

learnARQ  
*Learning from Architecture*  
raising the educational power of the built environment

Principal Investigator / PI  
Margarida Louro

Integrated Researchers of CIAUD  
Margarida Louro; Francisco Oliveira; Miguel Baptista-Bastos;  
Pedro Bento; João Bento

Collaborating Researchers of CIAUD  
Madalena Spinola (to be allocated to the embryo project)

External Researchers

Rosa Afion and Amadeo Ramos (ETS-A-Sevilha); Eliana Nuñez  
(Casa da Arquitectura); Inês Marques (EPA); Carolina Bello (EPA)

## Keywords

Architecture, Children, Learning, Education Network

## Partner Institutions

Escola Técnica Superior de Arquitetura da Universidade de Sevilha; Casa da Arquitectura – Matosinhos; EPA – Rede Educação pela Arquitetura

## Expected Future Partner Institutions

**Nacionais:** Escola OSMOPE – Porto; Faculdade de Arquitetura da Universidade do Porto

**Internacionais:** Escola SYK – Finlândia; Arkki – School of Architecture for Children and Youth – Finlândia; Escola em Arquitetura Educativa da Universidade Autónoma de Madrid

## OBJECTIVES

Concerning the objectives outlined for the current work plan, they are established as fundamental, and follow the framework goals outlined within the scope of the references that contextualize the current research, namely the FAJúnior and EDUCarq projects, as well as the EPA network:

**OBJECTIVE 1** - Increase the relevance of spatial literacy as a crucial method for obtaining and appreciating knowledge in general, increasing understanding of the built environment and the processes involved in its evolution.

**OBJECTIVE 2** - Stimulate critical and creative thinking, promote educational approaches through architecture, expanding transdisciplinary views through a closer and more conscious interaction with the built environment.

**OBJECTIVE 3** - Dissemination and training of trainers/educators in education through architecture, both through the expansion and dissemination of the national network already established within the scope of the EPA network, and in the viability of an educational training program at the higher education level in architecture.

## BIBLIOGRAPHIC REFERENCES

AAVV. (2018) LUDANTIA – I Bienal Internacional de Educação em Arquitetura para a Infância e a Mocidade. Pontevedra: Colégio Oficial de Arquitectos de Galicia.

AAVV. (2017) Revista Proyecto, Progreso Arquitectura. Arquitectura Escolar y Educación. Sevilha: Editorial da Universidade de Sevilha. n.º 17.

Ginouliac, M. (coord.). (2017) Ludic Architecture. Faculdade de Arquitetura da Universidade do Porto.

Louro, M. (2023) "Playing with Architecture: Space and Time in Education" in: Kong, M. S. M., Monteiro, M. R. (Chief-Editors), Neto, M. J. P. (Co-Editor), Time and Space. CRC Press, Taylor & Francis Group. (in print)

Núñez, E. (2021) O projeto em arquitetura para crianças: Estudo das práticas educativas nas entidades de arquitetura em Portugal. Porto: FAUP.

## ABSTRACT + IMAGES

The scope of the proposed research starts from the activities carried out in the context of the FAJúnior Office of the Faculty of Architecture of the University of Lisbon, from the work carried out within the scope of the previous embryonic research project EDUCarq – Education Strategies with Architecture and from the incursions recently established with the creation of the Rede EPA - Educação pela Arquitetura (EPA Network – Education through Architecture), namely:

The FAJúnior Office was founded in 2014, simultaneously as a service unit and a pedagogical project with a scientific and experimental basis, which, by integrating teachers from the Faculty of Architecture of the University of Lisbon, seeks to interact with groups of children and young people of different ages, natures, and realities. The initiative's primary objective was to introduce architecture, urbanism, and design to younger levels of education, promoting spatial literacy in order to awaken a sense of awareness from a young age, centered on experimental, artistic, and heritage aspects – among others – that promote sensitivity in comprehending the environment in its various public and private dimensions. Between 2021 and 2022, the embryonic research project EDUCarq - Education Strategies with Architecture, concentrated the focus on the design of educational strategies through architecture. This was to be applied to children and adolescents in pre-school, elementary, and secondary education contexts at the national level. In this way, an understanding was developed of how this type of strategy can contribute to the establishment of an advanced critical awareness regarding the importance of a higher quality of the surrounding space, while also stimulating the promotion of new strategies in education through the development of educational resources in direct collaboration with teams of educators and teachers. The EPA Network was established on January 24 of 2022, during the first EPA meeting entitled "Education through Architecture". This was intended to commemorate the state of the art of architecture education for the Portuguese public of all ages. The EPA network was launched after this meeting, which drew together national and international experts. The formation of the network was driven by the need to recognize and disseminate the national work in this field. The goal is to gradually build linkages and action fields to encourage the debate, dissemination, and development of more and better practices in diverse contexts. This is accomplished in partnership with institutions, cultural entities, associations, and/or collectives.

This research implies the significance of education through architecture and the necessity of incorporating this strategy into basic education. At a time when the significance of education and its role in society are being debated and a curriculum revision with more holistic and creative training is required, architectural thinking could play a crucial and strategic role. In this regard, it seems appropriate to deepen this research by integrating, as is the case in other architecture institutions, these themes into the education of architecture students, either at the level of elective training or even as a specialization. Following the framework goals outlined within the scope of the references that contextualize the present research, the following points must be addressed:

**POINT 1** - Intensify the significance of spatial literacy as a key strategy for acquiring knowledge and appreciating it in general through the development of participatory capacities and the promotion of the foundations for an active civic posture.

**POINT 2** - Promote educational approaches through architecture, enriching multidisciplinary visions through a closer and more conscious relationship with the constructed environment, by: raising awareness of the significance of the surrounding space and stimulating interest in architecture, urbanism, and design as integral technical and artistic expression disciplines; study and outline pedagogical strategies with architecture applied from pre-school to secondary education; collaboration with the educational community to improve didactic tools for education through architecture; promotion of pedagogical material to support the implementation of the proposed strategies; monitoring of actions and optimization of intervention processes; facing contemporary challenges; learning through the experience of the built environment.

**POINT 3** - Dissemination and training of educators in education through architecture, by: organization of meetings; dissemination of research carried out both in terms of publication of papers/articles, as well as participation in conferences or meetings within the scope of the subject; intensifying relationships with various institutions and partners in ensuring the viability and implementation of a future educational project at the higher education level; implementation of a new program for an optional curricular unit in "Education through Architecture," to be integrated into FAULisboa's Architecture courses.

### GLOBAL EDUCATION STRATEGIES THROUGH ARCHITECTURE:



### EXAMPLES OF INTERNATIONAL NETWORKS IN ARCHITECTURE AND EDUCATION:



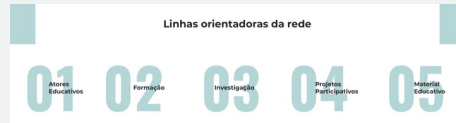
### NETWORK EDUCATION THROUGH ARCHITECTURE (rede EPA – EDUCAÇÃO PELA ARQUITETURA)

<https://educacaoelaarquitectura.com>

1st MEETING – JANUARY 24, 2022, GARAGEM SUL, LISBON



2nd MEETING – JUNE 16, 2023, CASA DA ARQUITECTURA, MATOSINHOS



## SCIENTIFIC RELEVANCE FOR THE DISCIPLINE

This initiative will increase the objectives established by national and international institutions for promoting the significance of space (one of the fundamental tenets of environmental sustainability) from a scientific perspective.

Nationally, the Minister of Education has unveiled the National Plan for the Arts (2019), which seeks to promote the significance of art education for students of all levels and regions.

On a worldwide level, the International Union of Architects (UIA) outlined well-defined objectives in the 2019 CHARTER, "Built Environment Education for Children and Young People." This charter emphasizes the importance of education with architecture in combination with the profession of architect. Concurrently, the 2018 Davos declaration, which has been supported by EU member states, lays out a plan to raise public awareness about our built environment.

As a result, this learnARQ project will enhance the relevance of these approaches through an innovative collaboration between scientific knowledge and society.

## EXPECTED ECONOMIC AND SOCIAL IMPACT

The social and economic impact of the proposed embryonic project will be shaped by the outlined objectives and the strong emphasis on spatial literacy, both at the level of the community of educator architects and, most importantly, at the level of society as a whole and the various training domains and levels. It is anticipated that this will increase awareness of the significance of the surrounding space.

In this way, raising awareness of the importance of education through architecture based on both the training of young architects and the proposal for a new curricular unit (UC) will unquestionably implement a higher level of critical competence in interacting with society, which could bring environmental and consequently economic benefits.

In summary, promoting interactive cooperation between scientific and academic communities and social and school communities will undoubtedly be the main strategy behind this project's motivations in terms of future impact, both economically and socially.

## RESEARCH PLAN AND TASKS

The proposed methodology for the development of this work plan is intended to carry out a series of actions over the course of eighteen months (between July 2023 and December 2024) according to the following parts (listed in the summary schedule presented):

Part 1 – critical analysis (fieldwork);

Part 2 – critical synthesis (theoretical reflection);

Part 3 – practical application (dissemination and training).

The initial phase of the project will involve comprehensive research through field analysis, providing insights into various entities related to the topic at hand. Consequently, a survey will be conducted, drawing on examples from both national and international contexts. The following three categories will be selected: Schools (exclusively related to mandatory elementary, secondary, and pre-school education); Institutions (specifically related to complementary educational services); and finally, Colleges (specifically related to high school training of architects and/or educators). In this assumption, at least 6 case studies\* will be outlined (one for each combination of type and context) that will be studied *in situ* to understand and consolidate a complete approach that allows to achieve the various proposed objectives.

This approach will facilitate the gathering of information, which will then be subjected to comparative and critical analysis in the second phase of the project. This will also serve to reinforce and expand our network of approaches, eventually leading to collaborative efforts in disseminating results. These efforts could include the creation of educational materials, publishing papers, or conference organization.

A third part of the research's practical application at the level of field analysis and synthesis will focus on two forms of action. First, dissemination at the level of the EPA Network, through the network's intensification and expansion. In addition, the organization of a meeting in 2024, that will formalize a conference and formation of educators through workshops. On the other hand, actions will be recommended in terms of creating an optional training that will aim to create an optional curricular unit in Education through Architecture that will be outlined and integrated in light of the new study plans of the Architecture Integrated Master course at Faculty of Architecture of the University of Lisbon, through the definition of the respective syllabus contents (scope, objectives, assessment, and sources) and the respective preparation of a pilot implementation program, planned for implementation in a upcoming academic year (2025-2026).

In an era where the focus is on the importance of education and teaching, especially with regards to promoting creativity, holistic understanding, and transdisciplinary skills, it's crucial to understand the role of new architects within this future context. This includes their involvement in creating innovative learning methods within educational institutions, as well as their professional contributions to the built environment.

This methodology of work and research plan will be framed by a series of references relating to the state of the art in education through architecture, with the following types highlighted:

The institutional references, which include, on the one hand, the international approach undertaken by the UIA's Architecture and Children's Work Program, implemented since 2008, with a set of actions in which the publication of 2019 CHARTER – "Built Environment Education for Children and Young People" stands out. This seeks to institutionalize, alongside the architect profession, the significance of education with architecture, which is primarily focused on the education of children and young people. At the European level, the Davos declaration, which was ratified in Switzerland, determines the importance of promoting the built environment culture. Lastly, on a national scale, the Minister of Education has been implementing the National Strategic Plan for the Arts from 2019 to 2024. A key goal of this plan is to ensure that all children across the country have access to arts and heritage education.

References to the production of educational content, such as recreational activities, events, seminars, and books, are examples of didactic references. This group contains various national references, some of which were generated as part of the FAJúnior and EDUcarq projects. In addition, there are numerous national educational organizations, the majority of which publish within the EPA network.

I&D references, which include some research approaches on the topic, such as several master's thesis (ex: Nuñez, E.), scientific periodicals on the subject (ex: PpA), and research papers (ex: Louro M.; Ginoulhiac C.). Still in this field, the reference to the first meeting on the subject: the 2018 Pontevedra 1st International Biennial of Education in Architecture for Children and Youth, sponsored by the Official College of Galicia Architects.

The formative references, related to pedagogies and teaching, which include approaches in terms of teacher training, pedagogies, assessment, learning methodologies, and integration of architectural thinking approaches in the educational process, and how they can provide knowledge about pedagogical methodologies and implement new educational approaches focused on the appropriation of space and architectural perception as means of acquiring knowledge. Santiago Atrio, architect, and professor at the School of Educational Architecture at the Autonomous University of Madrid, has distinguished himself in this discipline. In addition, and in terms of the national context, reference is also made to the initiatives promoted by architect Marco Guilhouniac, professor at the Faculty of Architecture of the University of Porto, in the various approaches to optional curricular units training.

In conclusion, these different references provide various action contexts surrounding the theme. They also demonstrate the importance of promoting contributions to the efficacy of educational systems, supported by architectural thinking, in the interest of a higher standard of living, development, and a sustainable future.

PARTS OF THE RESEARCH PLAN AND TASKS:

PART 1 – CRITICAL ANALYSIS (field work) – 11 months

1.1 CASE STUDIES – survey organization - 1 month

1.2 STUDY VISITS – national and international context - 9 months

1.2.1 School type characterization – compulsory education - 3 months

1.2.2 Institutional characterization – complementary education - 3 months

1.2.3 Characterization of faculty types in higher education - 3 months

1.3 PARTIAL REPORT – critical analysis – 0.5 month

1.4 PREPARATION FOR DISSEMINATION (papers, communications) – 0.5 month

PART 2 – CRITICAL SYNTHESIS (theoretical reflection) – 2 months

2.1 COMPARATIVE ANALYSIS OF CONTEXTS AND TYPES – 1 month

2.3 PARTIAL REPORT – critical summary – 0.5 month

2.4 PREPARATION FOR DISSEMINATION (papers, communications) – 0.5 month

PART 3 – PRACTICAL APPLICATION (dissemination and training) - 5 months

3.1 EDUCATION THROUGH ARCHITECTURE – EPA network – 1.5 months

3.1.1 Intensification and expansion of the network – 0.5 months

3.1.2 Conference organization – 2024/2025 meeting – 0.5 months

3.1.3 Dissemination and training (educators/workshops) – 0.5 months

3.2 EDUCATION THROUGH ARCHITECTURE – optional UC FAULisboa – 1.5 months

3.2.1 Curriculum adequacy to the revised Study Plan – 0.5 months

3.2.2 Syllabus (scope, objectives, evaluation, and sources) – 0.5 months

3.2.3 Preparation of a pilot implementation program – 0.5 months

3.3 FINAL REPORT – 1 month

3.4 PREPARATION FOR DISSEMINATION (papers, communications) – 1 month

\*Note: Still on a provisional basis, the following cases will be listed as preference: at National Level: Escola OSMOPE - Porto, Casa da Arquitectura - Matosinhos, Faculty of Architecture of Porto and at International Level: Escola SYK - Finland, ArkkI - School of Architecture for Children and Youth - Finland, School of Educational Architecture of the Autonomous University of Madrid.

## EXPECTED SCIENTIFIC RESULTS

In this regard, the following dissemination actions were established:

- A critical report on the applied process and the results acquired in each of these study segments will be produced at the end of the three work stages.

- Following participation and communication at a specialized conference, a paper will be published. This action will publicize, debate, and solicit feedback on the topical inputs made by the scientific and academic community.

- The organization of a conference/workshop to support the intensification of the network Education through Architecture (EPA).

- Creation and development of a new elective curricular unit (UC) for the FAULisboa.

In this sense, the diverse backgrounds and skills of the team members will ensure the feasibility of these interdisciplinary methodologies. This diversity is key to achieving the project's objectives: *Learning from Architecture - raising the educational power of the built environment.*

## BUDGET: € 7.500,00

The requested budget is intended to enable the various phases of the embryonic project to be developed over 18 months. It estimates a total value of 7500 €, which will be justified by the following items:

Human Resources - within the scope of the support provided by a fellow in the implementation of the activities listed in part of the second and third phases of the work. (1200 €)

Missions - within the scope of support for travel and study visits to different international and national contexts in the first phase. (4500 €)

Acquisition of other goods and services - to be incurred both in the acquisition of essential goods for carrying out the activities and in support of the planned conference. (1000 €)

Other current expenses - will be used to acquire general support material for the project development. (300 €)

Equipment - to be used in the execution of the various phases of the project. (500 €)