



Bridges between the past, the present, and the future: a source to conceptual design and strengthening of heritage structures

Nisrine Makhoul

University of Balamand, Koura, Lebanon

Contact: nisrine.makhoul@balamand.edu.lb

Abstract

In an era globalization is a trend and people are becoming tightly and instantly linked, it is very common to see similarities in constructions and materials all over the world. Thus one might wonder: if new generations are actually seeking uniformity, aiming to fit in the global society and to enhance the sense of belonging to the new era; and if in the future, travelling will always be as interesting as it is today in case similar structures and infrastructures are built everywhere.

A particular idea that one might investigate is the bridges between the past, the present and the future. Therefore, greater creativity and imagination in structural conceptual design might take its source from the past to create a sort of continuity, and project it in the future to maintain a sort of identity, singularity and originality. Indeed, exploring creativity by going back to the roots and investing in the local and traditions is considered to be one of the most sustainable methods to structure design. While proposing a new structural design in a specific region, one might be inspired by the local expertise, architecture and methods of design, or even by the nearby nature and landscapes and the usage of typical local materials; at the same time, one could also work to improve it.

The same idea could be developed to strengthen structures. Old constructions have often proved to be more earthquake resistant than newly built ones, and old methods are now reused to strengthen old constructions. Thus, to improve the traditional local used material and mixtures and to adequately choose or develop material and methods to strengthen existing and historical buildings, materials and methods that are similar to the originally used ones could be used. This would also provide a sort of continuity and encourage sustainability and resilience thinking.

Preserving the cultural heritage, diversity and encouraging continuity are major factors for society's resilience. Therefore, innovative design might be the mixture of the usage of new technologies and collaboration – an exchange and mixture between other different cultures – as long as the local ways are always kept as the central inspiration to conceptual design. This would encourage diversity and singularity in design, rather than conformity.

On the other hand, globalization, might have a very positive effect if well-tempered and well-regulated, and thus, might be embraced if regulated by enforcing and cultivating cultural differences. Ideas and knowledge surely need to be exchanged, but particularity and personal creativity need to be encouraged as well. Therefore, a greater collaboration between engineers and newer generations needs to aim at enriching conceptual design, rather than standardizing it. One could exchange knowledge and expertise, and apply it according to local structural conceptual