

The language of the SAAL program. Similarities and variations in the work of the SAAL teams in Porto

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1. Context

In the late 1960s and early 1970s, architects of the *Porto School* practised in small offices, meticulously detailed small-scale buildings located in the north of Portugal. This option for a smaller scale is linked to the conceptual and methodological influence of the *Surveys of Portuguese Vernacular Architecture* (SNA, 1961), a first paradigmatic moment of the Porto School, which allowed the emergence of a shared identity, based on the recognition of the presence of 'modernity'¹ in the vernacular architecture of the north of the country (Fernandes, 2011, pp. 397-424).

The conceptual inherence of the timeless values of vernacular buildings was the main impulse that motivated Porto architects like Fernando Távora (house in Ofir, 1957-58), Álvaro Siza (Alves Costa and Alcino Cardoso houses, both in Moledo do Minho, 1964-71 and 1971-73) and Sergio Fernandez (house in Caminha, 1971-73) to search for a "timeless way of building", a "quality without a name" (Alexander, 1979, pp. 7-40) that approached their architecture to the most genuine vernacular legacy, without waiving the awareness of its contemporaneity. In this

period, scale was a feature of the identity of the School.

It was in this context that, in 1974, the revolution of 25 April occurred in Portugal and the fascist regime that subsisted for the previous 48 years was finally deposed. The consequent political changes allowed the beginning of the SAAL², an ambitious program for the construction of social housing promoted by the new government between 1974 and 1976, all over Portugal.³

The SAAL program was a second paradigmatic moment in the identity of the Porto School, which implied essential issues of scale, manifested in the relation of the different interventions with the urban environment. It also implied an idea of participation of the future dwellers in the design decisions, a very current concern in the sixties and seventies, when urban and architectural theories began to address the question of cultural and anthropological relativism. Authors from various related fields, like Aldo van Eyck, Lévi-Strauss, Bernard Rudofsky, Henry Lefebvre, Josep Coderch, John Turner, Christopher Alexander, John Habraken and Giancarlo De Carlo (among

1. Massarelos SAAL housing.

Photo by the author, Jun. 2006.



2. Bouça SAAL housing.

Photo by the author, Feb. 2006.



many others) addressed this issue, with theoretical and/or practical work (Montaner, 2001, pp. 127-137).

2. Urgency

In the SAAL program, Portuguese architects faced a paradoxical situation, given the urgency and scale of the needs of local populations and the will to apply two basic principles: the “right to the city” and “the right to architecture” (Bandeirinha, 2007, p. 121). The belief in the ‘right to architecture’ implied an inclusive idea of participation, in which “the work of the architect could be classified as «secondary»”, due to the collaboration effort of the local population in the design process (Bandeirinha, 2007, p. 169). But, confronted with the urgency of the situation, the SAAL teams needed a pragmatic approach to enable an effective response in the short term; the circumstances implied a different pace of work, incompatible with the meticulous detail of the previous works of the School of Porto.

Porto architects needed to create an informal (yet operational) organization, creating synergies between the various technical teams. The SAAL Process provided a laboratory field, in which the necessity for

rationality and economy fully justified an attitude and language with modernist roots. So, most of the resulting housing schemes showed a uniform approach (which resulted of the need to respond to similar circumstances) with a set of common characteristics: organization in parallel volumes, often unrelated to the alignments of the pre-existing city, with long and narrow duplex dwellings (around four meters wide, in most cases), a set of stairs in the centre and small openings on both the opposing façades (Fernandes, 2011, pp. 477-81).

3. Results

When analysing the constructed results of the SAAL Program in Porto it is important to keep in mind that those constituted a small part of the initial ambitions: of the thirty-three operations that were initiated, twenty-three were not built (although, in most cases, the design process was completed) and in most of the remaining ten cases the construction was only partial (Costa, 2007, p. 43). So, those ten examples are the only ones that can be studied *in loco*, confronting the original intentions of the design with the built results.

3. S. Victor SAAL housing.

Photo by the author, Jun. 2006.



The collective housing buildings of variable height (between three and five stories) that Manuel Fernandes de Sá designs for Massarelos (fig. 1)⁴ is clearly exceptional in the context of the built results of the SAAL Program in Porto. It presents a solution of relative high density, in contrast with the context of the immediate surroundings, and strong volumetric presence in the landscape of the city (although the part that was actually built only corresponds to the first of nine phases envisaged for this operation).

The Bouça housing (fig. 2) is another exception, not only for its (relative) high density but also for its typological originality: although it presents a scheme of autonomous distribution, similar to other interventions of smaller scale, it achieves a higher density without assuming the character of a collective housing block. It was designed with an original scheme, in which two duplex houses are overlaid, forming a four-story building; however, the access to the front door of the dwellings located in the upper floors was arranged in a set of galleries that extends the public space, allowing the dwellers to feel they are living in a single family housing scheme, while creating a sense of community in the neighbourhood.

4. Lapa SAAL housing.

Photo by the author, Feb. 2006.



This solution (for the same site) had already been developed by Álvaro Siza before the Revolution⁵; after 1974, it would be integrated in the SAAL program, and presented in 1976 with the same four parallel bands, forming the same oblique angle with the train line and the street of Boavista (that are almost parallel). The main difference was in the height of buildings: in 1973, the two outer bands were designed with six floors (with the superposition of three duplex houses) and the inner bands presented only four. In 1976, both the bands that were actually built presented four floors (two duplex houses overlapped). Either way, the scale emphasises the rupture with the existing city, which is a political message intentionally proposed in the design before the revolution and reinforced by the new political context.

We can find this model of parallel bands, introducing alignments that are often different from the ones existing in the immediate surroundings, in some of the SAAL projects that came to be built in Porto. Likewise, they share the same type of dwelling: a narrow and long duplex,⁶ with the stairs located in the centre (oriented towards the depth of the plan) and openings on the two top façades, but not in the side ones (not even when the dwelling is located at the end of the block).

5. Maceda SAAL housing.

Photo by the author, Jan. 2006.



6. Francos SAAL housing.

Photo by the author, Jun. 2006.



In S. Victor (fig. 3), a SAAL housing scheme also designed by Álvaro Siza, we can find a clear example of the application of the knowledge acquired in the Bouça operation. The site has a completely different situation in the relationship with the city: it's located in the interstices, within a block, invisible from the exterior. Here, Siza designed a similar scheme to the one held in Bouça, in which the organization of each single house⁷ seems to be the rule that generates the global form, by a simple process of repetition and aggregation.

This scheme was based on the organization of the traditional 'island' of Porto, a well-known reality for teachers and students of ESBAP. The typical eighteenth/nineteenth-century expansion of the city was structured in narrow and deep allotments, in which the house faced the street and left a considerable empty space in the back, initially used as a garden. With the growth of industrialization and the consequent need for low cost housing in the city, most of this interior spaces were occupied by rows of small houses (around sixteen square meters each), constructed side by side, with one single source of light (the front façade), opening to a narrow outdoor passage that organized the access to the dwellings and communicated with the public street. These 'islands' formed small

neighbourhoods where people could develop a good social atmosphere, but it lacked every aspect of basic sanitary conditions: it didn't have water distribution or public sewage, and the numerous families had to share small and insufficient common sanitary facilities.

It seems evident that the two SAAL housing projects designed by Álvaro Siza are based on the idea of considering the 'island' a formal model, while improving it with new meaning, dignity and comfort. In Bouça and S. Victor, we find the consideration of the community qualities of this ancient housing scheme, but also its typological structure: they present a linear development based on the simple aggregation of dwellings with a narrow front, using the rhythmic repetition of the doors and windows as a composition theme.

In S. Victor, the 'new island' appears in its traditional place, the interior of the block, invisible from the city; but in Bouça, the SAAL housing disrupts the urban fabric and seeks to show itself to the city, proclaiming a new urban order that simultaneously rejects the traditional morphology of the urban space and the 'Athens Charter' doctrine.

This adoption of the 'island' as a model turns out to be a common denominator that will

7. Contumil SAAL housing.

Photo by the author, Jun. 2006.



8. Antas SAAL housing.

Photo by the author, Jan. 2006.



justify the options of some other SAAL built projects in Porto.

In Lapa (fig. 4), in a similar situation to the Bouça housing (on the other side, across the same railway line), Alfredo Matos Ferreira and Beatriz Madureira⁸ designed a continuous band with two/three floors, creating a barrier against the railway line and using the concept of the 'island' as a formal model.

In the Maceda-Acácio housing (fig. 5), Alcino Soutinho⁹ proposes a scheme that seems related to the S. Victor design: the part of the plan that was actually constructed presents six parallel blocks of two floors, organized by simple association of dwellings, side by side, with lesser depth (about 9 meters) and larger width (about 5 meters) than the ones designed by Siza; nevertheless, the stair is also located in the lengthwise axis of the house (as in Bouça and S. Victor), starting near the front doors so it can emerge in a central area, on the top floor.

Finally, in Francos housing (fig. 6), by Rolando Torgo,¹⁰ the similarities with S. Victor are evident, but transposed to a very different urban condition. The four bands that we can find today (the only constructed part of a much larger plan) appear to be strange to the logic

of the city, without any relationship of scale or alignment.

So, we can easily find similarities in the four above mentioned low density housing SAAL projects constructed in Porto: S. Victor, Francos, Lapa and Maceda share a scheme based on the simple aggregation of long and narrow duplex dwellings, organized in parallel bands, designed with a purist language and a rigid volumetry. On the contrary, the other four - Contumil, Antas, Leal and Chaves de Oliveira - share a hybrid language, in which the typological and formal solutions are quite different.

In Contumil housing (fig. 7), by Celio Costa,¹¹ the scheme evokes the idea of the 'island' in a less rigid way, adapting the section of the buildings to the inclination of the site: the dwellings are organized in a sequence of half floors, articulating the different levels of contact to the exterior (in the front and in the back) by means of a central staircase; this dynamic profile, marked by the pitched roofs in tile, is associated with a similarly complex organization of the plan.¹²

Likewise, the SAAL housing of Antas (fig. 8), design by Pedro Ramalho,¹³ presents a dynamic and complex composition, manifested both

9. Chaves de Oliveira SAAL housing.

Photo by the author, Jun. 2006.



10. Leal SAAL housing.

Photo by the author, Feb. 2006.



in the plan and the section, animated by the different directions of the pitched roofs. Like Contumil, it is implanted on a hillside and presents a dynamic section. The existence of single front dwellings (typical of the traditional 'island') leads to a plan with smaller depth; its size is variable, depending on the different solutions presented, which can be adapted to the future needs of residents (from T1 to T5).

Chaves de Oliveira (fig. 9), by Manuel Lessa,¹⁴ is a small housing project, in which the new buildings are associated with the recovery of pre-existing ones and organized around a triangular courtyard. The design accomplishes a perfect integration of the new urban complex with its immediate surroundings, in its scale, alignments and language, creating a true community environment. Being the example of the SAAL in Porto in which the work of the architect is less recognizable (because the design is less prescriptive) this is also one in which we can find an idea of urban continuity, instead of the urban rupture that most of the other examples cited above present, in a more or less assumed way.

Likewise, in the SAAL housing of Leal (fig. 10) designed by Sergio Fernandez,¹⁵ the new construction does not appear in the site as a foreign body, although the quality of the

design leaves no doubt on the relevant role of the architect. It is situated in the heart of the city, within the traditional urban fabric of Porto; the complexity and diversity of the scheme¹⁶ gives the new 'island' a sense of renewing that respects the pre-existing environment, because the intervention was preceded by a careful analysis of the site, with a thorough survey of pre-existing 'islands'. Thus, it conveys a sense of belonging to that specific neighbourhood (creating a very intimate setting) and evokes the complex interconnection between the built fabric and the public space of the medieval city, with its narrow alleys and tunnel passages.

4. Lessons

In contrast with the simple aggregation, purist language and rigid volumetry of S. Victor, Francos, Lapa and Maceda, the SAAL housing of Contumil, Antas, Chaves de Oliveira and Leal share a hybrid language, in which the typological and formal solutions seem to be best suited to their specific urban environment and more agreeable to the taste of the populations.

Today, it is quite clear that the hybrid solutions managed to preserve the initial image

unharmful, since they are less altered but also because they can assimilate the changes; it is also clear that the situation of the other SAAL housing schemes is quite different, as the changes made by the dwellers strongly collide with the initial purist language.

Maceda (fig. 5) is a good case study of this phenomenon. The construction began as early as 1975, because “the dwellers made practically no criticism to the organization of the houses” (Bandeirinha, 2007, p. 167); but soon after the populations began to inhabit the dwellings, they started to introduce all sorts of changes, both in the interior and outside. Today, it is impossible to recognize the original traces of Alcino Soutinho design behind the great variety of volumetric extensions, walls lined with colorful tiles, new windows and altered doors.

So, the SAAL Program presented a very ancient professional dilemma to the architects: the confrontation between the “will to learn from the people” and the “necessity to teach the people”. Trying to avoid adopting any of these positions, which he considered simplistic, Álvaro Siza proposed a third way: to direct all efforts towards the main objective, sharing with the populations the will to create a physical world to serve a classless society (Siza, 1976, p. 14), bearing in mind that it is “unacceptable to dismiss the role of the architect, since collectivity is no substitute for specific and indispensable skills” (Siza, 2000, p. 160).

Today, it is clear that he learned a lesson from this experience, and knew how to apply it in his next SAAL experience: the Malagueira housing scheme (1977), in Évora (Fernandes, 2014, p. 159-164).

¹This particular notion of *Modernity* must be understood on the light of the writings of Fernando Távora: it is expressed in the ‘quality and accuracy of its relationships with life’, in a ‘seamless integration of all its elements’ (Távora, 1952, p.153).

²The SAAL, ‘*Serviço Ambulatório de Apoio Local*’ (Ambulatory Service of Local Support), was a national housing program created by Nuno Portas, Secretary of State of Housing and Urban Development, in June 1974 (only two months after the revolution).

³In 1976 (October 28) the responsibilities on the SAAL program coordination were handed over to the municipal authorities, causing the extinction of the program in Porto.

⁴The design is based on a 2.6 meter module, seeking to reduce the construction costs by standardization of building elements. The technical team headed by Fernandes de Sá also included Rui Sousa Louro, Mário Rui Martins, Manuel Castro, José Bastos, Maria Celeste Seixas, Abílio Mourão and Nuno Silvério (Bandeirinha, 2007, p.428).

⁵The Bouça SAAL housing was originally designed in 1973, supported by the Portuguese Fund for the Promotion of Housing; the project that was partly built in 1977 was designed by a technical team headed by Álvaro Siza, which also included Anni Gunther Nonell, Maria José Castro, Sérgio Gamelas and Jorge Moreira (Bandeirinha, 2007, p.416); the construction would be completed in 2006, according to a new version of the initial project.

⁶In the case of Bouça, the plan of the dwellings is approximately 4 x 12 meters.

⁷In S. Victor, the duplex dwellings present an internal distribution similar to the one used in Bouça: a long and narrow plan (approximately 4 x 11 meters) with a central stairwell organized longitudinally and located in the center.

⁸The technical team headed by Matos Ferreira and Beatriz Madureira also included Jorge Barros, A. Ramos, A. Silva Costa, Soares Malta, Joaquim Jordão, Francisco Barata, M. Magalhães, José Bernardo Távora and José Diogo (Bandeirinha, 2007, p.422).

⁹The technical team headed by Alcino Soutinho also included Manuel Mendes, Marta Oliveira, Pedro Cabral and Santos Leite (Bandeirinha, 2007, p.426).

¹⁰The technical team headed by Rolando Torgo also included Cecília Cavaca, Maria Guimarães, Manuel Magalhães and Santos Leite (Bandeirinha, 2007, p.420).

¹¹The technical team headed by Célio Costa also included António Elói, Gomes Castro, Carlos Figueiredo, Emília Ferreira, Fernando Costa, João Ferreira, José Dias and Mário Abreu (Bandeirinha, 2007, p.419).

¹²The plan is organized in a succession of 8.5 x 9 meters modules where the dwellings of different typologies (T2/T3 or T1/T4) are related in different ways.

¹³The technical team headed by Pedro Ramalho

also included Francisco Lima, Pedro B. Araújo, Lídia Costa, Augusto Costa, Vítor Bastos, Teresa Fonseca, José Lencastre and Aires Pereira (Bandeirinha, 2007, p.410).

¹⁴The technical team headed by Manuel Lessa also included António Valente, Maria Fernandes, Maria João Palla Mello Freitas and Joaquim Figueiras (Bandeirinha, 2007, p.418).

¹⁵The technical team headed by Sérgio Fernandez also included Vítor Sinde, António Corte-Real, Emídio Fonseca, José Manuel Soares and Carlos Delfim (Bandeirinha, 2007, p.424).

¹⁶The dwellings are associated in a complex articulation: in the 16 houses built there are 8 variations of the organization of the dwellings (not counting the symmetries); the typological complexity of the plan does not allow the establishment of a base measure (none of the floor plans is based on a simple rectangle), but within a maximum depth of 8 meters we find schemes with a maximum width between 6 (duplex T3 and T1) and 9.5 meters (T2).

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