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THE HIDDEN PETROPOLIS MODERNISM

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INTRODUCTION

To which extent labels can be beneficial or detrimental to the identity of a place? When we define a label for something, whether a city, an object, a person, we tend to limit our understanding of this entity considering what the label tells us.

So is Petrópolis, city in the mountainous region of Rio de Janeiro, distant around 70km from the capital of the state. Created by Imperial Decree No. 155 of March 16th, 1843, was born by the direct will Emperor Dom Pedro II, with the help of Major Engineer Julius Frederick Koeler, transforming the Córrego Seco Farm in one of the first planned cities in Brazil.

The presence of the Summer Palace of the Royal family and of various city improvements built by them have led the nobility and the bourgeoisie to the highland city. However, the proximity of royalty charged its share of requirements, and building in the city meant to follow the strict parameters imposed by the Koeler Plan, including the approval of the facades by the authorities. These parameters were in effect for many years and guided the way to build in the central area of the city, creating a cohesive urban scenario, integrated and easily identifiable by anyone. The title of Imperial City was not given during the Imperial period, but much later, from the hands of President General Joao Figueiredo, through Decree 85849 of 27 March 1981, and served to reinforce yet more this perception bias.



Fig. 1 e 2: Paulo Santos House, Sergio Bernardes. Mangalarga, Petrópolis. Source: Silva, 2015.

Even before the title awarded during the military government, —was the change in the profile of those who sought in the city a summer retreat. The bourgeoisie seeking the city after the proclamation of Republic, influenced by echoes of the 1922 Art Week, favors the districts around the city, which were not held by the shackles of the Koeler Plan, as the place to express their identity. The old oligarchic bourgeoisie, which adopted the eclectic style and the classical past it evoked, faces a new generation, with renewed vision, that favored a revolutionary group of architects, who changed and revolutioned the whole way of thinking of the National School of Fine Arts, as the channel for expressing their yearnings. It is in this scenario that the first Modernists buildings begin to emerge the city, still in the 1940s.

IDENTIFYING THE HIDDEN LEGACY



Fig. 3 e 4: Residence Edmundo Cavanelas, por Oscar Niemeyer. Pedro do Rio, Petrópolis. Source: Silva, 2014.

As a professor in the course of Architecture of the University Estacio de Sa (UNESA), in Petrópolis, RJ, I considered important to look for the main architectural references of the city, regardless of artistic affiliation. The intention was to indicate readily accessible and exemplary works of architecture to students of the course. The bibliography on Modernism suggested by the course made it already possible to identify some works of important Modernist names, some from the first generation of what would be known as 'Escola Carioca'. While discussing such information on campus, with the faculty fellows and students, it was possible to gather

supplementary information on the buildings: location, works not indicated in the basic bibliographies, people who had participated in renovations or remodeling works in known buildings. The data was interesting but dispersed, and told a not much about the Modern Movement in the city. In order to favor a more systematic approach and informed research, I decided to start a research project with institutional support. The data presented here is the result of 12 months of work between February, 2014 and January, 2015, financed by UNESA, and shows findings obtained through field research, literature review and interviews with local residents.



Fig. 5: Lota Macedo Soares House, by Sergio Bernardes. Located with the help of a student. Source: Silva, 2015.

It is true that much of the Modernist buildings are 'invisible' to the visitor of the city. Tourists who visit Petrópolis usually seek historical tourism or shopping, and concentrate their visits in the region under the influence of the Koeler Plan, urban area protected by IPHAN heritage regulations in 1964, with extensions in 1980 and 1982. This limited perception suggests, in fact, that the perception of the architectural memory of the city boils down to remaining eclectic hallmark buildings of the Imperial period. Indeed, the research identified only two Modernist buildings in this region, and only one of them visible from the Ipiranga Avenue – the Celso da Rocha Miranda house, designed by Alcides da Rocha Miranda, now converted into a private school. Therefore, to prove the existence, and hence the importance of this Modernista heritage, was not exactly a simple task.

The first step of the research was to verify if the literature on Modernism in Brazil could provide clues about buildings in the city. The books '*Arquitetura Contemporânea no Brasil*' (Bruand, 2010) and '*Arquiteturas no Brasil 1900-1990*' (Segawa, 1997) provide some information, but do not show where the works are located. The book '*Modern Architecture in Brazil*' (Mindlin, 1956), one of the main sources about the subject, brings ten clearly identified works built in the city. There is however very little information about their actual location. Only in '*Quando o Brasil era Moderno: Guia de Arquitetura 1928-1960*' (Cavalcanti, 2001), it is possible to find eight examples of existing Modern works in the city of Petrópolis with information regarding the district, sometimes the street.



Fig. 6: Roof detail of Lauro de Souza Carvalho House, from Henrique Mindlin. Samambaia, Petrópolis. Source: Silva, 2014.

Old magazines also proved important in locating buildings in the city. Considering that many architecture magazines from the period have been discontinued and has no online, searchable collection, the research found great help in the '*Índice de Arquitetura Brasileira*', published by FAU-USP in 1974. This unique work identifies, using different types of indexes, the Brazilian Architecture publications over different time periods. The edition dealing with the years 1950-1970 used in this study. With the help of the *Índice*, 41 citations related to buildings in Petrópolis were identified. From those, 31 magazines were consulted, accounting for about 25 unique buildings, published in the magazines *Arquitetura-IAB*, *Acrópolis*, *Arquitetura e Engenharia*, *Casa e Jardim*, *Brasil Arquitetura Contemporânea*, *Cadernos de Arquitetura Brasileira*, *Habitat e Módulo*. In addition to national publications, two foreign magazines were included in the analysis, *L'Architecture d'Aujourd'hui*, from France, and *Domus*, from Italy.

The last step in the construction of the database was also one of the most complex: the search of the records of the Municipal Department of Planning and Economic Development of Petrópolis, linked to the Town Planning sector. Despite having a well-defined time frame for this project, that is, modernist works built between the 1940s and 1970s, research in his archives presented several difficulties,—derived from two characteristics very common in small Brazilian towns: a small team responsible for the archives with exclusive rights to manipulate it, and the lack of an computerized index capable of dynamic searches. The organization of the records of the buildings plans in the city is based solely on the address. This means that there are no other indexes, excluding searches by owner, architect or even year of the project. To make it even more complex, even with the address, some buildings' records were missing, generating a gap in data that could have come from the public collection. Still, the research brought up buildings not previously published in any medium from well-known architects; and some unique documents,

such as the house of Carlos Lacerda designed by Sergio Bernardes, signed by the architect and the owner.

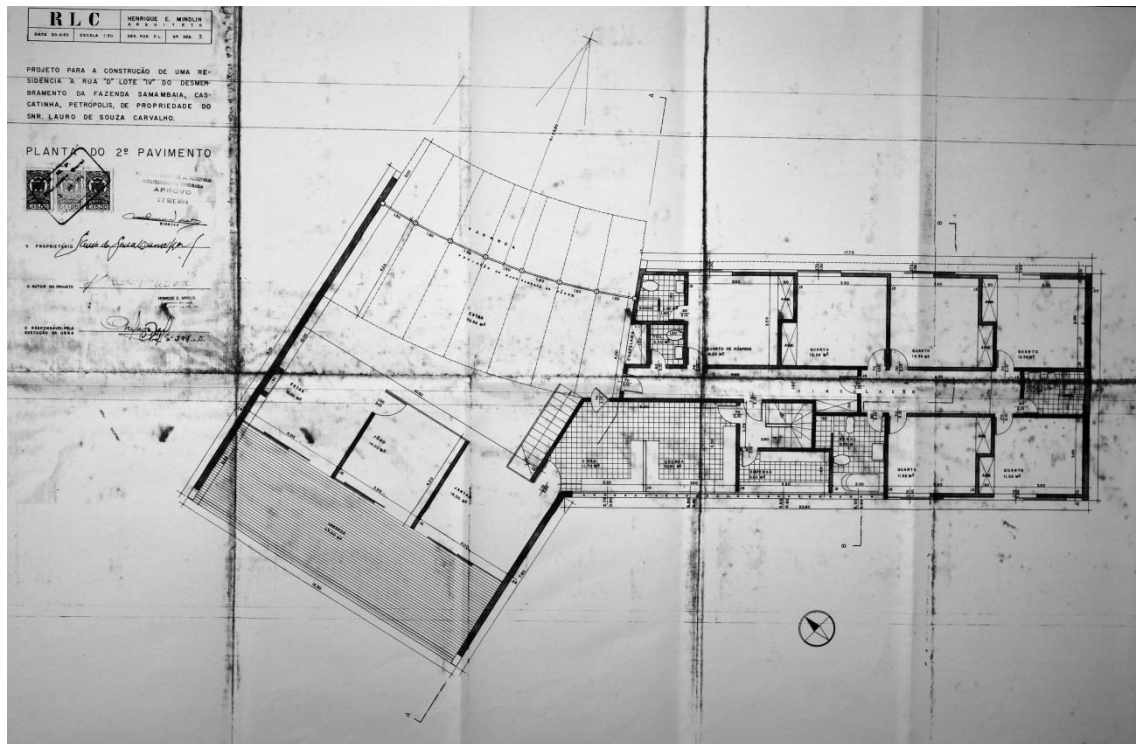


Fig. 7: Plan of the second floor of Lauro de Souza Carvalho House, by Henrique Mindlin. Source: Department of Planning and Economic Development Petrópolis, 2015.

SOCIALLY CONSTRUCTED

Once the municipal collection was not as fruitful as expected in locating the buildings, we moved to what we consider one of the most important assets in a city, its population memories, transmitted in various ways (Johnson, 2003). Viewing a city with a foreigner vision (such as this author's) can provide adequate distance for criticism, but it cannot recover experiences that only those who lived it could provide. We started with the academic community: students and teachers who, somehow, had already been in contact with this Modernist legacy. Many teachers of UNESA's Petrópolis unit come from the city, some of a second generation of professionals who, by childhood memories or motivated by academic effort, had contact with some of the identified works. The students from different age groups and mostly local residents, were also able to provide important data; and sometimes even realize their own residence was part of the universe of study.



Fig. 8 e 9: Residence Guilherme Brandi, by Sergio Bernardes. Samambaia, Petrópolis. Building located by a student.
 Source: Silva, 2014.

Later we expanded to use social networks, particularly Facebook. The fanpage 'Petropolis - Modernist City' (<https://www.facebook.com/petropolismodernista/>) shows extracts of the research, and was intensely shared in other communities related to the city of Petropolis. In addition to the visibility given to the collection, given the popularity of this type of site with different population strata, the research benefits greatly from the constant interaction with visitors. Stories and anecdotes are shared, for instance the one where we learned the Lowndes Pavilion, project of brothers M. M. M. Roberto in Samambaia district, was in during a period a bar, known as Samambar. It also led us to locate eight buildings thanks to the visitors of the fanpage.



Fig. 10 e 11: Residence Geraldo Baptista, by Olavo Redig. Mangalarga, Petrópolis Building located by fanpage visiting.
 Source: Silva, 2015.

Finding the buildings is an important goal, as there are data and questions that only the visit to the—actual site can respond. More specifically, to understand if the project was able to consolidate, and whether after more than 50 years it is still able to meet the needs of its occupants, or if it has undergone changes - and how those changes interfere with the original design. More than simply criticize any changes found, what we are looking for is to understand the reasons that led the owners to perpetrate such modifications.

Also linked to the location, there are some possible academic developments. Some owners, now aware of the importance of property for the architectural history of the city, opened up the doors of those normally inaccessible properties to the—student's



visits. The photographic record is also an important feature, because it is one of the main tools in the comparison between the current situation of the building and its historical record.

One of the goals of this research project was to have its results not limited to the strict boundaries of an academic paper and scientific reports. The construction of the fanpage has proved to be a preliminary step to something bigger to be developed, as it led to better than expected results. Despite everything publications and official sources have to offer, we did not learn through them to recognize a site from its silhouette in a plan or from the existing detail on a street occasionally shown in a photograph. Only the experience of the city was able to provide this information. The use of social networks has enabled us to learn from those who have their daily lives in the city of Petropolis.

Similar to what was done via Facebook, we intend to expand this experience to other social networks, where it is possible to focus in the image content, hence most likely to provide identification of the works, such as Twitter and Pinterest.

UNDERSTAND TO DISSEMINATE

In total, 31 modernist buildings in the city of Petropolis were preliminarily identified, and 13 of those had a confirmed location. The research group obtained authorization to visit 9 of these buildings, with permission to record both internal and external areas. The other 4 were recorded only from the street.

We noticed a clear dominance of residential buildings built for weekends, something we see as natural, given the vocation of the city as a summer resort. This type of building, an extension of the primary residence of the owner, usually escapes the standard townhome structure. It was a place of rest, to fulfill the pursuit of nature offered by a booming Petrópolis, rich in natural landscapes combined with a climate that the old capital was not able to provide. We can assume that many of the design choices of the architects were influenced by such factors. The iconography analyzed to date reinforces this assumption, by emphasizing the dialogue between the natural landscape and the architecture, a recurrent discourse in the consulted books and magazines. One can question whether the city would have been able to develop its own architectural language, given its peculiarities. However, the research does not have enough data to corroborate or refute such a thesis.

It did not seem appropriate to compare the city of Petrópolis to other sites with a distinctive language, as Rio, or even other cities in the country, given the obvious differences of population and political importance among them. Our studies then pointed to Cataguases, Minas Gerais, as a closer reference. This city is distant 310 km from Belo Horizonte, and it has a detailed record of its Modernist heritage, the result of an intense economic momentum between the 1940s and 1960s, promoted by Peixoto family, owners of textile industries in the locality. Counting on 29 buildings registered in *Guia de Arquitetura Modernista de Cataguases* (Alonso, 2012), it is considered one of the largest collections of its kind in the country.



Fig. 12 e 13: Residence Chagas Freitas, by Sergio Bernardes. Correias, Petrópolis. Source: Silva, 2014.

By analyzing the case of Cataguases and the preliminary results of this study, assumptions about the invisibility of Modern Architecture in Petrópolis can be developed. While, in Cataguases, the buildings have sufficient proximity to configure an urban environment, acknowledged and protected by the IPHAN in 1994, what we see in Petrópolis are small nuclei and isolated buildings forming its modernist heritage. Such dispersion makes works with the same language being distant 25km in some cases while others are just across the street.

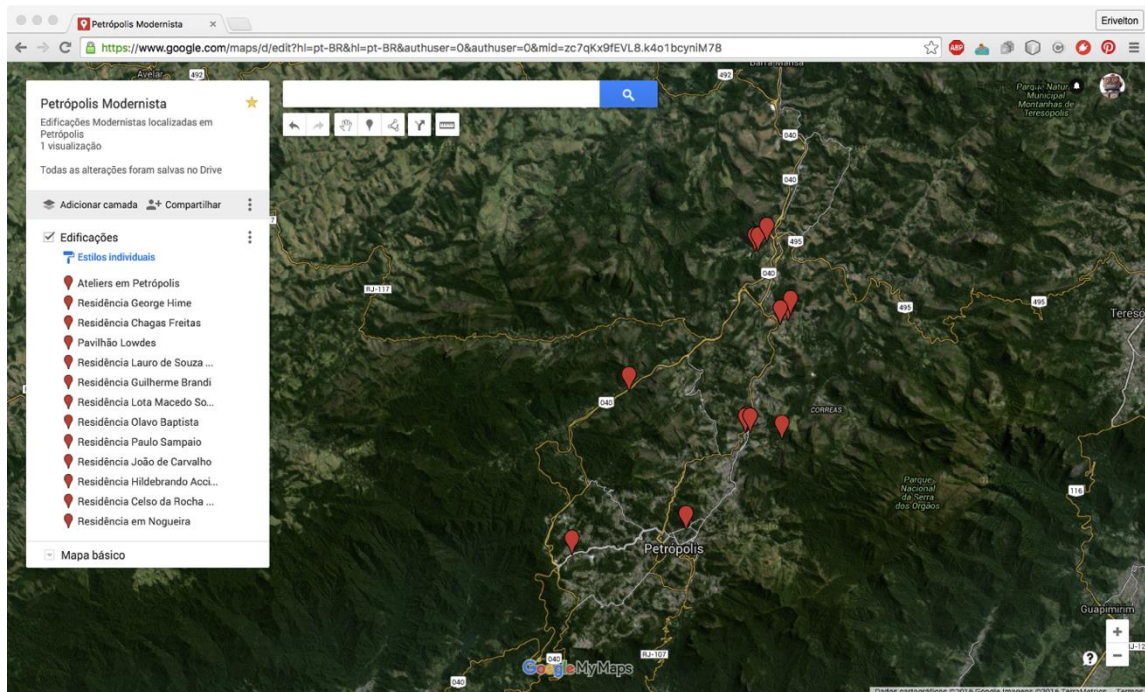


Fig. 14: Map with the location of the known constructions. Source: Silva, 2014. Available at: <<http://petropolismodernista.arq.br/mapa/>> [Accessed 12 March 2016].

It is clear that an urban environment, such as the Imperial Centre of Petrópolis or Modernist Centre Cataguases, can be better apprehended as a whole than isolated elements in the landscape. Since one cannot change the physical distance between the existing buildings, one can approximate them by other means, such as digital media.



The creation of a website from collected elements of the work was one of the first goals envisioned by this research. The choice of digital media, particularly the Internet, is given by the capacity that it has shown in bringing people together around common themes (Johnson, 2001), as the experience in the social networks can prove.

The Internet, despite all the physical and technological equipment needed for its operation, is usually regarded as an immaterial medium, a space where different types of media can move freely. With the application of digital graphic techniques appropriate to the object of study, it is possible to provide, using the internet and its tools, an immersive and engaging experience to those interested in the subject, even able to instigate the desire to visit the places presented, an aspect of the research that can be viewed either by the cultural or the economical aspect.

The popularization of computers and easier access to databases capable of storing and indexing different types of information offers new ways to handle the myriad of information collected, endowed with more dynamic features. Analyzing the computational aspect of the organization of knowledge, we can define a database as a collection of information organized with a regular structure; and software capable of handling this set (Silberschatz, Korth and Sudarsha, 2005). When analyzing the cities, we generally find in them the necessary mechanisms to organize and retrieve knowledge; people tend to congregate in urban centers to facilitate the transmission of information (Johnson, 2003). Here, as the city becomes the object of study, other tools are needed.

The use of a database as a basis for this catalog departs from some principles. Architectural knowledge is such the object of study can be described with words, but it cannot be fully understood without the use of other media. Although texts, reviews and memorials are part of the reality of architectural design, it is the images, such as drawings, photos and floor plans, its most significant portion, including three-dimensional representations, such as physical and electronic models. For a long time, textbooks and printed catalogs were the solution to distribute to such information, as exemplified in the book '*A Arte de Projetar em Arquitetura*', by Ernst Neufert (2004).

Based on this, the choice of a digital database is due to the intention to organize the information collected about the buildings within a relational structure. Thus, the connections between the records and the patterns formed can be revealed, as the objects of study, which are not completely visible in the city, will be known and recorded. The relationship between the buildings and the various actors - architects, engineers, designers and owners - may suggest patterns or reveal connections that might otherwise go unnoticed to individual and independent analysis of each item.

A first functional prototype of the website is available in <http://www.petropolismodernista.arq.br>, where progressively reviews and information about each building identified are being posted. A first effort has focused on building the analysis of texts and providing the greatest possible number of images and drawings of the works, such as plans and sections.

In the future we intend to scan technical drawings and convert them to vector format, reproducing them in 2D and 3D. At a time when the digital manufacturing technologies gain popularity, with CNC machines and 3D printers available to multiple users, such files would allow a simple reproduction of these buildings in scale. These models would help provide the possibility of further analysis of those architectural objects, which few have the chance to know personally.



A search system allows, albeit in rudimentary form, to perform queries and retrieve data. From the information registered on the neighborhood or the architect, the website has the ability to create groups that share this data in common. Currently, the research has been working in a deep analysis of each collected work, so that new indexers may be offered and thereby generate new keys for queries.

Another goal to be implemented is a geolocation system. It is intended, for the buildings in which location data is identified, that these points are recorded and displayed on a map. In addition to allowing the analysis of the work in relationship with its immediate surroundings in the present day, one can also look for relationships with other buildings that are nearby.

CONCLUSION

The Modern Architecture in Brazil has been extensively discussed and studied over the years, but the more usual approaches tend to treat the theme in a broad spectre, analyzing the production of the country as a whole, or showing the differences between schools that were predominant in certain regions. Alternatively, they focus on the work of specific architects and their production.

Analyzing the Modern Architecture from the perspective of the city that hosts the buildings, and the possible relevance to its cultural status, even if not noticed by the residents, may be less common, but can bring results that go beyond the theoretical field of study. Moreover, it can also help discover peculiarities that characterize the way to build in that place, that can economically promote the region by highlighting the architectural works of recognized value in the area, allowing a new vision of the analyzed city, diverse from common judgment.

The works of the great masters of architecture, such as Oscar Niemeyer and Lúcio Costa, attract interest by themselves. They were able to radically change the way of thinking about architecture and urbanism with their work, renewing the concepts that support how to design both the building and the city; but other architects accompanied them on this journey. Petropolis has several buildings equipped with the same architectural qualities under the influence of these masters, born of the same spirit of innovation, but without signatures of the same weight, which consequently do not arise the same kind of appreciation by tourists, architecture lovers or scholars. This can be attributed to the ignorance of the public and the difficulty of access.

The invisibility of these works ultimately make citizens indifferent to them within the city context. By creating the catalog and making it public, we bet on the viralization of the information, providing subsidies to the population to understand and know these projects. Even if these buildings do not reach the visibility of works from the Imperial past of the city, the seed for understanding them was provided; Petropolis is not only the cradle of a historicist architectural legacy, but also of works produced by architects who sought to rewrite how the architecture could be understood and produced.

Petrópolis has in tourism one of its main sources of revenue, strongly based in the Imperial city image, but ignores a whole production of an important period: buildings and proposals designed by different architects, some of them with worldwide recognition. It is necessary to make the population and visitors acknowledge this other city, little explored, and help them identify this Modernist legacy. Even if younger than its Imperial counterpart, it also bears historical significance.



On the other hand, we need to preserve the memory of this heritage. The city is a dynamic organism and many of these works have undergone changes, in order to adapt them to new uses, growth or change of families who come to inhabit them, or even the very demolition to make way for new structures. Once scanned and reproduced according to their original design, we have the opportunity to understand the works closer to their original context.

It is necessary to show that Petrópolis is not restricted to Imperial era, already assumed by the city and its population in their daily lives, but that it also can be Modernist, and recognized as a fertile field for architectural creation.

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REFERENCES

- Alonso, P. H., 2012. *Guia da arquitetura Modernista de Cataguases*. Cataguases: Instituto Cidade de Cataguase.
- Bruand, Y., 2010. *Arquitetura contemporânea no Brasil*. São Paulo: Perspectiva.
- Cavalcanti, L. A. P., 2001. *Quando o Brasil era Moderno: guia de arquitetura 1928-1960*. Rio de Janeiro: Aeroplano.
- Costa, E. R. R. and Castilho, M. S., 1974. *Índice de Arquitetura Brasileira 1950-1970*. São Paulo: Editora da Universidade de São Paulo.
- Johnson, S., 2001. *Cultura da Interface: como o computador transforma nossa maneira de criar e comunicar*. Rio de Janeiro: Jorge Zahar.
- Johnson, S., 2003. *Emergência: a dinâmica de rede em formigas, cérebros, cidades e softwares*. Rio de Janeiro: Jorge Zahar.
- Mindlin, H. E., 1956. *Modern Architecture in Brazil*. New York: Reinhold Publishing Corporation.
- Neufert, E., 2004. *A arte de projetar em arquitetura*. São Paulo: Gustavo Gili.
- Segawa, H., 1997. *Arquiteturas no Brasil 1900-1990*. São Paulo: Editora da Universidade de São Paulo.
- Silberschatz, A., Korth, H. F. and Sudarsha, S., 2005. *Sistema de Banco de Dados*. São Paulo: Makron Books.