

## CORVI, RATIONALIZED HOUSING TYPOLOGIES: AN EXERCISE IN STANDARDIZATION

CORVI, tipologías de viviendas racionalizadas:  
Un ejercicio de estandarización

CORVI, tipologias de habitação racionalizadas:  
Um exercício de padronização

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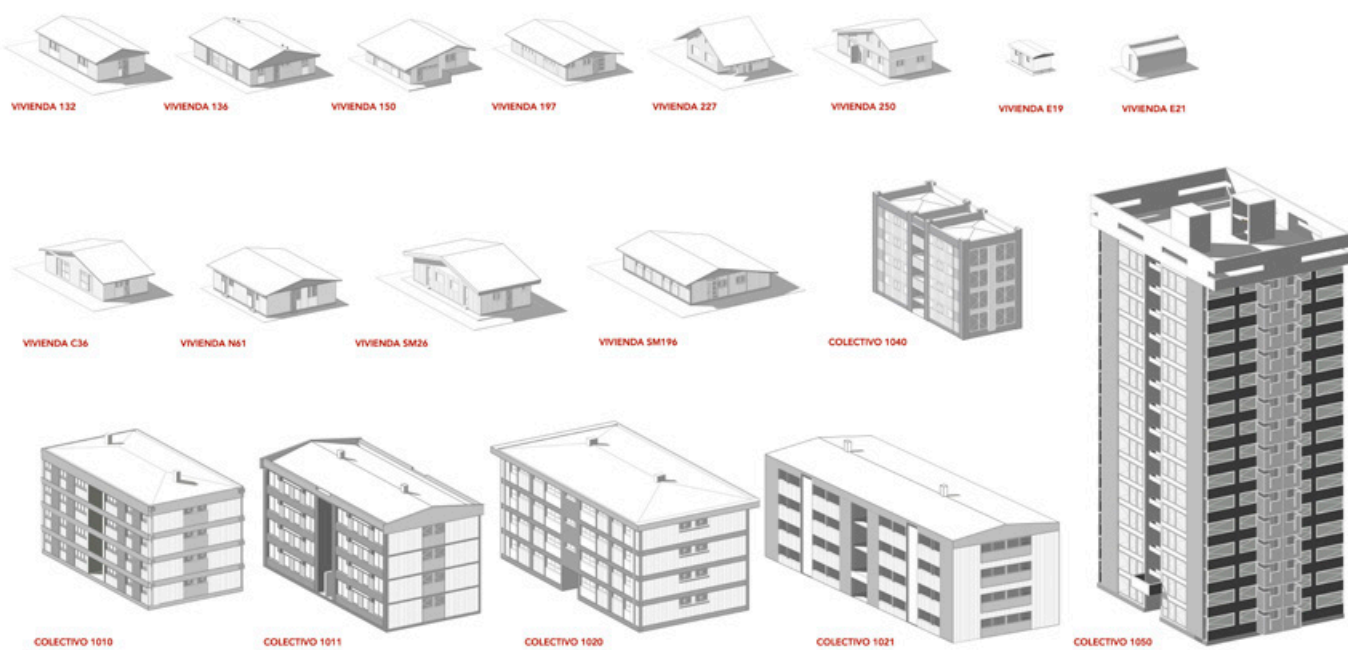
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This article is the result of the project "Obras de Especulación. Prototipos y Tipologías diseñadas y construidas por CORVI entre 1966 y 1972", FONDART N° 547745, financed by the National Fund for Cultural Development and the Arts, Line of Research in Architecture.

Housing typologies designed by CORVI between 1966 and 1971.

Source: Own elaboration based on data contained in Rationalised housing typologies 1966-1972 (CORVI, 1972).



## ABSTRACT

The social housing designed by the teams of the Corporación de la Vivienda (CORVI) constitutes a material presence of enormous influence within Chilean society and within the community of architectural practices. This paper observes the work of these teams, by analyzing the information contained in the CORVI document called "*Tipologías de viviendas racionalizadas 1966-1972* (Rationalized Housing Typologies 1966-1972)", which provides data on the shapes, dimensions, materials, and programs of eighteen housing typologies developed by the design teams between 1966 and 1971. Not all of these prototypes were built, but as a whole, it shows how the idea of social housing rationalization was conceived, and how it became an exercise in standardization, based on typologies, from which it is possible to learn both the forms of order and layout of everyday life that they propose, along with the interpretative flexibility used in their communication.

**Keywords:** Typologies, housing, prototype, standardization, CORVI

## RESUMEN

Las viviendas de interés social diseñadas por los equipos de la Corporación de la Vivienda (CORVI) constituyen una presencia material de enorme influencia dentro de la sociedad chilena y dentro de la comunidad de prácticas de la arquitectura. El presente trabajo observa la labor realizada por dichos equipos a partir del análisis de la información contenida en el documento *Tipologías de viviendas racionalizadas 1966-1972*, de CORVI. Éste entrega datos sobre las formas, dimensiones, materialidades y programas de dieciocho tipologías de viviendas elaboradas por los equipos de diseño entre 1966 y 1971. No todos estos prototipos llegaron a ser construidos, pero su conjunto da cuenta de cómo se concibió llevar a lo concreto la idea de racionalización de las viviendas de interés social, y de cómo ello devino en un ejercicio de estandarización, basado en tipologías, del cual es posible aprender tanto las formas de orden y disposición de lo cotidiano que propone, como la flexibilidad interpretativa que utiliza en su comunicación.

**Palabras Clave:** Tipologías, vivienda, prototipo, estandarización, CORVI

## RESUMO

As habitações de interesse social projetadas pelas equipes da Corporación de la Vivienda (CORVI) constituem uma presença material de enorme influência na sociedade chilena e na comunidade de práticas arquitetônicas. O presente artigo observa o trabalho destas equipes mediante a análise das informações contidas no documento do CORVI "*Tipologías de viviendas racionalizadas 1966-1972*" (Tipologias de habitações racionalizadas 1966-1972), que fornece dados sobre as formas, dimensões, materialidades e programas de dezoito tipologias habitacionais elaboradas pelas equipes de design entre 1966 e 1971. Nem todos estes protótipos foram construídos, mas o conjunto mostra como a ideia da racionalização da habitação de interesse social foi concebida e como se tornou um exercício de padronização, baseado em tipologias, a partir do qual é possível aprender tanto as formas de ordem e disposição da vida cotidiana propostas, como também a flexibilidade interpretativa utilizada em sua comunicação.

**Palavras-Chave:** Tipologias, habitação, protótipo, padronização, CORVI

## INTRODUCTION

Standards are invisible things said Susan Leigh Star (2002), one of the pioneers in her study on sociology, but they are behind almost everything around us. If we turn the way we see things around, it is possible to note how these hold the performative contents of all the material forms that accompany us. This gives standardization a key role in the social and cultural life of modernity, not just as an explanation of the similarity and replicability of its objectual solutions, but also as a means of coordination, where material practices allow speculating about the future (Esguerra, 2019; Hölscher, 2019). The material worlds of modernity, its industrial and urban worlds, were built with standards embedded in them, as a semiotic way that allows thinking in and with them (Galaz, 2019; Law & Mol, 2020).

Standardization processes, Lampland and Star (2009) say, arise from the need of having technical agreements that help to speed up procedures, regulate actions, obtain specific results or avoid damage. They are related to the quantification, the formal modeling, and the extraction, reuse and classification of data; they express the organization of technical agreements about the work, tasks and conditions, that need to be replicated to obtain quantitative and formally similar results. Standards allow that agreements about work and their results are displaced in an objectual way in time and space, replicating themselves in different realities.

If work is interaction (Hughes, 1989), the standardization processes that make relocating the work within different and distant situations possible, are a sort of remote interaction (Latour, 1987). In this sense, one of the characteristics of standards is that they consider different degrees of delegation, so that, despite standardizing material practices, they are interpretatively flexible. For this reason, Star (2002) states that they are intensely local and affect very specific communities in very specific contexts, regardless of the global ranges that their scope may have.

This article analyzes the document *Rationalized housing typologies 1966-1972* as a case that shows how the project design teams of the Housing Corporation (CORVI under its acronym in Spanish), sought to limit the interactions involved in the selection work, the construction and the habitability of social housing, by rationalizing their materials, floorplans and types. These teams followed the guidelines that the architect, Héctor Valdés first, and then the architect Hiram Quiroga, had engraved into the housing policies from the Executive Vice-Presidency of the corporation (Sepúlveda & Carrasco, 1991; Gámez, 1999). Not all the designs prepared as typologies and included in the aforementioned text were finally built, but clearly their purpose was to guide both housing production and the later living in them, and the sociality that emerged from their building complexes.

This work addresses the document mentioned as a response to an issue that came “from the 1954-1960 period, [where] housing design was needed to renew mass-scale policies. The private sector was entrusted through public tenders. This brought with it a renewal and incorporation of more contemporary urbanistic criteria in the living action, and at the same time, a deterioration of the technical teams. In the 1964-1970 six-year period, some steps were made to correct the anarchy of housing types and a rationalization of them was sought, like dwelling 132, in semi-detached houses and block 1020, as a building” (Quiroga, 1972, p. 42). In this context, the design teams of CORVI, created prototypes, considering as an input, the complexes built before 1966.

The first result of this design exercise was seven prototypes that corresponded to five semi-detached and two collective high-rise dwellings, that largely explain the housing built under the governments of Eduardo Frei and Salvador Allende (CORVI 1969; 1972a), despite them having different politi-

cal views. By 1971, the original prototypes were revisited, a process that led to another four semi-detached housing types, four new collective high-rise buildings, including a sixteen floor building and two types of emergency housing. The document *Rationalized housing typologies 1966-1972* shows these, where the designs are presented indistinctly, as housing prototypes and typologies, prepared under the perspective of rationalization, aiming at their wide-scale and mass-produced replication.

Although CORVI's work was typically published in brochures with a general text, along with production information and photographs by CORVI's Public Relations Office (1969, 1972a), these prototypes were published under the signature of the Sub-Department of Design, with detailed information about their floorplans, heights, dimensions, materials, and the teams responsible, on scales of 1:1000 and 1:2000, and without any other text other than an editorial by the Head of the Sub-Department. José Quintela affirms that this constitutes "the architectural testimony of the rationalization process of typified Housing Design, for a repetitive, mass-produced, national scale use" (CORVI, 1972b). All the above helped to define this document as the corollary of a design exercise that managed to establish similar parameters for housing shapes, materials, dimensions and floorplans, accounting for a standardization process that also presents a sufficiently flexible framework for its adaptation and replicability in different local situations.

## METHODOLOGY

In order to determine the type of standardization that characterizes the design exercise analyzed, the information of each housing prototype in the *Rationalized housing typologies 1966-1972* (CORVI, 1972b) was systematized. This information was grouped in four aspects: shape, materials, dimensions, floorplans. This allowed verifying the ways in which the prototypes were similar, and also the ways in which their differences were organized. The results of each one of the aspects mentioned are shown below, and conclusions are proposed about the type of housing standardization that characterized the construction rationalization agenda of CORVI.

## SHAPE

As has already been said, the document, *Rationalized housing typologies 1966-1972*, gathers systematic information about eighteen housing prototypes designed between 1965 and 1971. Their origin comes from the design departments of CORVI, whose structure varied over the two periods mentioned, even though most of its members were involved in both. In the 1964-1970 period, the design department considered a north, central and south division, following the climatic and geographical divisions that are normally used in the country, which led to a "regionalized" sense of what the prototypes mean which affected the material choices of each one [Table 1]. The teams were unified in the Sub-Department of Design as of 1971, and the production experience of the 132, 136, 1010 and 1020 prototypes, which spread over the entire country, pushed aside the regionalized indication as it was irrelevant.

The architect Rafael Moneo, defines "typology" as "that concept that describes a group of objects characterized on having the same formal structure" (1978, p. 190). Under these terms, the document uses the term "typology" to indicate whether the prototype corresponds to a semi-detached dwelling, which generally corresponds to semi-detached houses [Figure 1] or a detached collective (block or building) one [Figure 2]. The houses are semi-detached, or better said, contain two semi-detached housing units. Collective housing is classified as a "detached typology", even though they have semi-detached housing units, that share a same wall.

José Quintela (1972), in his introduction to *Rationalized Housing Typologies 1966-1972*, uses the terms “typologies” and “prototypes” interchangeably to refer to the eighteen designs, but the document also uses the term “typology” to indicate whether this is a semi-detached house or a detached building. Regardless of this, and following the definition of Moneo (1978), the document offers four complexes with internal structural similarities: semi-detached (houses), collective high-rise (four or more floors), and emergency (units with a single floorplan) dwellings. In this sense, it is worth pointing out that collective 1050, which is a residential 16-story building, should be considered as a different shape to the collective high-rise buildings, which correspond to four-story housing blocks. The fact that both shapes are considered within the same typology reveal that their structural similarity is also an epistemological link: both are part of the same collective housing standardization exercise and of a similar project reflection.

**Table 1**

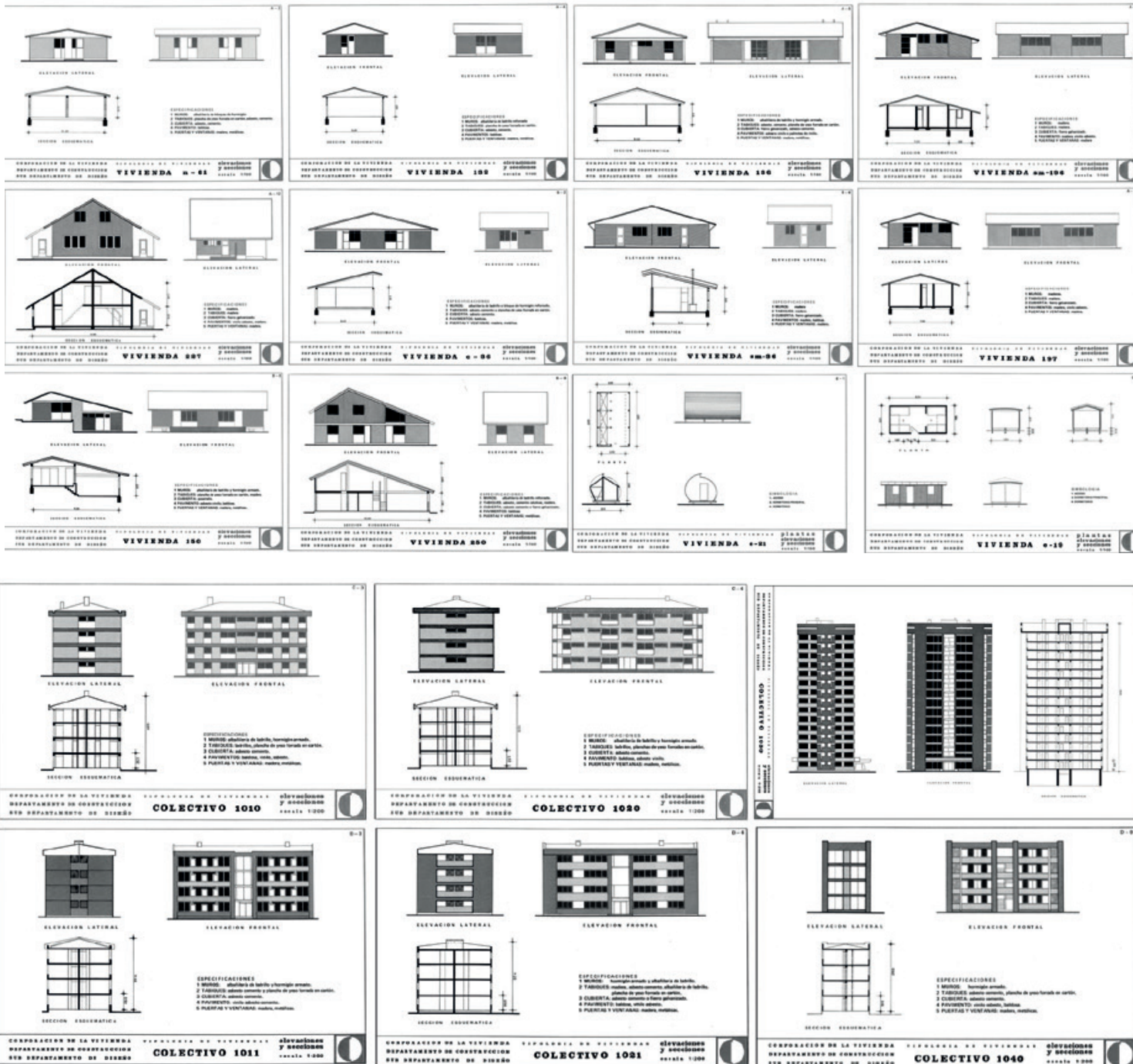
General data on the shape aspects of rationalized housing prototypes. CORVI 1965-1972.  
Source: Preparation by the Authors using CORVI (1972b).

Type	Prototype	Year of Design	General Aspects					
			Origin	Design	Use		Construction System	Typology
A. Semi-Detached Housing 1966-1970	N 61	1967	South Department	Rationalized	Regionalized	North Zone	Tradicional	Semi-detached
	132	1966	Central Department	Rationalized	Regionalized	Not indicated	Tradicional	Semi-detached
	136	1966	Central Department	Rationalized	Regionalized	Not indicated	Tradicional	Semi-detached
	sm-196	1966	South Department	Rationalized	Regionalized	South Zone	Semi-Industrialized	Semi-detached
	197 SM	1966	South Department	Rationalized	Regionalized	North Zone	Semi-Industrialized	Semi-detached
	227 SM	1966	South Department	Rationalized	Regionalized	South Zone	Tradicional	Semi-detached
B. Semi-Detached Housing 1971-1972	C-36	1970-1971	Manuel Montt Design Dept.	Rationalized	Regionalized	Central Zone	Tradicional	Semi-detached
	SM-36	1971	South Department	Rationalized	Regionalized	No information	Semi-Industrialized	Semi-detached
	150	1972	Sub-Department of Design	Rationalized	Regionalized	Central Zone	Tradicional	Semi-detached
	250	1972	Sub-Department of Design	Rationalized	Regionalized	Central Zone	Tradicional	Semi-detached
C. High-Rise Collective - 1966-1970	1010	1965	Studies Department	Rationalized	Regionalized	All the country	Tradicional	Detached
	1020	1965	Studies Department	Rationalized	Regionalized	All the country	Tradicional	Detached
D. High-Rise Collective - 1971-1972	1011	1972	Sub-Department of Design	Rationalized	Regionalized	All the country	Tradicional	Detached
	1021	1971	Sub-Department of Design	Rationalized	Regionalized	All the country	Tradicional	Detached
	1040	1972	Sub-Department of Design	Rationalized	Regionalized	Central Zone	Tradicional	Detached/Semi-detached
	1050	1972	Sub-Department of Design	Rationalized	Regionalized	Central Zone	Tradicional	Detached/Semi-detached
E. Emergency Housing	e19	No indica	-	-	-	-	-	-
	e21	No indica	-	-	-	-	-	-



**Figure 1**  
Semi-Detached Housing Typology designed in CORVI between 1966 and 1971.  
Source: CORVI (1972b, p. A1-E2).

**Figure 2**  
Collective High-Rise Housing Typology designed in CORVI between 1966 and 1971.  
Source: CORVI (1972b, p. C1-D14).



## MATERIAL

In a 1969 document titled "Housing Corporation", published by the CORVI Public Relations Office, it is stated that "the materials that CORVI uses in the building of dwellings are the following: cement, sand, gravel, iron, wood, slate, vulcanite, metal windows and frames, single and double-glazed windows, tiles and vinyl plastic, copper piping; in electricity: steel and plastic tubes; sliding hinges and locks; plumbing fixtures, and paint. All locally made" (CORVI, 1969, p. 1). Contrary to this non-specific style, the document *Rationalized housing typologies 1966-1972* establishes the material used in walls, partitions, roofs, slabs, doors and windows for each prototype, which allows checking that, although there is a given number of materials that are repeated in the complex, there are also choices that are specific to each prototype and their eventual location [Table 2].

As can be seen in Table 2, there are not many variations of material composition, although constructively speaking, these are significant. The mix between brickwork and reinforced concrete is privileged in walls in almost all the typologies, except for the smaller housing versions and the emergency dwellings, where wood is chosen. In the partitions, drywalling and asbestos cement are mainly used, that are also used on the roofs and slabs, as well as with the tiles. These specifications assign alternatives, not closed material compositions, as such there is no detail about the amounts to use in each prototype. What can make the difference is the price and geographic availability, so that the prototypes are materially open, depending on the available budgets. An example of the latter is that, on roofs, "asbestos, cement" are spoken about interchangeably, as if they were two different materials, and "asbestos cement" as if it were just one, which can be understood as part of the interpretative flexibility needed for the prototypes to adopt to different concrete situations.

Two construction systems are outlined in *Rationalized housing typologies 1966-1972*: the traditional, which implies that each situation is resolved by the respective construction companies; and the semi-industrialized, which deals with housing with mass-produced panels that are assembled locally (Aguirre, Cañas & Vergara, 2015). Just as happens with the so-called fluid technologies (Redfield, 2016), the housing prototypes show two different, but not contradictory epistemological movements. They are part of a standardization process that implies a limitation of the shape, function and material options of the work and, at the same time, the heterogeneity of the world interpretations is open. The variations require a base. Standardization displaces this base in all directions, as part of an evolution process. While the adoption of the governmentalized typological standard in the design and construction of housing, also helps their displacements and their adaptations. Standardization does not close off the design, since the standard opens up technology to local adaptation.

**Table 2**

Material specifications of rationalized housing prototypes, CORVI 1965-1972.  
Source: Preparation by the authors using CORVI (1972b).

Type	Proto-type	Year	Specifications					Presence of Asbestos
				Partition	Roof	Flooring	Doors and Windows	
A. Semi-Detached Housing 1966-1970	N 61	1967	Concrete block masonry	Drywall, asbestos, cement	Asbestos, Cement	Tiling	Wood, Metal	Yes
	132	1966	Reinforced brick masonry	Drywall	Asbestos, Cement	Tiling	Wood, Metal	Yes
	136	1966	Reinforced concrete and brick masonry	Drywall, asbestos, cement	Asbestos Cement, Galvanized Iron	Asbestos vinyl or vinyl tiles	Wood, Metal	Yes
	sm-196	1966	Wood	Wood	Galvanized Iron	Wood, asbestos vinyl	Wood	Yes
	197 SM	1966	Wood	Wood	Galvanized Iron	Wood, asbestos vinyl	Wood	Yes
	227 SM	1966	Wood	Wood	Galvanized Iron	Wood, asbestos vinyl	Wood	Yes
B. Semi-Detached Housing 1971-1972	C-36	1970-1971	Reinforced concrete block or brick masonry	Drywall, asbestos, cement	Asbestos, Cement	Tiling	Madera, Metálica	Yes
	SM-36	1971	Wood	Wood	Galvanized Iron	Wood, Tiling	Wood	No
	150	1972	Reinforced concrete and brick masonry	Drywall, wood	Slate	Asbestos vinyl, tiles	Wood, Metal	Yes
	250	1972	Reinforced brick masonry	Asbestos, Cement, Wood pulp, Wood	Asbestos Cement, Galvanized Iron	Tiling	Metal	Yes
C. High-Rise Collective - 1966-1970	1010	1965	Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Asbestos vinyl, tiles	Wood, Metal	Yes
			Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Asbestos vinyl, tiles	Wood, Metal	Yes
	1020	1965	Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Asbestos vinyl, tiles	Wood, Metal	Yes
			Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Asbestos vinyl, tiles	Wood, Metal	Yes
D. High-Rise Collective - 1971-1972	1011	1972	Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Vinyl, asbestos cement	Wood, Metal	Yes
			Reinforced concrete, brick masonry	Drywall, brick	Asbestos Cement	Vinyl, asbestos cement	Wood, Metal	Yes
	1021	1971	Reinforced concrete, brick masonry	Drywall, brick masonry, wood, asbestos cement	Asbestos Cement or Galvanized Iron	Asbestos vinyl, tiles	Wood, Metal	Yes
			Reinforced concrete, brick masonry	Drywall, brick masonry, wood, asbestos cement	Asbestos Cement or Galvanized Iron	Asbestos vinyl, tiles	Wood, Metal	Yes
	1040	1972	Reinforced concrete	Drywall with Asbestos Cement	Asbestos Cement	Asbestos vinyl, tiles	Wood, Metal	Yes
	1050	1972	Reinforced concrete	Drywall, Asbestos Cement	Tiled Terracing	Asbestos vinyl, tiles	Wood, Aluminum	Yes
E. Emergency Housing	e19	-	Wood	No information	Wood	No information	Wood	Yes
	e21	-	Wood	No information	Wood	No information	Wood	Yes



## DIMENSIONS

With regard to the dimensions of dwellings, it is possible to find that each prototype has different ones, but within a framework that limits their variance. The height of the rooms is 2.3 meters on average, but seven prototypes have a height of 2.52 meters, and another five, 2.20 meters, establishing a mode. Something similar happens with the thickness of the walls. When information is provided on this aspect, there are values of between 15 and 20 centimeters, although it is worth mentioning, that the thickness of the partitions is factory standard [Figures 3 & 4].

The set of variations in dimensions that can be seen in Table 3, shows a broad range of options that were considered to prepare the prototypes and that had, as a result, a flexible standardization. As this is the result of the work of several design teams, there is no overriding formula. The dimensions agreements made within the Study Department, that designs collective prototypes 1010 and 1020 [Figure 2], does not repeat the decisions made in the South Department regarding the dimensions of the semi-detached house, both because they involve different target populations and because they are projected for different situations, as occurs with dwelling 150, designed for a site with two levels, or dwelling e-21, designed for emergencies [Figure 1].

Now, there are cases, such as housing prototypes 196 and 197, designed by the same team in the same year, but regionalized for different areas (north and south) that are exactly alike in their design and material, with there being no difference between them. The housing prototypes C36 and SM 36, designed by the same team, but one year apart, for different areas (central and the entire country), are different in dimensions and materials. However, their distribution is exactly the same in the blueprint. Actually SM36 did not consider a small hallway that appears in the blueprint, and that gives some meters in the specifications of C36. The result is similar blueprints, but with different footage: 34 meters squared (C36) and 35.44 meters squared (SM 36) in floor space each. On the other hand, prototype 150, was a single-floor dwelling, but on two levels, specifically adaptable to hillsides with a sharp slope [Figure 1].

**Figure 3**

Dimensions and floorplans of semi-detached housing designed in CORVI between 1966 and 1971. Source: CORVI (1972b, p. A1-E2).

**Figure 4**

Dimensions and floorplans of collective high-rise housing designed in CORVI between 1966 and 1971. Source: CORVI (1972b, p. C1-D14).



**Table 3**

Dimensions (in meters squared) of rationalized housing prototypes, CORVI 1965–1972.  
Source: Preparation by the authors using CORVI (1972b).

Type	Prototype	Year	Housing Typology	Housing Model	Height	Thickness of Structural Walls	Front length (including wall)	Side length (including wall)	Total m2 of dwelling
A. Semi-Detached Housing 1966-1970	N 61	1967	Semi-detached	A	2,2	0,2	5,42	8,45	38,89
	132	1966	Semi-detached	A	2,2	0,2	6,6	6,45	36,93
	136	1966	Semi-detached	A	2,2	n/i	6,85	9,5	57,81
	sm-196	1967	Semi-detached	A	2,35	0,15	10,2	7	52,26
	197 SM	1967	Semi-detached	A	2,41	0,15	7,2	7	52,26
	227 SM	1967	Semi-detached	A	2,2	n/i	6,75	7,55	62,34
B. Semi-Detached Housing 1971-1972	C-36	1970-1971	Semi-detached	A	2,18	0,15	6,30 /6,40	5,8	34
	SM-36	1971	Semi-detached	A	2,4	0,15	6,4	5,8	35,44
	150	1972	Semi-detached	A	2,2	0,15	6,2	9,3	49,32
	250	1972	Semi-detached	A	2	n/i	12,4	6,2	33,36
C. High-Rise Collective - 1966-1970	1010	1965	Detached	A	2,52	n/i	5,54	8,69	44,06
				B	2,52	n/i	5,54	11,52	50
	1020	1965	Detached	A	2,52	n/i	6,085	11,08	58,99
				B	2,52	n/i	6,085	14,01	66,95
D. High-Rise Collective - 1971-1972	1011	1972	Detached	A	2,52	n/i	6,085	11,08	58,99
				B	2,52	n/i	6,085	14,01	66,95
	1021	1971	Detached	A	2,52	n/i	5,485	10,31	48,87
				B	2,52	n/i	5,485	11,66	52,98
	1040	1972	Detached / Semi-detached	A	2,56	n/i	6,17	11,27	60,55
	1050	1972	Detached / Semi-detached	B	2,56	n/i	6,17	14,045	67,65
E. Emergency Housing	e19 (emergency)	S/información	Detached	A	2,8	n/i	2,5	6	21
	e21	S/información	Detached	A	2,15	n/i	6,24	3,04	18,96

## FLOORPLANS

One aspect that motivates greater structural similarities between the different prototypes is the floorplans, which are also related to the standardization of indoor dimensions. All prototypes have similar floorplans: living/dining room, kitchen, bathroom, bedroom, hallway and closet, which constitutes one of the results of the housing design standardization made by CORVI. Although the dimensions for each activity vary among depending on each prototype, on average, the floorspace for Living and Eating correspond to 27%; Cooking, 11%; Hygiene, 6%; and Sleeping, 45% (21% to the master bedroom and 24% to the rest); 6% is dedicated to moving from space to space; and 4% to storage [Table 4]. It is worth stating that the floorplan division proposed does not just indicate a rationalization of the activities and their infrastructures, but also a family concept of the inhabitants and a hierarchization within this, in the means that a master bedroom is placed and more space is given to it.

The houses have, for each prototype, homogeneously sized housing units. While, the collective options have housing units with different dimensions and types. Collectives 1010 and 1020, for example, have four levels: the first contains four type A dwelling units, while the following ones include three type A and one type B. The latter includes an additional bedroom or a space which is included in the meters of the floor-

plan as such, although in the blueprint it appears as an extension of the living-dining room. In collectives 1010, there are dwellings with 2 (A) and 3 (B) bedrooms, where A is the master bedroom, and the B are smaller but equal in size. In collectives 1020, there are 3 (A) and 4 (B) bedroom dwellings. Here two bigger units and two smaller ones are considered, with both pairs alike.

**Table 4**

Dimensions (in meters squared) of living spaces within rationalized housing prototypes, CORVI 1965-1972. Source: Preparation by authors using CORVI (1972b).

Tipo	Prototipo	Año	Tipología de vivienda	Modelo vivienda	Estar Comedor	Cocina	Baño	Dormitorio 1 (y 4 si lo hay)	Dormitorio 2 y 3	Pasillo	Clóset	Total m <sup>2</sup> de vivienda
A. Viviendas en Extensión 1966-1970	N 61	1967	Pareada	A	11,37	3,18	2,08	8,56	12,66	1,04	0	38,89
	132	1966	Pareada	A	12,04	4,68	2,57	8,81	6,48	1,14	1,21	36,93
	136	1966	Pareada	A	17,96	4,79	3,29	10,16	16,45	3,16	2	57,81
	sm-196	1967	Pareada	A	13,23	8,17	2,89	8,63	16,12	1,6	1,62	52,26
	197 SM	1967	Pareada	A	13,23	8,17	2,89	8,63	16,12	1,6	1,62	52,26
	227 SM	1967	Pareada	A	13,3	5	3,22	12,32	19,67	4,08	4,75	62,34
B. Viviendas en Extensión 1971-1972	C-36	1970-1971	Pareada	A	7,8	3,3	2,64	8,01	8,01	2,24	2	34
	SM-36	1971	Pareada	A	8,23	4,94	3,29	8,49	8,49	0	2	35,44
	150	1972	Pareada	A	15,12	5,3	4,9	7,95	13,12	0,77	2,16	49,32
	250	1972	Pareada	A	11,2	2,6	2,4	8,68	5,88	1,6	1	33,36
C. Colectivos en Altura - 1966-1970	1010	1965	Aislada	A	13,63	4,78	2,4	11,26	8,28	2,26	1,45	44,06
				B	13,63	4,78	2,4	11,26	14,22	2,26	1,45	50
	1020	1965	Aislada	A	16,2	8,15	3,31	9,52	14,22	5,62	1,97	58,99
				B	16,2	8,15	3,31	17,48	14,22	5,62	1,97	66,95
D. Colectivos en Altura - 1971-1972	1011	1972	Aislada	A	13,77	6,47	3,43	8,91	10,15	3,98	2,16	48,87
				B	13,77	6,47	3,43	13,02	10,15	3,98	2,16	52,98
	1021	1971	Aislada	A	15,48	7,03	3,74	10,31	15,3	5,45	3,24	60,55
				B	15,48	7,03	3,74	17,41	15,3	5,45	3,24	67,65
	1040	1972	Aislada / Pareada	A	17,71	5,87	2,42	8,24	10,26	2,94	2,16	49,6
	1050	1972	Aislada / Pareada	B	16,28	7,69	4,52	9,88	15,77	4,75	3,63	62,52
E. Viviendas de Emergencia	e19 (emergencia)	S/ información	Aislada	A	7	0	0	7	7	0	0	21
	e21	S/ información	Aislada	A	6,32	0	0	6,32	6,32	0	0	18,96

## CONCLUSIONS

The revision presented here allows setting four variables involved in housing design, where it is possible to see a standardization attempt in CORVI's work. Its particularity lies in the fact that it does not seek a rigid model, but a flexible one. The measurements are not the same among prototypes, nor are they expressed in limited volumes; on the contrary, they provide a possible idea of being interpreted within an established framework, insofar as both who decides which housing typology to build, and who wants to imagine its workings, have the possibility to speculate about these and make decisions regarding their concretization. However, the same cannot be done about the structural aspects of the dwellings, since their shapes, floorplans, materials and spaces are outlined and match one another.

In other words, the design of the CORVI housing typologies is standardized by the rationalization idea so that, regardless of their variations, the set of prototypes acts socio-materially in a similar fashion. Their material choices allow assuming a durability that, seeing the cases today, have lasted more than fifty years. Their shapes, dimensions and floorplan distributions make it possible to foresee the life of nuclear families, that evolve, and that are sustainable over time, if the nuclear families decrease in size. Both parameters suggest a dwelling that is functional to the life cycle of the families that acquire them, that stabilize their urban environment, and that come from learning from previous and contemporary experiences.

In this aspect, as has already been mentioned, the notion of typology can lead to misconceptions. Rafael Moneo (1978; 2015) says that the most intense moments in the history of architecture, are those where a new typology emerges, a phenomenon where external elements collaborate, like the availability of new techniques, or the urgency of new social requirements. For Moneo, a typological moment is a particular milestone, that marks the production of architecture works in the mid-term, and has an effect on the socio-materials means of understanding and/or reflecting this community of practices. Certainly, the building typologies designed by CORVI teams do not promote new or different architectural shapes from pre-existing modern shapes, but they articulate more syncretic versions of these, and their virtue lies in this [Figure 5]. They show a moment of the community of practices within Chilean architecture, where this has a considerable number of exemplary social housing dwellings, produced in the almost seven previous decades, along with a clear mandate, referring to simplifying the material composition processes and their production.

Work is also done within a social narrative that has been persistent: modernization, in whose progress, the different lines of architecture and policy trust, and in whose framework, the efforts for standardizing and rationalizing production processes, as well as the attempts to industrialize them, are generally seen as positive advances (Quintela, 1972). The document, Rationalized housing typologies 1966-1972 accounts for the particular aspects of that time. Their intensity can be appreciated, both in the number of different living options that CORVI's design teams produce, 18, as in the adaptive intension of their language of floorplans, materials, and basic shapes in said versions. At the same time, this design exercise consolidates three types of typological strategies for social housing: semi-detached houses, detached blocks and high-rise residential buildings. In later decades we will see how the debate focuses on houses, which expand through city outskirts, and high-rise buildings, that densify their centers (Vergara, 2017), but at that time, the main protagonists were the detached or collective blocks, intermediate forms of densification that coincided with the densities of the planned street blocks.



**Figure 5**  
Dimensions and floorplans of collective high-rise housing designed in CORVI between 1966 and 1971.  
Source: Preparation by the Authors.

**Figure 6**  
Dimensions and floorplans of collective high-rise housing designed in CORVI between 1966 and 1971.  
Source: Preparation by the authors.



Collectives, in particular the 1010 and 1020 models [Figure 6], were successful both in the number produced, and especially on being taken to most of the cities in the country, even though they were designed for the central area. Their interpretative flexibility as a typology, allowed them to be adapted for opposing climatic areas (Arica and Punta Arenas, for example), without seeing variations in their floorplans, so that regardless of their two-sided roofs, or their overlays, their inhabitants had the residential experience expected by their designers: living-dining room, closets, hallways, differentiated bedrooms, kitchen with laundry area, within the 60-meter square apartments inserted in collective units. These living proposals lost strength once CORVI stopped producing them, towards the end of the 1970s, but their influence is noticeable in the later social housing, which would seek to maintain the shapes, materials and floorplans despite reducing their quality and size, as the residential forms that these floorplans had, had already been consolidated in Chilean society.

Establishing previous works that were analyzed by CORVI design teams, is somewhat difficult. It is known that these were standout works of the Worker Housing Law, the Pereira Law and DFL 2, as such the Huemul I, II and III neighborhoods were considered, as well as others located in Antofagasta and Valparaíso. It is also worth considering that among those who took part in the analysis workshops, were not just Valdés, who had just inaugurated the Tajamar Towers and Villa Portales, but also Sepúlveda and Perelman, who had just concluded the Republica Remodeling. All in all, what is key to recover is, that in these design exercises, CORVI had the “synthesis of the best individual contributions to solve given repetitive issues” (Benévolo, 1963, p. 883), in this case, that of social housing, looking to “correct the anarchy of housing types” (Quiroga, 1972, 0. 42) which public policy perceived.

Although the CORVI teams do not prepare a new architectural form, both the design task that they receive and the three general typologies that they propose in their eighteen prototypes, bring ideas with them that are consolidated through them in society: that of the nuclear family with

internal hierarchies; that of urban living as collective living; the use of solid materials for the dwelling (bricks and concrete), that are associated to a dwelling that accompanies the life cycle and that constitutes a lasting property; the physical separation between the floorplans for living, sleeping and preparing food. These are just some of them, which is why it is possible to state that we are facing a special moment for design within Chilean architecture, whose effects must be dimensioned considering the standardization of social housing, the consolidation of collective living typologies and, of a material moment in Chilean cities, beyond the valuation of singularities of the works, and although this moment does not lead to a definitive housing standard, it is part of the experimentation that helps to organize designs "for a repetitive, mass-produced use, on a national scale" (Quiroga, 1972, p. 42).

It is good to have in mind that the standardization of the shapes, materials, dimensions, and floorplans made by CORVI's teams, and contained in "*Rationalized housing typologies 1966-1972*", does not have rigid formulas or indications, but rather are interpretatively flexible and locationally adaptable design guidelines, which fit the sociological role of the standards reviewed at the start of this work. But there is also, in the eighteen typologies proposed, a structural communality that expresses a way of producing housing, where the project design is the key piece of a collective argument for living, not just at a residential complex scale, but also at a scale of the economic segments that had access to said dwellings and that produced a symbolic cohesion on the national level.

From the reflection that arises from the designs of the CORVI teams, it is possible to learn both the benefits of typological design, based on the rationalization of expense and on the standardization of materials and programs involved in the production of social housing, along with the virtues of the flexibility of standardization, that allow its adaptation to the different urban realities of the country. This reflection should be considered for the optimization of social housing standards and to seriously address collective living as a future public policy.



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