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An architectural evaluation method for conservation of traditional dwellings

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Abstract

Historic urban sites and traditional houses are the most important evidence of the past life style. The conservation of these traditional values in the context of conservation and revitalization of architectural heritage is in a sense the preservation of culture. The main goal of conservation is to enliven cultural properties by evaluating their architectural, historical, environmental, visual and aesthetic characteristics. These evaluation studies, which are essential in the context of conservation plans, are inevitable phases to determine the principles of the plans. This study is aimed to propose a method for the architectural evaluation phase, which is essential before conservation decisions. The proposed method is based on a gradation system. Odunpazarı district in Eskişehir/Turkey is determined as the area to test this gradation method. It is proposed that this method explains the systematic way for evaluating architectural features belonging to historic sites whose conservation plans are to be prepared. In the study, traditional buildings are evaluated from the point of their exterior and interior architectural characteristics and classified as different value groups: A, B, C and D. This grouping will be advantageous to conservation decisions. Different technical teams may be organized to be responsible for these various value groups. As a result, a systematic approach for the determination of specialized teams and required equipment will be achieved. Thus, an accurate determination of required time and cost estimates will be realized.

Keywords: Cultural heritage; Classification; Decision support; Heritage conservation management; Analysis; Conservation planning; Traditional dwellings; Architectural evaluation

1. Introduction

The main aim of historical urban conservation is to take measures for the conservation of the historical environment, which will continue its existence by reconciling the past and the future and by not losing its historical appearances. It can be clearly determined that in various earlier researches, the subject is examined in multidimensional approaches within the framework of these measures [1–4]. In the context of these approaches, the importance of the conservation of physical characteristics is emphasized together with cultural, social and economic aspects [5–7]. Depending on the previous researches, the frame of this research was determined by examining the subjects of conservation plans in general.

In urban conservation studies, it is necessary to consider the factors which cause towns or sections of towns to be considered as peculiar settlements, and produce the circumstances of its formation. Consequently, the agents which form its identity as a united end result of cultural, social and economic features must be conceived. This way of thinking brings into mind that the subjects which will be preserved are not only physical characteristics. Therefore, it is obvious that the models related to the social and economic structure are necessary for conservation plans, besides the conservation projects oriented towards physical characteristics [8–10]. While developing conservation decisions, the important subjects are who will be affected and which user group will be involved. An approach,

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which gives priority to the physical appearances of conservation and makes the inhabitants suffer from the results of conservation, is considering the conservation plan in a limited vision. In the areas, which will be preserved besides physical decisions, it is necessary to take economic measures which will make them valid and realistic and will make possible the social conditions that are aimed for. All of these are well known and have been noted in previous researches [11–13].

On the other hand, the production and implementation methods of the conservation plan have the responsibility of preventing the provocation of destruction in place of conservation. During the realization of the decisions, while reviving the historical environment, the reality which is regarded in all circumstances is to prevent the destruction of architectural properties in place of conservation in the interventions. The evaluation of the physical properties of the historic fabric one by one is among the subjects, which have a great role in the success of the conservation plan [14,15].

In this framework and in the limits of this special study, it is aimed to pay attention to the technical evaluation of architectural characteristics in the production of the plan rather than to start a theoretical argument related with conservation. With this approach, it is developed in the form of the detailed evaluation of one of the subjects, which should be considered in the conservation plans. In this study, a method for architectural evaluation phase preceding decisions for conservation is proposed with the concern of prevention of destruction of architectural characteristics in the name of conservation.

2. General visual and architectural characteristics of the study area

This study is generated in the context of the available data obtained from a certain traditional historic site Odunpazarı District, Eskişehir, in Turkey. Eskişehir is located in central Anatolia, with a medium-sized historic district. This town was established during the later part of the medieval period [16–19], but it flourished during the nineteenth century with the development of new districts composed of large- and small-sized mansions, constructed in timber-framed, mud-brick in-fill. These new districts were designed to serve the population rise that the town faced due to migration. The later part of the twentieth century brought another vital change for the urban development of the town, following the establishment of new Universities, which caused the increase of a young student body. To answer their needs, renovation and/or new housing projects began to be initiated which had a negative effect on the historic fabric and on the houses that were designed according to the needs and requirements of the nineteenth century.

Odunpazarı is the only area in Eskişehir where traditional neighbourhood characteristics are still concentrated. Kurşunlu Külliye, the landmark of the area was built in 1516 and gives evidence that the area was an important settlement during the Ottoman Period. The houses, which are in the majority and have traditional architectural characteristics in their facade orders and architectural elements, were constructed with timber-framed construction system (Figs. 1 and 2). This structural system consists of three sections, which are masonry base, timber-framed upper section and timber roof section. Foundations and basement floor were built with rubble stone or mud-brick with horizontal timber beams. The timber-framed upper section was formed of horizontal, vertical and diagonal elements, which constituted continuous panels and boxes [20]. Mud-brick was used as an infill material and the walls were finished with mud or lime plaster and whitewashed. In the site, the buildings are two or three storied. They are situated directly on streets or in gardens. They are either single or row houses and there are also twin houses. Projections

Fig. 1. Traditional houses give important vistas.

Fig. 2. Buildings with traditional architectural characteristics.