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Proportion and Metric Systems in the Portuguese building Tradition

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Since my adolescence, I have a deep interest in architecture and the diversity of the building's materials that create the quality of interior spatiality on architecture. Without a strategic plan, my academic selections have been creating in my sensibility, an eclectic understanding of different aspects in the design and building approaches that architecture has from the initial concept to the scars of is on life.

The actual PhD research on Proportion and Metric Systems in the Portuguese building Tradition on Manor Houses in Lisbon (1640-1755) began in my Degree in Interior Design, but in some way, all my academic interests and projects were I've worked as a scholar, enriched the present research. The principal objective of the PhD is to create knowledge on the study of the metric systems used in the design and construction of heritage buildings between the 17th and 18th centuries. To analyse the principles of geometry, in the regularity, order and proportion, contained in the buildings morphometric composition. By analysing this evolution in the architectural structure, we'll have a reflected model of the architectural primitive design, and therefore, useful for the comprehension on the history of construction in architecture. It is our intention that this knowledge may provide a balance in the design and construction for new interventions, as well as is safeguard and conservation, integrated into the architectural built heritage. The principal goal of this research is to understand the relations of proportions between different scales in the interior architecture and create a new harmonic structure for future architecture spatiality.

The methodology chosen for this analysis, takes the buildings surveying are the main source of knowledge. The secondary sources of this analysis are four manuscripts transcribed in this research. Documents of architecture probably copies done in the 18th century, but very important to understand what kind of architectural knowledge would have an architect or a master mason to build a Manor house in Lisbon at that time. The documents whose dates are between 1579 and 1661 are a legacy of Portuguese architects.

**Manor Houses in Lisbon (1640-1755)**

The research theme focuses on the analysis of proportion and metric systems used in the construction of manor houses in Lisbon, between 1640 and 1755. The main objective is to create knowledge about the Portuguese constructive thinking, through the analysis on the principles of geometry, in the regularity, order and proportion, contained in the morphometric composition of palaces and noble houses, still present on the construction of the city. This study is based on the study of Portuguese Architectural Culture.

The study's goal is to clarify the architectural design in the Portuguese Constructive Tradition between the 17th and 18th centuries. The main objective is to clarify the Unity and Morphometric Composition in the method of the architectural design of the nobility houses in Lisbon, taking into consideration the harmony between the scales of proportion and the spatial concepts of the interior design project in the built city. This produces knowledge and visual data to provide guidance in the work of safeguard, conservation, and adapt a degree on urban architectural intervention, and create new harmonic structure in the design of architecture spatiality.

PhD research theme in Architecture of the Contemporary Metropolitan Territories, at ISCTE-IUL, Study Center DINÂMIA'CET-IUL. Study's goal and objectives: View of Lisbon (improving done before 1755). Palace of the Earls of Figueiras. Palace of the Earls of Roberto Grande, Noble Staircase. Façade (n.º5). Palace Talvera, Kitchen. Façade (n.º77). Palace of the Earls of Barbacena, Noble Staircase. Façade (n.º9). Palace Tanon, Noble Floor. Façade (n.º11). Palace of the Earls of Porto Covo, Noble Hall. Façade (n.º13). Palace of Xabregas, Noble Floor. Façade (n.º15). Palace Lamo, Kitchen. Façade (n.º17). Palace Fronteira, Noble Floor. Façade (n.º19). Noble floor (n.º19). Palace of Lacerjeiras, Façade. Staircase Detail (n.º22). Palace of Carvalho (Pseubd.). Noble Staircase (n.º24). Manuscript Detail - Abstração Matemática (1579). Manuscript Detail - João de Góes [...] (1660). Palace of the Earls of Facal, Noble Stairs (Arch. Mathem do Cont.). Noble Hall (n.º13). Palace plant (unknown author, Lisbon, 1761 Cont.). Manuscript Detail - Compêndio [...] - Arquitetura Prática [...] (1661).