



## **OBSOLESCENCE and RENOVATION 20th Century Housing in the New Millennium**

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### **Abstract / Initial Proposal Form:**

#### **Paper / Proposal Title:**

Perceiving Social Housing through Matrix Structural Analysis - A Threshold between Theoretical research and Practical Application

**2. Format:** *Written paper*

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#### **6. Abstract (300 words):**

*Could research work promote a recognisable evolution in the quality and range of the Methodological skills regarding the rehabilitation of social housing?*

Current adopted research methods for rehabilitation of social housing projects face lots of challenges to address the complexity of socio-cultural, environmental, architectural and economic aspects. Hence, the research presents the matrix structural analysis (MSA) method that aims at bridging the gap between theoretical and practical approaches to be able to guide practitioners on how to deal with the complexity of such projects for more sustained social housing rehabilitation projects. It acts as a simplified interpretive tool that is capable of structuring the huge range of data

obtained during the continuous knowledge generation process, categorised into various scales and research interests starting from urban to architectural solutions. Moreover, alternatives could be evaluated using sustainable rating systems to discuss significant environmental issues like the building's energy performance as well as management, which perform an evolution for the training and capacity building of the researchers.

The research applies the Matrix Structural Analysis (MSA) method on a case study project entitled: Interventions in Obsolete Residential Neighbourhoods: Manual of Best Practices (MBP) (Promoted by Junta Andalusia, University of Seville, Spain). The project studied eight neighbourhoods built between the 1950 and 1970 with potential cultural values but suffering incompatibility with contemporary users demands. Hence, the University of Seville carried on the analysis and documentation processes for the studied neighbourhoods in such a way that enable practitioners to carry on using the theoretical outcomes.

The proposed method presents a comprehensive toolkit that acts as design guidelines for rehabilitated neighbourhoods, besides enhancing the presented matrix with an evaluation method for the eight studied neighbourhoods using scoring (weighting) obtained from sustainable design criteria. This shall set a datum for sustainable social housing rehabilitation plans.

## **7. Author(s) Biography (200 words maximum for all authors):**

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A PHD researcher in Politecnico di Milano University, department of Architecture and Urban studies.

Participating as a teaching assistant in architectural and urban design courses in Politecnico Di Milano University (Leonardo / Piacenza campuses between 2012-2015).

In 2012 a double master degree from both Politecnico di Milano entitled: Master of Science in Large Scale Architecture, and Politecnico di Torino, as part of being a student in the Alta Scuola Politecnica (Cooperation between Politecnico di Milano / Politecnico di Torino).

In May 2008, Pre-master degree in Urban Design and Community Development.

### **Walaa / Salah El deen Ismaeel Elsayed**

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PhD, Politecnico di Milano, Department of: Architecture, Built Environment and Construction Engineering, Italy, March 2014, thesis title (Developing a systemic framework for applying LEED system; managing Energy and Materials credits).

LEED Accredited professional since 2009

Msc in landscape design & urban planning, Scuola Superiore di Catania, Italy, 2007, Water treatment parks as a tool for sustainable development.

Pre-Masters in landscape & urban planning, Cairo University, department of Architecture 2005

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