista de Arquitectura*; *ResMobilis*; *Laocoonte*.

Salvador José Sanchis Gisbert (b. Valencia, 1972) has a PhD in Architecture and an associate professor by the Department of Architectural Projects of the ETSA-UPV. Develops the free practice of the profession since 1998 and his work has been published in several specialized magazines: *Arquitectura reciente*, Valencia 2014-16; *Muestras de Arquitectura reciente en Alicante 2006-15*; *Biblioteca TC*. His research work, carried out at the UPV, has been published in *EGA*; *Cuaderno de notas*; *RITA*; *VLC*; *Estudios del hábitat*; *Revista de Arquitectura*; *ResMobilis*; *Laocoonte*.

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1. Soviet in Moscow.
2. Organisation of Contemporary Architects.
3. *Sovremennaiia Arkhitektura*.
4. Stroikom, abbreviation for Building Committee of the Russian Republic.
5. For further information on the SA magazine's Comradely Competition and Stroikom's research, see: Daniel Movilla Vega; Carmen Espejel Alonso, “Hacia la nueva sociedad comunista: la casa de transición del Narkomfin, epílogo de una investigación”. *Progreso, Arquitectura*, no. 9 (November 2013): 26-49.
6. Francis Reginald Stevens York; Frederick Gibbert. *The Modern Flat*, 1st ed. (London: The Architectural Press, 1937), 159-163.
7. *Ibidem*, 207.
8. The “Santa María Micaela” block of apartments was built between 1958 and 1961, with the architect's almost exclusive dedication.
9. Alberto Peñín dates the period of stay in London between 1963 and 1966. Alberto Peñín. *Valencia 1874-1959. Ciudad, arquitectura y arquitectos*. (Valencia: Escuela Técnica Superior de Arquitectura Universidad Politécnica de Valencia, 1978), 182.
10. The project for the “La Nao” apartments and the registration at the Jávea Town Hall are dated December 1962. In addition to this, documentation was found both at the Valencia and Alicante Architects' Associations, which certifies that Santiago Artal had been living in the city of Valencia since the beginning of 1963. His place of residence and professional office is located in the “Santa María Micaela” complex, at door 74 and door 3 respectively.
11. York; Gibbert, Op. cit. 159-163.
12. *Ibid.*, 207.
13. Ignasi de Solà-Morales i Rubio. *Diferencias. Topografía de la arquitectura contemporánea* (Barcelona: Gustavo Gili, 1995), 44.

14. See Carmen Jordá Such, “Arquitectura valenciana: itinerarios de la historia reciente”, *Geometría*, no. 13 (1st semester 1992): 47-48.
15. Reyner Banham, “Park Hill Housing, Sheffield”, *The Architectural Review*, no. 130 (December 1961): 402-410.
16. AA.VV., “Londres, Groupe d'immeubles. Roehampton”, *L'Architecture d'aujourd'hui*, no. 74 (October 1957): 46-49.
17. Text extracted from the preliminary architectural design. Artal Ríos, Santiago. “Anteproyecto de los apartamentos “La Nao”. December 1962. XA 583/3. Archivo Histórico Municipal de Jávea. Jávea (Alicante).

Narkomfin
“La Nao” apartments
Section 3-2
Santiago Artal
Housing