362

EARLY DAYS OF BRUTALIST **ARCHITECTURE** IN SÃO PAULO: VILA MADALENA **CHURCH**

Perrone, Rafael Antonio Cunha;^a Pisani, Maria Augusta Justi;b Schimidt, Rafael Patrick^c

- ^a Mackenzie Presbiterian University, racperrone@gmail.com,
- ^b Mackenzie Presbiterian University, augusta@mackenzie.br,
- ^c Mackenzie Presbiterian University, rafael.schimidt@mackenzie.br

DOI: https://doi.org/10.4995/CIAB10.2022.13938

Abstract: This paper explores the path of Saint Maria Madalena Church, in Vila Madalena, a district in the city of São Paulo, Brazil. The church was one of the city's first reinforced concrete brutalist buildings, and the paper analyses the preliminary drawings, how it materialized, some aspects of the interventions it underwent during its lifetime, and its current situation.

The methodological procedures were implemented either simultaneously or successively. They included bibliographic and field surveys, iconographic listings, and research in two collections - the church's and that of the architect Joaquim Guedes's, the church's designer. The stages that culminated in the building of this church - innovative in terms of shape and distribution of spaces and entirely built-in reinforced concrete are presented, and the main changes the building underwent are pointed out.

The results can help preserve the memory of modern architecture in São Paulo and enhance future studies about the design and construction of this unique and precious example of exposed reinforced concrete construction.

Keywords: Joaquim Guedes; Reinforced Concrete; Modern Brazilian Architecture; Brutalist Architecture; Saint Maria Madalena Church.

Resumen: Este artículo explora el proceso de la Iglesia de Santa María Magdalena, en Vila Madalena, un barrio de la ciudad de São Paulo, Brasil. La iglesia es importante porque fue uno de los primeros edificios brutalistas de hormigón armado de la ciudad; es por ello que el texto analiza los planos preliminares, cómo se materializó y algunos aspectos de las intervenciones que sufrió durante su vida y su situación actual.

Los procedimientos metodológicos se implementaron o de forma simultánea o sucesiva. Incluyeron estudios bibliográficos y de campo, listados iconográficos e la investigación en dos archivos: el de la iglesia y el del arquitecto Joaquim Guedes, proyectista de la iglesia. Se presentan las etapas que culminaron en la construcción de esta iglesia, innovadora en cuanto a forma y distribución de los espacios, y construida íntegramente en hormigón armado, y se señalan los principales cambios que sufrió el edificio.

Los resultados pueden ayudar a preservar la memoria de la arquitectura moderna en São Paulo y mejorar los estudios futuros sobre el diseño y la construcción de este ejemplo único y precioso de construcción de hormigón armado visto.

Palabras Clave: Joaquim Guedes; Hormigón armado; Arquitectura moderna brasileña; Arquitectura Brutalista; Iglesia de Santa María Magdalena.



FIG. 1

THE BUILDING

Built on the highest part of the Vila Madalena neighborhood,1 the Santa Madalena Parish church was designed for an architecture competition in 1955. The design consists of a single prism with vertical heptagonal faces interconnected with horizontal edges, which rests on pilotis or stilts and whose two-slope roof covers a place of worship. Inside this volume there is a flat arena between two symmetrical seating areas facing each other. The entire volume rests on columns, producing a free-plan underground that had a 1.20m high wall in the original design, envisioning an open space for future use. The entire structure is in reinforced concrete. The concrete enclosure rises to a certain height and from that point on it is replaced by a glass enclosing that extends through all surfaces of the volume in a radical fenêtre en bandeau (FIG. 1). The church building was positioned at the rear part of the lot, set back 2 metres from the property boundary, opening up the frontal area as an ample churchyard for community use. A few steps lead to a central access that directs users to two entrance doors; a side access to the lower level leads to the area under the pilotis.

THE ARCHITECT

Joaquim Guedes (1932-2008) graduated in 1954 and belonged to a new generation of architects who studied in the neighboring schools FAUUSP and FAU-Mackenzie such as "Carlos Millan, Paulo Mendes da Rocha, João Walter Toscano, Abraão Sanovicz, Julio Kantinsky, Eduardo de Almeida ...".2 Along with many others, they constituted a diverse group and designed excellent works of modern Paulista architecture.3 Even though architectural references at the time focused on Wright's and Corbusier's works, there was a major concern with producing a native architectural language. In Guedes's case, there is a noticeable reference to the works of Alvar Aalto.4 Guedes's university education was marked by his contact with architect Vilanova Artigas, by his participation in the progressive wings of the Catholic church, and by his militancy in left-wing groups. He was a student and a professor at the FAUUSP and won many awards, such as the prize Governador do Estado (The State Governor) (1962) and, later, the Colar de Ouro (Golden Collar), the highest award given by the Brazilian Institute of Architects (IAB, in its Portuguese acronym).

THE FIRST SKETCHES

In 1955, a newly-graduated Guedes won a competition to design the Saint Maria Madalena Church. Its prismatic shape on pilotis explored the parallelism between the roof slopes and the slanted slabs that shape two stands for the congregation. The tripartite nave was formed by two ascending slabs, with seating

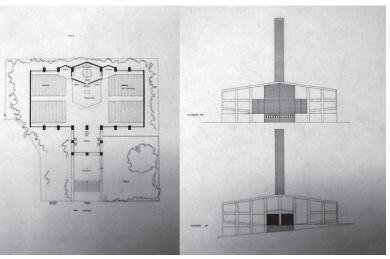


FIG 2

areas to the right and to the left and did not visually lead the congregation's gaze axially towards the altar. The rear facade of the original design had three small prismatic volumes with an area for the sacristy behind the altar and two side altars. A glass-enclosed volume with five exposed columns stood out in the frontal façade, with the font and the confessional. This area replaced the atrium meant to welcome the congregation before entering the nave. At the center of the floor plan, access took place by two doors on either side of the central column, directly in front of the altar (FIG. 2).

From the beginning, the building was conceived as supported by pilotis projected towards the outside. The volume is totally made of exposed reinforce concrete without any masonry or other materials, which means the structure itself is the architecture. The building is part of the modern facet of Paulista school of architecture. This facet now also called brutalist, had its most striking achievements from late 1953 up to the 1970s.5 The church design is considered the second exemplar of Brutalism, applied this time to the internal arrangement of a Catholic church.

Joaquim Guedes's Saint Maria Madalena Church (1955) was the second building in exposed concrete in the city of São Paulo. The first was the above-mentioned São Paulo Futebol Clube Stadium. However, the great innovation of the church design is a complete subversion of the space, a new interpretation of the religious ceremony itself: the rectangular floor plan of traditional naves, with the entrance at the back, was divided into two and the altar was placed in the center. 6 The Parish was created on May 11, 1951, and Father Olavo Pezzotti was its first Parish Priest. With a progressive approach, he defended democracy and supported the renewal of the Catholic church. He ended up joining forces to materialize Guedes's bold design.

A FRESH NEW VIEW

Guedes seems to have associated some elements of his education, such as progressive church doctrines, with latent proposals for liturgical space intended to facilitate the congregation's understanding and participation. In other words. his view incorporated both a support for the communal sense of the church and an alignment with the architectural trends he embraced through his education at FAUUSP. Guedes's postures harked back to his work at SAGMACS with Father Lebret⁷ and the political and social views of the role architects were supposed to perform in Brazilian society. In this work, all proposals were designed between 1955-57. It is important to note how vigorous and complete they were, based on his experience in architecture schools, which allowed a newly-graduated architect to venture into one of the first implementations of the modern dimension of the Paulista architectural school.

In addition to its modern shape, the design presented an unusual concept for the spatial distribution in Roman Catholic churches in Brazil. At the time, almost all of them had a basilica or cruciform floor plan. In Guedes' Church, however, the altar was placed perpendicularly to the longer axis of the rectangular floor plan, in opposition to the longitudinal axis which was always used due to the sense of depth it instilled. The altar functioned as an arena for liturgical acts and the nave had two side audience stands on sloping planes that allowed the congregation to be closer and to participate in the celebration (FIG. 3). This plan already prefigured and foreshadowed the definitions later adopted by the Second Vatican Council in the document Sacrosanctum Concillium. Among other decisions, the council affirmed the equal dignity of all faithful and encouraged the church to open up to laypeople's participation.

THE LEADING ROLE OF EXPOSED REINFORCED CONCRETE

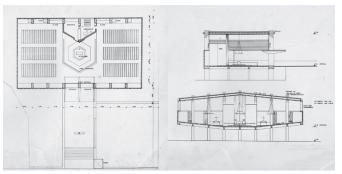
The building was entirely made of reinforced concrete, although a 1957 plan showed the top slab supported by latticed iron beams (FIG. 4). In this alternative design, the altar remains in the center of the tripartite nave (audience, altar, audience) and on the same level. However, the middle section of the nave also works as an atrium to welcome the faithful by removing the columns that had made up the frontal entrance space. The access space was reduced to two same-sized transparent doors.

Eventually, two thin curved reinforced concrete shells were built to mark the entrance and protect it from bad weather. Thus, the small volume of the main façade —highlighted in the first study disappeared, causing the two doors to face the street directly (the entrance for worshippers). Also gone was the intention that the priest would remain in front of the worshippers during services.

The altar's placement as an arena becomes more evident, as it is located over three hexagonal landings in front of the sacristy. This, in turn, also accommodates an administrative area in an internal volume, which conceals an exposed concrete staircase leading to the basement. Over this volume there is a small cantilevered slab, which supports the image of the patron saint.



FIG. 3



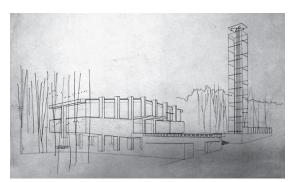
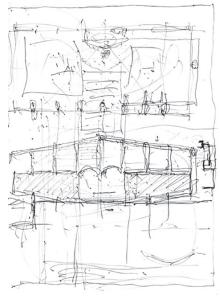


FIG. 4 FIG. 5



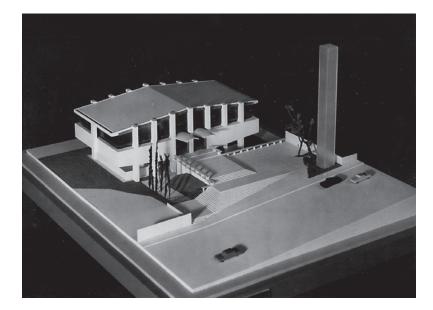
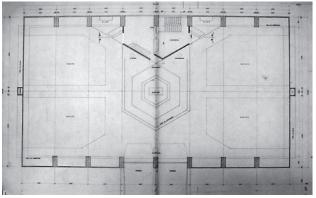


FIG. 6



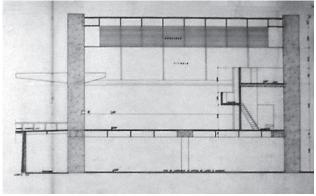


FIG. 7

The floor plan measures 40m x 20m; the roof rests on 14 columns with a five-meter span in the longitudinal direction and 20-meter in the transversal direction. There is a five-meter cantilever at each end, at the back of the two sloped planes. The columns mark the composition of the building and inside the church they form niches where four confessionals were proposed beside the side altars. The bell tower -2.5 times higher than the churchwas never built, even though it appeared in all proposals.

In the 1957 perspective, the church is positioned at the back of the lot, near the steepest part of the terrain, and the bell tower appears in front of the main façade, next to the street, to the right of the access (FIG. 5). The whole enclosing is an extension of the beams at the edge, also in reinforced concrete, leaving large gaps for ventilation and lighting, up to the bottom

of the large slab ribbed in both directions. These openings were closed with flat transparent glass directly placed over the concrete by means of small-sized hardware (FIG. 1).

The model (FIG. 6) illustrates the development of the design with the proposed access landings: a lower landing at street level —the street being a steep slope— allows the meeting hall to be accessed directly on the underground, to the left of the main entrance. Another smaller square landing gives access to the church, and a larger landing is leveled with the sidewalk slope through progressive steps. Under the nave's slab was the basement, whose enclosing was only a half-height wall saving space for future uses. The basement plan contained the external columns, seven on each longitudinal façade and four in a central axis that only reached up to the nave floor level.





FIG. 8

DESIGN SYMBOLS AND MEANINGS

As recorded in the Livro do tombo8 (Historic Register) of the church, in Guedes' design, the seven columns represented the seven sacraments of the Catholic Church - baptism, reconciliation, the Eucharist, confirmation, the anointing of the sick, holy orders and marriage.9 These are included in the general shape of the 800 square-meter church, like a great boat: Peter's boat that victoriously sails the sometimes calm, sometimes agitated seas of time. Unlike common churches, the altar lies at the center of the nave. As one moves away from the altar, both natural and artificial lighting are dimmed.

This great exposed reinforced concrete boat was built in a symbolic fashion. From the point of view of the reinforced concrete technique, it can be seen as a paraphrase, since one of the first experiences with reinforced concrete (or mortar) was conducted in 1855 by Joseph Louis Lambot, who displayed a reinforced concrete boat in the World Exhibition in Paris and applied for the patent of his design.¹⁰

The altar facing outdoors demonstrated the closeness between the priest and the community, while the faithful faced one another and kept eye contact on both sides of the sloping nave. This arrangement showed the congregation they should unite around the ideas propagated by the priest in the central area. Guedes designed all the spaces in reinforced concrete, without any cladding or painting, in order to affirm the simplicity of Saint Peter's boat, which leans on the seven sacraments. There are neither adornments nor distractions, and the most striking image is that of the large sky pane around the entire nave, that enters through its large openings. The entire structure reveals the texture of the solid wood boards used in the handcrafted concrete molds.

CONSTRUCTION AND INTERVENTIONS

The built version of the church is almost the same as presented in the 1957 design (FIG. 7), with minor adaptations made during the construction period. It was decided to adopt reinforced

concrete slabs ribbed in both directions (with a 62.5cm axis in the small span). These ribbed slabs were used both for the ground floor and the roof. The waffle-like boxes formed by the ribs were visible, allowing a total internal view of the structure. Two concrete gutters on the sides of the volume are responsible for pouring rainwater into grids on the ground.

The fenêtre en bandeau was made in large transparent flat glass panes and thin metallic profiles directly attached to the concrete. As soon as the church was opened in 1967, the large panes of glass began to show pathologies. Because the church was set on a hill, the strong winds caused the glass to vibrate and almost collapse. Problems increased with time and called for an intervention. Eventually, permanently-ventilated small glass blocks replaced the large glass panes. This caused the internal view of the sky (which the faithful previously had) to be obstructed, completely changing the initial goals of the design. Afterwards, the access landings were also modified: the smaller one, in front of the entrance, was removed, and a ramp was built instead to guarantee accessibility.

INTERNAL RENOVATION (WITHOUT THE ARCHITECT)

One of the first changes was the creation of an anteroom between the entrance doors and the altar. According to community attendees at the time, the church lost many faithful due to its new bold shape, mostly because of the position of the entrance in front of the altar, in plain sight of all the faithful located on the two large ramps. Brides no longer liked to get married there, because there was no walkway to get to the altar – that is, as soon as they entered the church, they were already at the altar.

In the mid-1980s, the inside of the church underwent its greatest change: the hexagonal central landings and the wall forming part of the sacristy were removed, and new rows of benches were arranged in the traditional way with a central aisle. The altar was removed from the central space and installed on a wooden platform at one end of the nave, thus in the highest part of the space, in total opposition to the original concept. Distant

368

from the faithful, the altar then resumed its detached position in liturgical activities (FIG. 8).

As the number of worshippers decreased in comparison to the 1960s and 1970s, the smaller number of seats arranged in the current version proved to be enough. At the opposite end of the nave, a set of extra rooms was built including restrooms and administrative spaces. A kind of small narthex was also created, which works as a more conventional entrance to the nave and partially blocks the view of the internal space of the church (FIG. 9).

RENOVATION PROPOSAL (2001, UNBUILT)

In 2001, the firm Joaquim Guedes and Associates planned a renovation of the church. The intervention intended to modernize the spaces in view of present needs, keeping some critical features of the original design (FIG. 10).

The altar was to return to the central position and, instead of a two-part audience, three sets of seats were planned at different levels, all of them looking straight at the altar in the front. The administrative support room would be located to the right of the main access, on an upper level and next to the façade; to the left side, there would be an open choir. The glazed narthex would remain, but outside the main body of the building, under the concrete marquee. On the façade, the plan was to use louvers with perforated sheets of galvanized steel fixed on the outer faces of the pillars, protecting form direct solar radiation. New glass panes and tilting iron windows would be used as enclosing on the inner faces of the pillars.

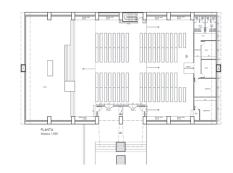
The atrium proposed in 1957 for the external area would be enlarged (FIG. 6), in order for the central visualization axis of the building and the pedestrian circulation towards the main access to remain unobstructed. New parking spots were also planned, now in the shade provided by trees. This new proposal, which would adapt the building to the outlines defined by Roman Catholic Church and the habits of worshippers, retrieving conceptions of the original design, was not executed.

FINAL REMARKS

The 1955 design and construction of the church in Vila Madalena displays several innovations by revealing a new configuration for the liturgical space and a new opening to the street space, anticipating definitions that would later be stated at the Second Vatican Council.

It also reveals a language which was already germinating in the city's line of architectural thought in the early 1950s. Moreover, it inaugurated a school that has generated many architectural works and whose main statement relied on structure and reinforced concrete as the leading elements of architecture.

It demonstrates that education in architecture schools in São Paulo, even without a theoretical manifesto or one single conceptual foundation, established an intrinsic discourse for the works of future architects. This architectural statement was referred to in several international works and in the search of a peculiar decolonial proposal to develop a language and repertoire



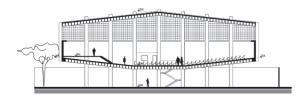
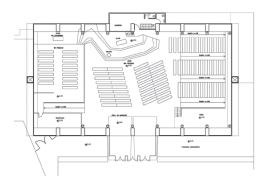




FIG. 9



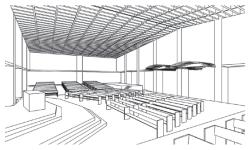


FIG. 10

that fostered the appearance of numerous works and authors. currently recognized in a complex network of relationships between proximity and distance.

The church was an example of what turned out to be a new movement called the Paulista School, Paulista Brutalism or Caboclo Brutalism,11 caboclo being a person of mixed Indian and European or African ancestry (Aulete Dictionary).

Rafael Antonio Cunha Perrone, graduated architect and urban planner by the School of Architecture and Urban Planning at the University of São Paulo (FAUUSP, 1974), Master in Public Administration of Urban Planning by Getúlio Vargas Foundation de São Paulo (FGV -SP, 1983), PhD (FAUUSP, 1993) and post-doctorate (FAUUSP, 2008). Professor at the Post-Graduate programs in Architecture and Urban Planning at FAUUSP and at Mackenzie Presbyterian University.

Maria Augusta Justi Pisani, graduated architect and urban planner by Farias Brito (1979), specialist in restoration by the School of Architecture and Urban Planning at the University of São Paulo - (FAUUSP, 1982), Master and PhD from the Polytechnic School at the University of São Paulo (EPUSP, 1998). Professor of Architectural Project at the Federal Institute São Paulo (IFSP, 1985-2008). Professor of the Post-graduate program in Architecture and Urban Planning at Mackenzie Presbyterian University.

Rafael Patrick Schimidt, graduated architect and urban planner by the School of Architecture and Urban Planning at the Pontifical Catholic University of Paraná (PUC-PR, 2004). Masters from the School of Architecture and Urban Planning at the University of São Paulo (FAUUSP, 2009). PhD from School of Architecture and Urban Planner of Presbyterian University Mackenzie (FAUMACK, 2016). Professor of Architectural Project at FAUMACK.

NOTES

- Mônica Junqueira de Camargo, Joaquim Guedes (São Paulo: Cosac & Naify, 2000), 20.
- ² Hugo Segawa, Arquiteturas no Brasil 1900-1990 (São Paulo: University of São Paulo, 1999), 151.
- ³ Monica Junqueira de Camargo, "Professorship Thesis" (Professorship Faculdade de Arquitetura e Urbanismo of the University of São Paulo, 2009).
- ⁴ Rafael Patrick Schimidt. "Projeto de Arquitetura: Um estudo sobre os procedimentos projetuais do arquiteto Joaquim Guedes" (PhD diss., Faculdade de Arquitetura e Urbanismo at the Mackenzie Presbyterian University, 2016), 68.
- ⁵ Ruth Verde Zein. "A arquitetura da escola brutalista paulista 1953-1973" (PhD diss., Faculdade de Arquitetura e Urbanismo at the Federal University of Rio Grande do Sul, Porto Alegre, 2005).
- ⁶ Monica Junqueira de Camargo, "Professorship Thesis," 165.
- ⁷ Lucas Ricardo Cestaro. "A atuação do padre Lebret e da SAGMACS no Brasil (1947-1964) Ideias, planos e contribuições" (PhD diss., Faculdade de Arquitetura e Urbanismo at the University of São Paulo, São Carlos, 2015), 215.
- ⁸ Igreja de Santa Maria Madalena, Livro do Tombo, São Paulo, 1963.
- ⁹ "Paróquia Santa Maria Madalena e São Miguel Arcanjo," São Paulo, accessed June 6, 2021, https://paroquiasantamariamadalena.org.br/.
- ¹⁰ Luís Fernando Kaefer, *A Evolução do Concreto Armado*, (São Paulo: UNESP, 1998), 24.
- Marlene Millan Acayaba, "O brutalismo caboclo e as residências paulistas," Projeto Magazine no. 73, (March, 1985): 46-48.

FIGURES

FIG. 1. Photo of the original church with glass enclosing as $fenetres\ em$ bandeau that incorporate both Le Corbusier's recommendation (on all facades) and Gropius' corner window at the Fagus Factory. In this way, the designer radically dissolved all the upper parts of the volume. Source and author: @Cecília Bueno (196?), in ArquivoArq.

- FIG. 2. Floor plan and elevations in a preliminary sketch, 1956. Source and author: @FAUUSP Library Collection.
- FIG. 3. The interior of the religious building in the early 1980s with changes to the original design, especially on the altar and the replacement of glass by translucent blocks. Source and author: ©Collection Luis Espallargas Gimenez (198?)
- FIG. 4. Floor plan and sections of the design, 1957. Source and author: ©FAUUSP Library Collection.
- FIG.5.1957 Design Perspective, Source and author: @FAUUSP Library Collection.
- FIG. 6. Sketch by Joaquim Guedes (undated) and presentation model of the design, 1957. Source and author: ©Luis Espallargas Gimenez Collection. @Joaquim Guedes Collection.
- FIG. 7. Drawings of the ground floor and section of the constructed design, 1957. Source and author: @FAUUSP Library Collection.
- FIG. 8. External view of the building (left); The nave with its original ribbed slab rooftop, and the current position of the altar at the back (right). Source and author: @Rafael Schimidt, 2021.
- FIG. 9. Floor plan, section and elevations of the current configuration of the nave: altar to the left and rooms to the right. Source and author: @Saint Maria Madalena Church (2021); ©Edson Lucchini Jr. (2005).
- FIG. 10. Floor plan and interior perspective of the renovation proposal. Source and author: @Joaquim Guedes Collection.

BIBLIOGRAPHY

- Acayaba, Marlene Millan. "O brutalismo caboclo e as residências paulistas." Revista Projeto no. 73 (March 1985).
- Camargo, Mônica Junqueira de. Joaquim Guedes. São Paulo: Cosac & Naifv. 2000.
- Camargo, Monica Junqueira de. "Professorship Thesis." Professorship, Faculdade de Arquitetura e Urbanismo at the University of São Paulo,
- Cestaro, Lucas Ricardo. "A atuação do padre Lebret e da SAGMACS no Brasil (1947-1964) Ideias, planos e contribuições." PhD diss., Faculdade de Arquitetura e Urbanismo at the University of São Paulo, 2015. https://teses.usp.br/teses/disponiveis/102/102132/tde-01022016-175604/pt-br.php.
- Igreja de Santa Maria Madalena. Livro do Tombo. São Paulo, 1963.
- Kaefer, Luís Fernando. A Evolução do Concreto Armado. São Paulo: UNESP, 1998. https://wwwp.feb.unesp.br/lutt/Concreto%20 Protendido/HistoriadoConcreto.pdf.
- "Paróquia Santa Maria Madalena e São Miguel Arcanjo," São Paulo, accessed on June 6, 2021. https://paroquiasantamariamadalena.org.br/.
- Schimidt, Rafael Patrick. "Projeto de Arquitetura: Um estudo sobre os procedimentos projetuais do arquiteto Joaquim Guedes." PhD diss., Faculdade de Arquitetura e Urbanismo at the Mackenzie Presbyterian University, 2016. http://tede.mackenzie.br/jspui/handle/tede/2884.
- Segawa, Hugo. Arquiteturas no Brasil 1900-1990. São Paulo: University of São Paulo, 2nd. ed, 1999.
- Zein, Ruth Verde. "A arquitetura da escola brutalista paulista 1953-1973." PhD diss., Faculdade de Arquitetura e Urbanismo at the Federal University of Rio Grande do Sul, Porto Alegre, 2005. https://lume.ufrgs. br/handle/10183/5452.

ACRONYMS

FAU-MACKENZIE - Faculdade de Arquitetura Mackenzie

FAUUSP - Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo IAB - Instituto de Arquitetos do Brasil

IAUUSP - Instituto de Arquitetura e Urbanismo da Universidade de São Paulo SAGMACS - Sociedade de Análise Gráfica e Mecanográfica Aplicada aos Complexos Sociais