Towards a better understanding of Portuguese school architecture: the *Atlas of School Architecture in Portugal _ Education, Heritage and Challenges* research project

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The presentation intends to contribute to the discussion of educational architecture through the presentation of the research project *Atlas of School Architecture in Portugal _ Education, Heritage and Challenges* that is being developed until 2019 by a team of researchers from different universities, with the support of the historical archive of the Ministry of Education.

Atlas of School Architecture in Portugal _ Education, Heritage and Challenges intends to analyse school buildings under different fields of study: architecture, education, construction and interior design. It focuses on secondary schools promoted by public initiative and built between the late 19th century and the beginning of the 1970's. The research considers distinctive foci and tasks with the aim of contributing towards a deeper understanding of school building architecture in Portugal in two perspectives: a historical evolution and a diagnosis of the current conditions.

The historical perspective intends to frame this production in the different political, social and economic contexts, as well as to analyse school space relating architecture with the contributions and influences of education and construction subjects, in different periods of production. The achievement of these objectives is based on the organization of information in an architectural Atlas, systematizing and classifying all the information on school buildings under study. The identification of the periods of production, arranged by chronological order, will provide the systematization of the available information according to different types of readings (schools distribution over the country, state and private buildings, periods of design, types of construction, types of educational programmes,...). This systematization will allow different thematic

readings, opening the discussion to the new challenges that these buildings have to face, in different current dimensions.

So, the study proposes two development phases with distinctive scales of analysis and complementary results:

- 1) Geographical mapping and analytical synthesis of the buildings under study. This information will be accessible on a public online platform allowing working with the available information in different dimensions. It will be possible to map trends, continuities and ruptures occurred during the period of study, defining distinct periods of production according to different architectural, educational, and technical/constructive dimensions reflecting different political, social and economic frameworks. The on-line public platform will constitute an opportunity to share this rich and useful archive material with a wider audience and researchers, thus raising awareness to its heritage value.
- 2) From this broader analysis, a deeper and detailed study will be carried out over a set of case studies with distinctive approaches (architecture and interior design, education and construction) and will be analysed at different scales of observation (urban context, school building and school internal spaces classroom, library, circulation, canteen, etc.). This comprehensive analysis focuses on their characteristics and specificities, the relationship between them, their identity, and their meaning in the school and in the urban context. The aim is the characterisation of their evolution, and to undertake a diagnosis of school space adaptation to the current demands: flexibility and responsiveness of their spaces to meet educational challenges and new learning methodologies, ICT demands, use of spaces by the community, technical requests about safety (structural, seismic, fire risks), sustainability concerns, comfort, accessibility and the integration of all members within the school community. Adaptability to these requirements can only be evaluated after a deep understanding of this built heritage, identifying its potential, constraints, weaknesses and degree of resilience.

This research also comprehends the analysis of the *Secondary School Modernisation Programme* launched by the Portuguese government in 2007 and interrupted in 2011 due to financial problems, which is responsible for the renovation of a significant number of secondary schools all over the country.

The Secondary School Modernisation Programme aimed to achieve the following objectives: to renovate the secondary schools buildings, with the aim of creating the ideal conditions for a modern education adapted to the programmatic contents, didactic methods and the new ways of information and communication; to correct constructive problems and to improve the conditions of use giving attention to environmental comfort, safety and accessibility; to open the schools to the communities, ensuring full exploitation of the potential of the school infrastructures; to ensure the optimization of resources and correct management of the conservation and upkeep of the buildings after the interventions. Also the maximisation of the teaching and nonteaching spaces and minimisation of the future investments was in the centre of these interventions by developing solutions based on the flexibility and the adaptability of learning and non-learning spaces. The analysis of the conceptual strategies and the design principles adopted in the renovation of some historical school buildings, that followed different approaches and directions, will surely contribute to this discussion, and is an

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opportunity both to reflect about the heritage weight in the rehabilitation process and to discuss different design strategies in the pursuit of new educational, social, inclusive and sustainable schools.