

Postwar sustainable housing design strategies: the case of reconstruction in Mosul, Iraq

Summary

Iraq has suffered a series of wars during the last four decades. The last conflict against the Islamic State from 2014 to 2017 caused severe destruction to buildings in seven provinces. The damage to the housing sector in Mosul (Nineveh's city centre) has the greatest share. The cities are still covered by tons of rubble.

Several international humanitarian organizations are providing urgent assistance to help local people to rebuild their homes. However, an unguided rebuilding strategy is proving to be inefficient, causing more damage to the built environment, and there is no comprehensive plan to protect historic buildings with high heritage value.

This research is focused on post-war architectural design strategies that may guide and support the different ongoing reconstruction projects in Mosul. The research outcomes emphasize the historical value of the architectural patrimony in Mosul and provide solutions for a sustainable reconstruction through the use of rubble. Results are based on evidence collected from understanding the local architecture, including building typologies and construction materials. Field surveys were carried out in the Old City and war zone areas: these included damage assessment, interaction with the local authorities and international organizations involved in the rebuilding process, and study on the potential for reuse and recycling of rubble in the design process.

This allowed the research to identify design guidelines that are: (1) integrated and inspired by the local architecture in the Old City; (2) sustainable and environmentally conscious, involving local materials and encouraging the reuse and recycle of rubble.

Keywords

Houses in Mosul, Mosul post-war reconstruction, reuse with rubble, sustainable architecture, Mosul post-war architecture.



Aerial view of Erbil Citadel (HCECR, 2014, Iraq).



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