

# V!RUS12

## RADICAL MODERNS

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### IMAGES OF A CERTAIN MODERNITY: KLABIN HOUSE IN CAMPOS DO JORDÃO, INSTANCE OF ARCHITECTURAL EXPERIMENTATION

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#### ABSTRACT

This paper seeks to make a first reading of a cottage built by Emmanuel Klabin in Campos do Jordão, Brazil, in early 1950s. The author and his work are presented, trying to contextualize the possible affiliations and references involving both. It seeks to understand which ideas and concepts have possibly influenced the design and construction, which, at the same time that is figuratively associated with a submarine, it suggests certain attachment to procedures and rationalist principles. If, in one hand, the formal plastic character of the house draws attention, the author also stands out. Mina Kablin's brother and Gregori Warchavchik's brother-in-law, he was in direct contact with a context of cultural effervescence connected to the Modern Architecture in Brazil in the mid-1920s and 1930s, as well as being an entrepreneur in the real estate. As a part of an ongoing research, the paper relies on information based on records, surveys and on-site interviews. It aims to give visibility to a possible attitude of "breaking with conventional procedures and aesthetic models" that the house has, aligning, accordingly, with the theme Radical Moderns V!12.

**PALAVRAS-CHAVE:** housing, modernism, Klabin family

#### WEIRDNESS REFERENCED

This article is the first record of an ongoing investigation, derived from an unusual situation: an unpretentiously accepted invitation to "take a look at a strange house" in Campos do Jordão, from the decade of "1940", which was of some "Klabin's".

The first impression was too much referenced "weirdness". Openings in the form of hatches, the huge chimney of the fireplace, which emerges as a large volume in relation to the house, devices that remembers a submarine's periscope, large openings. Elements that associate themselves to a large flat roof sloping attached to curved surfaces, defining the volumes. A house very unusual to the common constructions present in that place, where the architecture is known to present an eclectic architectural ensemble of varied mix of standards, mainly centered in the treatment of facades and very sloped roofs, which allude to the vernacular architecture of colder climates. At the same that the plastic formal character of the house grabs attention in opposition to the local context, the dominant local "taste" that exudes from the place also seemed to stand outside the temporal context, considering what was the current architecture in Brazil in decades 1940 and 1950. Moreover, it seemed impossible not to associate the Klabin surname to Gregori Warchavchik, and consequently, the early years of modernism in Brazil.

Research on more information about the house, its design and construction, who was the author of the project and the owner, was the next step to try to understand what ideas, concepts, works and architects have possibly influenced the design and construction of the isolated house on top of Serra da Mantiqueira, which insistently remitted to images of a submarine and had elements that literally were like something out of a ship (Figure 1). It was impossible not to think that the history of modern architecture highlights the transatlantic as one of the reference objects evoked by Le Corbusier to treat the minimum space, self-sufficiency, and the sphere of collective housing programs. This, which once was a powerful image for the greatest architect of the modernism, was materialized in that forgotten house at Campos do Jordão.



**Fig. 1:** Klabin house, Campos do Jordão, view of the south elevation, 1987. Source: Private collection of the current owner.

This article seeks to make a first reading of this house, built between the late 1940s and mid-1950s, as a vacation house, by its first owner Emmanuel Klabin. These were,

specifically, a work and a missing author, until then, in academic studies. And also of a research context where the documentary records are not available from formally institutionalized collections. In this sense, the information presented here derive from a series of initial data collection and research, which includes photographic records, on-site surveys, with internal and external house measurements, that guided the construction of 3D models, plant schemes and elevations. A research on the literature looked for data from academic papers, mainly dissertations, where the author is cited even if not necessarily relating to the issues addressed here. Documentary surveys attest some biographical data. Some interviews were also carried out in order to collect unknown data and to check information that in a first moment seemed conflicting<sup>1</sup>.



**Fig.2:** Klabin House, view of the west elevations (foreground) and north, 2016. Source: Heloísa Mônaco dos Santos.

This article is part of an ongoing research. It does not mean to revisit the historiography and much less launch the work/home analyzed, or even its author, in the context of the modernism in the Brazilian architecture. The goal is to give visibility to the attitude of "break with conventional procedures and aesthetic models" that the house presents, aligning accordingly with the theme *Radical Moderns* of V!12. In other words, it aims to

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<sup>1</sup>The main interviews conducted so far: [ 1 ] **Mauris Ilia Klabin Warchavchik**, Gregori Warchavchik and Mina Klabin Warchavchik's son, Emmanuel Klabin nephew; [ 2 ] **Benedita Costa Biagioni**, Gustavo Biagioni's wife, responsible constructor for the house; [3] **Hahahel Salas Peres**, the second and current owner of the house; [4] **José Antônio Domingues**, executor attorney lawyer of Emmanuel Klabin's mate, Anna Theresia Burger .

Informal conversations: Sra. **Jacira Paschoal**, daughter of the old caretaker; Sr. **Carlos Wagner**, surveyor who designed the Parque do Ferradura, where the house is located; **Alexandre Salas**, the current owner's son.





contextualize this possible “break attitude” and its possible connections and references, focusing in an exploration of the architectonic object (Figure 2).

## THE "INVENTIVE HERMIT"<sup>2</sup>, REAL ESTATE SECTOR ENTREPRENEUR

The author of the project and first owner of the house in the Parque da Ferradura, in Campos do Jordão, was Emmanuel Klabin<sup>3</sup>. He was born in 1902 and died in 1985. He was the youngest son of the industrial Lithuanian immigrant of Jewish origin, Maurice Freeman Klabin and Berta Osband Klabin. He was the brother of Jenny Klabin, married to the painter Lasar Segall, Mine Klabin, married to architect Gregori Ilyich Warchavchik and Louise Klabin, which was married to the Doctor Ludwig Lorch (Valadares, 2011).

Even working with a small documentary material of biographical nature, so far, it is known that Emmanuel Klabin had studied electrical engineering, first in Polytechnica School of São Paulo (installed in 1894)<sup>4</sup>, then in Edinburgh, Scotland<sup>5</sup>. However, it is unclear whether he came to complete this educational level. The trajectory of Emmanuel Klabin's found in the data collected inform less specifically about his work in Campos do Jordão, but more about the activities related to real estate investments linked to the resources and assets received through inheritance. With his father's death in 1923, Emmanuel Klabin, still very young, assumed the responsibility of administrating his family properties, which included vast land portions in several neighborhoods of the city of São Paulo, and also some resources derived from compensation received when the family left the company Klabin Irmãos & Cia. (KIC), founded by his father in 1899.

According to Salla (2014) E. Klabin would create with those resources a ceramics company called as Emefka in 1924. In the same work that studies the Paulistana ceramic industry in the period of the First Republic, the author points out that in 1935 the production of Emefka was focused on "rolled and tubular brick" (Salla, 2014 p.176). Lara (2012) also reports the performance of E. Klabin:

One of the relatives decided to keep investments in the industrial sector in a ceramic situated right there, within the lands of his father: "In 1929, the son [Emmanuel Klabin] creates the MKF Ceramics, which would be the first continuous furnace pottery in São Paulo, between current streets Ricardo Jafet and Archpriest Hezekiah". (METRO)<sup>6</sup>. The MKF ceramic would be an industrial investment focusing on high productivity, with a heavy investment in machinery, evidenced by that "continuous furnace. " (Lara, 2012, p.188, our translation)

However, the author points out that "possibly the principal line of business of Klabin's heiresses and heir [Maurício Freeman Klabin] would be the real estate" (Lara, 2012, p.188). Other studies also point to the performance of Klabin family in this segment after

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<sup>2</sup> In an interview , Mauris I.K. Warchavchik , when asked about the house in Campos do Jordão said beforehand , "the whole question is, you have to understand my uncle's personality: an inventive hermit [...]".

<sup>3</sup> The authorship of the project is attested mainly by Mauris I. K. Warchavchik and Benedicta Costa Biagioni.

<sup>4</sup> A publication of the newspaper *Correio Paulistano*, on February 19, 1920, about the results of Polytechnica School exams of the school year 1919, shows Emmanuel Klabin as approved.

<sup>5</sup> As the proof certificate of George Heriot Watt College, 1922.

<sup>6</sup> Companhia do Metropolitano de São Paulo. *Ação cultural do Metrô – Linha 2 – verde*. [online] Available at: <http://www.chacaraklabin.com.br> [Accessed 11 Oct. 2010].

the death of the patriarch, presenting them as entrepreneurs of large real estate holdings, which included the construction of houses and buildings, mainly for rental. It is important to note that the production of ceramic Emefka supplied the demand for bricks of the buildings sponsored by the family, reinforcing this interest and focus on real estate.

The registration of the E. Klabin activities related to the construction appears almost exclusively in the Denise Invamoto's (2012) dissertation, and in a very timely manner. The main theme of this author's research is the preservation of the cultural identity, and is focused on the trajectories of one of the most distinguished E. Klabin's brothers in law, the architect Gregori Warchavchik (1896-1972). The author presents facts about the presence of E. Klabin in the management of his family's investments, and consequently the participation of G. Warchavchik in various moments of the work. About the family business involving children and sons in law of Maurício Klabin after his death, the author presents:

His heirs continued with the real estate investments - land acquisition, parceling, urbanization, construction, and etc. all visualizing sales and rentals. In this sense, Warchavchik became a fundamental piece to the management of his family businesses through feasibility studies, project and construction management. The architect participated in the design of roads, implementation of subdivisions, drainage calculations and division of areas for each one of the heirs, which were divided by a lottery system, registered in the contract. When the division was not exact, the extra amount of land then owned by all heirs (Invamoto, 2012, pp.223-224, our translation).

The author reports, in a footnote, that "there's a letter documenting Emmanuel Klabin complaint that he always had to stay with the worst lands. Most of them in slopes, just because he was an engineer" (Invamoto, 2012, p.224, our translation). G. Warchavchik was ahead of some real estate projects of the Klabin's family that were rented to be shared between the four heirs. It seems that these were projects in which investments were made more profitable if performed together, as in the case of the houses known as Vila Bertha, in Vila Mariana. However, it seems important to look at Invamoto's records about the projects developed by Warchavchik to his wife and sisters, as the houses for the allotment known as Vila Afonso Celso, which were not projects for Emmanuel Klabin "[...] as according to information, he used to build at his own" (Invamoto, 2012, p.226, our translation). Besides Invamoto, some other interviews point that E. Klabin had worked in the construction of rental homes independently from his family. He managed those constructions with the help of an employee and a team of construction workers who built the house according to his desires.

In this sense, we try to point out here that the designer of Klabin house in question, was very familiar with constructions, and was around this business since the mid-1920s, due to family and personal financial investment in the field. E. Klabin seems to have been a private investor whose work falls under the so-called rental housing production, a concept that set the city of São Paulo context of housing production, since the last decades of the nineteenth century until the 1930s, which was studied by Nabil Bonduki in his work published in 1998.

In this economic context, housing solutions for rent produced in series to workers and the middle class - tenements, villages, set of terraced houses, serial building etc.- had the same meaning and represented specific assemblages of the same financial movement, in other words, capital seeking profitable application through the housing leasing operation. (Bonduki, 2002, p.45, our translation).

At this moment, no information about the different projects and buildings that E. Klabin overviewed were collected, especially in Vila Afonso Celso, and little is known about the steps followed to legalize all his constructions with public agencies (government). However, the interviews point to a significant number that prove his presence in the construction industry and real estate market, as "built more than 200 homes" to rent, and left more than "400 properties" as heritage. Although it is not yet possible to indicate

exactly the initial and final period of his constructions, it seems appropriate to consider that, most likely, it is part of a context in which the rental market is centered on a "range of housing solutions of different dimensions, quality and standards," which, on one hand, sought to meet the demands of different segments and, on the other hand, reflected "the prevailing social stratification." (Bonduki, 2002, p.46, our translation).

It Known that E. Klabin was not formally married and had no children. However, he lived with Anna Theresia Burger for decades. He do not made a will, or appointed heirs, leaving his greats assets subject to the decisions of the courts and agreements tutored by the them. The previously collected reports pointed a number of conflicts regarding his inheritance, involving his companion, who died two years after him, his nephews and a few closer employees. It is also known that he lived in a house in Vila Mariana, the same place where he spent his childhood and youth. Vila Mariana was a suburban neighborhood until then, where his parents' mansion was located in the street Afonso Celso, a time frame of his life where he was close to his parents and sisters, except in periods where they were together or apart traveling to Europe, whether to business, study, or medical treatment function, as it was very common for the wealthy São Paulo elite. The closeness between his home on adulthood and the houses of his married sisters, Jenny Klabin Segall and Mina Klabin Warchavchik, presupposes that they were a very social and close family. However, some reports insist to contradict this believe.

It seems that E. Klabin was averse to family relationships, had few close friends and maintained himself somewhat isolated, which led some people to describe it as lonely. Although it is too risky incur in inaccuracies, there are good descriptions about the distance that was established in relation to his family, even though, they had many businesses together. It is not known whether it will be possible to recover the reasons why he was distant from his family, but this fact seems to contradict one of the first proposals when we visit for the first time the Klabin house in Campos do Jordão: it seems that the house was conceived under the modernist influences principles because of the relation between Klabin's family and the architect G. Warchavchik. Lira (2007, P.145), one of the main researches about this architect, presents him as a "key link between architecture and modernism in Brazil," confirmed link by historiography, to a greater or lesser degree, with different nuances, as known.

However reports seem to delineate an unique personality, not only different from the usual, but provocative at times, as he made sure to keep away from the circles that his sisters and brothers-in-laws, Warchavchik G. and L. Segall, were present. In Forte (2008), the name of E. Klabin stands as one of the members of SPAM Society Pro-Arte Modern, a conceived organization directed by L. Segall in the early years of the 1930. This organization was formed by artists and intellectuals, in "a continuing process to the Week 1922 procedures " (Forte, 2008, p.10, our translation). Although he was said to be a member of this group in the category "Friends of Art", it is questionable whether he actually participated in the group activities. Or it was more a "mandatory" activity related his family presence, whether in the social, legal and judicial context, or in the business plan, in which his name appeared without being necessarily involved with the actions in question. An example of this can be illustrated by the performances as legal representative of Mauricio Klabin's heirs, willing filling petitions to obtain the building permits in the local government, as presented by Invamoto (2012). In 1927, he signed the initial applications of two G. Warchavchik's projects to be built on one of the Klabin's land: The famous house in Rua Santa Cruz<sup>7</sup>, in the same Vila Mariana, and the group of houses Baron Jaguará in Moóca. If these reports attest the proximity of E. Klabin with family members, who were protagonists and activists in an "important moment to the development of the Brazilian modernism cultural history." (Lira, 2007, p.145, our translation), at the same time, do not prove the character of this proximity.

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<sup>7</sup> Built in 1928 to be the residence of the architect himself and his wife , this house is, according Lira ( 2007, p.164), "considered the first Brazilian work of modern architecture , the most important modernist hall of the city".



What seems important to point out here is that, although averse to sociability, and apparently showing little engagement with the "modern issues", especially those related to art, architecture and construction, E. Klabin was in direct contact with the cultural context that was around him, either in the family circle or around the local elite he belonged<sup>8</sup>. It seems true that he had contact with intellectuals and artists in Brazil and abroad at his young ages, people who "have lent their restless spirits to seeking the overcoming of paradigms, alert to what was going on in countries and cultures other than their own, dedicating their work to the redefinition of languages, the construction of new references." (VIRUS 12). However, it seems, this contact seems to have reverberated only in a private instance, and sporadically in the vacation house<sup>9</sup>. His "rental production", urban, anonymous until then, was unnoticed next to the set of housing projects sponsored by private enterprises. In the isolated and reportedly authorial work, for domestic delight, exploration and concerns seem to flourish, to take action, as well as certain lack of commitment to rules and principles previously established. He could be ambiguous and bold, he could play. There was no need for legitimacy, no need to be exemplary, emblematic. Or even need to follow laws and codes. The house is located away from the city, and it is also free from the judgments of any kind. The author had also, as desired perhaps, guaranteed his anonymity.

Would the contact with the flux and networks of actors involved in the modernization in the 1920s and 1930s, with an updated cultural circuit renewal, in some conditioned way determined the design of the house in Campos do Jordão, held twenty years later? Would the engineering studies, entrepreneurial activities performed close to the construction sites, had influenced the engineering curiosity of the house in Campos do Jordão, listed below? Which resonances of the architectural culture have influenced E. Klabin? Although it is difficult to suggest any approach, the first question remains: the house has many references to be only the result of a possible inventive genius of its author.

## DESIGN AND SIMULTANEOUS CONSTRUCTION, OPEN TO CHANGE

The Klabin house was built, most likely between the years 1948 and 1955<sup>10</sup>. It is in an area of 121,000 m<sup>2</sup>, about 14km of downtown Campos do Jordão and was one of the first houses built in the Parque do Ferradura, a land development enterprise owned by Real

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<sup>8</sup> In a quick search in the newspaper *Correio Paulistano* files, from the 1910s to 1940 (available on the National Digital Newspaper Library) there are several small publications mentioning the name of E. Klabin. Most of them are involving tennis games and championships in clubs, such as Club Regatas Tietê, Paulistano and Harmony. There are also some notes about the progress of proceedings in the Municipality and Judiciary. This is the same newspaper that in 1928 published a series of writings of G. Warchavchik, now collected in the book **Arquitetura do século XX e outros escritos** (Warchavchik, 2006). There is also a note on the marriage of the architect and Mina Klabin, published on January 5, 1927, who E. Klabin was mentioned as a godfather in civil.

<sup>9</sup> During this data researching, it was mentioned another country house designed and built by E. Klabin around Sao Paulo, near the Anchieta Highway, which would also featured a tower-viewpoint, which would house a water tank and a wine house. According to Mauris I. K. Warchavchik, his uncle built this big tower because "he wanted to see the sea." His own house in Vila Mariana, located on the corner of Tirso Martins and Capitão Rosendo streets, it seems that was also built by following its guidelines, and had some similar devices to those presented below, in the house in Campos do Jordão.

<sup>10</sup> According Benedicta Biagioni, "in 1950 he was raising the walls [of the house], and still had plenty to do".



Estate and Financial Company - CIF, from Paul Pliny da Silva Prado, in the 1940s, which is still a little empty and has rural characteristics<sup>11</sup>.



**Fig. 3:** Aerial view of Klabin House and caretaker's house (just above), probably from the 1990s. Source: Private collection of the current owner.

Gustavo Biagioni, who lived in Campos do Jordão, a former C.I.F. employee when the Parque da Ferradura was being implemented, was the responsible contractor for the house under the guidance of E. Klabin. According to Benedicta Biagioni, her husband worked as a salaried employee for E. Klabin during years. He was hired to lead the construction of the house, counting occasionally with a small team of other local workers. Gustavo Biagioni used to walk every day from city to work, while the building materials, purchased at a large local depot, were transported with carts pulled by horses. E. Klabin would go to Campos do Jordão almost every month, and along with the contractor managed the construction, whose part of carpentry and wood frames were under the responsibility of Gustavo Biagioni's brother, João Costa Amancio<sup>12</sup>.

Gustavo Biagioni's wife reports that during the more than four years he was in charge of the work, her husband would make small drawings using a piece of pencil and "paper of bread" which were then submitted to the owner's approval. Apparently, E. Klabin also

<sup>11</sup> In the lot, in addition to the main house, object of this study, there is the caretaker's house and at least two other buildings: one that housed a generator and another in ruins, which housed a water pump.

<sup>12</sup> Gustavo Biagioni and João Costa Amancio were self-taught builders and craftsmen, and were well known in the city, later, by participation in the construction of different buildings. Gustavo Biagioni even gives its name to a street of Campos do Jordão.



made sketches of the building. Several of them were found in a promotional agenda at home, around 1987, when it was transferred to its current owner<sup>13</sup>. In the 1954 year's book it is possible to identify some drawings that appear to be the studies of some of the elements of the house designed by E. Klabin itself, as shown below, and which were made concurrently with the construction of the house<sup>14</sup>.

It is important to notice that the design and construction of the house appears to have happened simultaneously<sup>15</sup>. In a quite informally way, without a technical drawing that represents the object to be built completely, or perhaps a sketch to determine how the final design should look like. In advance E. Klabin and G. Biagioni, the owner / creator and builder indeed, were working together, although, admittedly, the second always being subjected to the final decisions of the first, "the one who said what is right or not, and then changed to what he wanted," in the words of B. Biagioni. It seems there was, however, a certain permeability between the actions of the one who conceives and the one who performs the work. The division of tasks seemed to be rigorous. There was an exchange, though, it is assumed, it was quite hierarchical.

There are other reports that show this direct involvement of E. Klabin works with the constructions he sponsored, especially in São Paulo. In one of these reports, it is said that he followed very closely the constructions performed and he always had around himself a small team of construction workers, electricians, and other professionals, who were his employees<sup>16</sup>. We here think that he was someone very involved with construction process, not only because there was focused most of his financial investment, but also because he might enjoyed to put into practice some ideas. However, these ideas were not necessarily formally and previously systematized, developed and represented in projects, but may be just insights derived from this closeness with the tasks being performed.

Aspects related to a possible simultaneity between design and construction, as the possible structure of construction works open to suggestions and changes were highlighted here not only because they were indicated in the information gathered so far, but also because, in a way, induced the reading of the work presented below.

## **HOUSE KLABIN IN CAMPOS DO JORDÃO, OR THE FORGOTTEN "SUBMARINE" HOUSE IN THE MANTIQUEIRA MOUNTAIN**

We must say that the following reading, or analysis, is a snapshot. A first approach which can acquire other features as the research moves forward. Surveys, interviews and documentary research conducted so far, however, direct part of the proposals suggested here.

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<sup>13</sup> Hahahel Peres Salas received the property as payment of fees for services rendered as one of the executors of E. Klabin's estate. It is important to say that, in the main house were "left" by the heirs all the furniture and many objects, mainly tableware and decorative objects from the dining room, which even today are there, very well kept. Overall, it appears that there was little intervention in the house since, as showed below.

<sup>14</sup> On the agenda of the company *Sudeleetro S.A* and *Line Material do Brasil* are also noted some lists containing materials and other products during the construction, their quantities and values, and also payments to employees, dated 1954, 1955 and 1956.

<sup>15</sup> The property registration in the land was held by the current owner, which reinforces the idea that there could be no project, at least a legal one for approval.

<sup>16</sup> One of the respondents reported that it was common to see him in Vila Mariana, which stood most of the houses built for rent, dressed in employee's clothes, pushing "carts", with construction materials.

Implanted following the strict north-south orientation for the highest elevations, at the highest peak in the land, the house sits on a flat area in a shape similar to an ellipse. It is true that it stands out from the landscape, from other small surrounding buildings, however, the dense and high vegetation that borders the land next to the road isolates the house, hides or even protects it. (Figure 3).

As mentioned, at first glance, in formal terms, the house is somewhat figurative. It refers either to a submarine, from the southern elevation, or either to a transatlantic, with the sinuosity of steep coverage closure planes. Reinforces these references the vertical volume of the fireplace chimney, which in addition to concentrate part of the heating infrastructure (fireplace, boiler and heater), also includes a gazebo, whose access is through a stair-trap, ingeniously built. The fireplace chimney is literally a gazebo, and so is the submarine sail<sup>17</sup>. Openings in the form of hatches, a series of glass blocks that repeat the same rhythm and resemble the small openings of the submarine, pipelines that remember various periscopes and the relationship of the vertical element of the fireplace with the curvature of the south elevation, reinforce the reference to the formal language of nuclear submarines during 1950s (Figure 4:01).

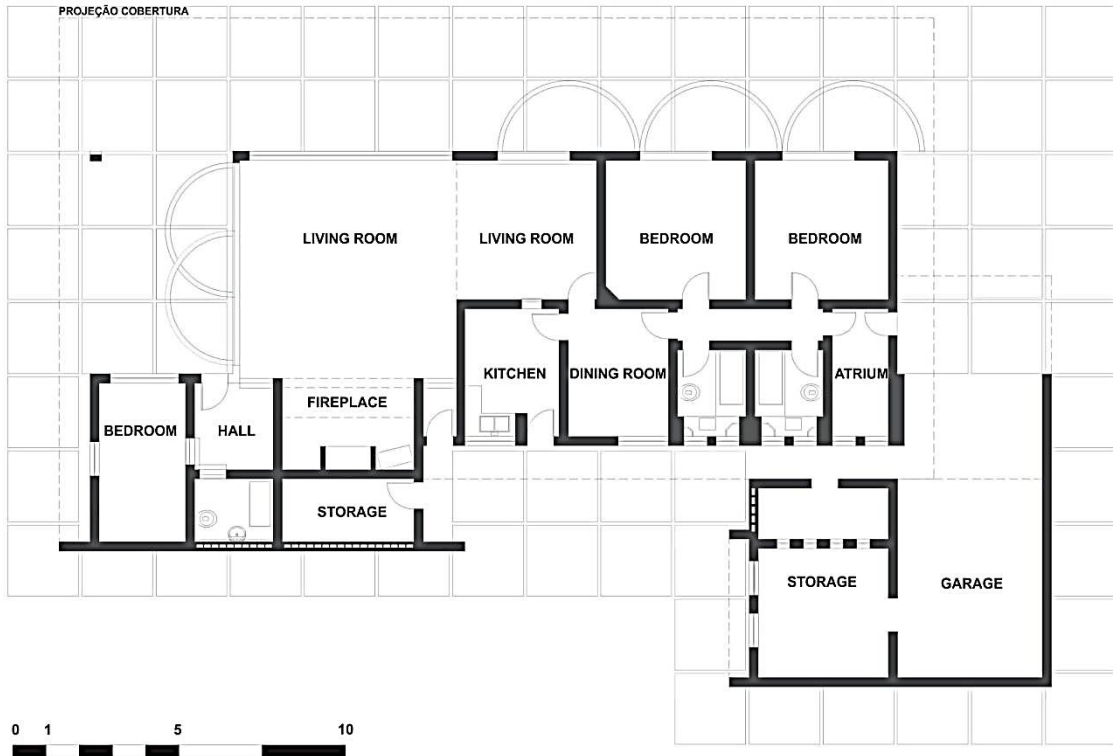


**Fig. 4:** The submarine and ship figuration. Source: Klabin House, Heloísa Mônaco dos Santos. Submarine images, CHINA'S... (2016) and RUSSIA... (2016).

The metric survey and representation process of the house suggested the formulation of some propositions about the process of design and construction (Fig. 5). It shows three possible steps followed to construct the house, with differentiation in the formal and functional solutions, although it cannot attest the temporal distance between them. This proposition is reinforced due to the character of simultaneity between design and construction, discussed above, and also B. Biagioni's report on the fact that E. Klabin used to go to Campos do Jordao monthly to instruct the construction of the house and stay in the house that was being constructed. Moreover, the construction that started around 1948, was extended to at least around the years of 1954, 1955 and 1956, as shown by

<sup>17</sup> It is the small tower that protrudes from the upper part of the submarine, which also houses the periscopes, devices used to capture images above water.

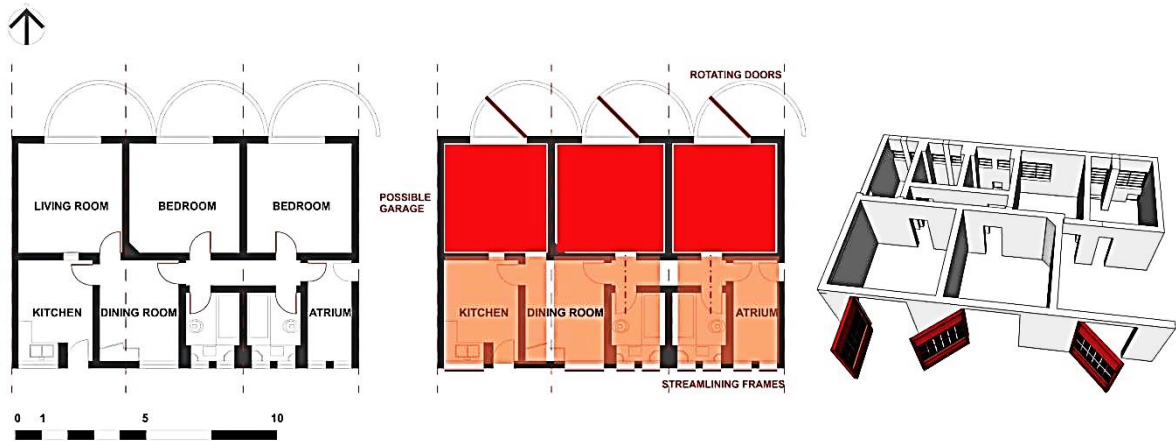
some sketches and financial records, found in the aforementioned agenda owned by Klabin.



**Fig. 5:** The plan of Klabin house, from site survey. Source: Prepared by the authors.

Noteworthy, initially, in what would be the **first constructive stage**, the contrast in a certain plastic-formal boldness, present, for example, in the accented balance of the roof in the northern elevation, with a small core inside the building (Fig. 6). In a plan, this resembles a modest compact house. The conventional height of 2,96m seems to not being thought to comply with the an accented roof inclination. The inclined roof coverage outside the building, varies widely when comparing the north and south elevations of the house. This fact seems to be the most immediate solution to compose this ceiling and make connection between roof and walls, as if this coverage was conceived at a later time during the design project (Fig. 6).





**Fig. 6:** initial core. Source: Prepared by the authors.



**Fig. 7:** Inclination of the holes in the north and south elevations.

Source: Heloísa Mônaco dos Santos.

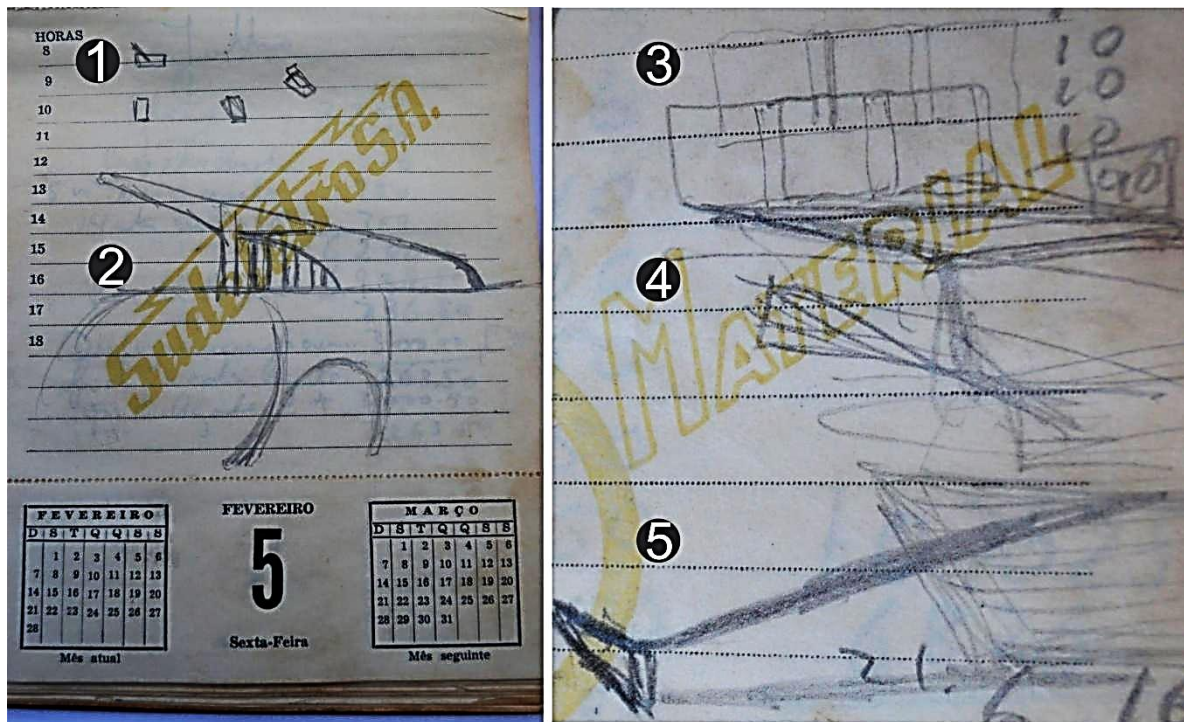
This core focuses on the provision of dormitories and rooms for the higher solar incidence orientation, probably due to the low temperatures recorded at that city, which is close to the Pico do Itapeva with its 2.025m of altitude. All their openings are concentrated in the north-south parallel elevations (except the hall door). Although the different dimensions and treatment between them, they are clearly related to the functional prerogatives, also seem to clearly set a differentiation between a front, main facade, marked by the exact layout of the three major opening elements, and a facade of funds, as a conventional deployment in urban plot.

The interior of that core is marked by the tripartite plant in social sectors, intimate and services. The plan seems to be rectangular and defined by a rigid square modulation. It is possible to perceive three squares lined in the north elevation and three present in the south elevation, but the modulation was followed rigorously in the partitioning of rooms and alignment of the walls on the north elevation, where bedrooms and living room have exactly the same dimensions. However, that is lost in the internal division of the rooms adjacent to the southern elevation, which houses the wet areas, foyer and dining room.

It is also notorious some rationalization in alignments between the bedrooms' and bathrooms' inside doors, as wells as all of the circulation area as a whole<sup>18</sup>.

The windows and doors also feature streamlined dimensions and design. The north elevation, as said, is characterized by a set of wooden door-windows that can be opened fully like a single plane, or through the double "leaves" running embedded in this plane in the vertical direction, with miter shutters and glass. The shutters have become compartmentalized into six vertical sheets each, while the frames in the south elevation, in iron and glass, also have six subdivisions, however they are horizontal. While the first ones were clearly produced exclusively for this construction, from a very elaborate design, the second may have been bought ready given its fairly standard design. What accentuate the idea of a certain "nobility" in the north elevation when compared to the south elevation.

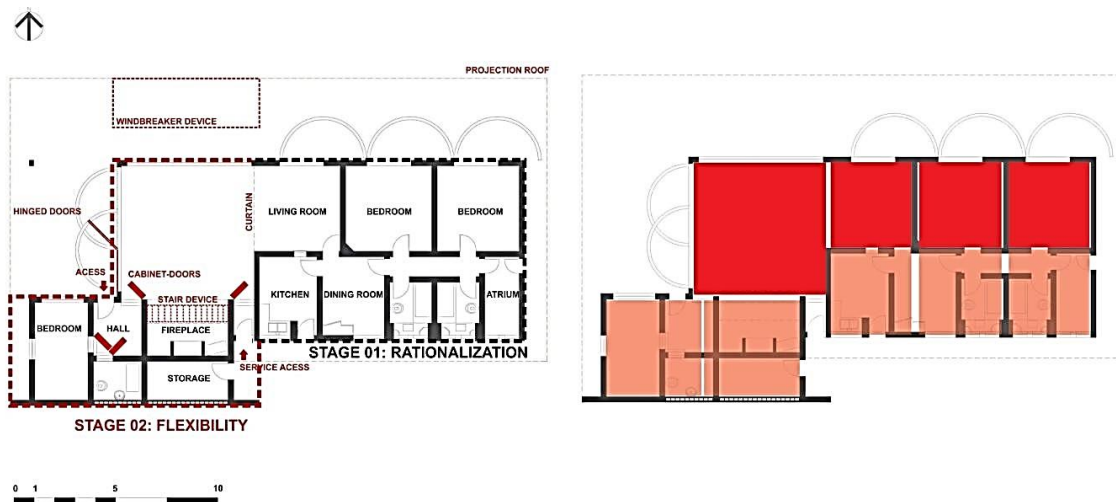
**The second constructive stage** seems to mark the first plastic-formal solutions that call the attention in this project: the design of the large inclined roof, and the treatment and the formal valuation of all elevations, which reduces the hierarchy between front and back of the previous stage. It is not possible to define if the fireplace environment is designed as a volumetric-viewpoint at this stage, since this does not appear in the sketch that supposedly shows a compositional study of the west elevation (Fig. 8, 1 and 2).



**Fig. 8:** Photos of Klabin's sketches from his agenda: (1) supposed inclined plane studies over the initial core of the house; (2) west elevation sketch; (3) the square modulation in several studies; (4) possible continuity between roof and walls; (5) hull in a ship? Source: E. Klabin's agenda, by Heloísa Mônaco dos Santos.

<sup>18</sup> This rationalization is even more pronounced when considering the furniture design and its layout. Here it is noteworthy that the cabinets in the rooms have square sections and are just allocated the smallest gaps between the inner doors and walls with diagonal openings; and the dining room table is parallel arranged with the circulation area, leaning the wall next to the kitchen, where also lies an opening from this room.

The interior that is supposedly associated with this constructive stage is marked by the adoption of elements that provide a degree of flexibility to the space in contrast to the rigid and watertight subdivision of the first stage rooms (Fig. 9). The flexibility of the internal spaces is achieved here by the dispositive described below. [1] The curtain that slides on rails attached to the ceiling that when closed separates a smaller living room (the only one present in the previous step) and the biggest living room, where the fireplace is located in space with 3.97 meters by 2.75 meters. [2] The hinged doors that close the lateral side of the living room, follow the same design of the rotating doors in the bedrooms, but are also articulated side by side to promote the full opening of this lateral plane, which leads out to a balcony, maximizing a perfect integration between the interior and exterior of the house. This solution on the west facade gives the views to the Stone Chest<sup>19</sup> and the sunset, besides increasing sunlight inside the building. [3] The large cabinet-doors that occupy two spaces next to the fireplace space, which gives the large room a storage space, and also are access to other rooms, or even 'occult' them. [4] The cabinet-doors in the hall, which when moved to the conventional bathroom doors openings and guest room, can take storage space inside of them. [5] The fireplace location continuous to the living room, whose dimensions and equipment houses - the fireplace itself, a heater / wood stove, a stair-hatch access to the gazebo-, allows multiple uses: chimney, which aggregates the pipelines of such equipment, as well as the vertical circulation to the observatory. (Figure 10).



**Fig. 9:** The second constructive stage. Flexibility of the elements in contrast to the rigidity of the modulation and rationalization of the initial core. Source: Prepared by the authors.

<sup>19</sup> Large rock which is 1.950m of altitude, reference in the landscape of the State Park of Campos do Jordão, and in this city.





**Fig. 10:** Flexibility devices: the chimney of the fireplace as a gazebo; the cabinet-doors, in the living room and the hall, respectively. Source: Heloísa Mônaco dos Santos.

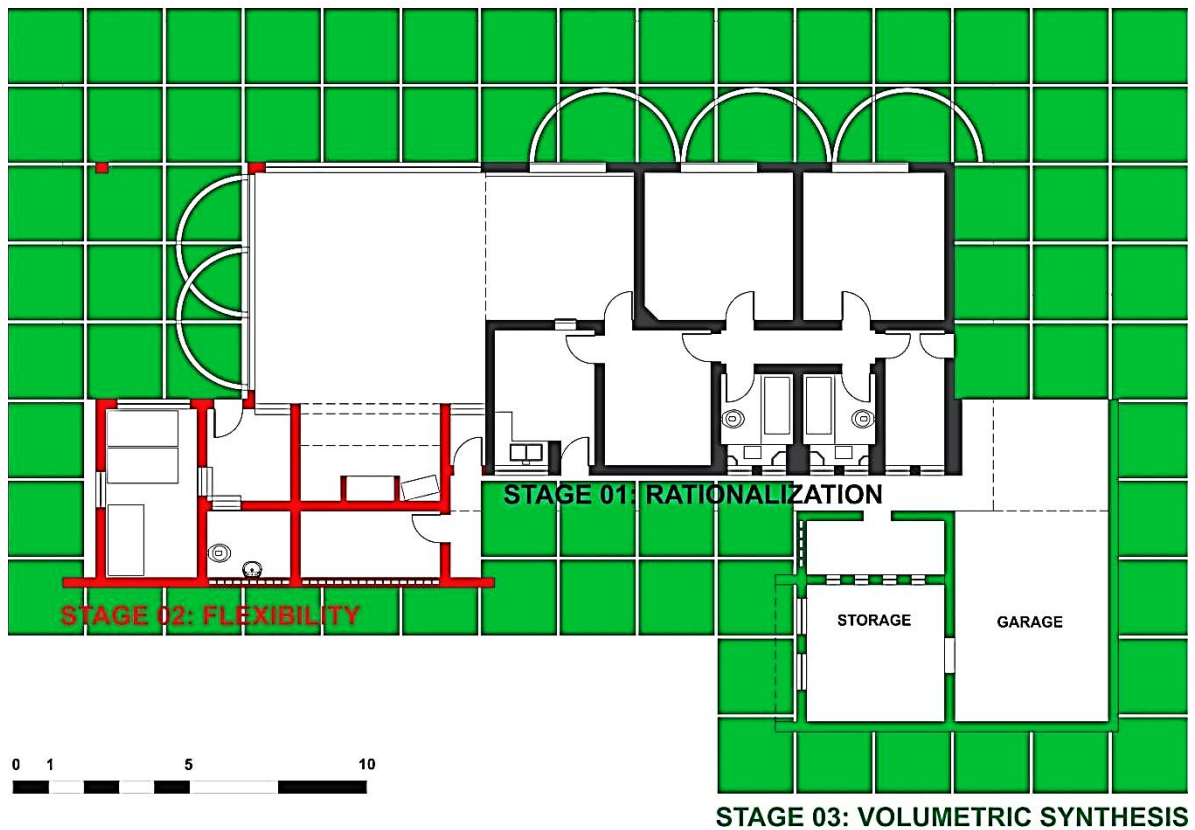
Besides the elements that qualify the space with possibilities for different configurations and uses, the square as a module is also recovered in the plan of this part of the house, and maintains the same pattern as the previous one: the square in plan as a room on the side of the north elevation and its presence in the south elevation, but not exactly partitioning the rooms.

At this stage, we can see a flexible compartmentalization also from the access available to a set of rooms that houses a bedroom, a bathroom and a hall, probably for the use of any guests. Displaced from the intimate sector, these rooms have an independent access to outside. This hall, which is also circulation and vestibule, allow a more flexible use of the bathroom, either as a toilet, integrating it into the room, or as a part of a larger suite, which can be accessed from outside or even from inside the house, as mentioned, but it can also be hidden by the big cabinet-door. Also another great cabinet-door on the other side of the fireplace, leads to a space that is at the same time, service passage between exterior and interior, and a storage space.

It seems relevant to note in this context that there were two dispositive in the original configuration of the house. First, a big screen that was attached, when closed, to the outer surface of the roof on the north elevation, exactly in the same direction of an horizontal opening in the living room. When triggered by a mechanical system with bars and cables this large vertical plane worked as a windbreaker. The second element that was also located exactly in the same opening was an external grid, which also worked with a mechanical system. This grid could be suspended using this mechanical system and would make possible to completely see the surrounding landscape through the large window of approximately 6 meters that had six glass panes. These devices operate from a mechanical logic machine, and would make possible to change the construction elements of the house for a better performance in terms of environmental comfort, or simply to temporarily remove unpleasant safety devices<sup>20</sup>. These devices show the creative and inventive mind E. Klabin had while the house was built.

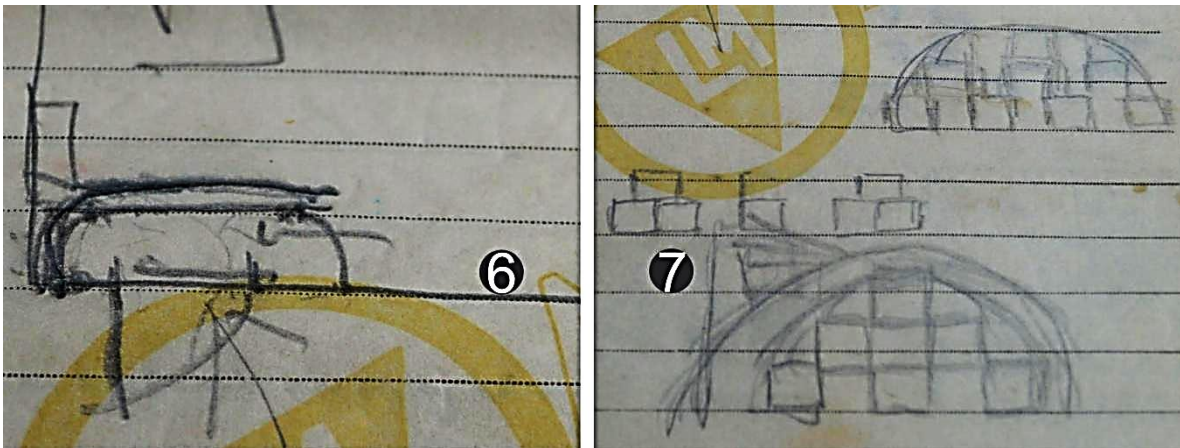
<sup>20</sup> This was the only grade the house had. Currently, all openings are protected, including the same opening with two layers of bars: the old, the external one and the new, internally . Some

**The third and final construction stage** is characterized by the insertion of the volume that would compose the garage and deposits (Figure 11). It is noticed some indefiniteness about the use of these locations that are now deposits. The lack of information suggests it could had been designed as, for example, a bedroom with bathroom or even a service space. However, the most important is to point out here that just the presence of the garage roof, flat and independent of the large slope reinforces the fact this design was thought after the initial construction of the house. Some of E. Klabin's sketches also indicates a possible study of this elevation and its composition with the chimney-observatory (Figure 12). However, it is not possible to affirm if the vertical volumetric was already built or was designed concurrently with the volume of the garage. In other words, it is not possible to affirm if there is a connection between the design and construction of the second and third stage.



**Fig. 11:** The three stages. Source: Prepared by the authors.

information provided by the current owners of the house shows that were made a few other interventions in the house. The most significant were: [1] the exchange of the roof tiles, similar to the original model; [2] the replace of the wood lining of the external covers eaves, which was previously done with soft sheets of wood fibers white painted (as the model of Eucatex, a brazilian brand), by wooden slats with a fitting male and female type; [3] the closing of the door that connected the outside of the house, the storage compartment next to the fireplace and the main room; [4] the closing of the hall's external door, in east elevation of the house.



**Fig. 12:** Photos of Klabin's sketches from his agenda: (6) supposed volumetric studies of the garage and the vertical element that composes the fireplace; (7) other square modulation studies. Source: E. Klabin's agenda, by Heloísa Mônaco dos Santos.

Although it is only speculation, the volumes that correspond to the third stage, seems to "cover up" the south elevation, creating a composition between the west elevation and the north side, which together reinforce the formal reference to the submarine (Figure 13). The south elevation, that in a initial moment was thought to be less important, as shown above, became very important, becoming attention-grabbing and interesting. This elevation is in a privileged view on the way that gives access to the main gate either for the pedestrian or the vehicle<sup>21</sup>. It also begs attention the external treatment given to the curved surface where is supposed to be the deposit, on the west side, simulating a continuity that does not happen internally, which reinforces the idea that there was the intention to design some elevation elements independently. In this case, the curved element refers to what? The Pampulha church<sup>22</sup>? Maybe. The square modulation is used in E. Klabin studies to the closing of this curved wall (Figure 12-7), as is also suggested in the original pavement that surrounded the entire house.

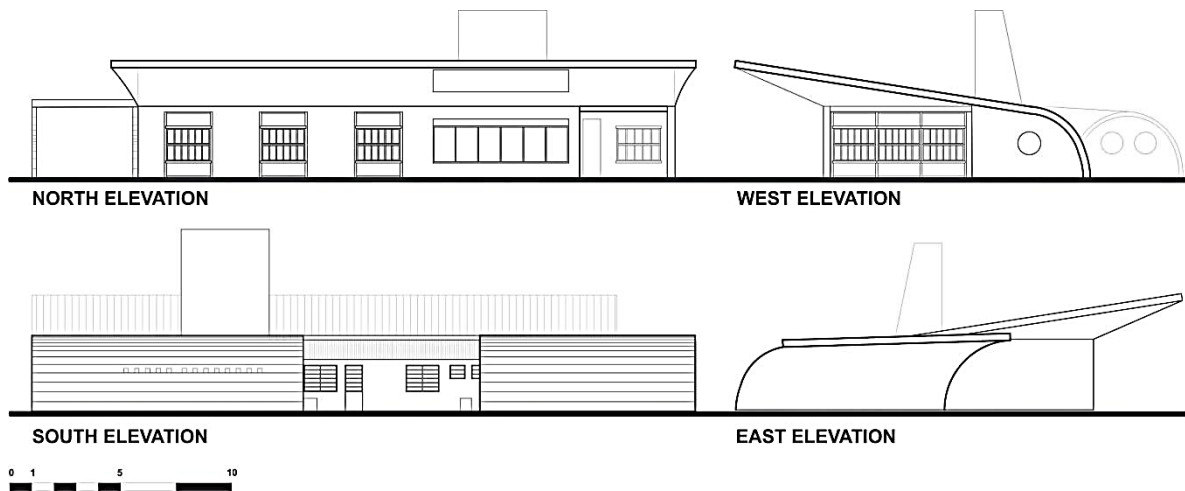
The modulation of the pavement, which advances beyond the limits of the house coverage, certainly gives cohesion to the whole, although the differentiation characterized by the constructive stages discussed here, appears to had been consistently designed and precisely planned when considering the whole idea<sup>23</sup>.

<sup>21</sup>There are two entrances as access to the property from the road, two roads leading to the main house. They are marked by two portals with quite different designs, a simpler one and another one more elaborated. The simplest, according to reports, was considered the main entrance, and the another one, was the service access. Both presuppose a different route to home. Studies don't have been done yet, that lead to more consistent readings on relations of these accesses with the house. It is also important to say that, in this paper, there are not also readings on the green spaces and in its relationship to the house, which will be subject for future studies.

<sup>22</sup> In some circumstances the house refers to St. Francis of Assisi Church of Oscar Niemeyer, completed in 1943, in Pampulha, a neighborhood in city of Belo Horizonte. Some elements of the south and west elevations of Klabin house, the fireplace and garage, refer to the vaults, the belfry and the marquee entrance of this building. As volumetric composition, however, some of these disputable approaches are only possible from certain points of views, as for example, a few sketches from the architect himself.

<sup>23</sup> See animation available at: <http://www.nomads.usp.br/virus/virus12/?sec=4&item=12&lang=en>





**Fig. 13:** the four facades. Source: Prepared by the authors.

## FINAL CONSIDERATIONS

Although this article did not presented a further discussion about the furniture found in the house of Campos do Jordão, designed by E. Klabin, it is important to highlight not just only the presence of an elaborate design but also the good quality of this design execution. It calls the attention not only the, wheeled and articulated and modulated objects, which expand and retract as the large cube-cellar or the small kitchen cabinets-cube, but especially those who are imprecated to the walls, doors and windows, some of those presented here. It is interesting to think that the flexibility that requires, or even the rational use of the spaces that make it possible, would be strongly associated with an idea of maximum use of space, which does not seem to be necessary in the context. Closets in niches or along the walls, or even constituting the divisions between areas have been thoroughly explored in the context of modernism of the 1920s and 1930s, when the agenda was the discussion of the minimum urban housing. Were they here, devices that would provide the house an air of modernity? Would that be also only "experiments" as perhaps were devices such as the mobile brise, or the hinged wall-opening?

The inside of the house suggests a certain rigor, attached to procedures linked to functional, rationalists and flexible principles. The exterior, even if it presents itself as an striking an precise volume play, recurs as a procedure to the figurative appeal and prioritizes a "façade treatment" which gives it a *fake*, weird atmosphere, sometimes provocative and closer to another vanguard, literally, postmodern. (But this is a topic for another conversation.)

What seems clear is that, regardless if the design process of E. Klabin is conventional or not, endorsed by a formal training, his practice was imbued with the notion of "building as a whole," the premise that the design integrates the work in its different scales, as well as some notorious people, who were his contemporaries, thought. Maybe it's exactly here where the modernism in architecture is materialized in the house of Campos do Jordão.

## THANKS

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