

Investigating the most common design approaches for each building type in architecture

Prof. Yasser Mansour

Professor, Architecture Engineering Department, Faculty of Engineering, Ain Shams University

yasser_mansour@eng.asu.edu.eg

Associ. Prof. Dr. Ayman Assem

Associate Professor, Architecture Engineering Department, Faculty of Engineering, Ain Shams University

Ayman.assem@eng.asu.edu.eg

Dr. Mohamed Ezz Eldin Abdel Aziz Hasan

Lecturer, Architecture Engineering Department, Faculty of Engineering, Ain Shams University

Mohamed.Ezzeldin@Eng.Asu.Edu.Eg

Researcher. Maha Khaled Mohamed Ali

Master Student, Architecture Engineering Department, Faculty of Engineering, Ain Shams University

Maha.khaled@eng.asu.edu.eg

Abstract

Architecture design curriculums do not contain a clear process of how to choose a design approach when it comes to designing a certain building type. This is mostly because any design approach can be convenient for any building type and the decision is left for the architect to choose the most convenient and suitable approach based on the project type, constraints, designer's vision and so on. However, it can be noticeable that some building types tend to relate more to some approaches than others. The objective of this study is to create a matrix that determines the relationship and the tendencies of the design approaches to be used in each building, this matrix would guide first year design students in choosing a suitable approach for their design project through this matrix. A statistical qualitative analysis is done to study the relation between the various design approaches and the building type in order to determine the most common approaches used in each type. Results show that some approaches are used more than others in some building types, and this could be an indication that these approaches suit this building type more than the others. Approaches like context, scenario and scheme tend to have higher occurrence tendencies in all building types because they relate to the programmatic and spatial organization design which is found in any type and especially in the programmatic building types like healthcare, residential, etc. While other approaches like analogy and metaphor have higher tendencies in cultural, mercantile and religious building types.

Keywords:

Architecture Design, Design approaches, building type, Analogy, Metaphor.