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Two faces of modernity: housing for Portuguese inner colonisation

Abstract

In Portugal, inner colonisation was the outcome of a long debate began in the 19th century; nevertheless, only seven colonies were realised on common or state-owned land, some including several nuclei. Milagres was built in the 1920s and Martim Rei in the following decade. Gafanha, Pegões, Barroso, Alvão and Boalhosa were built after the Second World War by the Junta de Colonização Interna. The history of Portuguese agricultural colonies has been the subject of recent studies, yet this contribution focuses on the architecture of the farmhouses in comparison with the residences of technicians and administrators.

Keywords

Rural housing — Portuguese inner colonization — Modernities

Rooted in the 18th century debate about the need of agrarian reforms (hampered by opposition by large landowners) Portuguese inner colonisation was very limited, particularly if compared to other European countries. Only seven rural colonies were built – Milagres, Martim Rei, Gafanha, Pegões, Barroso, Alvão and Boalhosa – on vacant green land (often arousing the hostility of the local population) or State-owned land, some consisting of more than one nucleus. The original local council-based plan was later abandoned in favour of a programme for upgrading existing settlements. Unlike Milagres, which started to be built in the 1920s, and Martim Rei, built in the following decade, the other five colonies were implemented after the Second World War by the Junta de Colonização Interna (Inner Colonization Board, hereinafter JCI), an ad hoc state agency established in 1936.

To gain a better understanding of this subject it is important to bear in mind that Portugal – a colonial power until 1974 – was essentially a rural country whose territory was fully explored only rather late. Isolation and poverty were part of an ancestral way of life and forms of dwellings which, recurrently revisited, became a reference in the search for a *genuine* national identity (Maia 2012).

Over time, this matter was approached again and again, with an increasing degree of scientific knowledge. Ethnologists, agronomists, geographers, anthropologists, and architects, all revisited the countryside, focusing on the rural habitat and, above all, rural house. The earliest rural dwelling survey campaigns aimed at identifying regional variants date to the turn of the 20th century, coinciding with the nationwide appeal for architects to develop a *Portuguese house* in line with modern living conditions. These

Fig. 1

Arnaldo Araújo CODA - Forms of Rural Habitat - North of Bragança (workfield 56-58). Arnaldo Araújo was one of the architects Survey of Regional Architecture.

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two approaches to the subject of rural houses occurred essentially at the same time while, in both cases, the notion of *Portuguese house* had frequently overlooked implications. Indeed, we could identify two different processes: one of *identification* and another of *invention* (Maia 2012), one was *retrospective* and the other *prospective* (Figueiredo 2007).

In the context of similar movements throughout Europe that, at the turn of the 20th century, were working on the single-family house type, the *Portuguese house* – as developed by architects – evolved into the *Portuguese old-style house*, which was to be contested in formal terms by modernist architects of the 1950s.

With the explicit intent of showing the diversity of vernacular architecture – thereby the groundlessness of the *Portuguese house* – in 1955-56 the National Union of Architects carried out a *Survey of Regional Architecture*, partially published in 1961 with the title *Vernacular Architecture in Portugal*. This book had a profound impact on Portuguese architecture yet, younger members of the survey team were so enchanted with the forms of tradition they photographed and sketched to the point of aestheticizing poverty. [Fig. 1]

It may be added that, in the eyes of ethnologists, the *Portuguese house* had always been a plural reality ever since it was first identified (Rocha Peixoto 1899, 1904-1905). On their side, geographers tried to highlight correlations between the characteristics of dwellings and the physical features of the regions concerned (Ribeiro 1945).

In parallel, anthropologists also began to take an interest in rural dwellings; in 1947 they went as far as to propose «a comprehensive study on this subject by analysing the dwelling in its complex variety of architectural, ethnographic and historical aspects». The aim was to realise a *comprehensive survey*, carrying out dedicated studies of the different types of dwelling that were published in the 1950s (Oliveira 1986).

On their side, agronomists had tackled the matter since the 1930s, when conducting the government-mandated *Survey of Rural Architecture*. Based on scientific methods, they had to take a census of the real living conditions of the rural population. Eventually however, the censorship prevented the publication of the last volume¹. Some of the authors of this survey were to play an important part in Portuguese inner colonisation.

All these studies had the merit of establishing a link between traditional architecture (in its forms and building materials) and regional landscape fea-



Fig. 2-3
Milagres, settler's house: type 1–
Norberto Correia, 1926.
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tures. This was to be reflected in many proposals for the *Portuguese house* put forth in the early 20th century (Lino 1933), as well as in the regionalist forms of much of the architecture produced at a later stage. Considering the national cultural context, and the fact Portuguese inner colonisation was managed by experts from the National Institute of Agronomy (where it functioned as a field for experimentation) we may gain a better understanding of the solutions adopted for the rural house.

The role of Portuguese agronomists was similar to that played by their Italian and Spanish counterparts in the respective resettlement schemes, particularly after the Instituto Nacional de Colonización (hereinafter INC) was set up². News and visit reports, particularly from Agro Pontino (Caldas 1937, Pereira and Ferreira 1949), also explain the solutions adopted for the layout the farm plots along the main roads. Agro Pontino was also a reference for the differentiation of programmes and idioms between the houses for farmers and those for people doing other jobs. In this disparity, architecture reflected the social hierarchy: despite modern facilities and formal reinventions, the farmer's house embedded an understanding of the rural habitat as a universe of its own, far remote from the formal universe of reference of those whose education and profession was more urban in nature³.

Portuguese agronomists travelled across Europe and studied other inner colonisation experiences⁴, bringing back home references that went well beyond farming matters, later architects took over the resettlement process. International references came along with them. Initially, JCI commissioned architectural services to other State bodies, then it established its own technical department (Guerreiro 2018, p. 162). Architects contributed to shape Portuguese inner colonisation settlements as a dichotomous environment combining traditional values and various types of international references.

Over the past years, Portuguese inner colonisation has been the object of new scholarly work, including Elisa Lopes da Silva's MA and PhD theses (2011, 2020) in the field of history, and Filipa de Castro Guerreiro (2015) in the field of architecture. However, while settlements' layout, common facilities and the rural dwellings have been studied in detail, the same attention has not been paid to the housing for non-farmers who were an integral part of the settlement process. For this reason, this text pays particular attention to them.

Early experiences

A study of Portuguese inner colonisation based on the farmhouse, the farmer's dwelling and farming outhouses, leads us to identify two different moments. The first phase corresponds to the first two rural settlements built by the Direcção Geral da Acção Social Agrária (General Directorate



Fig. 4-5-6

Milagres, settler's house: type 2, 3 and 4. Norberto Correia, 1927.
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of Agrarian Social Action): Milagres, in the 1920s, and Martim Rei, in the 1930s and completed under the auspices of the JCI based of an existing scheme. In the second phase, the 1940s and 1950s, the JCI built the remaining five settlements.

Both phases had in common the concept of *family couple* (*casal*) as the basis of social and economic organisation, thereby of the distribution of land⁵. Each *family couple* received a single-family house. In the first phase, the rural house grouped together independent volumes serving different purposes, whereas in the second phase all functions were integrated into one single building.

At Milagres, some experimental dwellings were built from 1926 to 1928. The new rural settlement was organised into three cores – Alcaidaria and Mata (later renamed Milagres), Triste Feia and Bidoeira – and was rather small: of the 38 family houses initially planned, 16 were actually built, of which only 12 were occupied in the early 1930s (Lopes 2003, p. 58); these houses were scattered along the roads, with some basic facilities at the intersections. However, in a few years, four different housing types were implemented, all designed by Norberto Correia. In the first type (1926), identified in the documentation as Type 1, the dwelling, stable and chicken coop were all prefabricated in wood and easy to dismantle; they were completed with the opening of wells and installation of the respective pump systems. Four such houses were built, most of them in Triste Feia (Lopes 2003, p. 53). This model was abandoned because of the considerable costs. [Fig. 2-3] This experiment with prefabrication, rather surprising in the Portuguese context of the time, recalls what was happening in Greece, where the League of Nations had intrusted Sommerfeld-DHTG to build prefabricated wooden houses for refugees from Asia Minor (Hastaoglou-Martinidis and Pallini 2023).

The remaining family houses of Milagres were built in 1927-1928, showing a range of formal references. They shared the organisation in separate volumes of the various functions around a sort of courtyard, recalling traditional Portuguese rural houses. Furthermore, with only one exception, they featured a semi-outdoor area at the entrance, or a *transition space* as Pedro Vieira de Almeida referred to them (1963, 2010). In Type 1, 3 and 4, these outdoor terraces were very similar to the traditional outdoor living rooms; Type 2 featured a portico, a solution recalling the image of the bourgeois house. [Fig. 4-5-6]

These early four designs feature a number of variants: a kitchen and four bedrooms in the case of Type 1; three bedrooms, a kitchen and a living room for Type 2; and 3 bedrooms and a kitchen for Types 3 and 4. Types 1 and 3 also had an entrance atrium serving as both a distribution and a living area. These variants also correspond to the same number of experiments in terms of planimetric composition⁶. One should note that as early as 1927, the designs featured three bedrooms as standard, which was to be maintained in all future constructions. Indeed, that choice introduced urban moral hygiene values into the rural universe and was reflected not only in the separation of the sleeping quarters for parents and children, but also for children of different sexes. This solution was also defended in the *Survey of Rural Architecture* (Guerreiro 2022) and in texts and documentation on rural housing in general. The fact that the number of children, frequently high, was not always compatible with this simple separation does not seem to have concerned the responsables for the housing programme in the 1920s, nor indeed in the three following decades.



Fig. 7-8

Milagres, settler's house: "modern-type". Damásio Constantino, 1937.

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When the JCI took over the inner settlement programme, it began by studying the Milagres experience, the only example available, and the reasons of its failure. At the time, only 6 couples had been housed and the nucleus of Triste Feia was deemed to be too degraded, so it was abandoned. In relation to the remaining houses, a study was carried out with a view to restructuring the settlement and generally upgrading the family houses, with extension of the agricultural outhouses providing the basis for the interventions carried out in 1939, the year the final houses were built (Lopes 2003).

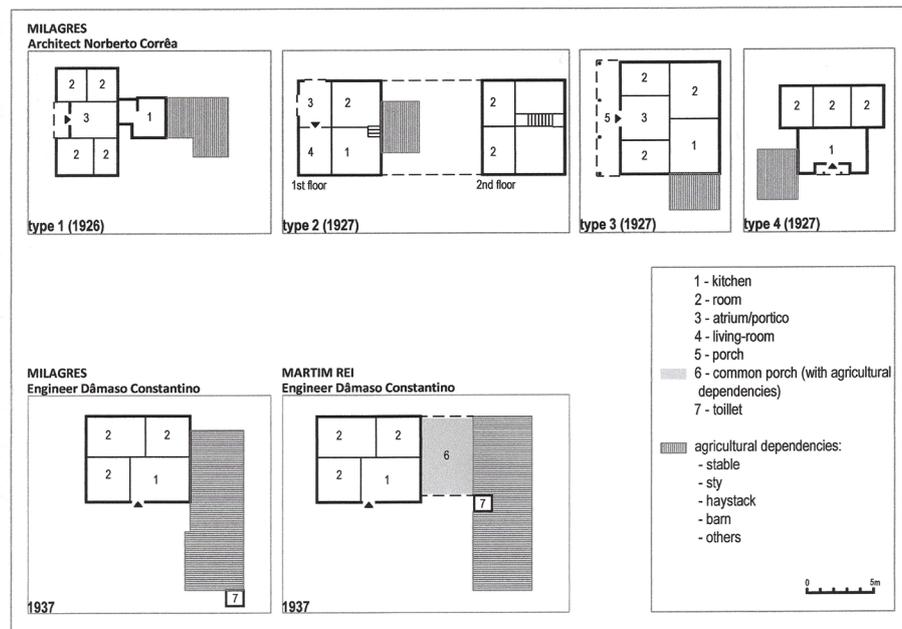
Meanwhile, in 1936, the year the JCI was set up, the Martim Rei agricultural settlement was already in the layout phase. This helps us understand the similarities between the two colonies: a dispersed settlement, with houses placed along paths/roads and facilities at the intersections. It was a modest solution close to the Italian *borghi rurali*, Italy being a country whose settlement experience was by then well known, but also, one suspects, close to the ideas derived from Fermín Caballero's (1864) *coto acasurado*⁷, which was still defended by some in Spain (Calzada Perez 2006).

The absolute need for an intervention in the two settlements also led to the construction of the same house type, designed by Damásio Constantino and designated *modern type*, perhaps simply because it was the most recent. This was the most elementary design adopted in this initial phase: a kitchen and three bedrooms were organised in a cross-shaped plan consisting of a central access hallway also providing internal distribution. The facade was very simple while the dwelling and farming outhouses were laid in an L shape. This was perhaps the only design that came close to the everyday rural regional architecture. The architects' different training background emerged and leads us to presume some investment constraints on behalf of the JCI, not yet ready to take full action. This is particularly clear in concerns with keeping work costs to a minimum. [Fig. 7-8]

However, the *Settlement Scheme for the Sabugal Wasteland (Peladas)* dating from 1937, namely Martim Rei, shows a clear differentiation between houses for farmers and those for other residents included in the JCI programmes. Houses for farmers had to comply with functionality, comfort, hygiene and safety, while also containing costs by using cheap building materials (mortar made with clay and sand applied in masonry) avoiding ornaments and «everything that could increase the cost of works without a corresponding benefit» (JCI 1937 p. 101; Silva 2020, p. 276). A house for a technical assistant generally had two floors, was built in stone, completely plastered and whitewashed while also including a bathroom and an antechamber for the bedrooms on the upper floor (JCI 1937, p. 121; Silva 2020, p. 277). In terms of programme and form, this house closely resembled the bourgeois single-family dwelling, an architectural translation of the social hierarchy. [Fig. 9]

The settler's dwelling

Pegões and Gafanha, the first two settlements entirely designed by the JCI, opened the way to a second phase of conceptualisation and design of the rural house. The Italian precedent was maintained, placing houses on opposite sides of the roads to mitigate the sense of isolation. Another innovation concerned the establishment of subsidiary cores, almost always at road intersections, including facilities that might foster a sense of community. Two such facilities, quite small in size, can be found at Pegões Velhos (Pegões). At Gafanha the round central plaza was somehow contradict-

**Fig. 9**

Schemes of settler's house – 1st phase of JCI.

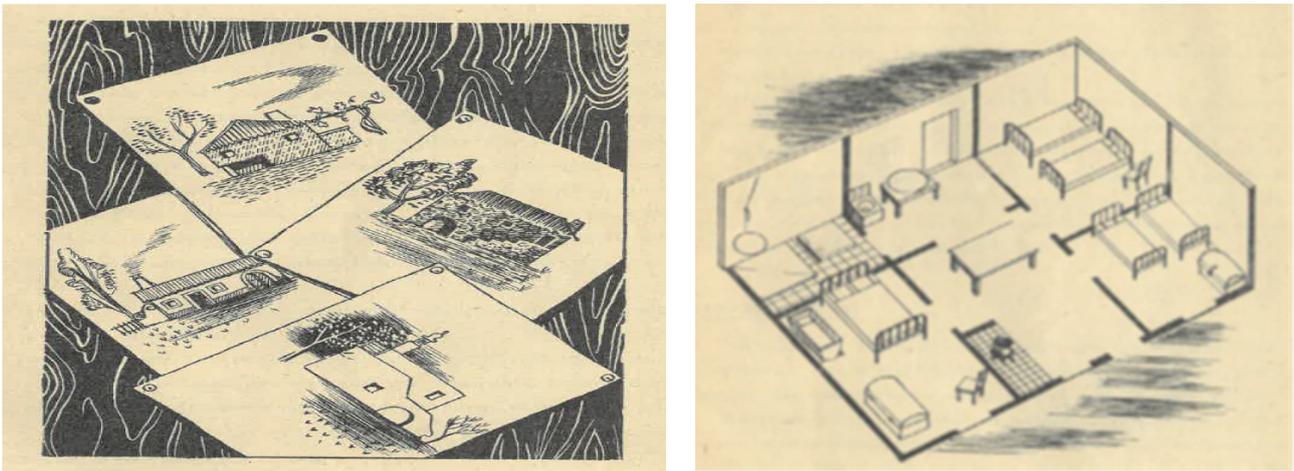
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ed by the loose positioning of buildings. At Boalhosa instead distribution followed a series of concentric semicircles sloping down the hillside, recalling the Spanish precedent of Esquivel and the *moshav* of Nahalal in British-Mandate Palestine. Only in the case of Barroso the core acquired a certain autonomy (as in the Italian model) identifying the civic centre for two of its largest nuclei (Maia and Matias 2016, Guerreiro 2022).

Here we can appreciate a dichotomy, also in terms of architectural language, between houses for farmers and those built for other members of the colony. This dichotomy reflected the social hierarchy by the use of elements borrowed from traditional rural architecture, or else referred to the urban context and more attuned with international modern architecture⁸. The influence of the Italian settlements built in Agro Pontino can be identified not only in the layout of the rural house, but also in the different idioms adopted according to its inhabitants. This was to become a common feature of JCI settlements, regardless of whether their layout evolved towards greater concentration and complexity.

Let us begin with the farmer's house. If we consider the close connection between the National Institute of Agronomy – with its tradition of studies on the rural house documented by the *Survey of Rural Architecture* – and the JCI, we cannot belittle its role in the choices made. The countrywide survey identified problems to be faced: windowless rooms, over-occupation, insufficient ventilation and natural light, limited privacy in sleeping areas, the need of bathrooms and toilets, the separation between animals and members of the family.

In 1942, when the *Survey of Rural Architecture* was published, the Directorate General of Agricultural Services also published *A Casa Rural. A Habitação* (The Rural House: The Dwelling) by agronomist Mário Botelho de Macedo. The book was distributed for free to enhance its pedagogical purpose: disseminating technical practices (on building materials and techniques, sun exposure, lighting and ventilation, thermal insulation, and damp protection) with the support of drawings and exemplary projects. Macedo's book provided a repertoire of solutions to problems identified by the survey, while helping us decode the architectural inflections adopted by the JCI. Macedo (1942, p. 10[a]) argued that the rural dwelling should not stand out from the architecture of the region and – just as Raul Lino (1933)



Figg. 10-11

Schemes: rural housing and the architecture of the region (left) and the compartments that make up rural housing (Macedo, 1942).

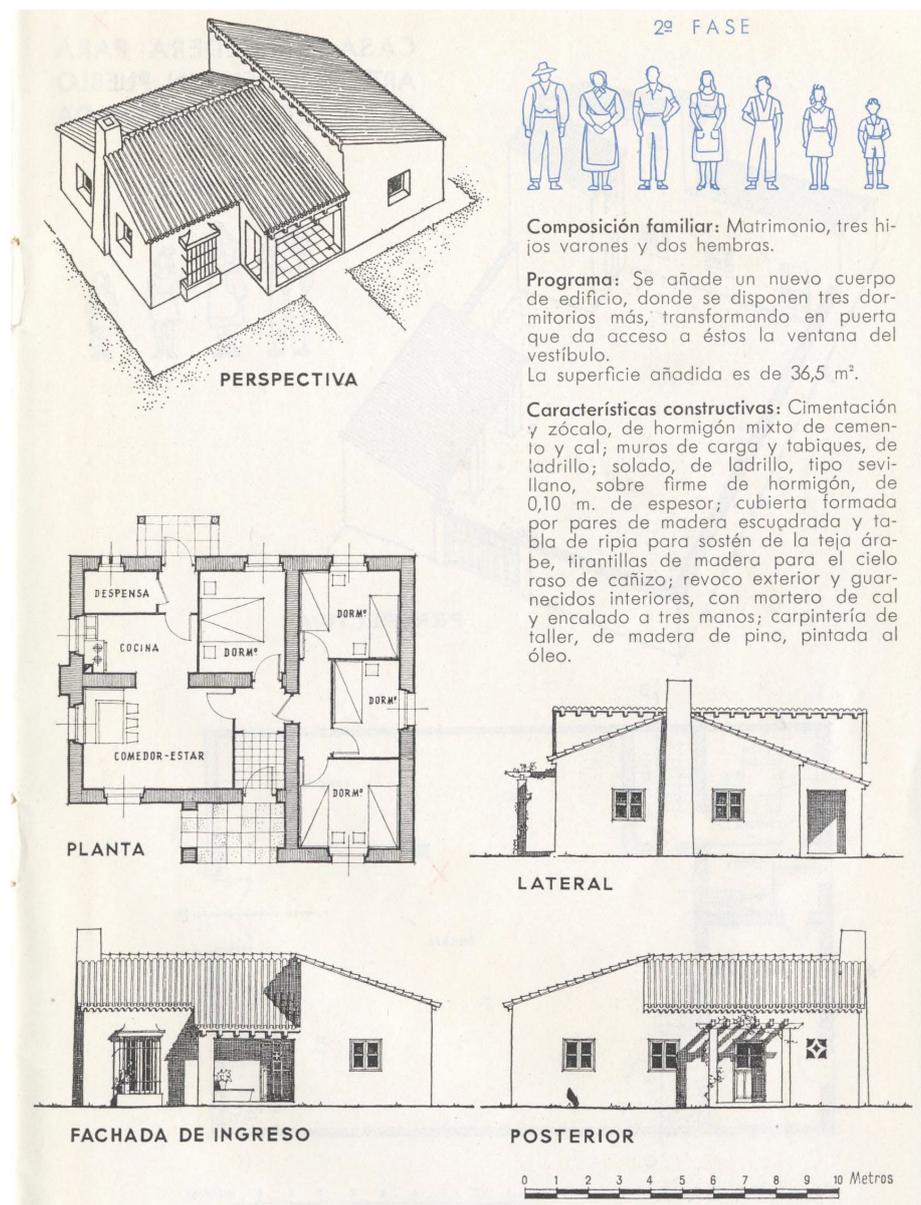
– provided a number of drawings suggesting possible solutions in terms of reinterpretation of the regional language. [Figg. 10-11]

The house proposal corresponded to the programme adopted in all JCI settlements: a kitchen also used as a dining and living room directly linked to the parents' room and those of the sons and daughters, a separation fostering «the hygiene and moral benefits» (Macedo 1942, p. 21). When indoor, the bathroom (at least a toilet with the possibility of a shower) was close to the plumbing connections of the kitchen. In short, Botelho de Macedo presented a functional solution for the rural house: not much flexibility in terms of internal organisation, but a certain coherence: «the interior of the rural house, as well as the exterior, can only gain from simplicity which, after all, is a reflection of the dwellers' character» (Macedo 1942, p. 23). Issues of hygiene, health and moral uprightness in the rural house had a transnational relevance. In 1954, the Spanish Ministry of Agriculture published a book by the Nacional Institute of Colonization (hereinafter INC) titled *Viviendas Rurales* which clarified what to avoid and adopt in rural dwellings. The author – José Tamés Alarcon (1954, p. 34), head architect at the INC technical department – also included some of his own designs, arguing that a joyful and spacious house, in line with the hygiene standards, facilitates work in the field and contributed to the well-being of its residents.

The design criteria for rural dwellings were those already mentioned in Portuguese publications: natural light and ventilation, keeping animals away from living spaces, a lack of hygiene and cleanliness, windowless bedrooms directly next to each other with no separation of the sexes. In addition to references to regional architecture and materials, Tamés Alarcón's proposals shows a clear separation of the dwelling from the agricultural outhouses and from the animals' quarters, all arranged around a walled courtyard with independent access. The author designated this kind of rural house as *casa crecedera*, a house that met the farmer's basic needs (living room, kitchen, and bedroom) and could be extended at a later stage⁹. In terms of the organisation of domestic space and family's social life, the dining room played a central role. In some cases, there was even a complementary living space, while the kitchen was part of a service area. Another feature was the entrance vestibule, often linked to a porch, interposed between the exterior and the main dwelling area, which was thus protected from sun exposure, rain and winds while guaranteeing a certain privacy. [Fig. 12]

Most probably borrowed from Spanish examples, this kind spatial organisation around a courtyard – already proposed at Milagres and Martim Rei

Fig. 12
Vivienda crecedera [evolutive house] (Tamés Alarcon, 1954).



– was studied by the JCI for the extension of the houses of Milagres (Machado 1957a). It appeared in the scheme for the agricultural settlement of Gafanha¹⁰, both designed by architect António Trigo (JCI 1942, p. 33; Trigo 1946). The solution adopted at Gafanha reflects the initial approach of the JCI, whose technicians considered «an advantage leaving the greater part of the works and agrarian improvements to the settlers; particularly in terms of the constructions of the house and farming outhouses» (JCI 1942, p. 33). Even if the JCI provided financial support to those who implemented the original architectural design, self-build was never seen as an option. The same can be said for the arrangement of independent buildings around a courtyard; in the 1960s this was the choice for new settlements established in the Portuguese colonies of Angola and Mozambique (Guerreiro 2022), yet it was never applied again in Portugal. In the new settlements designed from scratch by the JCI, houses were handed over to the settlers fully built, also to prevent possible extensions. The houses built by the JCI in the 1940s and 1950s were all equipped with farming outhouses and animal sheds, all gathered under one roof. [Fig. 13-14] This solution may depend on the combination of two factors. Firstly, by including all functions in one structure, the latter took on a bigger scale,

Fig. 13

Santo Isidro de Pegões (Faias nucleus): first agricultural colony built from the beginning by JCI, settler's house, 1943.
© Mário Novais, Calouste Gulbenkian Foundation Archive (left).

**Fig. 14**

Boalhosa: the last agricultural colony, settler's house (semi detached type), architect Pinto Machado, 1956.
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closer to the bourgeois single-family dwelling and therefore socially more desirable. Secondly, by preventing possible extensions, adult children did not have any opportunity to remain, supporting the idea of rural colonies as *nurseries* for future settlers in the colonies overseas (Silva 2020, p. 180).

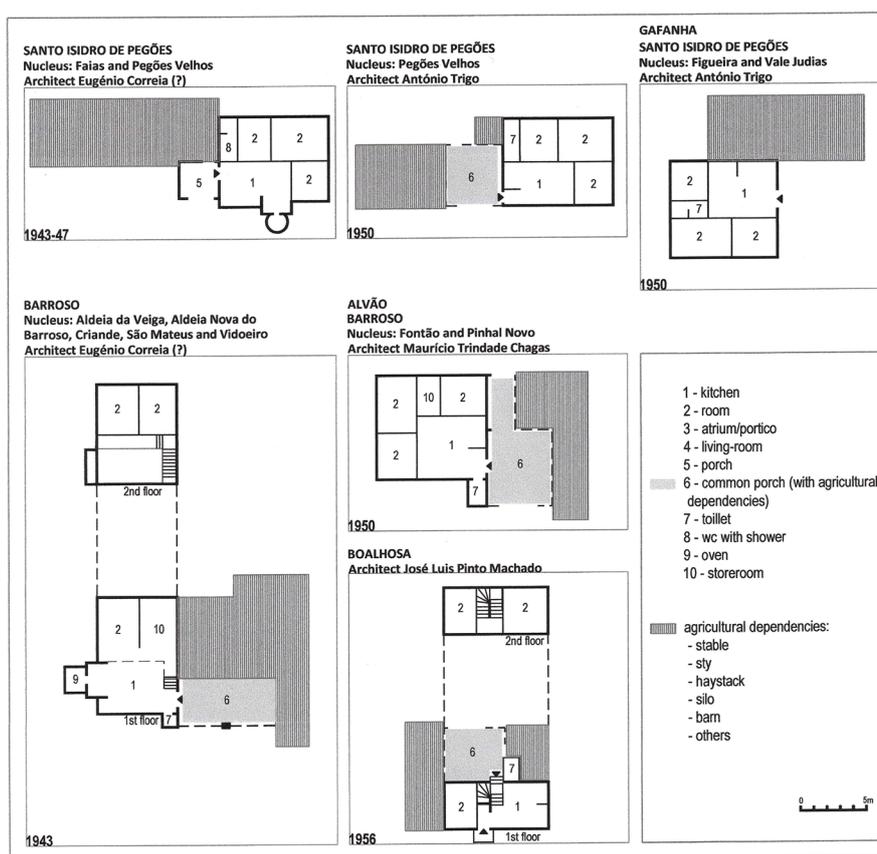
From the formal point of view, reinventing the rural house responded to the vision purported by agronomist Mário Botelho de Macedo (1942): approximating the traditions of regional architecture in terms of idiom and materials, without being confused with them. Several alternative proposals were drawn up for the five settlements entirely built by the JCI, yet many remained on paper as only six rural house designs were actually built, two from the 1940s and four from the 1950s.

Only at Pegões though, attempts were made to mitigate the monotony resulting from repetition. The houses of each nucleus were in fact slightly different due to small variations in the façade, depending on the position of the entrance (three alternatives) and on that of the bedrooms (two solutions). None of these variants, however, altered the overall composition of the houses and annexes. Minor variations in the application of the same design in different settlement areas were also identified (Guerreiro 2022).

Despite the greater complexity in volumes and facades, combined with the inner organisation, these houses consisted in minor variations of the *modern type* established in 1937: a single floor, an entrance eat-in kitchen also used as a living that sorted into the three bedrooms. This *poor* model was common to most housing built at the time for the lower classes. If we consider the spatial structure of the house – despite the presence of sanitary installations since the 1940s (often only a WC), a pantry, and an oven – there were no major changes. [Fig. 15]

Only two of the six designs implemented at Barroso (1943) and Boalhosa (1956) featured a more complex programme, as they were organised on two floors with two adjoining bedrooms on the upper floor. At Boalhosa, a staircase connected the kitchen to the upper floor. At Barroso the design was entrusted to architect Eugénio Correia (Guerreiro 2022, p.173)¹¹, who ventured into a more complex spatial treatment with the insertion of a mezzanine corresponding to a raised ceiling in the kitchen. While all these designs concerned detached single-family houses, Boalhosa stood out as

Fig. 15
Schemes of settler's house – 2nd
phase of JCI.
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an exception. Here in fact the JCI built three crescents of semi-detached houses, without introducing significant changes to the inner organisation of the living area.

Houses for local professionals

Houses for local professionals (technicians, teachers, priests), unlike those for farmers and workers, show substantial upgrades in terms of programme, form and architectural references.

At Pegões Velhos, the initial core of Pegões, we find a quite original solution, namely the social centre designed by the architect Eugénio Correia in 1951, which included the house of the priest and two houses for two ladies who worked as teachers. These three houses closely resembled the church and the two schools featuring paraboloid vaults. They were built using the Ctesiphon system (Rabasco Pozuelo 2015): a ceramic screw system still new in Portugal (Guerreiro 2022, p. 222). [Fig. 16-17]

Some criticised these buildings as «a naïve attempt based on the old ways of building limekilns» (Acciaiuoli 1991, p. 652, cit. in Guerreiro 2022, p. 219), others instead praised them as a «cry for radical modernity», both in terms of materials and form (Pereira and Ferreira 1949, p. 39; Guerreiro 2022, p. 223). Undoubtedly, these building testify to the architect's inter-nation update. In fact, these three houses show some resemblance with the design for a holiday home published in the Spanish periodical *Informes de la Construcción* (Moreno 1951, p. 35, Rabasco Pozuelo 2015, p. 923). We may also notice a direct influence of Spanish publications, not to mention the reference to Niemeyer's work at Pampulha (Brazil), which reached Portugal in 1945 following the exhibition *Brazil Builds* held at MoMA, (1943) (Milheiro 2012, p. 18). Even if the vaulted ceilings did create a unique space, the interior organisation of these three houses was more con-

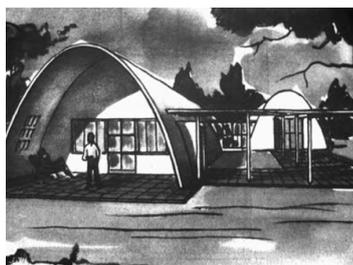


Fig. 16-17
Casa de férias (Moreno, 1951);
Santo Isidro de Pegões (Pegões
Velhos nucleus): priest/teachers'
houses. © Mário Novais,
Calouste Gulbenkian Founda-
tion Archive.



Figg. 18-19

Santo Isidro de Pegões: Pegões Velhos nucleus technicians' houses. ©Josefina Gonzalez Cubero/MODSCAPES 2020.

ventional, somehow dictated by the relationship with the vaults (Guerreiro 2022). The transversal vault, which defined the main dwelling space, was split by a wall along 2/3 of its length, so as to generate relatively small spaces in the smaller section.

The programme included two bedrooms on either side of the living room with a fireplace. This latter, accessed directly from outside, can be considered as main living space, separated by a door from the area including the kitchen, a complete bathroom, and a small office. The presence of a small hallway was another novelty, particularly when we consider the efforts to contain construction costs by eliminating all corridors and other wasted space.

The three houses at Pegões Velhos, however, remained an exception, as none of the other houses designed for local professionals show the same level of experimentation; much rather they share a modern *pragmatic* idiom (Guerreiro 2022) and a layout very different from that of farmer's dwelling. All designed by António Trigo, the houses for agricultural technicians at Pegões (1953) and Gafanha (1954a) and the teachers' houses in Gafanha (1954b) are very similar in terms of programme and architectural expression, particularly considering the roofs recalling Frank Lloyd Wright's *prairie houses*. In both cases, in Gafanha, the descriptive texts are the same, except for the programme. In all other cases (Boalhosa and Barroso), one finds variations of architectural language, even if there is no major formal difference. [Figg. 18-19]

All the houses for technicians and, exceptionally, the teacher's house at Boalhosa [Figg. 20-21], were designed for families with children of both sexes, and in the case of the technicians' houses, also for a live-in maid. In programmatic terms, they were all equipped with a kitchen, living room, three bedrooms, a fully equipped bathroom and a room and smaller bathroom for the maid. At Pegões the programme also included an office, which, except for one of the designs for Barroso, is absent in other designs; in both designs for Gafanha though, one of the bedrooms had a door from the entrance vestibule, so that it could also be used as an office in case of need. The technicians' house at Gafanha also included a food/drink serving area and a storage zone, while at Boalhosa the teacher had an open-air courtyard, plus another for laundry, as well as a roofed balcony on the upper floor.

Apart from the two houses designed for technicians in Pegões, which were L-shaped by imposition of the plan, all the others consisted of independent vol-



Fig. 20-21

Teacher's house at Boalhosa: architect Pinto Machado 1957. © DGADR Historical Archive and ©AlexandraCardoso/MOD-SCAPES, 2016.

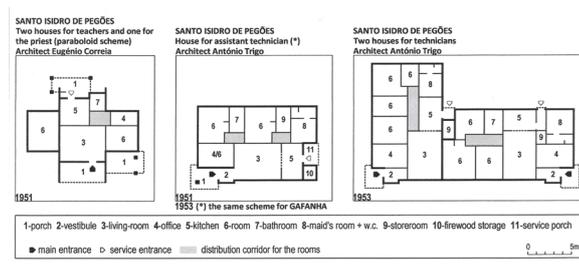
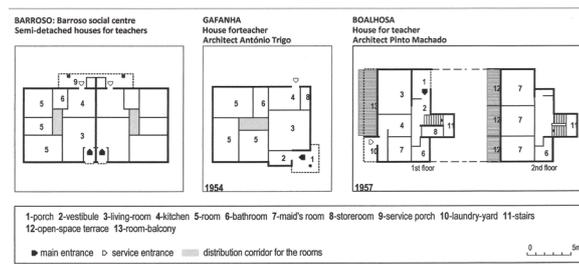


Fig. 22

Schemes of technicians' houses. © Cardoso and Maia, 2022.



umes and a rectangular plan (except for the house built for agricultural officers in Barroso). Having a single floor was the most common choice. However, the houses for agricultural officers and assistants and the teacher's house in Boalhosa were set on two floors. The houses built for the teachers and agricultural assistants in Barroso were the only semi-detached houses. [Fig. 20-21]

In trying to contain construction costs, everything deemed superfluous was eliminated to prioritise the actual living conditions (Machado 1957b); this led to avoid corridors (Trigo 1953, 1954a, 1954b) and wasted space in general (Machado 1957b), resulting in a relatively simple organisation into two zones: a sleeping area with the bathroom and a living space with the kitchen, possibly connected to the maid's room. Distribution areas shrunk into an entrance vestibule (Gafanha, Barroso and Boalhosa) and a corridor in the sleeping area. Basically, these houses materialised a conventional programme and an organisation that reflected the needs of a bourgeois family of the time. [Fig. 22]

A design report concerning the conversion of a farmer's house into the residence of the head of the local *Guarda Nacional Republicana* (Rural Police Force) at Gafanha, also by António Trigo (1961), bears witness to the aspirations for an *architectural upgrade* of a standard farmer's house: «the aim was that his house did not merge, in terms of its external aspect, with those of the remaining farming couples» (Trigo 1961, p. 1). To this end, two sheltered areas were added (one for a car and another as an all-purpose outdoor area),

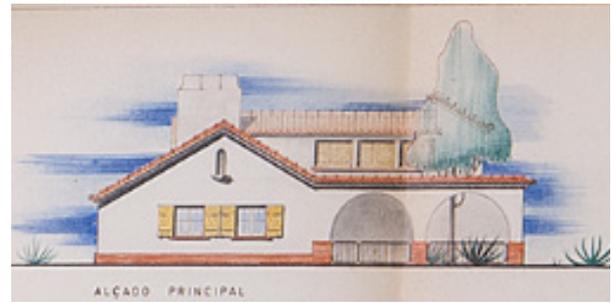
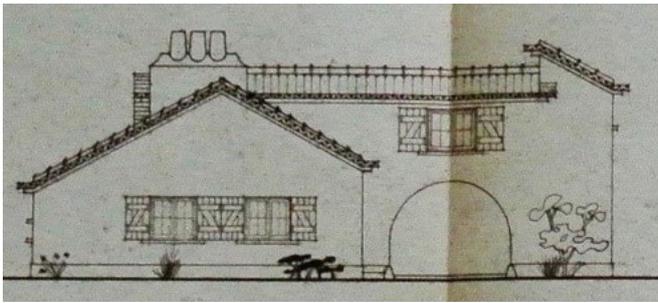


Fig. 23-24

Gafanha: settler's house, 1950 (left) and its transformation into a house for the commander of the Republican National Guard (GNR), 1961, Architect António Trigo.
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and a courtyard surrounded by arches and brickwork to the facades. Internally, the house was similar to the teachers' houses, making use of the whole ground floor as a living space and using the attic as a storage. [Fig. 23-24] António Trigo's (1948) design for the house of the agricultural officers in Barroso is also worthy of note, as its regionalist idiom incorporated «symbolic elements of the regime-approved architecture, such as the pillar/buttress of Romanic inspiration, and at the same time, elements that reveal a modern approach to the dwelling, such as the pass-through for dishes between the kitchen and living room» (Guerreiro 2022, p. 217). This latter was a common feature in the great majority of designs. One should also point out that Barroso is a good example of the reflection of social hierarchy in architectural terms, not only of the differences between settlers and more elevated workers but also amongst the latter themselves. There were detached houses built for agricultural officers and semi-detached houses for agricultural agents and teachers, with one storey for the latter and two storeys for the former.

Final considerations

The houses built in the seven Portuguese inner colonisation settlements reflect signs of modernity in their evolution, made clear in the progressive concerns with physical and moral hygiene. Yet, there was also a social hierarchy among the residents, where the normal settlers formed the base of the pyramid, followed, in order, by the primary teachers, agricultural assistants and agricultural officers. Concerns to clearly distinguish the image of a settler's house and that of a professional translated into architecture by way of language differentiation or introduction of external additions (in cases where the original rural house was upgraded).

The outcome was that any reference to regional architecture dominated the reinvention of the rural house, whose internal organisation in the lived-in part showed practically no variation for three decades. On the other hand, there are examples of references to international modernism in the houses of more elevated workers, the programme for which corresponded to the everyday bourgeois dwelling of the time. Sanitary installations prove this differentiation. While, from the late 1930s onwards, the programme for the design of the more elevated workers' houses included complete bathrooms, it was only in the 1940s that they were no longer outside; even so, they were largely limited to a WC.

On the other hand, if the variations in reinventing the settler's house can generically be referred to as *vernacular modernity*, in line with Lejeune's interpretation of the Spanish case (2019), the same does not apply to the more elevated worker's house and many public facilities. Hovering between clear modernity, pragmatism, or nationalistic regionalism (Guerreiro 2002), the solutions often provided by one and the same architect – as in the cases of Eugénio Correia or António Trigo – enables us to detect a

clear knowledge of international architecture allied to a certain degree of indecisiveness as to the choice of architectural idiom. All the dwellings, whether for the normal settlers or for more elevated workers, had in common a concern with keeping costs low, which indeed helps understanding some of the choices made. Either way, proceeding from Scott's (1998) definition of High Modernity, one can argue that all houses were modern, but this modernity had two faces that coexisted in the same space and time.

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Notes

¹ The survey included three volumes: *The Northern Region* (1942), *The Central Region* (1947), and *The Southern Region* edited by by Fernando Oliveira Baptista, João Castro Caldas and Maria Carlos Radich and published in 2013.

² While agronomists always played an important role, architects had the decision-making power in the devastated regions; this situation was inverted when the INC was set up.

³ See also the striking idiomatic difference between the settlement houses and the architecture of the town centre, for example in the case of Sabaudia.

⁴ By way of example, see the travel reports on Italy (Caldas 1937) and Italy, Switzerland, and Spain (Pereira and Ferreira 1949).

⁵ Portuguese inner colonization established the *casal agrícola* as a legal entity which encompassed a plot of land, a house, associated agricultural facilities, tools, animals for traction and pasture that ensured the economic self-sufficiency of the family.

⁶ The analysis of the agricultural house plans is based on a survey carried out by Filipa de Castro Guerreiro (2015, 2022), who redrew the plans to make her arguments clearer.

⁷ According to the Spanish geographer Fermín Caballero, the *rural population* would only consist of farmer families living in isolated house, on the plot which they cultivated without forming a settlement (Calzada Perez 2006, p. 15; Caballero 1864, pp. 12-13). This scheme became as a model for rural settlement known as *coto acasariado*.

⁸ This difference in architectural idiom was already noted in the case of Pegões (Nunes 2019). Filipa de Castro Guerreiro (2022) also draws attention to the difference between houses and facilities related.

⁹ The Portuguese proposal to CIAM X (Dubrovnik 1956) raised the topic of rural planning, with a focus on the expandable farmer's house.

¹⁰ «The dwelling, together with the threshing space, forms one of the lateral wings. In the opposite wing are the grain store – kept separate from the house by an exterior space with an entrance for a car – stable, pigsty and a storehouse for straw; between the pigsty and stable are a latrine and a ditch next to a nitrary. The two wings are covered, at the back, by a roof that keeps wood and farming tools, etc. dry. A threshing space completes the whole» (JCI 1942).

¹¹ Filipa de Castro Guerreiro (2022, p. 173) bases her attribution on information gathered from an interview with the JCI architect J. L. Pinto Machado conducted on 15.01.2012.

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