

## **A VARIABLE IN PAULO MENDES DA ROCHA'S SINGLE-STOREY HOUSES**

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### **Abstract**

*At the age of twenty-nine years old, the young Paulo Mendes da Rocha had already designed notable projects, and it was at that age, in 1958, when his work became widely recognised by winning the competition for the Paulistano Athletic Club Gymnasium with a project that soon became a reference in the national architecture context. This moment of maturation in his work corresponds to a period of significant events at the international level. Just two years before, events at CIAM 10 suggested that the generational tension pointed out by Le Corbusier led to the advent of numerous new perspectives affecting international architecture production. In parallel, some authors have already noticed subtle variations in Mendes da Rocha's work that appeared in the 1970s and share ideas that had arisen in the new international context. Revisiting the twenty-one built and unbuilt single-storey house projects designed by the architect (all of which were designed between 1961 and 2012), by analysing the relationship between the interior 'public' and 'private' spaces, it is possible to identify variations that mirror shifts at the international level. Noting that there is a divergence of solutions proposed by Mendes da Rocha in his first houses when compared to his latest designs, this paper joins recent contributions of other authors showing heterogeneities in the architect's work and showing possible new directions in his work that appeared during the post-CIAM years.*

**Keywords:** Paulo Mendes da Rocha; House; Modern Architecture; Brazilian Architecture.

### **'Rationalised favelas'**

Perhaps one of Paulo Mendes da Rocha's most publicized works is the house he designed for himself in 1964. On one of the earliest occasions this house was published, in Acropolis magazine No. 343 of 1967, the philosopher and art historian Flávio Motta nicknamed the dwelling design proposed by the architect a 'rationalised favela', since 'every person accepts the presence of the other, without

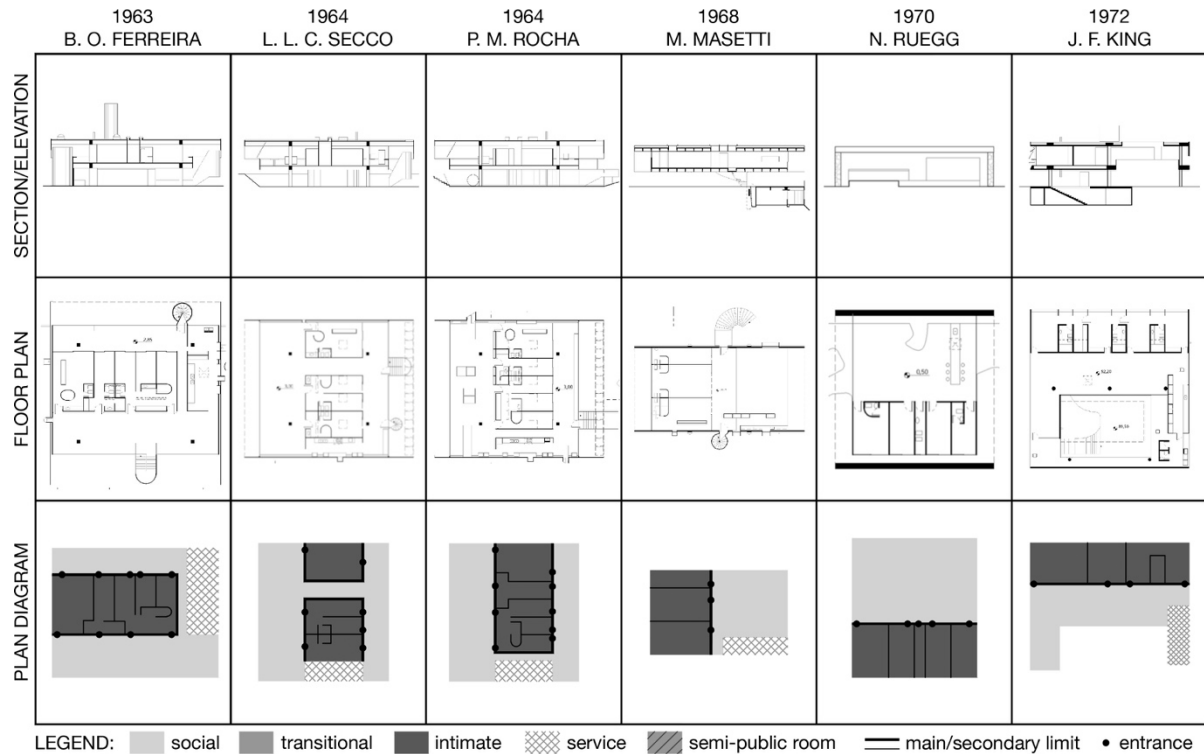
*solid walls, but rather in new and desirable conditions of human respect'* (Motta, 1967, p. 18). In Motta's words, it was *'the space as a social project'* (Motta, p. 18).

Room partitions do not reach the ceiling, which means individual insulation is never effectively achieved. As Ana Luiza Nobre points out, *'the imposing character of this project corresponds [...] to a non-conformity to customs and habits of comfort fundamentally in solidarity with a social system that gives privilege to individual interests, to the detriment of community life'* (Nobre, 2007). As in the FAU-USP building, designed by Vilanova Artigas just three years earlier, the low partitions integrate all spaces under a single roof, which allows the building to be seized by those who find themselves in it as a large collective space. These peculiarities of the house, as well as the FAU-USP, are not strange compared to other projects of what is called the School of São Paulo. About the houses of this period, Segawa comments that interiors *'were admirably open, with fluid environments that are physically and visually interconnected, often abolishing traditional hierarchies of use and coexistence. Community spaces were valued; the private nooks compacted'* (Segawa, 1998, p. 151).

Among the architectural features pointed out by Ruth Verde Zein for the School of São Paulo, one is precisely the search for *'solutions that overvalue the common inner space of indefinite or open use'* (Zein, 2000, p. 384). Another of the characteristics observed by Zein, *'the preference for the monobloc solution, or in "single volume", housing all the functions of the program'* (Zein, p. 384) makes the consequences of the unique partitions of this house even more visible.

The composition of the floor plan and the internal spatial configuration of the program also contribute to intensify the relationship between intimate and social spaces, using a design proposal that inverts the traditional solution. As Anette Spiro points out, *'[t]he floor plans remain one of the reversed principle of a classical villa. The all-encompassing central space has been removed from the middle. It is no longer the core of the house, but rather now includes all of the other rooms, incorporating them therein'* (Spiro, 2002, p.13). The two longitudinal areas at the ends of the house –of social character– surround the central area. By

opening the doors, it is possible to cross the entire house, from facade to facade, through the dormitories, reinforcing the idea of a single and continuous space. The unusual wooden shutter doors of the bedrooms contribute to developing this idea.



**Figure 1.** Group 1 - Low segregation proposals (Plans: Zein, 2000; Diagram: the author)<sup>1</sup>

Almost all intimate areas share light, air, wind, sound, smell, and also the same wooden floorboards of the social spaces, whose arrangement allows them to invade under the doors all of the rooms, from the living room through the bedrooms, without interruption of threshold or change of material. The slender concrete beams also fly overhead, running through all of the rooms. The partitions

<sup>1</sup> In the diagrams, the analysed spaces were classified as social (of public character such as the living room or dining room), intimate (of private character like bedrooms or bathrooms), transitional (spaces that interconnect social and intimate spaces, suggesting detachment or separation not necessarily physically delimited by doors or walls, as is the case for corridors) and service (of neutral nature, such as kitchen, service area, utility room, laundry room, or dependencies for employees). A specific case are semi-public rooms, which could not fit strictly into social or intimate, such as an office, atelier or library, and which can be considered as transitional spaces for the purposes of this analysis, given the two projects in which they appear.

–carefully executed in reinforced concrete measuring only 3cm in depth– seem to aspire to disappear.

These peculiarities of Butantã House are not, however, an exception within the architect's residential work. First because this house was designed almost as if to be built twice, one next to the other. The project contemplated the construction of two twin houses, very similar, one for the architect and another for his sister in the adjacent lot. The twin house, Luiz and Lina Cruz Secco House, does not differ from Butantã in terms of the radicalism of the solutions adopted for the problem of the social-intimate interface. The twin houses find their precedent in the 1963 Beton Odilon Ferreira House.

We could also consider as a '*rationalised favela*' the later houses Nabor Ruegg (1970) and James Francis King (1972). Although these houses seem to be less radical, they do not have the desire of spatial segregation. The doors of the bedrooms continue to be directly open to the living room, without the slightest intention of setting up a space of privacy transition. It could also be the case of Mario Masetti House (1968), which has a skylight and a grate on the floor serving as a subtle transition, yet it keeps the doors of intimate areas completely open to social spaces, and maintains Butantã's sliding shutter doors, in a desire to eliminate the '*solid walls*' to which Flávio Motta referred.

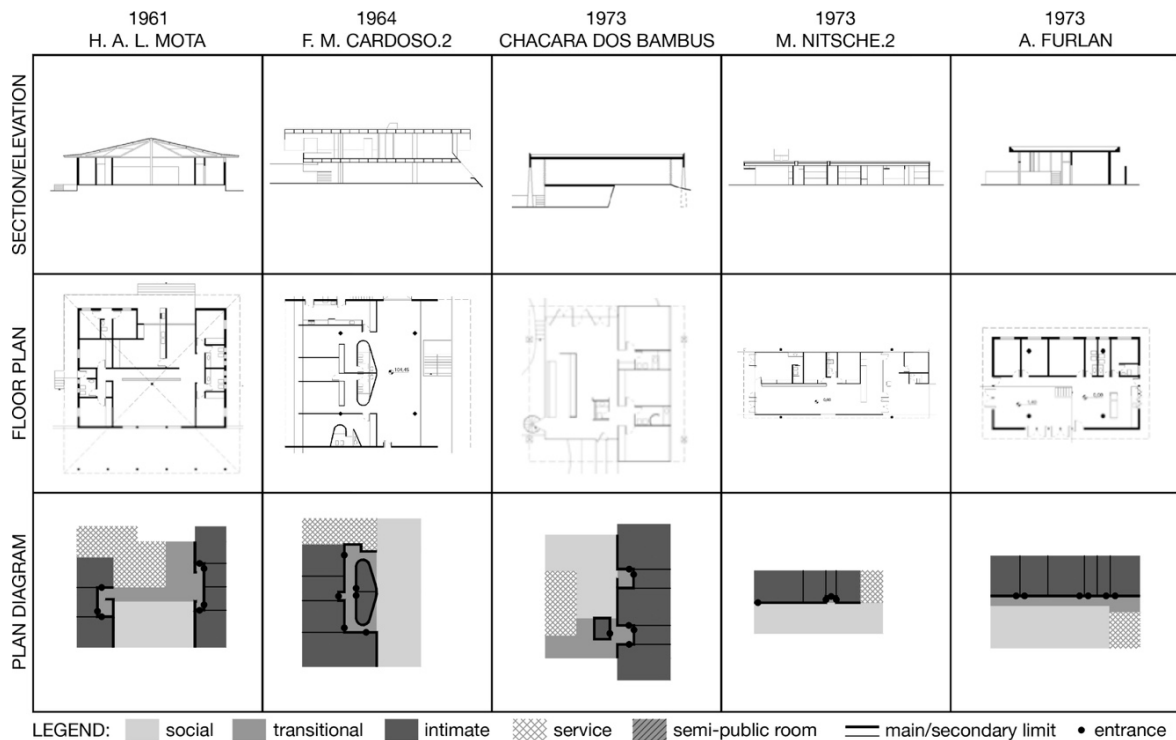
This search for the elimination of '*solid walls*' is more effective if the whole main program of the house is developed on a single floor, and this is the case for all the above-mentioned houses. The compartmentalization of the program into different floors would suppose an unwanted transition. In fact, with only the exception of the house Nabor Ruegg, all the previous houses have two floors, however, the ground floor is composed of pilotis and only apportioned to service spaces, resulting in the owners' living spaces being deliberately confined to a single floor.

The social-intimate interface of these houses is therefore one of the factors that has frequently allowed us to associate the work of Paulo Mendes da Rocha with the School of São Paulo, which in turn associates itself in the international context with the modern movement. In contrast, connections to later periods are less frequent, and sometimes even questioned or denied. However, the last house we

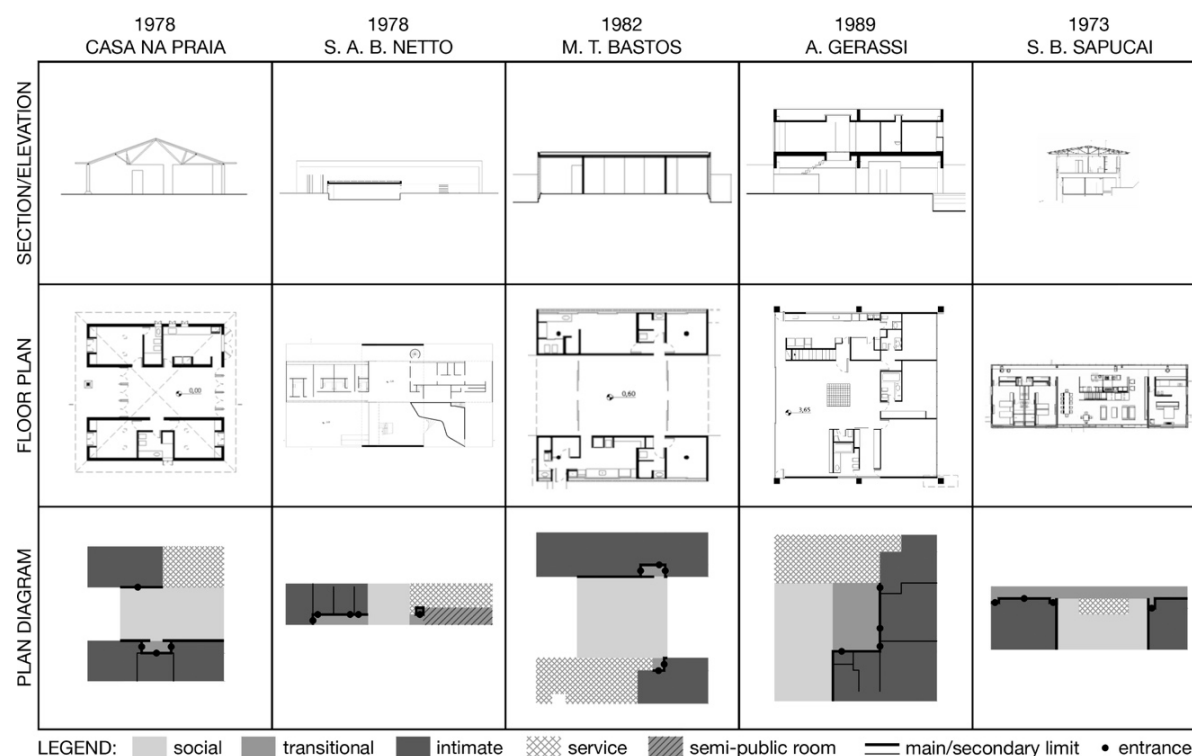
know that shares this type of proposal is the aforementioned James Francis King, 1972. Given that the architect is currently still practicing and that we know that he designed numerous other single floor houses that could be compared, it seems necessary to revisit these projects.

### Moderate solutions

Only the six projects already examined present the aforementioned particularities. Other projects show that the architect has also developed moderate proposals. This is the case of the first of the single-storey houses, Heloísa A. de Lima Mota House (1961), in which there is a partition that does not reach the ceiling, allowing the creation of transition circulation between the living room and the bedrooms. The access to them in turn recedes from the wall, conforming a small hall that precedes the door.



**Figure 2.** Group 2 (Part I) - Moderate segregation proposals  
 (Plans: Zein, 2000; Diagram: the author)



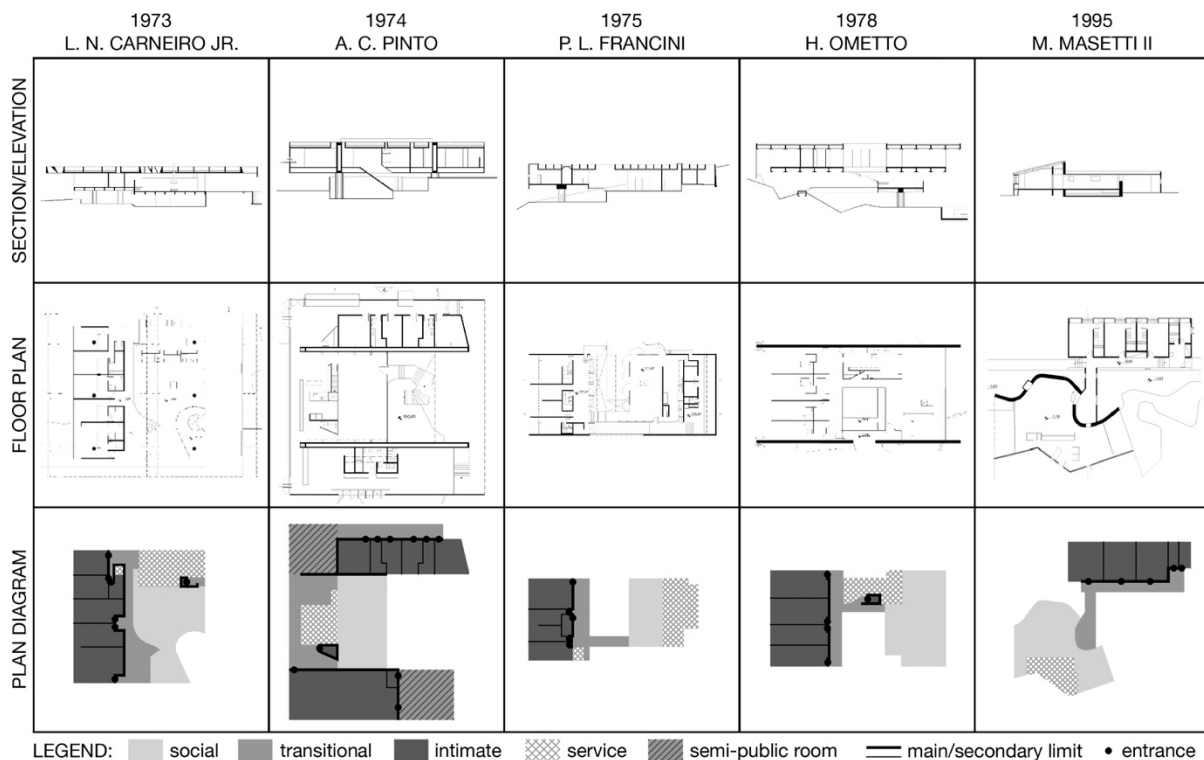
**Figure 3.** Group 2 (Part II) - Moderate segregation proposals (Plans: Zein, 2000. and Eduardo Colonelli Archive [São Bento do Sapucaí House]; Diagram: the author)

In this house, as in his last single-storey house project, in São Bento de Sapucaí (2012), there are two solutions that will be repeated throughout the architect's work to configure spaces of slight transition between social and intimate environments: the corridor and the small recessed hall. The distribution corridor appears timidly at Artemio Furlan House (1973), this time through a 1.40m gap. More clearly, the corridor appears properly as such in the first house designed for Silvio Antonio Bueno Netto (1978).

In the second and definitive project of the house built for Marcelo Nitsche, the solution is the small recessed lounge. This also appears in the House on the Beach of 1978 (in which only the master bedroom opens directly to the living room) and Maurício Thomaz Bastos House (1982). In other cases, in addition to the recess, there is an element that gives greater –but not excessive– privacy to the access of the bedrooms. This is the case of the final project for Francisco Malta Cardoso

House (1964), in which the obstacle consists of a couple of bathrooms. An isolated bathroom is interposed in the recess of two of the bedrooms of the Chácara dos Bambus (1973), while the other bedroom is also preceded by a small hall. In Gerassi House (1989) this hall is larger and the element that interposes suggesting delimitation is the light of a skylight in the ceiling, accompanied by the ventilation grid that it projects in the floor.

### Steps in the opposite direction



**Figure 4.** Group 3 - High segregation proposals (Plans: Zein, 2000; Diagram: the author)

Only a year after the project of the James Francis King House, the last of the 'rationalised favelas', Paulo Mendes da Rocha designed Ligia/Newton Carneiro Jr. House, where the chosen direction seems to lie against the first group of his works. This house, designed in 1973, the same date as the aforementioned Artemio

Fulan, shares with it the incorporation, for the first time in the architect's single-storey houses, of distinct levels inside the house. Although in both cases the dimensions generate a distance from the intimate environments in relation to those of social use, in Ligia / Newton Carneiro Jr. House this one becomes evidently more intense. The small gap of only 70cm is now reversed, locating the living room in a lower level and not in the opposite, which results in a smaller, more protected height, since the roof is levelled in all the house. The 70cm could not suppose a barrier, but the railing seems to have been designed intentionally solid, resulting therefore in a wall of approximately 2m of height from the living room, that obstructs the vision of the access to the bedrooms<sup>2</sup>. The gap, on the other hand, demanded the creation of a corridor whose generous design makes it possible to function as a great hall of transition between social and intimate spaces. This transitional space is also emphasized by a zenith opening in the roof that separates the slab in two parts and that refers to the solution of Mario Masetti House. However, this feature does not seem to have the same meaning as in the aforementioned house, since it is not hidden in the facade as in Masetti, but visible. It is possible to perceive from the exterior that there is an interruption in the slab, thus indicating a timid and subtle desire to break the monobloc into two parts that begin to separate.

For that reason, this house seems to be the embryo of a series, which would be followed by the houses Paulo/Lucia Francini (1975) and Helena Ometto (1978). In both houses a central space functions as a courtyard that physically separates the house into two parts, the social spaces and the intimate spaces. Although in the two houses it is not possible from the outside to see the divided ceiling, as was the case of the previous work, the rupture in the internal spaces is greater, and the corridor of the previous works is now a walkway that significantly separates the living room from the distribution hall for the bedrooms. The aforementioned distribution hall in Paulo/Lucia Francini House still relies on the recess of the doors of the three bedrooms more exposed to the living room, plus a level gap of 1,20m above the living room. In Helena Ometto House, the recess of the bedroom door

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<sup>2</sup> According to the drawings consulted, it is solid, probably of reinforced concrete, which was a recurring solution at that time, as in the railing of the upper floor of the Fernando Millan House.

exists but is smaller, and there is no difference in level, but the kitchen is interposed as an obstacle and the living room, unlike the previous case, has its largest opening in the opposite direction to the rooms.

The most emblematic case of this series is the house in Cabreúva (1995). In this house, the segregation between the intimate and social environments becomes radical, since the house is composed of two volumes radically different, each dedicated to housing a type of use. While one volume has flat roof, the other has it inclined. While one is geometrically regular the other is irregular. In addition to these and many other differences, the two nuclei are even separated by a watercourse. To cross it from the living room it is necessary to change levels by climbing some steps and turning sharply, which allows us to walk through a corridor that is in truth more of a walkway. After crossing it, it is possible to reach a second corridor that only then allows access to the rooms. This Homeric route in Cabreúva has no possible kinship with that of the '*rationalised favela*'. The idea of the home without '*solid walls*' by Flávio Motta from the first houses is unrecognizable here. If the individual space was separated from the collective space in the house in Butantã by three centimetres, here we have three walls of separation. In addition, one of the three walls that interpose is the thickest of the whole project, a structural wall of stone, possibly the most representative paradigm of '*solid wall*'. Perhaps the only remote reminder of the '*rationalised favela*' –which the architect cleverly left as a provocation to the unwary who seeks to unambiguously or definitively understand his work– is the disconcerting precise alignment of the single gap of the stone wall with the gaps of the three walls in the walkway. These gaps allow those who happen to notice them to (albeit with difficulty) visually cross the whole house of '*solid walls*', but only on this axis, in the junction point that connects the two blocs. It can be seen as a reminder that the connection of the two volumes is as arduous as it is fleeting.

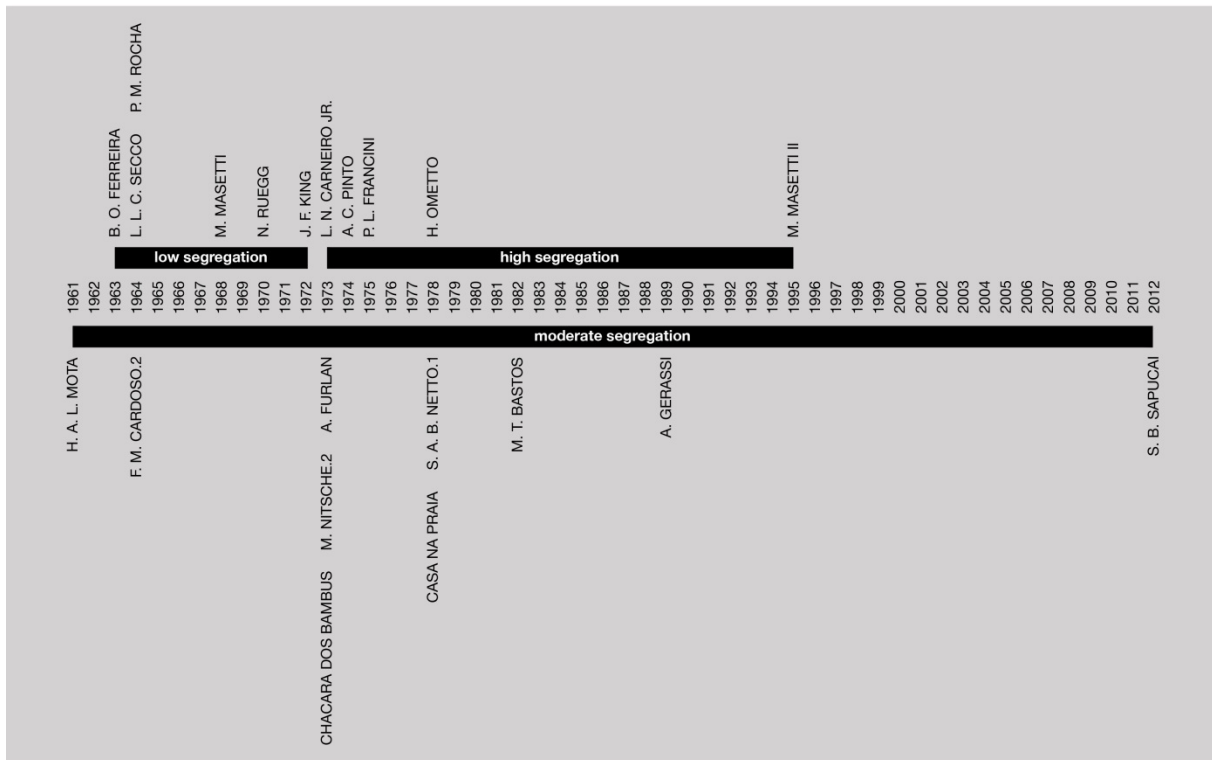
Among the more segregated solutions, we must add an earlier project, Arlindo Carvalho House, 1974. Although not part of the series of bi-nucleate or quasi-binucleate houses, it is important because it rehearses, within monobloc proposals, a significant isolation solution in the intimate rooms. In this case, the three strips appear in the classic version quoted earlier by Anette Spiro. The

central space is dedicated to social use and the external strips, separated by openings on the roof and thick structural walls (again *'solid walls'*), are dedicated to the intimate spaces, which are accessed by a corridor separated from the living room by the kitchen, leading to a transition space which precedes the bedrooms.

### ***'Times have changed'***

In an article published in 2001 on Mendes da Rocha's works designed and published in the 1990s, Carlos Eduardo Comas concludes: *'one cannot really speak of a real discontinuity between the work examined and the previous production'* (Comas, 2001). Among the projects examined by Comas in this text were two of the works that we revisited previously, the Gerassi House and the House in Cabreúva of Mario Masetti. Observing both, especially the second, and relating them to the first projects here revisited, it is not surprising that, a little further on the same text, Comas refined his statement by writing that *'times have changed,'* and that *'without doubt, the messianism of the 1960s in which the first Paulo flourished, and the naive faith of the School of São Paulo, are distant'* (Comas, 2001).

Chronologically it is possible to observe that, besides the persistent line of moderate solutions, the houses resembling the *'rationalised favela'* are grouped in the initial years of the career of Mendes da Rocha. We did not find solutions of a similar degree of radicalism in his production afterwards. On the other hand, the diametrically opposite solutions only happen after Ligia/Newton Carneiro Jr. House, after 1973. The period of new approaches has its first manifestations in the 1970s, cementing and affirming itself in the 1980s and 1990s. This fact allows us to place this result also in parallel with observations of other authors such as Zein, who observing the whole of the work wrote that there is *'a subtle transformation, from the project of the Museum of Sculpture (1987-92)'* (Zein, 2000, p. 160).



**Figure 5.** Chronological chart of the groups of houses (the author)

The dates corresponding to these three groups of houses relate to the grouping that would result from an analysis of the same variable in the housing projects designed by Mendes da Rocha<sup>3</sup>. After all, according to Zein, '*[t]he theme par excellence that runs the great majority of his residential work is the idea of house-apartment*<sup>4</sup>' (Zein, 2000, p. 398), in which, in fact, most of the works here discussed are included. The projects that notably lean to radical solutions relating to the '*rationalised favela*' are those from his first years, the CECAP Cumbica (1967), the Jauaperi Building (1972) and the Prototype Building (1973). Considering 1973 again as a timeframe, we see that the architect, from this moment, does not repeat this type of solution in his residential buildings. The

<sup>3</sup> We know 12 housing projects designed by Mendes da Rocha, among them built projects, unbuilt projects, and variations for the same lot. We do not have knowledge of the plans for one of those, the Bertin Condominium, which was not built. It is thus the only one we do not consider here.

<sup>4</sup> According to Zein's own definition, 'houses on a single floor, raised from the ground, repeatable and multipliable' (Zein 2001, 398).

works that use diametrically opposite approaches are the Jaraguá Building (1984), in which the nuclei of elevators and stairs is located in the central portion of the apartment floor, completely fragmenting the collective and individual uses, and the Golden Hill Building (1985), which has a bi-nucleated plan and is connected by a walkway near the Catanduva House. It is possible to observe that there is also a line of moderate proposals that extends throughout the entire work of the architect: Guaimbê Building (1962), Penhasco das Gaivotas Towers (1983), Aspen Building (1986) and the two proposals for building in Vallecas<sup>5</sup> (2004). About the Aspen Building, Mendes da Rocha himself explains in 1994, in an article about this building entitled *Virtues of a House: 'One can flow everywhere, there is no such thing as the usual separations. But there could be: I made some variations to show that it is possible to have a conventional apartment, if the client wants. If anyone has prudence about the living room leading to the bedrooms, a partition can be placed'* (Rocha, 1994).

Daniele Pisani, who proposes in his book on the work of Mendes da Rocha a chapter entitled *'Architecture for a new world'*, dedicated to analysing his works of the 1980s, comments in a manner similar to the architect, but in relation to Gerassi House, that he *'does not want to revolutionize the lives of its users'* (Pisani, 2013, p. 249), and that, *'the period of great battles fading, the struggle turns to new front lines. Thus, with undeniable realism, the project can no longer be understood as the direct pre-figuration of a coming world'* (Pisani, p. 249). This attitude identified by Pisani, distant from the *'messianism of the 60s'* as indicated by Comas, coincides in dates and does not seem alien to the international context of revision of the modern movement that began to gain strength after the end of the CIAM. At this time certain formulations of the discourse promoted by the masters of the avant-garde of the beginning of the century started to wane, such as the reliance on architecture as an instrument of social transformation and the search for a disruption with traditional customs and ways of life.

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<sup>5</sup> In Vallecas only the three-bedroom typology of the final proposal built has a solution that does not include transition spaces, which is perhaps due to the scarcity of space, since in the rest of the apartments is visible the concern with the creation of at least small transitional spaces.

The '*rationalised favelas*' recall the spatial conception of the desired modern society. They reverberate the vanguard principles of critique of the individual way of life that proliferated in the earliest decades of the twentieth century, as in the first De Stijl Manifesto (1918) or in the proposals of the ABC group exemplified by Mart Stam in '*Kollektive Gestaltung*' (1924). It is noticeable that the houses here revisited from the second half of the 70's deviate from these principles, going towards the values of a new generation of designers –not by chance a generation closer to Mendes da Rocha– that start to question these principles. It is the case of Giancarlo de Carlo '*Architecture's public*' (1969), where he shows discontentment for the consequences for housing proposals motivated by the CIAM of Frankfurt of 1929, by asking why architects should not try to make dwellings that do not necessarily follow the determinations promoted by the CIAM, dwellings that could be, among other things, '*rich in opportunities for privacy*' (De Carlo, 1969, p. 9).

During the years of critical revision of the Modern Movement, the emergence of a new dynamic with the past, no more understood as something to be rejected, allowed new approaches that tried to establish connections between architecture and traditional ways of life. The abandonment of the positivist logic and the unchallenged faith in the progress that characterized the CIAM years allowed theorists and architects to move on from the ways of the production of previous years. The analogical morphology relations that Aldo Rossi proposed extend to the search for affinity with the traditional lifestyle, as he explains when talking about the residential block in the Gallarate district of Milan (1969-1973), including '*domestic intimacy*' (Rossi, 1976, p. 350). In the Dutch context, John Habraken concluded his '*Type as a social agreement*' (1988) stating that the challenge for the architects '*is no longer to be avant-garde and to refuse the past, but to connect to it and transform it*' (Habraken, 1988).

The reflections about a dwelling that does not ignore a traditional lifestyle, but rather tries to establish ties with it by respecting the residents' habits and not causing a rupture, are part of the main concerns in the writings and works by many architects that followed up the questioning of the modern principles after the second half of the twentieth century.

In other fields of knowledge, we find parallel stances. For example, in psychology, the book 'Personal Space' by Robert Sommer, originally released in 1969 but published by the University of São Paulo in 1973, is focused on the concern of analysing conflicts caused by breaches of the private and intimate limits of the individual. The book analyses, from behavioural evaluations, the ever-tense relationship between individual and collective, which is especially addressed in the chapter explicitly called '*In defense of privacy*'.

The intense circulation of these ideas, in the international scope of these years, could hardly have been missed by the most notable Brazilian architects. Anat Falbel recently showed that Vilanova Artigas and Lina Bo Bardi '*were following closely the CIAM discussions since post-war*' (Falbel, 2018, p. 622), specifically approaching the architectural principles of Aldo Van Eyck, despite the recurrent omission of the subject in Brazilian historiography. Mendes da Rocha, called by Artigas to be a professor at FAU-USP, where Lina also was professor, certainly was not oblivious to his contemporary international intellectual framework and the transformations triggered by it.

Certainly, '*times have changed*', and the work of Mendes da Rocha seems to have changed with them. In this sense, we suggest that our analysis and conclusions are in line with the proposal of Maria Alice Junqueira Bastos –which in 2010 she still called the '*reckless thesis*'– that, observing inflexions in the site plan of the projects of the architect, initially following CIAM principles, suggests that '*the architecture that has been made by Mendes da Rocha after years of critical review of the modern movement is tributary to these questions, and therefore distinct from its previous architecture*' (Bastos, 2010). In fact, also our analysis of the work of Mendes da Rocha seems to be sensitive to this context, but evidences of direct connections –or even indirect connections– between the architect and the international intellectual framework of these years are unknown or omitted, and sometimes denied. However, if on the one hand the work of the architect approximates the international production of the masters of the first half of the XX century –such as indicated by Zein regarding Le Corbusier or Mies van der Rohe (Zein, 2000, pp. 43-107)– it falls to us to question if it is possible that the attention and evident interest of the architect to the international context could

have completely disappeared precisely during the years when his career developed. Given the fact that this hypothesis is very unlikely, and considering the growing appreciation of the work of Mendes da Rocha in the contemporary world of architecture, the 'reckless thesis' of Bastos seems to be in urgent need of wider exploration, as well as the re-examination of the work of the architect – to which we aim to contribute– and the possible connections –still invisible– between the architect and the international architecture context of his generation.

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