
THE VILA MILITAR OF RIO DE JANEIRO: THE GENEALOGY OF A MODERN DESIGN

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This paper investigates the principles that guided the design of the Vila Militar of Rio de Janeiro, a military town built in 1908. Fruit of the Brazilian Army modernization program in the early twentieth century, this village was planned as the first autonomous unit and as a model for other military towns to be built throughout the country. This settlement also had a pedagogic function by introducing new notions of space and habitability and a symbolic role by representing the officer's sociopolitical emergence in that context. Designed in accordance with modern principles of circulation, green areas, zoning, standardization, and easy reproducibility of forms, the blueprints reflected the corporate hierarchy in space and architecture. Each rank was settled in specific areas and housed in specific architectural types but different typologies for the same ranks could also be designed. Although it was not effectively reproduced in other places as firstly intended, the Vila Militar still ensures its significance as a pioneering spatial organization in the 20th century and due to its role for the institution. Finally, this paper strives to contribute with Brazilian 's urban and housing planning history by developing a narrative about the urban and architectural features of a military town.

Keywords

Military Town; Modern Principles; Design

How to Cite

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INTRODUCTION

Since the late 19th century the military became increasingly involved in the Brazilian political scenario. According to McCann, between 1889 and 1937 the institution performed the role of the modern state that was flourishing in tandem with the responsibility of maintaining Brazilian's territory united¹. Guided by the ideas of progress and renewal, militaries, doctors, engineers, and educators were part of a group that started to question the aristocratic Old Republic (1889-1930) and the agriculturally based economy. Together, they played a pedagogical role with their actions as vehicles of modernization². For instance, engineers were considered “progress missionaries” and applied their knowledge in the city by idealizing “a new metropolis with rectilinear, uniform, and wide streets”³. The militaries, in turn, had an educational function due to military schools, and also because their headquarters were seen as locus of education and civility. In this sense, the construction of new and hygienic structures would encourage modern concepts of space and habitability.

In the first two decades of the twentieth century, the militaries engaged in a modernization process that included institutional reforms and the construction of new physical structures, especially new cantonments and housing. In 1908, the *Vila Militar* of Rio de Janeiro, a sort of military town, began its construction and incorporated a set of military establishments (regiments, schools, hospitals), therefore, settled different types of buildings (barracks, offices, infirmary, workshops, individual houses for officers and sergeants) in an innovative institutional organization called First Strategic Brigade⁴. For McCann it was supposed to be a military town model to be replicated throughout the country, however the lack of government funds made it impossible to be executed beyond the capital. Previously, military housing were located inside or nearby specific military structures such as Fortresses or Military Schools, differing from this new organization.

Another important step of the Army's earliest modernization process was the construction of 53 barracks in 36 localities⁵ between 1921 and 1925. The *Companhia Constructora de Santos*, chaired by Roberto Simonsen, was commissioned to build several barracks by using rational methods of production such as planning, standardization, and industrialized materials. This program apparently did not include the construction of housing units that was encouraged by later acts, like the creation of the *Caixa de Construções de Casas*⁶ (translated as Housing Construction Institution, though only for the militaries) in 1932 and a decree that allowed a huge financial support for the construction of military housing throughout the country along 10 years, signed by the President Juscelino Kubitschek in 1956⁷. Simultaneously to the *Vila*'s works, the military held cultural exchanges with other countries in order to modernize their institution; first with the Germans and after 1919 with the French Army by a cooperation called French Military Mission (MMF)⁸.

In this context of the military's modernization process and, by extension, the Brazilian's state modernization⁹, some questions can be made: If the militaries played an active role in Brazilian's society, what can we learn from their construction methods and design principles? What are the main characteristics that could define the military housing in the early twentieth century? Thus, this paper investigates the design concept of the *Vila Militar* of Rio de Janeiro. It is a narrative about the urban and architectural features of the pioneering Brazilian military town of the 20th century and it is divided in two sections: insofar the first deals with the ideas that guided the urban design, the second section focuses on the main characteristics of the houses built in 1908. It is important to note that the study of the *Vila Militar* aims to fill a historiographical gap that overlooked this building typology.

THE URBAN DESIGN OF THE VILA MILITAR IN RIO DE JANEIRO: A MODERN DESIGN PROCESS?

Contemporary to other urban realizations of the Old Republic, the *Vila Militar* of Rio de Janeiro followed the same ideas of hygiene and free circulation that was dominant in the engineers' mentality of that time. This is not surprising since the Construction Committee in charge of the planning and construction of the *Vila Militar* had military engineers in its composition, besides officers from other regiments such as artillery and infantry. Another urban plan worth stating was the Working Neighbourhood Marechal Hermes, built a couple of years later and nearby the *Vila Militar*. Both were idealized by Marechal Hermes da Fonseca, were designed by one military in common, and shared very close urban design concepts¹⁰.

Usually adopted then, the orthogonal layout with wide streets was also implemented in the *Vila Militar* that was structured by a main road, currently called Duque de Caxias Avenue (Figure 1). Since the inscription "Part of the Vila's perspective"¹¹ appears as an identification of the plan itself, the design admits the possibility of extension of the main avenue, reinforcing its axial configuration, such as the Arturo Soria y Mata's *Ciudad Linear*. The Vila's plan was either characterized by public squares symmetrically placed, abundant trees in the central road and surrounding all the blocks. According to the Ministry of War's documents, the landscaping had the function of making a "pleasant" environment¹².

The main avenue provided a separation of functions: residential and green areas, public squares, one administrative building plus a "casino" were placed on one side; while, on the other side, buildings for storage, training and other military activities were planned – as can be perceived from the building types in the original drawing and from the observation of current conditions¹³. Consequently, zoning was one of the principles adopted in the plan's design.

Another essential element of the urban plan, although not drawn in the blueprint, was the axis of the railroad, arranged in a parallel to the main road. Inaugurated in 1910, the Vila's station was situated in a central position in the blueprint, in front of the administrative building and the "casino". As pointed out by Rodriguez, the station building was designed with architectural elements that suggested a fortified castle, probably as a reference to the area¹⁴. Due to the suburban location (approximately 15km from the capital's center station), where the military town was located, the fastest means of access was by train. Nonetheless, there was still a demand for building military houses near the workplace for the sake of the organization's efficiency¹⁵. As the main avenue, the railroad also functioned like a watershed between uses: working, leisure and officers residential areas were settled on one side of the train line, and sergeants residential area was planned on the other side – although it should be said that the sergeant's houses were built in the 1930s¹⁶, meaning that the original plan only foresaw officer's residences to represent their social emergence in the political scene.

The officers' residential area was planned in a rectangular pattern that could be easily reproduced and indefinitely juxtaposed if needed along the main avenue, as mentioned before. The plots of land had generous dimensions – approximately 800m² (up to more than 1,000m²) – and the detached dwellings occupied small portions of it. Between 1900 and 1920, this kind of layout was made possible by the gradual expansion of setbacks and was stimulated by the hygienic discourse of lightening and ventilation in to all the rooms¹⁷. Not only did that discourse influenced the construction of wealthier civil houses but it was also institutionalized in the corporation's daily life through a use and occupation guideline called *Hygienic and Conservation Procedures for the homes of officers*, published in the Army's Bulletin in 1909, just one year after starting the Vila's construction works¹⁸. In sum, the new layout was a disruption with the colonial urban fabric and with the attached or semidetached military houses from the 19th century.

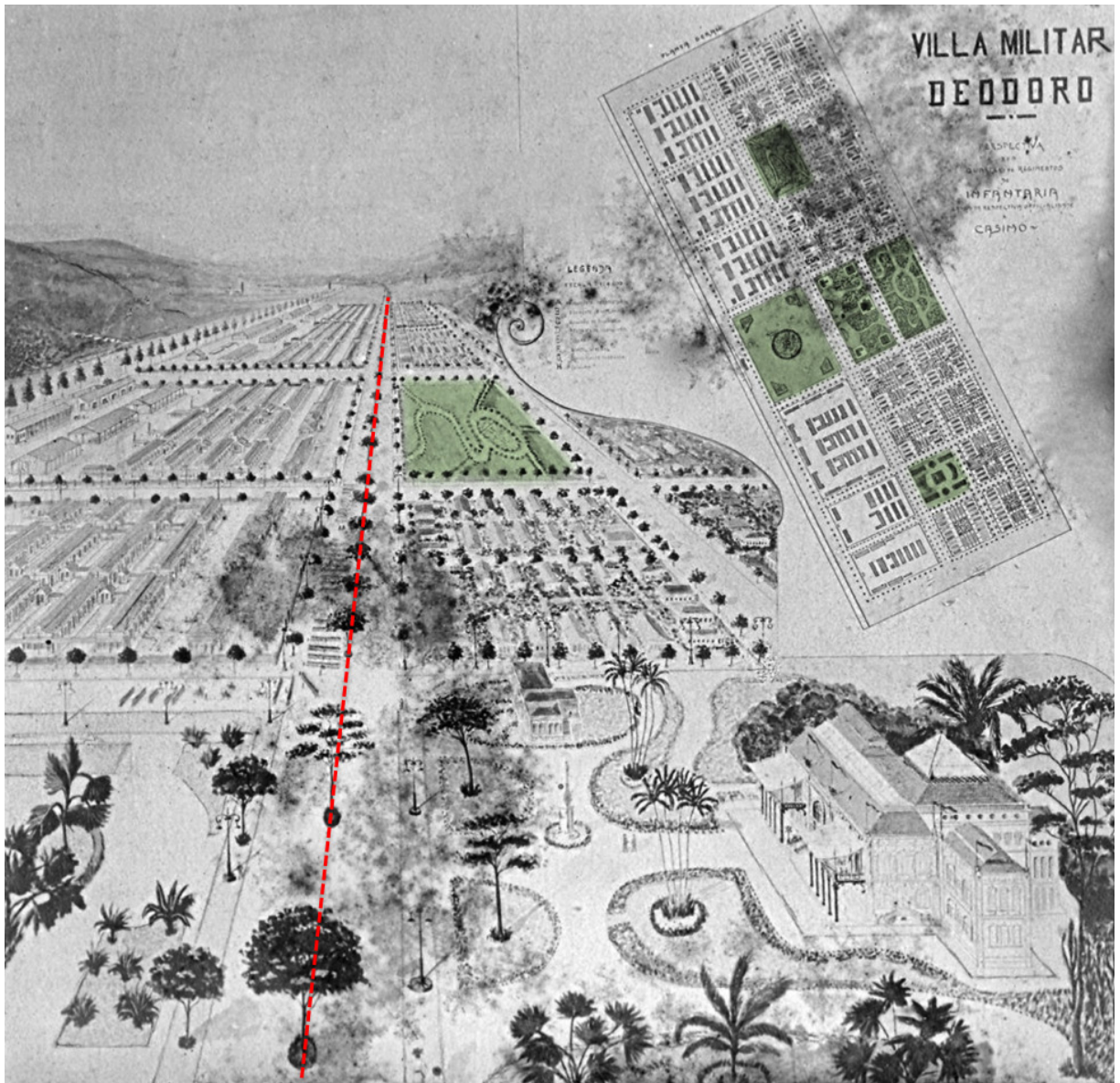


FIGURE 1 Vila Militar of Rio de Janeiro, perspective

The Vila Militar urban design was grounded on some principles that guided, as well, the construction of Brazilian's industrial settlements in the late 19th and early 20th century. More than semantical similarities between the military and company towns, both shared common needs for the proper functioning of the organizations. Autonomy, isolation, social division of space¹⁹, and the idea of intermingling housing with the workplace were characteristics of the company towns and incorporated in the military town in Rio de Janeiro, in order to ensure disciplinary control (time and leisure) over the staff, considered as another key element for the efficiency sake of the establishment²⁰.

In sum, the Vila's design was based on hygienic and circulation ideas, zoning of activities, social separation of ranks, and standardization of the residential types, as it will be discussed in the next section. Those were progressive values for that time and were adopted by many urban planners like Tony Garnier for the design of his *Cité Industrielle* (1904). Garnier's proposal was a predominantly linear configuration in which the center of the design was selected for public buildings and common spaces as seen in the Vila Militar urban plan. However, we could not claim that Garnier's proposal inspired the urban design of the Brazilian's military town because the *Cité Industrielle's* illustrations were actually published afterward, in 1917²¹. Moreover, the exchange between Brazilian and French Armies only strengthened after 1919 due to the aforementioned French Military Mission (MMF). Notwithstanding, the Vila Militar had similar ideas with the *Cité* and it might be related to the current thinking of that moment regarding company towns and industrial settlements. Thus, one can assume that the member of the Construction Committee were aware of the European discourse – although this hypothesis deserves further studies about the professional training of those members.

THE ARCHITECTURE OF THE MILITARY TOWN: STANDARDIZED TYPES

In the 19th century, the architecture of military houses was austere, without many decorative ornaments, and had a spatial organization based on the colonial configuration: made by a main and a secondary body. The main body was elongated and structured through a set of social and private rooms without a corridor, moving from one room to the other. The secondary body, in turn, was usually smaller, located in the rear of the building and sheltered the kitchen, pantry, bathrooms or even the maid room. In addition, the houses were built under the repetition of the same unit, according to a standardized process. However, distinctions among different ranks could occur. In 1872, for instance, a set of eleven standard attached houses for officers was designed for the *Campo Grande Shooting School*, except the unit at the end of the group that had a larger front than the others – perhaps it was the unit for a higher rank officer. An addition single-family residence was also designed for the commander and had a different spatial organization that included an antechamber, high basement and an aesthetic a bit more elaborated than the attached houses. (Figure 2).

An almost identical situation could be seen in the military houses designed in 1881 for *Realengo Shooting School*. It was a set of eleven standard attached houses as well, with a spatial organization very similar to the previous example – though having greater subdivision of rooms. A year later, in 1882, semi-detached houses designed for the *Fortress of St. John* also kept the colonial configurational, which was the main and secondary body. Only in 1887 the houses designed for officers in the *Holy Cross Fortress* had a major transformation in its spatial configuration due to the incorporation of the secondary body to one single rectangular volume. Besides, it was planned with a roof gable and oculus that was usually remarkable in chalet-like buildings.

The construction of the Vila Militar stimulated the creation of a new aesthetic for the officer's houses that reflected the military's growing influence. Although the transformation on the façades was carried on, the spatial organization remained attached to the colonial configuration, illustrating the endurance in changing daily habits, despite the desire for rapid changes in the political scenario by the militaries. Notwithstanding, it is important to verify that the austerity was still mainly adopted on the construction of the barracks, built in metal frame and representing a modernization of the building process²². (Figure 3)

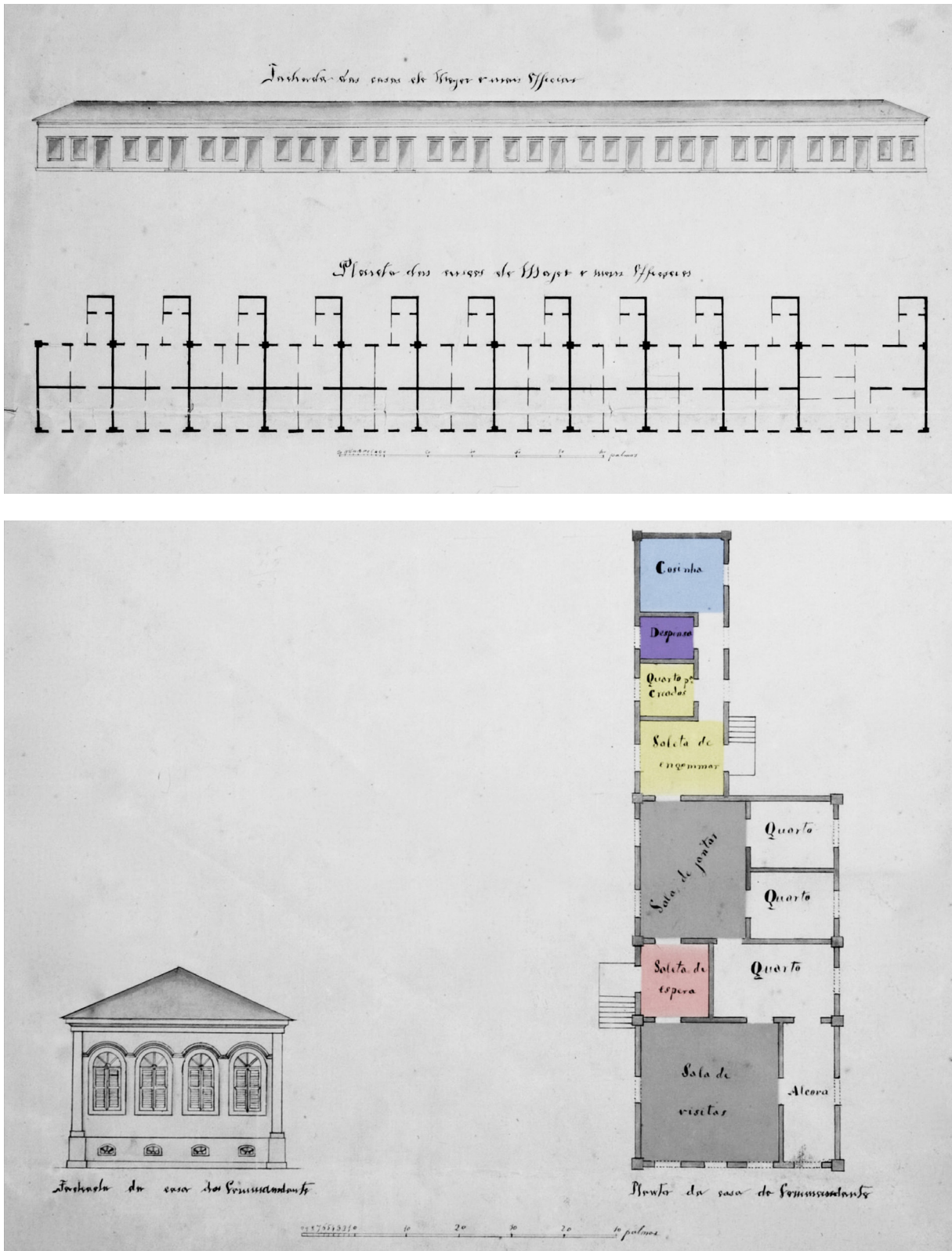


FIGURE 2 Designs for a set of houses in Campo Grande Shooting School, 1872. Units for officers and major on top, and for commander at the bottom. Subtitle: dark grey (living and dinner rooms); light grey (bedrooms); Blue (butlers' pantry, bathroom and kitchen); purple (kitchens' storeroom); yellow (maids room); light pink (antechamber).

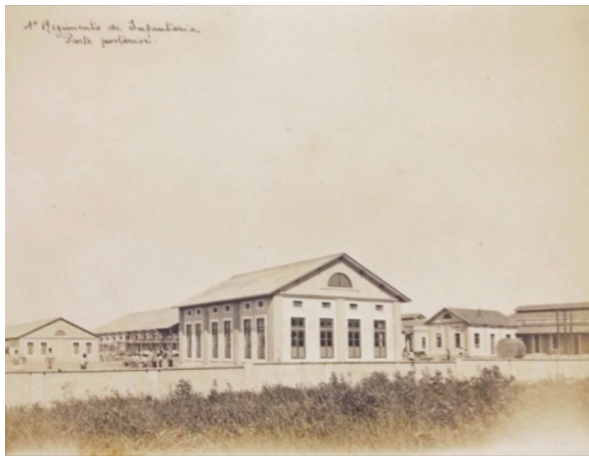


FIGURE 3 Vila Militar of Rio de Janeiro: Views of the 1st Infantry Regiment (left) and of the officers houses (right)

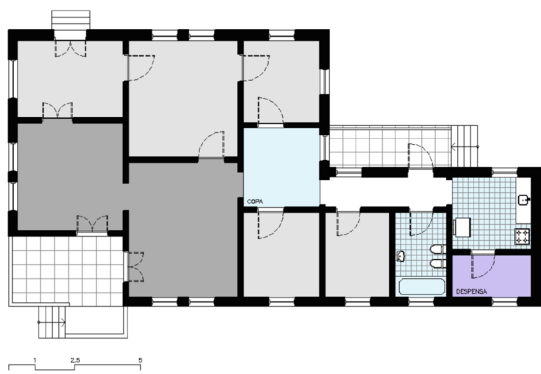


FIGURE 4 Floor Plan Type 01 (180m²) and front view of the officers' houses located on the plots in the middle of the blocks at Duque de Caxias Avenue

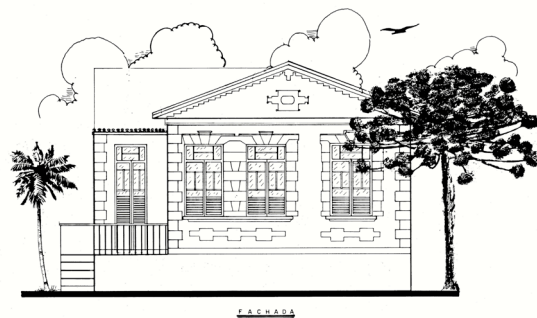


FIGURE 5 Floor Plan Type 02 (260m²) and front view the officers' houses located on the corners at Duque de Caxias Avenue
 Subtitle: dark grey (living and dinner rooms); light grey (bedrooms); Blue (butler's pantry, bathroom and kitchen); purple (kitchens' storeroom)



1



2



3



4

FIGURE 6 Different façade ornaments of three neighbouring houses (type 1) with the same configuration and volume (1,2,3) and houses type 02 (4), all for higher officers.

Breaking with the tradition of attached military houses from the previous century, two types of detached houses were initially built in the Vila Militar, in accordance to hygienic standards: one was proposed for the plots situated in the middle of the blocks (type 01) and another type for the corners (type 02)²³. (Figures 4, 5 and 6). More than simply providing variation, these two types could probably have represented different hierarchical ranks – although there were no records to validate such claim. Both floor plans were rooted in the colonial configuration, as their nineteenth century predecessors, but having the main and secondary bodies connected by a space that resembled a corridor like a flow distributor – might be a butler’s pantry too. This room could also shelter other activities since it had approximately 9m². Both floor plans were very similar regarding their spatial organization even though they differed in the number of rooms and built area – ranging from 180 to 260m² (type 01 and type 02, respectively). Each of these floor plans would feature a particular style: eclectic (type 01) or chalet-like buildings (type 02).

The type 01 had an eclectic façade inspired by “the French way of living” – in the beginning, this concept was a privilege of the more affluent and only then it was widespread among the middle classes. This style was mainly featured by classical elements and materials such as cast or forged iron pieces, especially in the front porch. (Figures 4, 6). The front porch stairs’ balustrade could either be built with other materials like tree trunks, a reference to the picturesque. Other variations on the façades of the military’s houses could be appreciated by the diversification of materials and different classical decorative elements in stucco.

Likewise, the type 02 had very similar architectural elements such as iron on the front porch and classical decorative elements but was different from the type 1 because it borrowed a gable, making a reference to a chalet-like building²⁴. (Figures 5 e 6). The chalet could be characterized by its triangular front façade that accompanied the roof slope, which pediment was usually marked by the presence of a central oculus. The military house, however, replaced the oculus for a coat of arms. It is interesting to notice that the type 02 was installed on the corners of blocks as an attempt to homogenize the two front facades with the same formal element of the roof.

Although the chalet can be related to a more Nordic architecture, no other constructive feature would link this military house to that cultural-geographical pattern; on the contrary, it kept rather more dialogue with the French style and techniques. Insofar the military institution was increasingly engaging with Germany exchanges, the French influence, which was predominated in Brazilian´s culture in general, had been more architecturally assimilated in the first residences at the Vila Militar.

In short, it can be claimed that even though those two types were planned together with similar plans, they were most likely to show variations in order to avoid the monotony of a standardized ensemble. In addition to the variation within the two types, each one could also vary its own aesthetic, but still keeping the same floor plan, and establishing standardization within variety, a practice that endured along the 20th century in the military design process.

Today, walking along Duque de Caxias Avenue, one cannot find two identical houses because of the diversity of aesthetic elements applied on the façades surfaces, despite the similarities in the volume and the window frames and locations. Due the absence of more records, it is difficult to prove the roots of this variation: whether it was part of the design process or an outcome of subsequent remodellings. (Figure 6). Indeed, standardization within variation created a rich architectural landscape that was very different from the homogeneity used to characterize standardized constructions such as the company towns – something that the higher officers rejected the outmost. Those officials sought to represent their position as part of a new emerging bourgeois class that was performing an important political and social role in the country's modernization process. The more elaborated architecture was part of the construction of that new image.

In the final years of the 1930s, another design and, therefore, a fresh type emerged in the Vila Militar and represented the new situation, as it continued to happen over the years, according to the increasing needs of housing. The 1938 photographic records portrayed new detached-houses designed in accordance with the architectural trends of the moment, which was inspired by the Mission Style and some Art Deco elements. Moreover, it was during this decade that a residential complex for sergeants was built across the train line. This continuous process of planning and building by stages was a very particular military practice established along the 20th century.

CONCLUSION

As an attempt to modernize the Army and its infrastructure, the *Vila Militar* of Rio de Janeiro marked a moment of rupture with the Brazilian tradition of military building in the 19th century. It was based on modern ideas of planning, circulation, hygienic trends, zoning and standardization. A standardized design process was adopted without enabling the aesthetic variation due to several decorative façade elements. The axial configuration and repetition of types suggested the possibility of extension and reproduction of the original plan. In general, the urban planning and architectural designs were seeking for efficiency of production in an avant-garde ensemble for that time.

The officers' houses were based on hygienic discourse, favouring lighting and ventilation, which led to the introduction of setbacks. In addition, they departed from an austere expression and adopted current stylistic trends, but significant spatial changes took some decades to complete. It is worth noticing that eclecticism was adopted in the officers' homes, while the barracks continued to follow simple and austere features. Given the fact the dwellings were firstly built only for higher hierarchical ranks with an aesthetic that represented an emerging social class, the houses were most likely to represent the officers' role in the socio-political scenario of the country; meanwhile, the architecture for bureaucratic buildings and barracks' represented the institution.

Probably the militaries in charge of Construction Committee were aware of European and Brazilian current urbanistic and architectural debates and offered a spatial model to symbolize the Army's modernization, in opposition to the colonial city. The design also indicated a new way of building in a hygienic and efficient manner that could be reproduced throughout the country by the corporation.

On the other hand, this project consolidated compositional principles that were institutionalized and guided the Army's housing developments throughout the twentieth century. In the 1950s and 1960s the military design process favoured orthogonal plans, socio-spatial division between hierarchical ranks, free spaces, and a variety of architectural types designed under standardized processes, in order to cope with the institutional needs as hierarchy and efficiency. The hierarchy was materialized in architecture too with different types amid and for each rank. Another practice that remained was building in stages: showing constructions in different times and enriching the architectural diversity. More specifically in the 1960s, the practice of standardization within variation intensified and several façades were proposed for the same floorplan, as initially seen in the 1908 examples in the *Vila Militar*.

Last but not least, the dwellings in the *Vila Militar* can be considered as pioneerings because they sheltered the First Strategic Brigade, a new institutional organization with a new spatial model, notwithstanding it was not reproduced as initially intended. In other words, the *Vila Militar* marked a new phase of building military towns in the 20th century. This is one of many reasons that make the *Vila Militar* of Rio de Janeiro an important chapter in the history of Brazilian military towns and, consequently, Brazilian's history of urban and housing planning.

Endnotes

- 1 Frank McCann, *Soldados da pátria: história do Exército brasileiro 1889-1937* (São Paulo: Companhia das Letras, 2007), 10-11.
- 2 Micael Herschmann and Carlos Alberto, "O imaginário moderno no Brasil", in *A invenção do Brasil moderno: medicina, educação e engenharia nos anos 20-30*, ed. Micael Herschmann and Carlos Pereira. (Rio de Janeiro: Rocco, 1994), 09-42.
- 3 Fernando Diniz Moreira, "Shaping Cities, Building a Nation: Alfred Agache and the Dream of Modern Urbanism in Brazil, 1920-1950". (PhD diss, University of Pennsylvania, 2004), 33.
- 4 Vila Militar can be translated as Military Village.
- 5 For further information, see Roberto Simonsen, *A Construção dos Quartéis para o Exército* (São Paulo, 1931).
- 6 It was created by the Decree No. 21541 of June 16, 1932, with the purpose of "building homes to house officers," "as close as possible to the unit's headquarters," as it was considered a fundamental demand for proper housing of military, as well as essential to the military administration, instruction and discipline of its members.
- 7 Just one month before the NOVACAP's regulations, the institution ahead by the construction of the new capital, Brasília, Juscelino Kubitschek signed the Decree No. 39860 of 25 August 1956. It authorized a special credit of one billion five hundred million cruzeiro equally distributed along ten years with the purpose of building officers and sergeants houses throughout the national territory.
- 8 The French Military Mission (MMF) was an international military cooperation starting in 1919 up until the early 1940. The French Army was hired with an advisory task in order to ameliorate the Brazilian Army by promoting the reorganization of training schools, improving the institution's management capacity, creating new regulations, a system of promotion, and new tactical units.
- 9 In the first decades of the twentieth century, the Brazilian Army started an institutional modernization process, which included the reform of military education, the implementation of compulsory military service, and the construction of structures, such as barracks and quarters.
- 10 Marechal Hermes da Fonseca was a top rank military in charge of the Ministry of War between 1906 and 1909, when the Vila Militar was being built. In 1910 he became president of the country and in 1914 he inaugurated the Working Neighbourhood Marechal Hermes.
- 11 The picture was titled as "Part of the Vila's perspective". It was found in a 1909 report, organized by the Construction Committee in charge of planning and building the Vila Militar, and gathered in June 2012 in the Army's Historic Files, located in Rio de Janeiro. The report was composed by 44 photographs that illustrated the main construction works on the site, including the main buildings and the residential pioneers' types, besides the urban design.
- 12 BRAZIL. Ministry of War. Agenda No. 52 of 25 September 1907. p.1105-1106 (apud EXÉRCITO [S.D.], p.15).
- 13 Even though the general features of the blueprint remains, the plan went through some changes. For instance, a hospital was built on a formerly residential area, 4-story buildings were constructed instead of one-story houses, and other specific changes. But it is still possible to interpret the original design from the current situation.
- 14 Helio Suevo Rodriguez, *A formação das estradas de ferro no Rio de Janeiro. O resgate da sua memória* (Rio de Janeiro: Sociedade de Pesquisa para Memória do Trem, 2004).
- 15 In 1919, the head of the French Military Mission in Brazil, General Maurice Gamelin, believed that the construction of military housing was an important stimulation for the military career. One can also claim that the military housing nearby the working environment was a tool for control and efficiency for the sake of the institution's goals.
- 16 This information was reinforced by the 1938 photographic records and the comparison of its current site location.
- 17 According to Nestor Goulart Reis Filho, *Quadro da arquitetura no Brasil* (São Paulo: Perspectiva, 2006).
- 18 *Regulamento de higiene e conservação das casas dos batalhões destinadas a residências dos oficiais*, published in the Army's Bulletin in december, 15th, 1909.
- 19 The social division of space could be achieved through physical separation among different groups or different designs, as well as segregation between single and married militaries.
- 20 As shown by Telma de Barros Correia, "A iniciativa privada e a transformação do espaço urbano e do território: Brasil, década de 1950" (paper presented at the XIII Encontro da Associação Nacional de pós-graduação e pesquisa em planejamento urbano e regional, ANPUR., Florianópolis, Santa Catarina, May 25-29, 2009).
- 21 According to Françoise Choay, *O urbanismo. Utopias e realidades. Uma antologia* (São Paulo: Perspectiva, 2003).
- 22 According to information contained in a file written by Antonio Leite de Magalhaes Bastos Junior, a military who was part of the Construction Committee in charge of the construction of the Vila. (apud EXÉRCITO [S.D.]). This same file suggests that the houses had also been built with metal frame.
- 23 The two pioneering types were identified by comparing different sources such as the 1909 iconographic material of the Construction Committee of the Vila Militar, updated photos (2012), and architectural blueprints gathered in some regional military department of works (1ª Regional Committee of Works and 1ª Army's Division). These types were located along the two blocks on the left side of the 1ª Army's Division Building and on the Duque de Caxias Avenue. Similar types on the right side of that Division were not evaluated here because we could not assume whether they were built in the 1910s, since no record was found. Regarding the floor plan, it is important to share that the blueprints gathered were not the original ones but new drawings from 1970s for the Army's management purposes. For this reason, some blueprints illustrate spatial organization's remodelings. The search for the original design, though, was carried out from a comparative analysis of the blueprints in order to identify those with less intervention and therefore more approximate to the proposed situation.
- 24 For some Brazilian authors, the chalet would be a variation of eclecticism, however, for Reis Filho (2006), it was a particular style, which was described separately from the eclectic style. According to Correia (2014), the chalet and the American bungalow should not be considered as a style, yet a typology. In addition, this author states that the chalet was part of the "picturesque aesthetic" because of the adoption of rustic and raw materials (such as wood) intertwined with elements of classical language (pediment, oculus, etc.). Based on that, this paper understands the chalet as a typology with elements that are independent from the eclectic buildings. More discussions about the differences between the chalet or bungalow and whether it was a style or not could be read in Bruno Giberti, *The chalet as archetype: the bungalow, the picturesque tradition and vernacular form* (TDSR, vol. III, no. 1, 1991), 54-64.

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- Telma de Barros Correia. “A cidade-jardim: os conjuntos residenciais de fábricas (Brasil, 1918-1953)”. *Anais do Museu Paulista*.22, 1, jan-jun (2014): 161-198.

Images Sources

- Figure 1: AHEx (In: Construction Commission of Military Vila, 1909). Collected in June-2012. Note: image edited by the author
- Figure 2: AHEx (In: Constructora Commission of Military Vila, 1909). Collected in Jun-2012
- Figure 3: Ahex (collected in Jun-2012). Note: edited by the author
- Figure 4: CRO-1 (Regional Commission Works-1) (collected in Jun-2012). Note: design redrawn by the author
- Figure 5: CRO-1 (Commission Regional Works-1) (collected in Jun-2012) .Note: floorplan redrawn by the author
- Figure 6: Photo by the author (2012)