

Proposals for Sustainability of Mud Brick Building Tradition in Osmaneli



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ABSTRACT

This study contains proposals for sustainability and protection of historic mud brick structures in Osmaneli which is settled on a valley surrounded by mountains covered with pine forests in the south part of Sakarya River. Osmaneli is one of the rare settlements which preserved its historic and cultural fabric to the present. The three components of historic buildings; mud brick, wood and stone had been used together masterfully during the construction of structures. Rubble stone was used on the foundations of the structures, then constructors built timber frames on it and filled the spaces with mud bricks by using a special technic called "hımış" and plastered the walls with mud plaster. The roofs with large eaves of the houses are fascinating. In XVII. Century, the raising of silkworms and silk culture was one of the main income source for local people. As an economic act, sericulture attracted the city architecture and interior uses of houses in Osmaneli. Between XVII.- XX. Centuries, natives of the town, Greeks and Turks lived together and produced silk in their houses. But after the independence war, as a result of the changing programme, new settlers arrived to the town. Silk culture was unknown subject for them. In addition that, due to lack of spatial and numerical aspects of houses for this activity, raising of silkworms was ended. Large residences which was previously used by single-family, was divided into two or three family use, while floors or rooms for silkworm converted into living quarters. As a result of transformation of the building, structural elements and the space such as stairs, bathroom, toilet, kitchen, started to be added to the building and the spatial layout of the buildings started to be deteriorated. During the observations for the study of the documentation, it was identified that wood carcasses and mud brick which were used as main building material in historic structures, were seriously affected especially opening chapters of the roof by adverse environmental conditions. In this context, historical buildings are at serious risk. For the viability of the tradition of mud-brick structure in the county, within the scope of the material research program consisting of following studies, will contribute to the successful conservation work in Osmaneli. Investigation of the traditional mud brick production approach, by analyzing the samples with contemporary techniques, Mud bricks production in the light of the data obtained from experiments, Implementation of mud brick conservation by taking advantage of the methods contained in the successful realization.

Keywords: Mud bricks, sustainability, historic, silk culture, conservation.