



New pedagogy and the modernization of school architecture in Rio Grande do Sul (1937-1945): G.E. Silveira Martins in Bagé/RS¹

A nova pedagogia e a modernização da arquitetura escolar no Rio Grande do Sul New (1937-1945): Silveira Martins Grade School (G.E. Silveira Martins) in de Bagé/RS

La nueva pedagogía y la modernización de la arquitectura escolar en Rio Grande do Sul (1937-1945): El G.E. Silveira Martins de Bagé/RS

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Abstract

The present text is an approach to the modernization of the public school network in Rio Grande do Sul from the perspective of architecture, based on two axes: historical analysis and analysis of form and space. The first explores the subject based on reforms in education and the centralizing demands of the Vargas Era, examining school architecture in the light of the principles of the Escola Nova. The second brings to the agenda the perspective of graphic analysis and explores the building through interpretive diagrams. Systematized based on the project of Grupo Escolar Silveira Martins, in Bagé/RS, they include items such as: perimeter, accesses, circulation, sectorization and composition. The data show that the pedagogical modernization that took place in the large centers was felt in Rio Grande do Sul in a period that represented the implementation of expansion policies. The set of criteria allowed the identification of some design strategies, such as: architectural landmark, use of geometric shapes and approximation to the principles of modern architecture.

Keywords: School groups. Architecture. Rio Grande do Sul.

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Resumo

O presente texto é uma abordagem da modernização da rede pública escolar do Rio Grande do Sul sob o olhar da arquitetura, alicerçado em dois eixos: análise histórica e análise de forma e espaço. O primeiro explora o assunto a partir das reformas na educação e das demandas centralizadoras da Era Vargas, examinando a arquitetura escolar à luz dos princípios da Escola Nova. O segundo traz à pauta a perspectiva da análise gráfica e explora o edifício mediante diagramas interpretativos. Sistematizados a partir do projeto do Grupo Escolar Silveira Martins, de Bagé/RS, contemplam itens, como: perímetro, acessos, circulação, setorização e composição. Os dados evidenciam que a modernização pedagógica que ocorreu nos grandes centros se fez sentir em solo rio-grandense em um período que representou a concretização das políticas de expansão. O conjunto de critérios permitiu identificar algumas estratégias projetuais, como: marco arquitetônico, uso de formas geométricas e aproximação aos princípios da arquitetura moderna.

Palavras-chave: Grupos escolares. Arquitetura. Rio Grande do Sul.

Resumen

El presente texto es una aproximación a la modernización de la red de escuelas públicas de Rio Grande do Sul desde la perspectiva de la arquitectura, a partir de dos ejes: análisis histórico y análisis de forma y espacio. El primero explora el tema a partir de las reformas educativas y las demandas centralizadoras de la Era Vargas, examinando la arquitectura escolar a la luz de los principios de la Escola Nova. El segundo trae a la agenda la perspectiva del análisis gráfico y explora el edificio a través de diagramas interpretativos. Sistematizados a partir del proyecto del Grupo Escolar Silveira Martins, de Bagé/RS, incluyen ítems como: perímetro, accesos, circulaciones, sectorización y composición. Los datos muestran que la modernización pedagógica que tuvo lugar en los grandes centros se sintió en Rio Grande do Sul en un período que representó la implementación de políticas de expansión. El conjunto de criterios permitió identificar algunas estrategias de diseño, tales como: hito arquitectónico, uso de formas geométricas y aproximación a los principios de la arquitectura moderna.

Palabras-clave: Grupos escolares. Arquitectura. Rio Grande do Sul.

Once the purpose of education has been established and the means of action or processes needed by the individual for their integral development are defined, the scientific principles on which one can solidly support a system of education are fixed. Applying these principles, as we see, means a radical transformation of public education at all its levels, both in the light of the new concept of education, and in view of the national needs (O MANIFESTO..., 2010, p. 51).

The abovementioned quotation from the Manifesto of the Pioneers of Educação Nova (New Education) inspired the production of the present text², which problematizes the relationship between two important movements that occurred in Brazil in the first half of the 20th Century: the Escola Nova (New School) in pedagogy; the Movimento Moderno (Modern Movement) in architecture. In this sense, school buildings are observed as an important landmark in the urban landscape of cities, since they can be characterized as symbols of the presence of the State and of the economic and social development of the communities.

The option to prioritize the period of 1937- 45 justifies the time frame proposed for this work, comprising the administration of José Pereira Coelho de Souza (1900-1982), at the head of the Secretaria de Educação e Saúde Pública - SESP/RS (Department of Education and Health of the State of Rio Grande do Sul) (Secretaria de Educação e Saúde Pública - SESP/RS), (later Department of Education and Culture – SEC/RS). The secretary remained in office during the administrations of three Federal Interventors in Rio Grande do Sul: Daltro Filho (1937-1938), Osvaldo Cordeiro de Farias (1938-1943) and Ernesto Dorneles (1943-1945).

A brief study of the program of Grupo Escolar Silveira Martins (Silveira Martins School Group), in Bagé/RS, brings up the empirical objective of this study. On characterizing this project resulting from the implementation of the policies for the expansion of the public network in Rio Grande do Sul, the study explores the perspective of graphic analysis and seeks to examine the school building design based on analytical diagrams, taking into account perimeter, accesses, circulation, sectorization and formal composition. Hence, it is our objective to analyze the school architecture in Rio Grande do Sul in the light of the principles divulged by the Escola Nova pedagogy, at a time when the Movimento Moderno had not yet been consolidated in the country and architecture was fighting for its place against followers of other currents.

Theoretical position of the study

The perspective adopted for this text came from the historiographic approach connected to the school culture (JULIA, 2001; VIÑAO FRAGO, 1995). In their studies about school as a place, Viñao Frago and Escolano (2001, p. 69) point out the tendency to assign a given space for teaching, a place “[...] thought of, designed, built and utilized exclusively for this purpose”. For Silva, F. (2006), the category of school space is strongly associated with the idea of architecture as a program in which space, besides its materiality, expresses and reflects given discourses. It is thus perceived that the school culture permeates different actions of everyday school life.

² Luíze França da Rocha, on a scientific initiation scholarship, collaborated in this research.

In this sense, an interesting articulation is performed by some scholars (BENCOSTTA, 2001; FARIA FILHO; VIDAL, 2000; SILVA, J., 2004; VEIGA, 2002) between the school and urban cultures, with school times and spaces as guiding lines of the investigation. However, other researchers (FARIA FILHO; VAGO, 2001; FARIA FILHO; VIDAL, 2000; SOUZA, 1998) seek to shed a light on aspects of the relations between school spaces and times with other intrinsic aspects of the school experience and, at the same time, articulate them with the broader social ones (times and spaces).

On appropriating the studies by Certeau (1996) about narrative routes and structures, in the sphere of discussions regarding school institutions, their buildings and spaces, Werle et al. (2007, p. 151), see Institutional History as a dimensioned space, in which “[...] the different actors, the multiple policies, the institutionalized powers elaborate their routes”. These are approximations that promote broad looks on the matter of school culture, which means a methodological and analytical refinement of the research studies at the same time as it strengthens the dialogue with historiography and other fields (FARIA FILHO et al., 2004).

Further on this subject, the remark by Souza-Chaloba (2019, p. 24) since “[...] it is worth mentioning the contribution of the studies on grupos escolares (school groups) to further the discussion on the contribution of the circulation and appropriation of the Escola Nova in Brazil”. In this sense, it is in our interest, as we include architecture in this dialogue, to permeate research within the spheres of history of education and architecture, contributing to the consolidation of a historiographic culture in both.

Discursive enunciations and architectural proposals

The Escola Nova movement arose at the end of the 19th century in Europe, as the result of discontent with the pedagogical practices of the Traditional School, with major reflections on education worldwide. The movement became outstanding in Brazil in the 1920s, shaken by the events in the cultural milieu, especially the Semana de Arte Moderna (Week of Modern Art), which took place in São Paulo (FERNANDES, 2006). In education, major representatives of a legion that included personalities in education, sociology, psychology and philosophy, studied, wrote and debated the topic of school renovation, ideals that had intense repercussions on architecture and urbanism.

In Rio de Janeiro at the end of the Twenties, in the then capital of the Republic of Brazil, Fernando de Azevedo led a profound reform in education. With the Revolution of 1930, Getúlio Vargas took power, beginning a period of political centralization, with education as a national priority that began to be utilized “[...] as one of the vehicles to mold a collective national identity, as well as to deal with matters related to the integration of the foreign immigrants into Brazilian society” (ARENDR, 2011, p. 108). The period became known as the Vargas Era (1930-1945).

It was also an effervescent period in the arts and architecture, disseminated mainly by the Swiss-French architect Le Corbusier³. Through the lectures given in São Paulo and in Rio de Janeiro, Brazilian architects and intellectuals definitely adopted modern ideals. At that time, one of the most outstanding events was the competition to create the new seat of the Ministry of Education and Health. Minister Gustavo Capanema called Lucio Costa to design the building, and he, in turn, called architects Affonso Eduardo Reidy, Carlos Leão and Jorge Moreira, Ernani Vasconcellos and Oscar Niemeyer, with Le Corbusier fully involved as a consultant. Thus was born the new building, “[...] considered the starting point of a modern architecture with a Brazilian style (SEGAWA, 2014, p.92).

³ “Elizabeth D. Harris explains, with plentiful documentation, how this master influenced Brazilian architecture to break with the Neoclassicism that dominated the 1920s to produce an avant-garde architecture and become a leader in the universe of modern architecture” (FONSECA, 2002).

Modern personalities in architecture and pedagogy also approached the sphere of education. In 1930, Anísio Teixeira invited Lúcio Costa to be the Director of the Course of Architecture of the National School of Fine Arts (ENBA- Escola Nacional de Belas Artes). With an academic teaching connected to the current of eclecticism, Costa called architects Gregori Warchavchik, Affonso Eduardo Reidy and Alexander Buddeus and proposed profound changes (SÁ, WERLE, 2016). There were intense discussions, and reactions were soon heard. The experience did not last long; however, “[...] enough for a generation of future architects to become aware of the changes occurring in world architecture. I” (SEGAWA, 2014, p. 79).

Also within the sphere of education, 1932 saw the launch of the Manifesto of the Pioneers of New Education. Various intellectuals involved in the regional campaigns of education, among whom Anísio Teixeira, elaborated the document at the congress of education, “[...] portraying the wounds of public education and principles that should guide its reformulation, proposing a unified structure, national in scope, from infant education until higher education” (SÁ, WERLE, 2016, p. 219). In addition they demanded free and mandatory public education, acknowledging the universal right to Education.

A year previously, in 1931, Anísio Teixeira had become the Director of Public Instruction of the City Administration of Rio de Janeiro, (Diretoria de Instrução Pública da Prefeitura da cidade do Rio de Janeiro) remaining in the position until 1935. He advocated a secular (lay), free Public Education, open to all. One of his main tasks was to elaborate a general plan of school buildings that comprised a program of new constructions and established standards for the adaptation of rented buildings. As told by Fernandes (2006, f.72),

This plan determined different programs for school design, organized according to 2 typologies: the core schools – that would comprise the study activities in the traditional sense and the park schools or school parks for social, artistic, sports activities, or even for activities of a medical and hygienic nature. Children would attend these two types of school daily in different shifts.

The projects were performed by architect Enéas Silva, Head of the Division of School Buildings and Equipment (Divisão de Prédios e Aparelhamentos Escolares) and obeyed the five types described by Anísio Teixeira: a) Minimal Type with two classrooms and a workshop studio room; b) Nuclear type, twelve classrooms - , spaces for the administration, office and library; c) Platoon type, sixteen rooms- twelve common and four special – for auditorium, music room, games room and recreation; d) Platoon type, twelve rooms – six common and six special - for reading, literature, library, drawing, industrial arts, auditorium, etc; e) Platoon type, twenty-four rooms- twelve common and twelve special – plus a large gymnasium (OLIVEIRA, 2007).

In 1933, Fernando de Azevedo, one of the signatories of the Manifesto, undertook a reform of education in São Paulo, creating a committee in charge of solving the problem of school buildings. A member of this committee was architect José Maria da Silva Neves, professor of the Polytechnic and Fine Arts School, and Head of the Technical Section of Projects of the Directorate of Public Works and Directorate of Education. At the time, Silva Neves proposed buildings that were close to modern thinking, using simple geometric shapes, adopted reinforced concrete, besides recommending an independent structure, yards under pillars and large glassed openings.

The São Paulo committee also presented a number of new guidelines for the elaboration of projects and implementation of the construction works, according to Oliveira (2007, f. 69):

The architectural program elaborated called for large, bright, airy classrooms, painted in light colors; work facilities, rooms for administration and teachers; and an auditorium which would be used for several functions: games room, room for physical education, for singing, festivities and educational movies; and also as a place for school meetings, parent-teacher assemblies. The new projects also included health care facilities, such as medical and dental offices.

Enéas Silva and José Maria da Silva Neves advocated the principles of modern architecture, breaking with the styles that had prevailed until that time. On the other hand, the advocates of the previous concepts (architectural and pedagogical), classified these projects as a “water tank”, with a Communist model”, among other adjectives. Polemics aside, the geometrizing lines of the school architecture of the time (Figure 1) were affirmed in the architectural scene, and were disseminated throughout several regions of Brazil (SEGAWA, 2004).

Figure 1 – Grupo Escolar Visconde de Congonhas do Campo (1936) - Tatuapé, SP / Brazil



Source: Segawa (2014, p. 67)

If, on the one hand, Rio de Janeiro and São Paulo were becoming consolidated as the main economic and industrial centers of the country, Rio Grande do Sul, in the sphere of the governmental policy, “[...] continued to base its economy on agriculture and livestock” (CORSETTI; KISTEMACHER; PADILHA, 2007, p. 176). Characterized by managements identified with Getúlio Vargas’ policy, the period was marked by several administrations. José Antônio Flores da Cunha (1880-1959), an interventor appointed by Getúlio Vargas in 1930, was elected governor for the 1935-1937 term. Once he had broken with the Federal government and in the context of the Estado Novo, he was followed by the administrations of Manuel de Cerqueira Daltro Filho (1937-1938), Osvaldo Cordeiro de Farias (1938-1943) and Ernesto Dornelles (1943-1945).

During the Flores da Cunha administration, in 1934, the State Department of Business of Education and Public Health (SESP/RS Secretaria de Estado dos Negócios da Educação e Saúde Pública), was created. It was headed by Otelo Rosa for two years. In 1937, Coelho de

Souza took over the department, and headed it during the administrations of Daltro Filho, Cordeiro de Farias and Ernesto Dornelles. According to Búrigo (2014, p. 18), “[...] it was during the second administration of Flores da Cunha that the reorganization and modernization of the school system began, which continued and was carried on in greater depth during the administration of Interventor Cordeiro de Farias”.

In this undertaking of reorganization and modernization, Coelho de Souza promoted an intense movement to reform the educational system of the state. According to Quadros (2006), at the same time as the process of nationalizing teaching, the Rio Grande do Sul movement involved four large dimensions: a) jurisprudence on education; b) restructuring the SESP/RS; c) development of policies for the expansion of the public network of education – construction of schools; d) orientation, supervision and inspection of school work.

The re-equipment of SESP/RS began the operation of a movement of educational, political and pedagogical renewal, and for this it required a planned and committed action of the state. For such a large enterprise, in 1939, Coelho de Souza asked Manuel Bergström and Lourenço Filho (1897-1970), to elaborate a preliminary project for the organization of the department. Almost all the suggestions presented, fully aligned with the structure adopted at the Federal level, were used, aiming at “[...] contemplating administrative rationality, objectivity, technical orientation, reformulation of habits and behaviors, and innovation” (QUADROS, 2006, f. 113).

In an interview to a newspaper, *Correio do Povo*, in 1938, Coelho de Souza summarized the reorganization, foreseeing

a complete reform of the system of education, [...]; to surround himself with specialists of renown capacity, concern himself with teachers; to implement a plan to build schools and acquire school supplies to equip the schools (QUADROS, 2006, f. 75).

In 1938, still, the Regional Offices of Education (Delegacias Regionais de Ensino) were established, dividing the state into ten regions. The following year a decree was enacted establishing the new Rules of Procedure of Elementary Schools, grouping them into two types: isolated schools and school groups (grupos escolares), with architectural projects elaborated by SOP/RS.

However, when implementing reforms, there are records that also show the problems that were occurring in the state government regarding the municipalities. Due to financial straits, the state asked them to provide buildings for the schools, until conditions changed, enabling the construction of new ones (QUADROS, 2006). However, those who responded to the requests usually chose inadequate facilities.

These and other setbacks required inspection trips, often performed by the secretary himself, who showed excessive zeal in this process. The object of care and attention, these actions also conferred “[...] visibility on the intense incidence of control and standardization to which the directors and teachers of the schools were subjected” (QUADROS, 2006, f. 87), since, in the context of nationalization of education, concern about teacher training was on the agenda, and was assigned a prominent role.

In 1943, on rendering accounts of his government, Cordeiro de Farias recorded the construction of thirty-three new buildings (Table 1). The location privileged, on the one hand, regions with a high demographic density. On the other, zones in which there was a strong concentration of foreign schools (especially German and Italian- Brazilian). Within the sphere of SOP/RS, the government recorded that, although it only had a small engineer corps it had managed to carry out the job of elaborating an architectural project, organizing calls for tenders and inspecting the execution of rural buildings and urban grupos escolares. (RIO GRANDE DO SUL, 1943).

Table 1 – School buildings constructed by the state (1937-1942)

Nº	Município / Capacity	200 students	350 students	500 students	750 students
1	Alfredo Chaves (Veranópolis)			1	
2	Arroio do Meio	1			
3	Bagé				1
4	Bom Jesus		1		
5	Cachoeira (Cachoeira do Sul)				1
6	Camaquã		1		
7	Candelária	1			
8	Caxias do Sul		1		
9	Encantado	1			
10	Estrela		1		
11	Flores da Cunha	1			
12	Guaíba		1		
13	Guaporé		1		
14	Irai	1			
15	Jaguarão			1	
16	Lajeado		1		
17	Novo Hamburgo			1	
18	Pelotas				1
19	Porto Alegre			1	
20	Prata (Nova Prata)	1			
21	Santa Maria		1		
22	Santiago			1	
23	Santo Antônio	1			
24	São Francisco de Assis		1		
25	São Francisco de Paula		1		
26	São Gabriel		1		
27	São José do Norte	1			
28	São Pedro		1		
29	Tapes		1		
30	Torres	1			
31	Tupanciretã			1	
32	Venâncio Aires	1			
33	Viamão		1		
TOTAL		10	14	6	3

Source: Adapted from Rio Grande do Sul (1943)

In 1944, at the ceremony of laying the foundation stone of the new building of a Grupo Escolar in São Leopoldo, a municipality in the Metropolitan Region of Porto Alegre, Coelho de Souza made a warm speech exalting the achievements of public education in the state up to that time, and presented the new school construction plan. During this ceremony he was accompanied by Ernesto Dorneles, the Federal Interventor, besides a retinue that included state secretaries, the Canadian Ambassador and various municipal authorities. Besides showing the major role of SESP/RS as an articulator of the principles of school renewal, the speech emphasized federal action in the face of the requirement of nationalization of the immigration areas:

This school group is for the purpose of serving the city of São Leopoldo, the seat of the municipality where German colonization began in the state. It should have facilities and equipment worthy of a Brazilian school, because only in this way will it be able to carry out the political function that pertains to it – which is to complete national integration of the descendants of the former settlers, already quite advanced in this urban center (CONSTRUÇÕES ..., 1944, p. 425).

The full speech was published in the November 4, 1944 edition of *Correio de São Leopoldo*. In December of the same year it was disseminated in edition nº 6 of *Revista Brasileira de Estudos Pedagógicos (RBEP)*, under the title *Construções Escolares no Rio Grande do Sul*. (School Constructions in Rio Grande do Sul). Further actions of the new plan were also the construction of school buildings in the cities of Rio Pardo, Arroio Grande, Soledade, São Sebastião do Caí, Rosário, José Bonifácio, Santa Rosa, São Lourenço, Getúlio Vargas, São Sepé and Porto Alegre (two units in the capital).

The aforementioned speech also disseminated the information that the SOP/RS projects were examined by the Department of Primary and Normal Education through the Technical Division and Center of Educational Research and Guidance, following medical and pedagogical criteria and suggestions. It also counted on the partnership with the director of the Methodist School of Porto Alegre (Colégio Metodista de Porto Alegre), Mrs. Mary Sue Brown, “[...] who had taken several specialization courses on the technique of school construction in the United States, and very kindly, collaborated with the work.” (CONSTRUÇÕES ..., 1944, p. 422-423).

According to Quadros (2006), modernization of education in Rio Grande do Sul was based on a philosophical and doctrinaire structure supported on scientific and technical foundations, in which, among other, the expansion of the school system was outstanding. A new phase of school construction on a large scale began in the state. Thus, studying the school architecture produced in it means to see the way the *Ideário Moderno* (Modern Principles) was appropriated by the architects in the sphere of SOP/RS.

Discussions on the project syntheses: form and space

In order to present the reflections, we made a list of items that were analyzed in the G. E. Silveira Martins project in Bagé/RS. We elaborated an analytic diagram for each of them, covering the perimeter, accesses, circulation, sectorization and formal composition. These elements were examined from the perspective of graphic analysis (FLORIO et al., 2002; TAGLIARI; FLORIO, 2009; TAGLIARI FLORIO, 2008), which allows “[...] understanding the spacial and formal relationships that prove insufficient if we look only at the texts and the graphic ensemble corresponding to the blueprints, sections and elevations” (BARROS, 2017, f.154).

So far it has not been possible to perform research in the collection of SOP/RS (currently the State Department of Works and Housing (Secretaria Estadual de Obras e Habitação)), which would enable the confirmation of the appropriation of guidelines and /or guidance about the construction of school buildings. Since the survey is not finished, we chose to discuss, in this text, the first impressions about this architecture. In order to enable performing the analyses, it was necessary to establish a section. The analysis was performed based on the original project of the school group, since many of them underwent some change as the years went by.

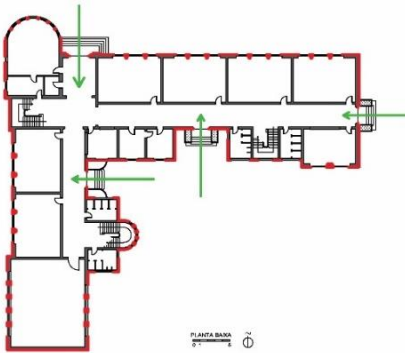
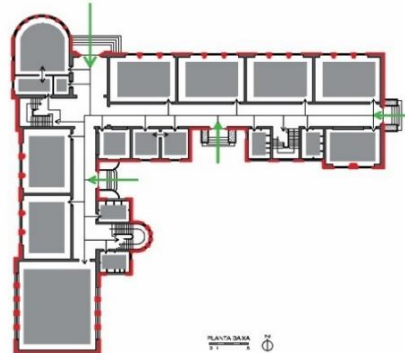
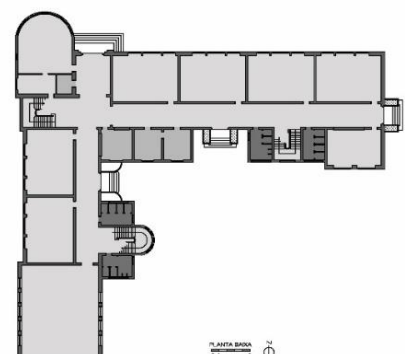
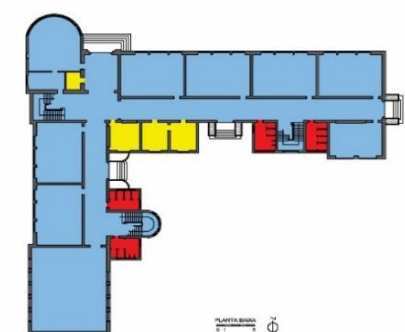
G. E. Silveira Martins (currently the Silveira Martins Secondary State School ⁴) was to be implanted in the block formed by the General Neto, Caetano Gonçalves, General Sampaio and 20 de Setembro streets, “[...] close to the region which was the site of the first urban settlement of the city of Bagé, ie., in the first urban center, between the Praça da Matriz (Church Square) of São Sebastião Cathedral and Rio Branco Square” (BICA, 2013, f. 184). Dr. Albano Square (Praça Dr. Albano) is currently sited there. Although it is known that, when establishing a location for the grupos escolares, regions with larger spaces were prioritized, we do not, at this time, know precisely why the transfer to the north zone occurred.

The grupo escolar project dates from 1939 and all three floors have a very similar configuration. For this reason, in the present study, only the ground floor was analyzed. Thus, we grouped the criteria into a single block (Table 2), composed by some items for analysis: accesses/perimeter,

⁴ The origin of the current Escola Estadual de Ensino Médio Silveira Martins is connected to the Collegio Elementar de Bagé, created by decree 1479/1909. In 1923 it was given the name of Collegio Elementar XV de Novembro, and functioned since its inauguration in the large two-story house on Av. Sete de Setembro. Raised to the level of Grupo Escolar de Bagé, in 1933, it moved to Rua Conde de Porto Alegre and in 1940 it received the name of Grupo Escolar Silveira Martins. Finally, in 1941, the new building of the grupo escolar was inaugurated. It was located on Av. Fernando Machado, in the downtown area. (FERREIRA; BICA, 2011).

circulation/space for use, degree of compartmentation and sectorization, which enabled and made it easier to understand the spatial and formal relationships of the building. The interpretive diagrams allow identifying, by lines, contours and geometrical figures, the relationship between the architectural elements, and also the geometrical ones and unit system.

Table 2 – Description of the items for analysis and the resulting diagrams.

Item for analysis	Description	Example of Representation (no scale)
<i>Accesses and perimeter</i>	<p>Legend: The red line represents the closed perimeter of the school, without color, the doors and windows. The arrow on the green line indicates the main and secondary access to the building.</p> <p>The configuration of the perimeter identifies whether the project is structured as a sum of parts, in organic growth, or whether the spaces are submitted to a rigid regular contour and allow identifying functional intentions and of permeability and direction of the openings.</p>	
<i>Circulation and spaces</i>	<p>Legend: The internal spaces are represented by geometrical figures in dark gray. The black lines with arrows represent circulation between the environments.</p> <p>They allow finding out how the interconnected or sequential spaces were defined, and visualizing whether the circulation areas are clear and direct. According to the diagram, the dilations and contractions of the internal spaces and their relations with the external ones are identified.</p>	
<i>Degree of compartmentation</i>	<p>Legend: Dark, medium and light gray indicate very, medium and little compartmentation, respectively.</p> <p>It allows visualizing the level of subdivision and integration of spaces achieved by the designer according to the sectors and spaces of the school.</p>	
<i>Sectorization</i>	<p>Legend The color Blue corresponds to the teaching sector, including circulation areas: Red for services; Yellow for the administrative sector.</p> <p>It allows visualizing the functional understanding of the sectors of the school and the level of integration and relationship between the school sectors and spaces.</p>	

Source: Scheme adapted from Tagliari Florio (2008)

The school, inaugurated in 1941, was placed in the block formed by avenues Fernando Machado, Tupi Silveira, Marechal Floriano and Rodrigues Lima. This new urban scenario shared the role of protagonist with another public equipment, Carlos Gomes Square. According to observations made by Gutierrez and Neutzling (2011), the urban tissue of Bagé allows a clear reading of its growth process, in which the reticulate lines with orthogonal streets are emphasized. The authors also defined four processes of city growth, through which it is found that the zone where the new school building was implemented was located in the expansions that had occurred since the beginning of the 20th century (called third division into allotments, especially northwards). Below we present the interpretive summary of the project.

Accesses and perimeter:

The diagram of G. E. Silveira Martins reveals that part of the perimeter of the building is enclosed by walls, although it has a larger perimeter consisting of openings. The main access is located at the corner. Although discrete, it establishes a landmark on the façade, helping the distribution and organization of the environments. There are also three other secondary access points which are connected to the yard and also act as a service entrance. The perimeter is very cut out due to the L shape of the plan and the volumes that project outward (curved volume of the corner and staircases). On the other hand, the solid block, anchored to the soil, which constitutes this perimeter and the constructive system utilized (load bearing walls), does not allow much integration between the interior and the exterior even if the amount of fenestration is well marked. However, this internal and external integration is especially valued in the configuration of the corner from the second and third floor terraces and at the extremes of the right and left wings (the second and third were not included in the diagrams).

Circulation and spaces:

The proposal presents a tested and proven typological solution: a compact L shaped volume, with central circulation, along which are distributed the classrooms, administrative areas and services. Architecturally, an interrelationship is sought between the units, besides ventilation and natural light for all classrooms. These are almost rectangular, largely conditioned by the distribution of the building's structural support. The L shape also provides a more organic distribution of the spaces and, at the corner, creates a center where the wings intersect. When they were conceived as a single volume, the spaces were rendered adequate to the shape and the sectors have rigid separations (also conditioned by the constructive system). The internal volume reveals spaces without variations of the ceiling height, except for the auditorium, with a double ceiling height, which can be identified externally by the distribution of the frames, at different heights. Despite the length of the building, its shape and distribution of the vertical nuclei (staircases) generated a functional plan with a minimum area that is meant for horizontal circulation.

Sectorization and degree of compartmentation:

In the grupo escolar project there is great integration among the sectors, despite the number of walls. Even though there is a strict delimitation of the spaces, conditions were set for one of the wings to be used as the space that received the greatest number of users at the same time (auditorium), which means that it is strictly controlled. A large part of the ground

floor was given over to the teaching sector. However, there are also spaces reserved for the administrative sector and services. The education (sector) is next to the street and dialogues with it through the sequence of openings. It is composed basically of classrooms (six of them on the ground floor), library (curved volume at the corner) and auditorium at the far end of the right wing. Office and director's room are the administrative sector, with spaces connected internally and located at the limits of the integration of circulation areas. The compaction of the services sector reveals the strategic position of the restrooms. There are two sets, separated by sex, positioned at the vertical circulation areas. The environments are integrated especially via the vertical circulation cores. The main one, located close to the curved volume of the corner, has a large opening with glass, and the comings and goings of students can be seen from the street. Two others are turned toward the schoolyard, and one of them also has a curved volume, a characteristic observed at G. E. Visconde de Congonhas do Campos, built in the interior of São Paulo (see Figure 2).

This study prioritized the analysis performed based on the redesign of the original project for G. E. Silveira Martins, a unit for three hundred and fifty students, built in the city of Bage/RS. Interpretive diagrams reveal different strategies to implement the architectural object. This set of criteria, associated with others that we are developing in the larger survey, will enable comparative analyses among the different typologies, besides identifying the principles adopted by the different architects of SOP/RS, whether it be to organize forms and spaces, or the appropriation of guidelines or guidance for the construction of school buildings.

Final considerations

The representativity of the modern structure observed in the school groups built in Rio Grande do Sul, during the Coelho de Souza administration at SOP/RS justified the choice of this topic as an object of study. Through the "historical" series first delimited in the 1943 Report, it was possible to identify the thirty-three school buildings constructed in the capital and in the interior of the state. Based on standard projects, which varied in size (200, 350, 500 and 750 students), we were able to observe the architectural evolution proposals ranging from a roof with four sloping sides, following the traditional construction model (G.E. Estrela, in Estrela/RS) to roofs protected by platbands, in a clear adaptation to the principles of modern architecture (G.E. Joaquim Caetano da Silva, in Jaguarão/RS).

Thus, beginning with a brief incursion into the matter of reforms during the Vargas Era, we perceive that education acted as a further agent to promote modern architecture in the country during a period marked by the consolidation of the new current. The pedagogical and architectural modernization that occurred in the large centers, together with the wish to renovate education, especially according to the New School, was also felt on the soil of Rio Grande do Sul, during a phase that represented the implication of the policies of expansion of the public school system in the first half of the 20th century.

The graphic method applied allowed establishing a few relations between the construction in Bagé /RS and the school buildings disseminated throughout the country based on those produced in São Paulo and Rio de Janeiro during the 1930/40s, revealing possible similarities with elements of composition, *viz*: a) implantation of a corner lot, valuing the architectural landmark; b) building with up to three floors, with a basement to raise the building (monumentality); c) use of predominantly geometrical shapes, especially the curved volume on the corner; d) and approach to modern architecture, although the spatial organization of the school group in Bagé considers a building anchored to the soil and articulated by classrooms in an arrangement with central circulation.

On the other hand, there appears to be no intention to utilize pillars, a strategy associated with the Modern period and observed at G.E. Visconde de Congonhas do Campo. This alternative can be seen as a consequence of the slow insertion of an independent structure of reinforced concrete in the interior of the country, together with the high cost of the materials and difficulty in getting specialized labor. However, one can already perceive the inclusion of modern aspects, such as the iron frames of the volume of staircase and auditorium, well lit classrooms, dressing rooms, medical consulting room and auditorium, besides the comfort and hygiene of the school space. In this sense, a few characteristic aspects were identified, which allowed us to establish other approaches, such as: a) proposal for integral education. b) the choice of modern architecture for school buildings; c) the political and social role represented by the school in the State and the cities.

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