

## ABSTRACT

The aim of this research report is to consider how much thought was given to energy conservation and material resources in the discourse of the architectural groups “Deutscher Werkbund”, “De Stijl” and “Bauhaus” in the 1920s and early 1930s. The studies of this research paper are focused on the new design and construction techniques of modern architecture, which can be seen as the symbolic representation of ideological and political change. The paper explores ideas like solar design, natural sunlight, passive ventilation, new construction methods, mass production and the use of new technologies that can be linked to energy conservation in modern architecture.

Kenneth Frampton writes that ideas have created buildings and ideas have destroyed them again.<sup>1</sup> In context to this thought this research report considers some examples of new developments in modern architecture. One of these examples is the Weissenhof Siedlung in Stuttgart that presents a wide range of new design solutions and a practical use of mass production during the construction phase of residential buildings. New methods of passive ventilation and air-conditioning are considered as another example to create a higher quality of living space. Natural sunlight and solar design are the last examples to prove that the architects of the modern movement have known about the use of natural energy resources in the building and construction design.

This research paper explores these ideas and developments, which were established during modern architecture and started to take indirectly up the challenge to reduce the wasting of energy and material resources. It shows that modern architecture can be seen as the beginning of a remarkable change in the theory and practice of architecture, but it cannot be called the beginning of a green architecture. This research report explores new building solutions, which were not evolved enough to reduce the level of energy wasting in those days. However, the paper also indicates the high range of changes in the construction and design process. These changes laid the groundwork for other developments, which were followed after the modern movement.

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<sup>1</sup> Kenneth Frampton, *Modern architecture: a critical history*, London, England, Thames and Hudson, 1980, p.8.