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Industrialization and Housing:
Images of Spanish Modernization
through the NO-DO newsreel
and the RNA Magazine (1953–1981)



Introduction

The period of 1953-1981 represented not only the most intensive interaction between the core Team X participants but also the incorporation of Spanish architecture into international modernity and tendencies about industrialization on housing. In 1953, when the nascent Team X attended CIAM congress in Aix-en-Provence in an official capacity (Risselada and van den Heuvel, 2005, p. 16) and the Francoist regime started to leave its international isolation by signing the so-called Pacts of Madrid and the Concordat with the Vatican, the Manifiesto de la Alhambra [Manifesto of the Alhambra] was published. This Manifesto highlighted the necessity of rational utilization of materials, the maximum sincerity on their use and their adequacy to the place, even when José Antonio Domínguez Salazar, among other architects, defended the use of new materials and industrialization when technical and economic conditions require them (Prieto Moreno et al., 1953). This publication shared more the temporary framework than objectives with coetaneous international discussions (Solana Suárez, 1994, pp. 72-73) and resumed the issue of the 5th National Assembly of Architects (1949), where the Spanish lack of industrial organization ruled out the integral prefabrication and favored the constructive mechanization to reduce the price of popular housing (Tema II. Construcción, 1949).

Meanwhile, the NO-DO entity (1943-1981), whose name was the abbreviation for Noticiarios y Documentales Cinematográficos [Newsreels and Cinematographic Documentaries], had celebrated the tenth anniversary since its first newsreel emission in January 1943. created by the Francoist regime for propaganda and dissemination purposes. Joaquín Soriano, first director of NO-DO, defined the communication aim of the newsreel pointing out that it had to inform, instruct and entertain, since it had to reflect every superior aspects of the life of Spain and abroad (Soriano, 1942, p. 7), as the own slogan of the newsreel underlined: "The entire world in reach of all Spaniards". Being shown mandatorily in every cinema of Spain until 1975, the NO-DO newsreel consisted of an informative show with a diffuse sense of actuality (Tranche and Sánchez-Biosca, 2000, p. 83) and a great thematic variety, where the institutional news took precedence. Following a similar format to previous foreign newsreels or actualities, the newsreel NO-DO was characterized by a duration of 10-11 minutes and contents organized into sections, which often included both varied international and national current information.

Architecture and construction usually appeared at the background of official acts as part of the State propaganda, linked with the Spanish economic reconstruction since describing the infrastructure supervision and introducing development and progress (Rodríguez Mateos, 2008, p. 62). According to Sánchez-Biosca and Tranche, NO-DO showed the news about technical and industrial development through inaugurations, exhibitions, trade fairs, starts of works, official visits, etc.

Frontispiece Heading of NO-DO newsreel and Cover of Revista Nacional de Arquitectura, n.° 136 (1953).

(1997, p. 122). Given that searching for architectural solutions to the lack of housing, firstly, and to the recovery of modernity, secondly, defined the decades of 1950s and 1960s (Sambricio, 2000, p. 85), the brief reports about new techniques and materials in residential construction contributed to disseminate this advances and professional researches to the whole population.

New materials

Even when the Modern Movement architects had the industrialization of the construction as a goal and they created a formal language in the spirit of the machine, it was not result of the real technique. The changes in the construction industry were greatly based on their theoretical works about normalization, pre-moulding and prefabrication (Smithson, 2001, p. 114). Because of the technical development during the second half of the 20th century, a new formal language based on the enjoyment of use for the architecture of an industrialized society was perfectly possible (Smithson, 2001, p. 130). Then, the members of Team X reevaluated the work of Gropius and their "attitude to the relationship between architect and industrial production" (Smithson, 1973, p. 12), considering that mass-production had already transformed the standard of living. For the Team X, construction technologies were the means to solve the problem of construction for the majority (Brian Bace Taylor cited in Baldellou, 1996, p. 58).

The Revista Nacional de Arquitectura (RNA) had an important role in spreading this technical modernization through many articles applied to housing in Spain. This magazine, which recovered its original name Arquitectura in 1959, was edited by the Madrid Official Association of Architects and directed by Carlos de Miguel until 1973. Likewise, NO-DO contributed to circulate these ideas about new constructive technology and standardized forms as part of the exchange of filmed materials with foreign newsreels and production companies maintained since its beginning.

Among the new materials developed, the plastic soon achieved a predominant role converted in object of attention not only for its association with industrialization process but also for its plastic qualities. At the same time that varied exhibitions about housing and cities of the future stood out these qualities, Roland Barthes (1991) stated that "the hierarchy of substances is abolished: a single one replaces them all: the whole world can be plasticized" (p. 99). The first time NO-DO presented this new architecture was in the piece of news about the Daily Mail Ideal Home Exhibition, which took place in London in 1956 (N.º 690A, 26/03/1956), where the fleeting shoots barely allowed to glimpse a partial vision of the House of the Future. This House, designed by Alison and Peter Smithson, was conceived as a real plastic showcase to display the intrinsic shapes of the new material (van den Heuvel and Risselada, 2007, p. 49) as much on the own building as on the objects and furniture contained on it. The previous year,

the magazine RNA had already highlighted the role that the industry plastic materials would have to satisfy the new trends of open floors and interior layout with lightweight and mobile partitions and the growing importance of prefabricated elements to the decentralization of the construction (Lantero, 1960, p. 39).

According to Mariano Bayón Álvarez, the architecture of the Smithson and other British architects, started the search of short-lived architecture, which made that the technical problems gained importance (1966, p. 71). This author analyzed the utopian architectures and industrialized buildings projected for the city of the future, such as the Metabolist and Archigram proposals, in his section "Thirty Days of Architecture" published in RNA between 1964 and 1968. Along the same thematic line, NO-DO exhibited the plans of Paul Maymont (N.º 1163C, 19/04/1965) City under the Seine (1962) and the Polyhedral House Maison 'Diamant', which the voice-over defined as a sort of housing units that could be multiplied horizontally or vertically, hanged from steel cables, for create both suspended and floating cities. However, Antonio Fernández Alba criticized the technical drift of these proposals, closer to typical utopias of science fiction than architectural rationality (1968, p. 21).

In 1971, the newsreel resumed plastic construction as a current issue with two brief reports: the presentation of the *Instant City* in the 7th International Congress of Industrial Design held in Ibiza (NO-DO N.º 1504A, 01/11/1971) and the IKA-71 houses (NO-DO N.º 1510B, 13/12/1971). In the first instance, NO-DO exhibited images of the tents built in polyvinyl chloride and designed by architect José Miguel de Prada y Poole. He declared that the project was created as a mere habitat but transformed into city when inhabited (Castro and Prada y Poole, 1968, p. 25) in an interview in RNA. It was published on a monographic issue dedicated to emergency social units, defined as the event architecture and characterized by the mobility and eventuality (Amón, 1972). including a drawing of the previous Instant City of Peter Cook, 1969. In the second example, NO-DO displayed the first great exhibition of housing prefabricated entirely with plastic, under the name of IKA-71, held in Lüdenscheid, Germany. It included thirty prototypes, such as Bio-DOM and Algeco, and models of experimental capsules, such as

Fig. 1 Frames of the NO-DO N.° 1504A, 1971. Ibiza.



Futuro house (1967, Matti Suuronen), Orion (1956, Jean Maneval), Rondo (1968, Casoni brothers) and 3 H Design (P. Hübner, J. Beieler, P. Breitenbücher and R. Schneider).

As the aim of the Team X was "utopian about the present" (Smithson, 1974), these projects and prototypes understood the city as a utopian artefact, where machinery and industrialization were the support to achieve this new way of living, in contrast to the initial proposal of Le Corbusier within the house as a machine for living.

Prefabricated elements

The dualism between housing prototypes and new prefabricated elements appeared in Spanish information assimilated the differences noted by Alison and Peter Smithson between complete unities with a limited function and mass production of building components (2001, p. 116), which in turn picked up the principles of Gropius about the potential of technology to improve the general living conditions (Seelow, 2018). From the 1950s, the Spanish professional magazines spread different foreign solutions of affordable housing to adequate them to national conditions (Casinello, 2000, p. 29), recovering both a thematic already addressed by the NO-DO newsreel and by previous researches and studies. Therefore, NO-DO broadcast the Canadian aluminum folding and removable houses built for the European reconstruction in 1946 (NO-DO N.º 169B, 01/04/1946) and RNA published the studies of Jesús Carrasco Muñoz about mechanization in the construction, winner of the International Contest of Prefabricated Housing organized by the Technical Institute of the Construction and Concrete in 1949.

Nevertheless, it was since the Contest for Building Experimental Houses in 1956, when official organisms assumed rationalization of the construction and normalization of the prefabrication elements as the means to achieve the numbers of the successive National Plans for Housing (1944-1954, 1956-1960, 1961-1976). Concurrently, since the creation of the Ministry of Housing in 1957, the State policy encouraged the introduction of private property developers, which accordingly favored profitability and rapidity on housing construction. The newsreel spotlighted the governmental interest on the modern techniques through the trip of Minister José Luis Arrese to Paris in 1959, where he visited some constructions, learned about a prefabrication system for reconstruction and announced 25.000 prefabricated houses for Madrid (N.º 875B, 12/10/1959).

The State interest in foreign models justified the enthusiastic informative that NO-DO evinced introducing the inauguration of the Interbau 1957, International Building Exhibition held in Berlin in 1957 (N.º 759B, 22/07/1957). The NO-DO voice-over stood out the bold line of these blocks of Hansaviertel neighborhood, as a renovation attempt to modern construction problems, simultaneously showed with views of the blocks, as the one designed by Niemeyer still under construction. Despite being one of the scarce examples when the newsreel and

professional magazines addressed the same architectural projects, their receptions differed notably. Thus, in the tepid "Architecture Critical Session" in the RNA in 1958, Spanish architects expressed certain indifference about housing solutions, understanding that Spain was at the same level, although they admired the collaboration between different sectors to enable the urban neighborhood. Instead, the focus of José María Chiapa about how limited income housing could follow their materialization from scratch, through materials in prefabricated pieces (Domínguez Salazar, 1958, p. 29), approached NO-DO standpoint and the work of Fernando Cassinello (1957) in *Informes de la Construcción*.

Due to the lack of cinematographic news about Spanish prefabricated housing until the second half of the 1960s, the newsreel broadcast the prefabricated houses in Florida (NO-DO N.º 935B, 05/12/1960) and Vienna (NO-DO N.º 963C, 19/06/1961) like models of these future edifices, which were similar to the proposals awarded at the Contest of Prefabricated Houses launched by the Informative Center of Construction of Barcelona in 1961 (Viviendas prefabricadas, 1962). Simultaneously, *Arquitectura* published the preparatory studies of Rafael de la Hoz for a Plan of industrialized housing construction (1960), which established a completed panorama of European manufactured systems and allowed Spanish architects apply foreign experiences.

The report about Ciudad Bellvitge in Hospitalet, Barcelona, that NO-DO (1294Å, 23/10/1967) exhibited framed in the section "Spanish news", was the most significant one referred to the Spanish prefabrication. It showed all the constructive process, from the manufacture of the prefabricated enclosure and structure panels to their placement in the building, ending with images of both inhabited interiors of the homes and exterior views of the finished blocks. These latter ones were close to the photographs published in the monographic issue of *Arquitectura* magazine about prefabrication and industrialization (Realizaciones de prefabricación en España, 1973) and, they, together with Besós and Montbau neighborhoods, were also part of the piece of news which opened the newsreel NO-DO N.º 1337Å (19/08/1968) about the residential areas built by the Municipal Board of Housing in Barcelona.

Fig. 2 Frames of the NO-DO N.º 1294A, 1967. Hospitalet (Barcelona).



In the 1970s, NO-DO exemplified the speed, easy set up and decrease in the price of housing due to the industrialization through the assembly of series of sheets to form the walls, roof and floor of a prefabricated house in England (NO-DO N.º 1498B, 20/09/1971). The approach of this news was similar to the anecdotal character used to present prototypes and singular houses and contrasted with its prior presentation of the Edificio Girasol by José Antonio Coderch (NO-DO N.o 1296A, O6/11/1967), in one of the rare occasions where NO-DOinterviewed an architect. NO-DO pointed out his preoccupation with interior distribution, tenant independence, comfort and its fine solar conditions, all of which condensed some ideas of the Team X, where Coderch belonged. Furthermore, NO-DO cited its novelty already emphasized in a session with architects and art critics that might refer to the "Architecture Critical Session" published in Arquitectura (Coderch et al., 1967), in one of the few interferences between the newsreel and the professional magazines.

Fairs and exhibitions

Since the fairs had an important part in the propagandist discourse of the Regime, as showcase and scenography of industrial products dissociated from their manufacturing process and daily use (Tranche and Sánchez-Biosca, 2000, p. 232), NO-DO often included them to make public industrial transformations and technical progress of State politics. Thus, the newsreel reported the 1st International Exhibition of Construction, held in Madrid in 1962, through both its construction works (NO-DO N.º 1026B, 03/09/1962) and later inauguration (NO-DO N.º 1033C, 22/10/1962), underlining the participation of some foreign countries. NO-DO recovered its slogan "New machinery, new elements, new materials", also highlighted in *Arquitectura* (Bajo el lema..., 1962), to introduce the 4th International Fair of Construction and Public Works - FICOP 71 (NO-DO N.º 1478A, 03/05/1971).

Just like fairs, NO-DO broadcast the abroad awards as national success, such as the piece of news about the prize won by Eusebio Zuloaga Amat in the Inventor Show in Brussels in 1970. The voice-over used this waterproofing layer for building roofs to brag about the efficacy and quality of the Spanish research centers (NO-DO

Fig. 3 Frames of the NO-DO N.º 1478A, 1971. Madrid.



N.º 1425A, 27/04/1970), while the images showed the chemist talking with a building model, laboratory tests and laying the waterproofing sheet on the roof of a residential block.

In a wider professional context, the International Exhibitions of Construction belonged to debates at international congresses and specifically to the 6th and 7th Congresses of the International Union of Architects (UIA), held in London in 1961 and in Havana in 1963, respectively. The first one, focused on new techniques and materials and their influence over architecture, was reported in *Arquitectura* outlining the need of continue the researches into industrialization to solve housing problems besides providing happiness to their inhabitants (Christiaens, 1961). However, NO-DO only reviewed the 12th UIA Congress, held in Madrid in 1975 under the title of "Creativity and Technology", together with the Exhibition *Polonia de Hoy* [Poland Today] (NO-DO N. o 1688A, 19/05/1975).

Gradually, techniques and constructive process lost importance in architectural dissemination and stop being relevant piece of news in both media, because of their own parallel changes and because "in the 'seventies there is no longer in many cases an economic argument in favour of using mass-produced building components" (Smithson, 1973, p. 65). Arquitectura, which had dedicated a last monographic issue to the industrialization and prefabrication (110) in 1968, started a new stage with the replacement of Carlos de Miguel as director in 1973. For its part, since NO-DO was transformed into Revista Cinematográfica [Cinematographic Magazine], subordinated to television in 1968, it only addressed deeply the constructive thematic on its news about International Fairs of Construction and Public Works FICOP in 1969 (NO-DO N.º 1399B, 27/10/1969) and 1975 (NO-DO N.º 1709B, 13/10/1975). Moreover, with the end of the Francoist regime which had originated it, NO-DO lost its mandatory exhibition in 1975 and progressively its informative character until its disappearance in 1981. This same year, the death of Jaap Bakema ended the regular chronology of the Team X because of their loss of momentum in their search for architectural synergies.

Conclusions

As it was to be expected, the pieces of news showed by the NO-DO newsreel and published by professional magazines, as Revista Nacional de la Arquitectura, approached differently the industrialization on housing, since both media belonged and were directed to different fields and publics. However, this shared thematic offered a wide panorama of the constructive evolution of the residential architecture over almost three studied decades, when the Spanish architecture recuperated its path towards modernity (Sartoris, 1971, p. 45).

On the one hand, the professional magazines were private funded, developed by and for architects and focused on giving specific solutions to the lack of housing in Spain by analyzing both foreign novelty and

national contests and fulfillments to get an applicable answer to the new buildings. On the other hand, the newsreel, which was State funded as a tool of propaganda and addressed to an uneducated general public, principally disseminated foreign prefabrication and techniques as role models and curious news about technical novelties, while Spanish industrialization appeared in fewer occasions, such as relevant buildings or being part of State achievements presented at national fairs and exhibitions.

Even when NO-DO addressed the architectural issues from the lightness and an anecdotal point of view, with the technique as aspiration, the indiscriminate information of its news (without selection, organization or professional advice for address the architectural topics) provided pedagogical contents to society, since its lacking specific documentaries about the evolution and configuration of the cities and architecture. Nevertheless, these cinematographic images in movement incorporated the constructive process, which provided a certain education and architectural background. Furthermore, the filmed images of the new construction processes and industrial prototypes contributed to bring the debates and coetaneous researches about housing, as those from Team X, closer to society.

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