

Krause's influence in school architecture: the case of Spanish pedagogy in the 19th Century

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ABSTRACT: This paper is based on the hypothesis of contemplating school architecture and school areas as resources to be considered in the curriculum design and in the historical research on Education. School architecture or pedagogy of spaces is an important topic of study, which is crucial and with a great capacity to continue growing in the field of history of education. The main purpose of this work is to analyze school architecture and spaces as an educational entity, reflecting on its educational importance, its hermeneutics and its influence on educational processes. In order to do so, we will base our reflections on a relevant pedagogical theory in European and Latin American pedagogy: the Krausism. In addition, we will see its influence in Spain and other countries during the nineteenth century and a substantial part of the twentieth century.

EET/TEE KEYWORDS: History of architecture; History of education; Krause; History of pedagogy; Spain; XIXth Century.

Introduction. Architecture and Education

From an educational point of view, students engage with each other, they share what is public property, and thanks to communication, they interact with each other. In this sense, the educational space becomes an educational resource where it is necessary to understand, evaluate and interpret the spaces from the subjects, generating educational processes where space acts as an educational agent, and in which the subjects «will be indirectly identified with their space»¹. Therefore, we can say that it is possible to create spaces where the students and the community feel connected with these spaces, an educational space which provides a moral and political reference, an active and democratic participation where space and architecture belong to the teaching-learning processes.

The analysis of the school architecture and school spaces is very interesting, not only from the point of view of curriculum design, but also in the historical and educational research². The reason is simple as a hermeneutics of spaces from a pedagogical point of view shows that spaces condition significantly educational practice. The the physical space can facilitate or limit students' teaching and socialization. There are many variables involved in the educational process, and it is necessary to recognize space as one of them³. However, it is not an abstract idea, but an interrelation of spatial, social and cultural structures which allow logical approaches starting from individuals' social roots. Moreover, individuals' personal development have a close relationship with the environment which surrounds them⁴. Thus, the place and its characteristics, act as educators because they convey a message. Spaces transmit values and promote certain behaviors inside and outside the educational community⁵.

The importance and analysis of educational spaces is evident because spaces are not empty and neutral containers but they socialize and educate through their meanings and content⁶. The school is a place of socialization and training by means of events taking place in accommodated rooms (workshops, common rooms, laboratories...). This makes that the people who usually go to these spaces socialize and acquire moral standards⁷. Educational spaces

¹ J.M. Muñoz-Rodríguez, *La pedagogía de los espacios como discurso de la educación ambiental*, «Bordón. Revista de pedagogía», vol. 59, n. 4, 2007 p. 654.

² A. Salgado, *Arquitectura de los espacios escolares*, <<http://fortinoalmasuaped.blogspot.com.es/>> (last access: 15.06.2015).

³ A. Viñao, *Escolarización, edificios y espacios escolares*, «CEE Participación Educativa», n. 7, 2008, pp. 16-27.

⁴ J.M. Muñoz-Rodríguez, S. Olmos Migueláñez, *Espacios abiertos y educación: análisis e interpretación del lenguaje educativo de un espacio público*, «Revista de Educación», n. 352, 2010, pp. 331-352.

⁵ J. Oliver, *Espacios educativos y sistemas de formación (Metodología ecológica y organización educativa)*, «Revista Interuniversitaria de Formación del Profesorado», n. 4, 1989, pp. 59-67.

⁶ Viñao, *Escolarización, edificios y espacios escolares*, cit.

⁷ B. Sureda, *La investigación en historia de la educación y otros espacios de socialización y*

are important in education processes since they are learning processes whose outcomes produce educational development: «The architectural design is able to make the community involvement compatible with the enjoyment of spaces, it improves the quality of education, it becomes a symbol of the community and it affects the personal and collective identity»⁸.

The main purpose of this work is to analyze school architecture and spaces as an educational entity, reflecting on its educational importance, its hermeneutics and its influence on educational processes. In order to do so, we will base our reflections on a relevant pedagogical theory in European and Latin American pedagogy: the Krausism. In addition, we will see its influence in Spain and other countries during the nineteenth century and a substantial part of the twentieth century.

1. *Methodological Notes. History of education and Architecture*

The school space should be understood as a cultural construct which shows a «silent teaching» because there are strong significances transmitted through stimuli, and hidden curriculum content. The furniture, the separation of sexes and ages, the placement in rows, the teacher's placement, the shape of the classroom, the school entry, the outside access... everything conveys a message and allows or does not allow, some forms of education or others⁹. It is necessary to understand that the most important thing in school architecture is to develop a concept of integral education, as current educational theories recommend, an integrated space where the physical environment is part of the teaching-learning¹⁰.

We start from the premise that the types of buildings where both students, and teachers live, affect not only what students learn and what teachers teach but also how they do it¹¹. One consideration, which great historical pedagogues, such as Fröbel, took into account. The echoes of his architectural thinking are still present in many contemporary kindergartens¹². For centuries, the structural model of factory has been widely used¹³. As in an assembly line, students pass

formación de los jóvenes en el siglo XX, «Historia de la Educación», n. 22, 2003, pp. 27-32.

⁸ A. García-del Dujo, J.M. Muñoz-Rodríguez, *Pedagogía de los espacios. Esbozo de un horizonte educativo para el siglo XXI*, «Revista Española de Pedagogía», n. 228, 2004, p. 260.

⁹ Salgado, *Arquitectura de los espacios escolares*, cit.

¹⁰ M. Remess, F. Winfield, *Espacios Educativos y Desarrollo: Alternativas desde la sustentabilidad y la regionalización*, «Revista Investigación y Ciencia», n. 42, 2008, pp. 45-50.

¹¹ R. Upitis, *School Architecture and Complexity. Complicity*, «International Journal of Complexity and Education», vol. 1 n. 1, 2009, pp. 19-38.

¹² M. Dudek, *Kindergarten Architecture: Space For The Imagination*, 2nd Ed. Independence, (KY), Spon Press, 2001.

¹³ Upitis, *School Architecture and Complexity. Complicity*, cit.

from one class to another depending on the course or subject they are being taught.

The concern of the educational community about school architecture dates back to nineteenth century, when we find references in the pedagogy of Rousseau, Pestalozzi, Montessori, or more modern authors such as John Dewey, Milani¹⁴, and of course the current pedagogical trends of the New School¹⁵.

Throughout history, they have been developing and implementing ways of understanding education as well as, different philosophies and educational theories. Depending on the time and place, these philosophies and theories have undoubtedly conditioned the architectural forms of buildings, places or environments where the educational process was provided, to reinforce their idea of education¹⁶. As the eminent nineteenth-century Spanish teacher Giner de los Ríos pointed out in 1884, «School is the lining of an idea». As a result, school architecture or the way of understanding the educational space has gone together with the various forms of «providing education». Hence, it is an interesting element to consider in the field of history of education. However, this has not always been so. As Agustín Escolano warns school space has consolidated as a field of study within the history of education¹⁷. It used to be a “muted” element and now it is a domineering one; especially, insofar as it helps to understand the meaning and content of school culture. Over the years, this culture has left sediment which is a defining element in architecture and school space. The study of school architecture is a way to provide functionality to the history of education, because it helps to get a more complete view of space and time where the teacher, students and other actors got on.

Therefore, school architecture or pedagogy of spaces is an important topic of study, which is crucial and with a great capacity to continue growing in the field of history of education. It is something that is within the history of education, as the learning content and as a necessary horizon of research. However, it was not until the fourteenth century when people in western societies built classrooms in buildings specifically designed to accommodate elementary schools¹⁸. In fact, school buildings will not be a concern until the late eighteenth century and during the nineteenth century when education was seen as a key factor of social improvement. In the late nineteenth and early twentieth century, many educators stated that the School should be a body which would

¹⁴ L. Alonso, *Principales teorías y corrientes educativas del Siglo XX*, in M.A. Martín-Sánchez (coord.), *Historia de la Educación en Occidente. Teorías, métodos y prácticas educativas*, Saarbrücken, Editorial Académica Española, 2012, pp. 275-300.

¹⁵ A.M. Jiménez, *La escuela nueva y los espacios para educar*, «Educación y Pedagogía», vol. 21, n. 54, 2009, pp. 105-124.

¹⁶ S. Al, R. Sari, K. Nimet, *A different perspective on education: Montessori and Montessori school architecture*, «Procedia Social and Behavioral Sciences», n. 46, 2012, pp. 1866-1871.

¹⁷ A. Escolano, *Tiempos y espacios para la escuela*, Madrid, Editorial Biblioteca Nueva, 2000.

¹⁸ F. Ramírez, *Arquitectura y pedagogía en el desarrollo de la arquitectura moderna*, «Revista Educación y Pedagogía», vol. 21, n. 54, 2009, pp. 31-65.

integrate pedagogy and physical environment, considering the two constituent elements of first order of children's training process¹⁹. If we take into account the ability of space to influence teaching, human beings are the foundation and justification of education, being a material, physical, biological, cultural and social being, who is built in connection with the spaces which reference them²⁰. Architecture, technique, technology and education are linked in school buildings²¹. This is something that has also come into play from the educational policies in different historical stages. Aspects related to economy, industry or concepts or ideals such as the welfare state, have influenced the construction of school structures, agreeing various objectives, depending on the historic time when these decisions were taken. As a result, they built «average schools»²² where the economic resources and the needs to create school places with zero cost were pressing. Or on the other hand, implementing projects where they took into account urban elements of the environment and the context where it was decided to insert the School. A dual perspective, diachronic and political educative helps to understand the nature of changes in school spaces throughout the decades, creating a solid foundation for understanding the compound of the classroom in the twenty-first century and the most representative milestones to record the spatial elements in education²³.

It has always been a mistake to view the school building in a simple way since it just describes the distribution of the building from mere information about it, that is, where the particular educational institution is located. This information is accompanied at best by a graphic document, i.e., drawings or photographs. That mistake puts aside a more accurate and enriching criticism from the educational point of view²⁴. Today the history of education tries not to make that mistake, delving into a necessary context analysis, where the school space was inserted. We do not only point out what elements formed that space, but we reflect on its distribution, taking into account economic, political or pedagogical aspects of that concrete time. That is, we do a theoretical exam of what happened in that space from a historical perspective. It is, as Antonio Viñao claims, conducting an archaeological reconstruction which hold its importance for research, not from the basic list of objects, but for

¹⁹ *Ibid.*

²⁰ García-del Dujo, Muñoz-Rodríguez, *Pedagogía de los espacios. Esbozo de un horizonte educativo para el siglo XXI*, cit.

²¹ J. Coronado, *La escuela y el edificio escolar público, un proceso de diálogo entre arquitectura, técnica y educación, como parámetros de búsqueda del hábitat escolar en el siglo XXI en Bogotá*, «Escala», n. 230, 2010, pp. 50-51.

²² O. Pons, *Evolución de las tecnologías de prefabricación aplicadas a la arquitectura escolar*, «Informes de la Construcción», vol. 62, n. 520, 2010, pp. 15-26.

²³ J.M. Visado, *Espacio escolar y reforma de la enseñanza*, «Revista Interuniversitaria de Formación del Profesorado», n. 11, 1991, pp. 125-135.

²⁴ A. Viñao, *El espacio escolar. Introducción*, «Historia de la Educación. Revista Interuniversitaria», vol. 12, n. 13, 1994, pp. 11-16.

its inclusion in an explanatory diagram to interpret and give meaning to the reconstructed reality²⁵. Schools are like workshops where teaching guidelines are developed and evolved empirically, and therefore where the teacher's nature is limited²⁶. Thus, if the history of education intends to address the ways in which teachers' job has changed, something associated with it you should be considered, such as the architecture and ecology of the classroom, spaces where the act of teaching is linked. In this space a number of variants are shared, such as the physical environment of the child, the breadth and classroom lighting, temperature and ventilation, acoustics, order, or beauty²⁷. In all these variants, there have been changes which have led to an evolution in school buildings, changing designs and forms of distribution of tangible elements that transmit a speech with meaning if they are analyzed individually and as a whole.

History of education has been dealing with the study of open school campuses, the distribution and disposal of school buildings, the relationship between the teaching methods used throughout history and the spatial arrangement of the actors and objects as well as with the conception of school space in the history of the curriculum²⁸. However, the study of school space from the history of education can be an interesting complement to evaluate and support other research lines. For example, the distribution of space based on gender, which has had a superlative significance beyond what we can imagine²⁹. A historical-educational vision allows us to study and draw conclusions about how the school spaces have been distributed according to a greater or lesser segregation, defined in code or consideration of these elements³⁰, establishing predominant or power among those spaces occupied by one or another. This generated consequences for society as a reflection of school space in the social space. On the other hand, the connection with a critical pedagogy of space demonstrates the possibility of contributing to untangle the ways in which we use the space from the dominant or oppressive view of individual or groups³¹. An examination of the spaces where students lived at different times in the history of the School will help us to discern the limits and functions of the elements of that space.

²⁵ *Ibid.*

²⁶ Escolano, *Tiempos y espacios para la escuela*, cit.

²⁷ Al, Sari, Nimet, *A different perspective on education: Montessori and Montessori school architecture*, cit.

²⁸ J.M. Muñoz-Rodríguez, *Pedagogía de los espacios. La comprensión del espacio en el proceso de construcción de las identidades*, «Revista portuguesa de pedagogía», vol. 43, n. 1, 2009, pp. 5-25.

²⁹ I. Cantón, *El espacio educativo y las referencias al género*, «Revista Interuniversitaria de Formación del Profesorado», vol. 21, nn. 2-3, 2007, pp. 115-135.

³⁰ M.E. Simón, *Tiempos y espacios para la coeducación*, in, M.A. Santos Guerra, (coord.), *El harén pedagógico. La perspectiva de género en la Organización Escolar*, Barcelona, Graó, 2000, pp. 33-43.

³¹ J. Morgan, *Critical Pedagogy. The spaces that make the difference*, «Pedagogy, Culture and Society», vol. 8 n. 3, 2000, pp. 273-289.

2. Krause, Krausism and Pedagogy

Karl Christian Friedrich Krause created a philosophical system called Krausism, which has an idealistic and conciliatory basis. He was born in 1781 in Eisenberg (Saxony), his philosophical vocation would be initiated during his studies of theology at the University of Jena. In 1801 he obtained his Ph.D. in Philosophy and Mathematics and a year later, he became a teacher³². Many people consider him a minor philosopher of the German School. However, he was ahead of his time. Today, his ideas and practices are more known than ever in leading fields such as Law or Education. Thus, we highlight the influence he had first in Germany and then all over Europe and in Latin America, whose academic environments discussed his thinking. The world for Krause is the set of manifestations of divine essence in time and space. On the other hand, God is within this world but the world is also within God. Nevertheless, God is not equivalent to the set of elements which form the world, that would be a pantheistic conception, but God is both inside and outside the world. This means that the world is part of God but God is superior to the world. Therefore, the world is subordinated to God. This reasoning defends both the idea of immanence and transcendence of God as well as his relationship with the world, i.e. pantheism. Within this scheme, Krause will bring together the whole humanity, whose representation, the «I» is the union of body (Nature) and reason (Spirit)³³. It stems from Krause's system a vision for wholeness, for the union among human beings which make up the world between the world and God, between body and reason or between men and women. This consideration links with the most relevant idea in his philosophy: achieving an Alliance of Humanity. With his philosophical system, he aims to deal with the ills of society. He wants to make it perfect and achieve a full alliance among the different people of the world. This will be the vital idea reflected on his more practical philosophy, Krause distances himself from other idealist philosophers in the measures he proposed as he wishes the transformation of individuals' life and of social institutions³⁴. In his conscience lies the idea of realizing the union between the states of Europe³⁵, to go from Europeanism to universalism, aiming in this way to an alliance of humanity³⁶; all in pursuit of the harmonious development of all identities of

³² B. Göcke, *Causality, Emergence, and Panentheism. On the importance of Karl Christian Friedrich Krause's panentheism*, «Zygon», vol. 48, n. 2, 2013, pp. 364-379.

³³ J. Payo, *La concepción antropológica en el krausismo de Krause: una visión del hombre*, «Thémata. Revista de Filosofía», n. 43, 2012, pp. 193-199.

³⁴ E. Ureña, *El krausismo como fenómeno europeo*, in E. Ureña, P. Álvarez Lázaro (edd.), *La actualidad del krausismo en su contexto europeo*, Madrid, Publicaciones Universidad Pontificia de Comillas, 1999, pp. 15-35.

³⁵ F. Querol, *La filosofía del derecho de K. CH. F. Krause*, Madrid, Universidad Pontificia de Comillas, 2000.

³⁶ R. Pinilla, *La propuesta de Krause de una Federación Europea de Estados (1814) a la luz de su concepción universal del derecho*, «Bajo palabra. Revista de Filosofía II Época», n. 8, 2013 pp. 323-334.

mankind. This conception is more practical and it is based on the metaphysical support we have just explained. It serves as support for the development of the other principles with social application. Thus, the pantheist worldview is reflected in the consideration that the philosopher has of history, law, politics, the relationship between man and woman or pedagogy. To a greater or lesser extent, the disciples, diffusers and translators of his works and ideas have been based on this reasoning. Everything is oriented towards the perfection of the individual in community, the ideal and the alliance of humanity.

Education in Krause can only be understood from the harmonious and organization-oriented idea of the Alliance of Humanity³⁷, along with the pantheist conception is its metaphysical basis.

Krause vehemently emphasizes the idea of harmony which identifies his educational vision with the pantheist root of his philosophy. The comprehensive education of men's facets is the path to their harmony, to his ideal of perfection. Thus it consolidates his emphasis of setting up a comprehensive training mechanism to reach his ideal. We have to point out that Krause's idealism is revitalized by his desire to fulfill his world view. The speculative nature of the German philosophical school he comes from turns into a real intention when the philosopher wants his ideal to be carried out. In this sense, we state that his ideal of humanity, which can be found thanks to men's proper education since men are part of it.

Krause will understand education as a fundamental element for the achievement and protection of human rights. From this consideration, he calls for individuals' development as a prerequisite for the establishment of a state of free citizens³⁸. Krause will also provide a clear distinction between the concepts of education and instruction, which his followers later inherited and today we have assumed as the way we view education. He will understand student's education as different from the mutual training among peers³⁹. On the other hand, the social responsibility of education is also evident in Krause since he will defend equal opportunities in all individuals' access to education, criticizing the exploitation suffered by workers who lack time for training and personal development. This is justified by Krause's concept of training, which is defined as the means by which men is freed from their limitations and exercise their personal skills. Likewise, education should be accompanied with by the development and progress of civilization itself, and thus become more systematic, universal, harmonious and deep⁴⁰. Moreover, it is extensible along

³⁷ E. Ureña, *Krause y su ideal masónico. Hacia la educación de la humanidad*, «Historia de la Educación. Revista interuniversitaria», n. 4, 1985, pp. 73-96.

³⁸ Querol, *La filosofía del derecho de K. CH. F. Krause*, cit.

³⁹ Ureña, *Krause y su ideal masónico. Hacia la educación de la humanidad*, cit.

⁴⁰ K.C.F. Krause, *Der Erdrechtsbund, an sich selbst und in seinem verhältnisse zum Ganzem und zu allen Einzelteilen des Menschheitslebens*, Leipzig, Aus dem handschriftlichen Nachlasse des Verfassers herausgegeben von Dr. Georg Mollat, 1893.

the individual's lifetime⁴¹. Finally, we note other principles and remarkable pedagogical reflections by Krause⁴², such as: self-education, education in freedom, the importance of the family in education, the role of the State in education, education on respect for nature, the quality of play, education of children, special love for children and the elderly, and the importance of hands-on activities which develop creativity in the individual⁴³.

Since the early thirties of nineteenth century, Krause's disciples made a commitment to spread his master's teachings in order to achieve that ideal and perfectly harmonized society which Krause justified with such determination. That determination was not merely a theoretical approach of postulates. His disciples took the witness to propagate and to put into practice those thoughts. Over decades, Krausists did this work, bearing the name of Krause to a number of countries in Europe: Germany, Belgium, France, Holland, Italy, Spain or Great Britain⁴⁴.

The arrival of Krause's ideas to Spain, its dissemination through the chair of Julian Sanz del Rio, the specialized press, the translations of his works, its evolution or adaptation to a country like Spain have been more than covered in deep-water research. For this reason, in this section we will not stop there, but we will focus on explaining the keys of the success of Krause's educational vision in Spain, as well as what were the pedagogical principles which were communicated and put into practice with the institutional educational reality, backed by the «Institución Libre de Enseñanza» (ILE), the «Museo Pedagógico», the «Instituto-Escuela» or «Residencia de Estudiantes», among others. The relevance generated by Krause's philosophy in Spain caused that in Germany Krause, or rather the krausism, was seen as something Spanish or Latin American world, instead of something German⁴⁵. But the key to success Krause's pedagogy in Spain, which was the institutional action of the Spanish Krausists, although inspired by their German and Belgian colleagues, was more prominent. Some of those who were seduced by the texts translated by Krause's disciples or by Sanz del Rio's teachings of, saw in education the key to reverse the backwardness of the country. The most decisive and most significant example in this regard was, as we advanced, the «Institución Libre de Enseñanza», whose more representative supporter was Francisco Giner de los Ríos. We have seen how there have been manifestations, attempts in the

⁴¹ T. Schneider, *Karl Christian Friedrich Krause als Geschichtsphilosoph*, Leipzig, 1907.

⁴² Ureña, *Krause y su ideal masónico. Hacia la educación de la humanidad*, cit.

⁴³ These pedagogical principles will not be Krause's exclusive property, but they will appear and be developed in writings and practical realities such as those of Fröbel or the New School, and in Spain with Francisco Giner de los Ríos, Manuel B. Cossío and the Free Teaching Institute among others.

⁴⁴ Ureña, *El krausismo como fenómeno europeo*, cit.

⁴⁵ Id., *Sociedad, economía y educación en K. C. F. Krause, Albert Schäffle y Francisco Giner de los Ríos*, in: J.M. Vázquez-Romero, (coord.), *Francisco Giner de los Ríos. Actualidad de un pensador krausista*, Madrid, Marcial Pons Historia, 2009, pp. 83-136.

form of projects or partnerships in which Krausists from other parts of Europe put into practice Krause's principles. However, the relevance and development of the institution raised the eminently pedagogical orientation as any other institution in Europe with krausist manifestations. While at universities like Central de Madrid, the Free University of Brussels or organizations such as the General Education Association, Krause's philosophy was transmitted, or a proposed action was inferred in a given context or place, in the «Institución Libre de Enseñanza», they did not only do that, but children were educated, individuals were taught under pedagogical principles which Krause himself held a few decades before. This aspect stems from the connection between Giner's anthropological conception and pantheist foundation of Krause's pedagogy. In the words of Gomez «men, for Giner, are finite and perfectible beings»⁴⁶, consisting of two scents: nature and spirit, harmonious synthesis of men in a krausist mode. The education for Giner will not be a mere transmission of knowledge but an integral action, which is linked with Krause's understanding of education and his harmony of the universe. As a result, education will not be the tool, but a renewed, comprehensive education which addresses all facets of individuals and puts into practice the theoretical vision of the individuals and their ideals. The aim is to reach the men proposed by Giner, «beings who must reach harmony in the realization of their nature, the path of reason»⁴⁷.

The «Institución Libre de Enseñanza» will try to offer training which goes beyond student instruction. It aims to educate, not preparing workers, but men and women⁴⁸. On the other hand both the body cult and the intimacy with nature will play a prominent role in the «Institución Libre de Enseñanza», through field trips. Moreover, it serves an aesthetic purpose, because the expression of beauty, order and harmony is given in nature. These categories also flow from the aesthetic consideration of Krause's philosophy of⁴⁹. In addition to this, we should not forget here the Krausists roots, the «Institución Libre de Enseñanza» believed in the principle of coeducation since its creation. Only by educating women in all areas, like men, and with men women's identity will be safeguarded as human beings and their inferiority will be eradicated⁵⁰. Moreover, as we have seen with Tiberghien and his understanding of secularism in education, the principle of neutral education will also govern the institution. Under the basis of complete neutrality, it does not side to any particular religion.

⁴⁶ M.N. Gómez, *Educación y pedagogía en el pensamiento de Giner de los Ríos*, Sevilla, Secretariado de Publicaciones de la Universidad de Sevilla, 1983, p. 27.

⁴⁷ *Ibid.*, p. 96.

⁴⁸ A. Molero, *La Institución Libre de Enseñanza. Un proyecto de reforma pedagógica*, Madrid, Biblioteca Nueva, 2000.

⁴⁹ F. López, *Historia de la Educación Física de 1876 a 1898: La Institución Libre de Enseñanza*, Madrid, Gymnos, 1998.

⁵⁰ J. Seage, E. Guerrero, D. Quintana de Uña, *Una pedagogía de la libertad: la Institución Libre de Enseñanza*, Madrid, Cuadernos para el diálogo, 1977.

They only saw a strong moral imperative in training students⁵¹, which is related with the very natural religiosity of leaving the familiar environment krausists. They let families teach their children in the religion they chose. That is, in the ILE, they did not only transmit the educational ideal of harmonious character, but they educated, instructed and formed the individual under that ideal. The organization collects one of the central features that Krause had of education, the conception which Fröbel would also take: «the concept of purely human education, coined by Krause in his ideal of humanity as the ultimate foundation of the Alliance of humanity»⁵². In its last stage, ILE and other bodies set up under their identities by men emerged from their classrooms, it began to have a strong presence in formal education. As a result, the regeneration from within became a reality. Such reality regeneration was done in a paused and peaceful way as krausists defended. Therefore, education reformed gradually society in search of the ideal of humanity.

3. Pedagogy, Krause and school architecture in the Nineteenth Century Spain

The first thing we need to clarify when we relate Krause to school architecture is that we are linking a figure of a German philosophical movement which had a lot of idealism and metaphysical abstraction with a tangible aspect of pedagogy. Indeed, it seems a bit rich to relate both constructs, and more, given that the German philosopher did not develop pedagogy of relevant interest as Pestalozzi and Fröbel. However, we will test those claims in this work, trying to draw a continuous line that leads from one end to the other of the map. To do this, the first thing we have to do is to prove that Krause was not only a philosopher, but we can see pedagogy in his writings, an educational character with strong skills reform. That pedagogy would eventually be spread thanks to outstanding European figures and it promoted agencies and educational institutions. The value of education for Krause is transmitted with these words:

children and youth people growing up around us has to mature to become a good humanity and, as far as possible, better than we are. And only with an improved education, humanity may grow and flourish⁵³.

⁵¹ Molero, *La Institución Libre de Enseñanza. Un proyecto de reforma pedagógica*, cit.

⁵² Ureña, *Sociedad, economía y educación en K. C. F. Krause, Albert Schäffle y Francisco Giner de los Ríos*, cit., p. 131.

⁵³ K.C.F. Krause, R. Vetter (edd.), *Abhandlungen und Einzelsätze über Erziehung und Unterricht*, Berlín, 2 vols., 1984, vol. 1, p. 132.

Throughout his life, Krause try to implement several initiatives in the field of education. He tried to put into practice his pedagogical thoughts with the creation of an Institute. On the other hand, he was offered to be the mentor and to teach the children of the Russian aristocracy. What is more, he drew up a report for the opening of an institute in Paris⁵⁴. However, these three facts were never carried out for various reasons such as lack of funding and lack of time⁵⁵.

Despite the failure of these initiatives, he got another chance to write down his ideas in an educational work. In Dresden, by the end of 1809, he was given the task to produce a report on a school boarding the Masonic lodge «The Three Swords and True Friends», to which Krause belonged from 1805, had in Friedrichstadt (Dresden). In order to propose certain innovations for progress and improvement of the center, Krause suggested his pedagogical line. Several items described in the document refer to the importance of comprehensive education, personified and ratified by the figure of the director or rector, with qualities of teacher, educator, administrator and parent⁵⁶. He also alludes to coeducation for both genders, education of the body, or greater contact of children with public life. All these aspects have consequences when organizing school supplies, furniture and school equipment, which influence a pedagogy which takes into account the space where it is inserted. Furthermore, he added reflections on how to develop new ways of teaching which had to do with a renewed methodology. Other notes which Krause pointed out in his report, deal with unity, balance, harmony, sense of order, accommodation of children and promotion of the creative activity in children. They are all signs of a renewing and progressive thinking in the way of teaching.

After his stay in Dresden, Krause moved to Berlin, where he began another of his educational projects⁵⁷. According to his concerns in education, he funded a «Society for Education». It was humbled because of the number of members who composed it, but ambitious due to the statements cited in its statutes. Its fundamental objective was the «knowledge and judgment of the existing educational literature, the research and preparation of methods to help education in general and in particular»⁵⁸. This shows again Krause's pedagogical aspect, which, in this case, focuses on teaching methods. He tries to delve into the state of the situation of literature and teaching materials for reform or reworking of forms and speeches which offer a renewed instruction. Now, we are going to focus on Friedrich Fröebel, whose name is associated with

⁵⁴ E. Ureña, *Krause y la educación*, «Historia de la educación. Revista interuniversitaria», n. 7, 1998, pp. 149-162.

⁵⁵ M.J. Martínez, *La cultura material y la educación infantil en España: el método Fröebel (1850-1939)*, Murcia, Doctoral Thesis, Universidad de Murcia, 2012-2013.

⁵⁶ Ureña, *Krause y la educación*, cit.

⁵⁷ *Ibid.*

⁵⁸ Krause, Vetter (edd.), *Abhandlungen und Einzelsätze über Erziehung und Unterricht*, cit., vol. 1, p. 92.

the history of early childhood education. He was the first to treat children as individuals who have to live close to nature, developing their capabilities freely. He created Kindergartens, he was the first person who presents a concept and a specifically unified education for early childhood⁵⁹. The froebelian pedagogy, which is intuitive, harmonious, comprehensive and progressive, provides a new school space, which is open, dynamic and flexible⁶⁰. We infer this from the pedagogical analysis of his writings, projects in life, and created materials. In Fröbel, we can see all the possible forms of children's development, perceptions, expressions and relationships in an organized educational environment. Inquiry is very present in Fröbel's pedagogy, and it has a critical role to search for the truth⁶¹. In addition, students work for themselves and the teacher is the teaching guide. For this reason, he proposes that the direct and frequent contact with nature is the best way to carry out quality learning. Students should be directed to where the sources of knowledge are, which are the real objects and nature in itself.

We talked about Fröbel because, a comprehensive, harmonious and progressive education as the one Fröbel holds will correspond to an architecture of the same features with closed, open and transitional spaces⁶². The Kindergarten will constitute an architectural complex combination of the three forms of space we have mentioned above⁶³. Thus, as we see, there is a relationship between Fröbel and the spatial dimension, his pedagogy and the ways of understanding the teaching processes with the elements surrounding children. Having said that, we have to state that the two German were an intellectual synergy in life which did not consist of a partial knowledge of their existences, but it created a tendency called Krausofröbelism. In this work, we extend the hypothesis posed by Abbagnano and Visalberghi and which we affirm that Fröbel was influenced by the German philosophical romantic movement of his time⁶⁴. In addition, Krause had a significant influence on this movement, despite being considered a second row philosopher in his land, overshadowed by Kant, Schelling, or Hegel. To such an extent, that some people say, as Ureña, that we still have to study the influence of Krause's Ideal of Humanity on Fröbel's Education of Man⁶⁵.

⁵⁹ M. Berger, *Friedrich Fröbels konzeption einer pädagogik der frühen kindheit*, in W.E. Fthenakis, M.R. Textor (Hg.), *Pädagogische Ansätze im Kindergarten*, Weinheim, Basel, Beltz, 2000, pp. 10-22.

⁶⁰ P. Lahoz, *El modelo froebeliano de espacio-escuela. Su introducción en España*, «Historia de la Educación. Revista interuniversitaria», n. 10, 1991, pp. 107-133.

⁶¹ E. Otero, R. Navarro, S. Basanta, *Las colonias escolares de vacaciones y la Institución Libre de Enseñanza*, «Historia y actualidad. Revista de Investigación en Educación», vol. 11, n. 2, 2013, pp. 140-157.

⁶² Lahoz, *El modelo froebeliano de espacio-escuela. Su introducción en España*, cit.

⁶³ *Ibid.*

⁶⁴ N. Abbagnano, A. Visalberghi, *Historia de la pedagogía*, Madrid, Fondo de Cultura Económica, 1964.

⁶⁵ E. Ureña, *Orígenes del krausöfrobelsmo y la masonería*, «Historia de la educación. Revista interuniversitaria», n. 9, 1990, pp. 43-62.

Furthermore, according to Leonhardi's testimony, who was one of Krause's disciple and who witnessed a meeting between the two, it may have been Krause who insinuate Fröbel to review Comenio's ideas based on educating children from the cradle and the inspiration of the Kindergarten⁶⁶. To this end, Krause and Fröbel held a series of written dialogues published in the Isis Magazine in which both made comments about Fröbel's education at the Kehilau Institute, agreeing on many of the fundamental principles he practiced.

On the other hand, we can emphasize the philosophical underpinning exerted by Krause's philosophical system developed, i.e. his pantheism in Fröbel's pedagogy. Krause sees the universe as the harmonious union between nature and reason⁶⁷. From that harmonious union emerges humanity and its individual and unique representation, the person. Therefore, from knowledge of oneself, we get the conception of the universe and ultimately the Supreme Being or God will be obtained⁶⁸. It is a being both immanent and transcendent⁶⁹. As we said before, for Fröbel, children must operate individually close to nature, to develop as an individual consistently and freely. Education in Krause can only be understood from the harmonic and organic idea of the world⁷⁰, along with the pantheist conception, which is his metaphysical basis. Krause wrote in this sense that:

We still have to consider an important activity of the Alliance: the training it provides to its members within its own grounds. The Alliance must provide that general education and training and purely human, by which man becomes truly and fully man. Thanks to it, man reaches the balanced, harmonious and truly organic excellence of man's whole being. The individual excellence, the high radically specific formation of each individual and in every part of human life can be based on man's whole being. Man is able to join closely thanks to that education to form humanity and, harmoniously distributed in its full essence, to their planning as a whole life⁷¹.

Krausists and fröbelianos postulates are convergent and divergent in their essence in certain aspects. However, these nuances are not a real lack of understanding between both perspectives⁷². The idea of harmony, which Krause vehemently emphasizes, identifies his educational vision with the pantheist root

⁶⁶ Id., *El krausismo alemán. Los congresos de filósofos y el krausofröbelismo (1833-1881)*, Madrid, Universidad Pontificia de Comillas, 2002.

⁶⁷ Payo, *La concepción antropológica en el krausismo de Krause: una visión del hombre*, cit.

⁶⁸ R. Orden, *La relación de intimidad del hombre con Dios: el panenteísmo de Krause*, in E. Ureña, P. Álvarez Lázaro (edd.), *La actualidad del krausismo en su contexto europeo*, Madrid, Publicaciones Universidad Pontificia de Comillas, 1999, pp. 243-275.

⁶⁹ C. Dierksmeier, *From Karl Christian Friedrich Krause (1781-1832) to Krausismo*, «APA Newsletters», vol. 8, n. 1, 2008, pp. 14-22.

⁷⁰ Ureña, *Krause y su ideal masónico. Hacia la educación de la humanidad*, cit.

⁷¹ K.C.F. Krause, *Das Urbild der Menschheit*, 2nd ed., Dresden, 1811, p. 310.

⁷² Martínez, *La cultura material y la educación infantil en España: el método Fröbel (1850-1939)*, cit.

of his philosophy. The education of all man's facets is the path to harmony, to his ideal of perfection. A vision going with the educational ideas which Fröbel implements. From the pantheist consideration, Fröbel develops a framework of laws, principles and methods which are similar to a great architectural project where natural forces rising from the ground to the sky as a harmonious whole⁷³. Something similar to the process or analytical analysis which Krause establishes in his system. Divine or universal unity is expressed in the diversity of nature. The «I» for Krause, the child for Fröbel are the bridge between nature and God, the great architectural project.

Fröbel designs his ideal educational building in detail⁷⁴. He makes reference to factors such as light in classrooms, individual and collective working rooms as well as natural spaces for individual and group experimentation, such as enabling individual gardens for children (with one square meter per student). The furniture should be mobile so that it can be taken outside to the garden. Classrooms should be large to allow greater mobility and be on the ground floor to have access to the outside. In the courtyard, there should be enough space to do gymnastics.

As far as the building is concerned, Fröbel stressed the importance of harmony, which is Capellan's base of thought, between the building and the garden⁷⁵.

After the death of both philosophers, there was a very strong relationship between their disciples which generated a current known as Krausofröbelism. This current created important congress of philosophers in Europe which brought pedagogy to the foreground in the scientific and intellectual scene of the nineteenth century. In this sense the krausismo served as sustenance for the fröbeliana philosophical view of education and thus their perspective of space organization in an educational setting. It is entirely related to the comprehensive vision of an education which is necessary to attain human perfection and the ideal of man. Among the prominent personalities who defended the union of the two principles in the congresses held in Prague (1868) and Frankfurt (1869), we observe Bertha Marenholtz-Bülow, the great propagator of the idea of kindergarten in Europe and Wichard Lange, the editor of Fröbel's works⁷⁶.

There is an explosion of fresh ideas about to education in Spain thanks to Sanz del Rio's spread of Krausist's philosophy in Spain and the resonance of the Fröbel method throughout Europe by the congresses of philosophers and other institutions or associations created under its shelter. These ideas will explode

⁷³ Lahoz, *El modelo froebeliano de espacio-escuela. Su introducción en España*, cit.

⁷⁴ *Ibid.*

⁷⁵ G. Capellán de Miguel, *La renovación de la cultura española a través del pensamiento alemán: Krause y el Krausismo*, «Brocar. Cuadernos de investigación histórica», n. 22, 1998, pp. 137-154.

⁷⁶ Ureña, *El krausismo alemán. Los congresos de filósofos y el krausofröbelismo (1833-1881)*, cit.

within the «Institución Libre de Enseñanza», which will act as a balloon probe. And, of course, it takes into account the consequences for school architecture which arise from these visions. Thus, both Krausists and fröbelian influences mixed in the ILE again, on the one hand the innovative spirit of education so necessary in Spain then and other practical concepts of Fröbel's method. In the first case, that interest in renewal is perceived as necessary by the criticism of the existing education system in the late nineteenth century and early twentieth century⁷⁷. The members of the ILE address mainly the following issues: the precarious conditions of the existing schools, teachers' miserable economic and social situation as well as their inadequate training, and the contents and methods of teaching. These schools conditions, the teaching methods and the use of materials will be treated by the most important members of the ILE, Giner and Manuel B. Cossío⁷⁸. The latter wrote:

Children's small graded sections with their teachers, in the countryside, matter more for the education than the huge amount of creatures of all ages and conditions, with a single teacher, even if their classroom was the throne room of the Oriente Palace⁷⁹.

On the other hand, the ambitious krausist renovation and established in the «Institución Libre de Enseñanza», favored a school model building which suited their pedagogical principles⁸⁰. The consequence was that in 1913 architects like Antonio Florez, driven by Manuel Bartolome Cossío, impelled projects like the two pilot schools for Madrid, designed to test a graduate academic organization style.

As we have stated previously, Krause defended the education of the body in his report for the Institute of Dresden. In this sense both Giner and his disciple Cossío inherit from Krause and Fröbel the school closeness to nature. Not only

⁷⁷ M. Vázquez, *Tenemos que hacer escuelas. Arquitectura escolar pública en Aragón (1923-1936)*, «Artigrama», n. 23, 2008, pp. 609-638.

⁷⁸ Giner and Manuel B. Cossío's very important works address aspects of school organization, as those discussed in the work of F.J. Rodríguez, *La Institución Libre de Enseñanza y la arquitectura escolar*, «Historia de la Educación», n. 25, 2006, pp. 467-491. The construction of the school complex and the use of materials of different complexion, never leaving aside the useful sense of nature in a child's education are treated in such works as: F. Giner de los Ríos, *Local y mobiliario de la escuela*, «Boletín de la Institución Libre de Enseñanza», vol. 6, 1882 pp. 134-135; Id., *Campos Escolares*, «Revista España», vol. 96, 1884, pp. 32-62; Id., *Grupos Escolares*, «Boletín de la Institución Libre de Enseñanza», vol. 8, 1884, pp. 71-74; Id., *El edificio de la escuela*, Madrid, in Id., *Campos escolares*, Madrid, Tip. El Correo, 1884, pp. 5-7; M.B. Cossío, *El maestro la escuela y el material de enseñanza*, «Boletín de la Institución Libre de Enseñanza», vol. 30, 1906, pp. 258-265 and pp. 289-296; Id., *Notas sobre construcción escolar*, «Boletín de la Institución Libre de Enseñanza», vol. 35, 1911, pp. 257-265.

⁷⁹ Id., *El maestro, la escuela y el material de enseñanza, y otros escritos*, [edición: E. Otero Urtaza], Madrid, Biblioteca Nueva, 2007, p. 73 (Orig. 1906).

⁸⁰ J. Asensi Díaz, *Revisión histórica de algunos contenidos y propuestas acerca del edificio escolar*, «Tendencias pedagógicas», n. 9, 2004, pp. 143-162.

as a learning environment and human development, but also understood as the place where the hygienic conditions are healthier.

If there is not a real field, it is not a healthy school. [...] When building a school, think first on the playground. If the land is expensive, carry most of those on the periphery; make it be the last home of the city and the first field and spend on driving children to it⁸¹.

Therefore, all teachings should be outdoors, even reading and writing, whose first principles can be learned drawing in the sand. In contact with nature, with large rooms where there is always pure air. In addition, the number of students should not be very large so that it is easier to move through partially covered spaces and vast fields, where the air of uncultured people that only looks to the past is renewed⁸². In this sense, the «Institución Libre de Enseñanza» would contribute to the process of hygiene awareness which come to Spain in the late nineteenth century. At the 1882 national pedagogical congress, several krausist ideologues criticized the unhealthiness of most public schools and the inefficiency of Primary Education local boards⁸³. The summer camps for children were created thanks to the ILE, and specifically the «Museo Pedagógico Nacional»⁸⁴. Their aim was to offer a physical education from the perspective of hygiene and therapeutic recreation⁸⁵.

They defend the program of the active school, avoiding the monastic seclusion as Krause had already announced.

And yet, enlightened spirits have already told us that if the school has to fulfill its mission, it has to be a picture of life [...] where does the engineer work? In the factory; where does the naturalist work? In the field; where do doctors work? In hospitals; where does the judge work? In the court; where does the priest work? Curing souls; where do archaeologists work? In their monuments; where does the historian work? In the file; where does the novelist work? In the living room or in the tavern [...] Let us bring children to the field, to the workshop, to the museum, as it has already been said; let's teach children the reality in reality⁸⁶.

In this sense Cossío does not only represent Krause's idea of taking children out of school, but it raises the responsibility of a nation to invest in teachers. It is necessary to emphasize the idea of universality and internalization of Cossío.

⁸¹ Cossío, *El maestro, la escuela y el material de enseñanza, y otros escritos*, cit., p. 70.

⁸² Lahoz, *El modelo froebeliano de espacio-escuela. Su introducción en España*, cit.

⁸³ R. Añón, *La arquitectura de las escuelas primarias municipales de Sevilla hasta 1937*, Sevilla, Universidad de Sevilla y Consejería de Obras Públicas y Transportes, 2005.

⁸⁴ P. Moreno, *Los pensionados de la Junta para Ampliación de Estudios e Investigaciones Científicas (JAE) y la Higiene Escolar*, «Revista de Educación», número extraordinario, 2007, pp. 167-190.

⁸⁵ A. Martínez, *La educación física y las colonias escolares*, in J. Ruiz Berrio, A. Tiana, O. Negrín (edd.), *Un educador para un pueblo: Manuel Bartolomé Cossío*, Madrid, UNED, 1987, pp. 177-199.

⁸⁶ Cossío, *El maestro, la escuela y el material de enseñanza, y otros escritos*, cit., p. 74.

For years he traveled through Europe in a sort of pedagogical trips that allowed him to learn many things from other countries that later materialized in Spain⁸⁷.

Finally, we refer to coeducation, which is applied by the members of the «Institución Libre de Enseñanza» but it has its inspiration in Krause. It is based on the panentheist basis of relationship between men and women.

For Krause, women are not inferior to men. In addition, he defends the idea that while society continues to disempower women, humanity can never reach its triumph, its ideal. In his work *Ideal of Humanity*, he says that the women have the same capabilities of spirit and courage as men. And both, men and women, have the same limitations. Krause argued this principle as follows:

we should treat our girls in the same way as boys, and give girls such a good education as boys. Therefore, boys will not consider girls inferior beings who are intended purely to serve men⁸⁸.

The first consequence for the organization of the tangible elements of a classroom or school architecture is that as boys are not separated from girls, it is not necessary to build separate pavilions or classrooms for both sexes. This is a clear saving of budgetary expenditure since there is no need to build double schools or to lose free spaces for the construction of separation barriers which cause worthlessness or bad use of these spaces.

In the late nineteenth century, the teaching practice began to settle small centers which consist of a single classroom. These were the so-called unitary schools.

In the teaching model of the unitary school, children of different ages were grouped and teachers made use of simultaneous, mutual or mixed methods⁸⁹. These schools are strongly criticized by members of the «Institución Libre de Enseñanza» and by hygienists.

Graduate schools were established in Spain in 1898 although there had been some experiences for some years in specific centers⁹⁰. This school model also required a redesign of the school architecture, as this type of school was distinguished by the diversification of spaces giving priority to common spaces and complementary services⁹¹. We can see in this new distribution of space, a strong foreign influence. For example, in the common spaces of Wardolf's architecture and gardens and playgrounds, which could be seen in Fröbel's kindergarten and in Krausist ideas.

⁸⁷ E. Otero-Urtaza, *Cossío's European tours between 1879 and 1889*, «History of Education & Children's Literature», vol. 12, n. 2, 2017, pp. 323-341.

⁸⁸ Krause, Vetter (edd.), *Abhandlungen und Einzelsätze über Erziehung und Unterricht*, cit., vol. I, p. 137.

⁸⁹ Vázquez, *Tenemos que hacer escuelas. Arquitectura escolar pública en Aragón (1923-1936)*, cit.

⁹⁰ *Ibid.*

⁹¹ M.L. Espinilla, M.A. De La Fuente González, *La escuela de Becerril de Campos (Plasencia): un ejemplo de escuela graduada*, «Tabanque», n. 15, 2000, pp. 171-196.

4. *To sum up*

Krause has a pedagogical vision. In addition, he respects education and this is corroborated by his actions in life, his writings and his teaching legacy. What is more, his legacy is represented by the «Institución Libre de Enseñanza» in Spain.

The nineteenth century Spain, which looked forward to fresh air, tried to breathe renewal, new philosophies, which respond to the Spanish liberal thought. That was found in Krause and his school⁹².

Moreover, Krause influences Fröbel and supports philosophically the theory and practice he develops and it is focused on the education of children. It also takes into account space and organization in a decisive way to the development of children. If we join Krause and Fröbel's, we have krausofröbelism, which is one of the many elements of the educational reform in Europe in the nineteenth century.

Furthermore, Krause conveys a sense of reform and renewal, whose aim is to improve mankind and thus attain its ideal. That spirit is collected and synthesized in Spain thanks to the people who embody the «Institución Libre de Enseñanza» both in its personal and diffuse aspect. Giner or Manuel B. Cossío's reflections helped improve education in Spain because they criticized vital aspects which have to do with education. In addition, the organization of the school environment, the use of the environment and the influence of school architecture in the ways of doing in the classroom are not forgotten. Giner and Cossío were very critical with children's overcrowding in small spaces where there was a lack of hygiene, light and ventilation.

If we understand the ILE as the gateway of foreign knowledge, especially Krausist, it becomes a focus of interest to study school architecture in Spain in the late nineteenth century and in the early twentieth century⁹³.

The institution itself, did not only inherit Krause's striving for humanity's perfection and Fröbel's method (supported philosophically by Krause), but it also gather his egalitarian vision of men and women as well as his educational development in the classroom, i.e. coeducation, which also generates changes in school buildings and in the ways of grouping students.

Krausism, from philosophically and educationally point of view has a defining feature: the search for harmony and reconciliation between extreme positions. Its liberating thought was explicit, rejecting absolutism and excessive

⁹² L. Alonso, M.A. Martín-Sánchez, *El liberalismo y el nacimiento del sistema educativo en España*, in M.A. Martín-Sánchez, (coord.), *Historia de la Educación en Occidente. Teorías, métodos y prácticas educativas*, Saarbrücken, Editorial Académica Española, 2012, pp. 251-274.

⁹³ C. Gutiérrez Tejeiro, M.A. Martín-Sánchez, *Análisis histórico-pedagógico de la arquitectura escolar en Extremadura durante la Segunda República. El caso de Cáceres*, «CLIO. History and History teaching», n. 41, 2015.

governmental control over various spheres such as religion, science or education⁹⁴.

Finally, the education of the body, which is an important fact seen in the perspective of school organization and the ways of understanding the layout of the spaces. In this sense, the members of the «Institución Libre de Enseñanza» take the school to the outside, to nature. Concrete examples are the creation of school colonies in Spain. Although these colonies were not important from an intellectual point of view, they had a lot of consequences for children's health and physical wellness.

We can see Krause's influences on the school architecture in the elements and distribution of school spaces. This fits very well with the thinking of krausists educators. He tried to create a healthy and harmonious place. The school should be a pleasant space, tempered clean, ventilated and with a lot of light⁹⁵.

Political exiles imported hygiene, which liberals, regenerationists, rationalists and more specifically, the «Institución Libre de Enseñanza», not only imposed construction guidelines but was introduced as school content.

Therefore, his influence was very decisive in the avalanche of public construction and more specifically school construction during the dictatorship of Primo de Rivera and the Second Republic. It introduced determinations and rules in the constructive program concerning both to the place and to the shape of the building⁹⁶.

Rodríguez explains that the «Institución Libre de Enseñanza», expressed its interest in rationalism and sincerity in building. It proposed a school which was designed «from the inside out». He prevailed inside and its usefulness against the monumentalism of the facade. The same author states that Bartolome Cossío, director of the «Museo Pedagógico Nacional», took as reference the architecture of Pericles and Christianity of the eight century, that is, sincere and economical⁹⁷.

Thus we can say that the influence of Krause in school architecture is found in small reminiscences which play a certain role. It is another way of seeing how Krause crossed borders, being present in many aspects of pedagogy.

⁹⁴ J. Cáceres, M.A. Martín-Sánchez, *El krauso-institucionismo en Extremadura: perfil pedagógico y significación histórica*, «CLIO. History and History teaching», n. 39, 2013.

⁹⁵ P. Lahoz, *Higiene y arquitectura escolar en la España contemporánea (1838-1936)*, «Revista de Educación», n. 298, 1992, pp. 89-118.

⁹⁶ *Ibid.*

⁹⁷ Rodríguez, *La Institución Libre de Enseñanza y la arquitectura escolar*, cit.