• Paper / Proposal Title:
Teaching retro-innovation methodology as a holistic approach to bioclimatic design

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• Abstract (300 words):
Indigenous and vernacular building knowledge have been developing progressively, influenced by local resources, regional cultural life and geo-climatic conditions. They are characterized by their period, region and society. A comprehensive analysis of the vernacular heritage around the world can be an interesting learning framework corresponding to sustainable architecture, low-energy building and low-cost construction methodologies. However, any design inspiration from these techniques in a different temporal, spatial or social context may involve adopting holistic methods and innovative solutions. The present paper proposes the study of this “retro-innovation” as one of the useful strategies of bioclimatic design in architectural education. Including questions such as: What can we learn through analysis of vernacular building materials, techniques and devices during academic studies? What are the main teaching methods that we can practice with students in different academic frameworks (workshop, seminar, studio, etc.)? How can students’ cultural and social backgrounds promote mutual learning and knowledge exchange in this specific course? This study is
based on my research and teaching investigations at the Ecole Spéciale d’Architecture (ESA) in Paris, France from March 2013 to August 2016, as well as the Grenoble School of Architecture (ENSAG), France from September 2014 to August 2016.

• Author(s) Biography (200 words each):

Through his career, Behrang Fakharian (Ph.D., M.Arch., B.Arch.) contributed to enhancing the hybrid connection between the academic environment distinguished by critical and scientific approach and the design practice driven by economic and legislative constraints. After accomplishing his Ph.D. in Urban Design & Planning in 2013 at the Paris 1 Pantheon-Sorbonne University, he continues his research activities as an associated member of the UMR Géographie-cites – CNRS. He has relocated to Toronto, Canada in August 2016 from Paris, France where he was an Adjunct Assistant Professor in Building Science and Technologies at the Grenoble School of Architecture (ENSAG) (four semesters: Bachelor and Master) and a Lecturer in Architecture at the École Spéciale d’Architecture (ESA) (seven semesters: Bachelor and Master). He pursues his design practice in Kasian Architecture Inc. in Toronto, Canada.