AESTHETIC EVALUATION OF THE TRADITIONAL VERNACULAR AND MODERN HOUSES IN RURAL PARTS OF THE EASTERN BLACK SEA REGION

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INTRODUCTION

Vernacular environments have been an object of extensive study in various disciplines such as architecture, folklore and folk life, archeology, anthropology, cultural geography and recently in environment and behavior studies. Various research traditions and approaches have been developed in all these disciplines and certain common characteristics such as the unit and context of study, the nature of data, and the assumptions about the nature and value of vernacular environments appear in each field.

In architecture, most of the studies on vernacular environments and design started as a result of its aesthetic and visual qualities. One can trace back to the picturesque movement in England in the 18th and early 19th century for the initial studies on vernacular forms. In fact, the first use of "vernacular" in the architectural field was also during this period. Among the designers, the most common approach towards vernacular environments have been to romanticize vernacular and merely copy or imitate its formal characteristics. The studies on vernacular environments in architectural field also share a number of characteristics in common. The unit of study are architectural elements which may range from a door or window to an overall facade as well as to a special plan of a building or a settlement. In all cases, the object is to identify architecturally significant features whether they are typical or unique. The context of the study can vary from individual buildings, town or region. In the latter cases, the emphasis is again given to features that have architectural importance. The data collected is mainly visual and almost entirely about the three-dimensional entity of the physical environment. Regarding the assumptions about the nature and value of vernacular environments, they are widely perceived as aesthetically successful and are valued as a source of inspiration for designers own work (see also Pavides 1989).
As elsewhere, the aesthetic and visual properties of vernacular environments have impressed and influenced many architects in Turkey. Yet, apart from Krampen's (Krampen et al. 1978), Çetinkaya's (1978) and İnanoglu's (1979) work there has been almost no comprehensive study on the aesthetic evaluation of the vernacular environments so far. On the other hand, there has been also no study on the recent changes in such environments and what these changes and new forms represent for the users. The reason for this neglect is partly due to the general assertion which is widely shared by researchers and designers that these new forms are inappropriate and have no aesthetic value. However, this has not been proven so far in a detailed analysis by researchers.

The main objective of this paper is to discuss the changes in house facades in rural parts of the Eastern Black Sea Region from the aesthetic point of view and compare the aesthetic value of the traditional vernacular houses with the recently built modern houses. Regarding the aesthetic value of vernacular and modern houses it is hypothesized that the aesthetic value of the former will be higher than the latter. In this study, the aesthetic value of the traditional vernacular and modern dwellings is assessed through both the subjective and objective measurement of facades to see if they give similar results or not. Therefore the second aim in this paper is to test if the subjective impressions of the people is related to the objective properties of the facades.

SUBJECTIVE AND OBJECTIVE MEASUREMENT OF FACADES

For the subjective and objective measurement of facades, photography was used as an environmental display media. The photographs were selected from 12 villages -6 from coastal area, 6 from inner mountainous area and each pair, that is one from coastal area and one from mountainous area, approximately 25km. away from each other to cover the whole region as much as possible. From each village, one traditional vernacular and one contemporary house was chosen among those which were recorded earlier based on the criterion that they will represent the typical vernacular and modern house form for that village.

A photo-interview based on these 24 photographs was carried in two other villages for the subjective evaluation of the aesthetic value. During the photo-interviews subjects were asked to sort the pictures into three piles: one and point high and the other low according to aesthetics. Then they were asked to rank the pictures within each group to obtain a rank order for the 24 photographs. A pilot study was also made in these two villages in order to understand how the meaning of aesthetic can be described to the local people.
using the earlier operationalizations made by Östürk (1978), Östürk and Krampen (1978), Garling (1976), Evans and Wood (1980), Berlyne (1974), Kuller (1979). The selection of the sample for the photo-interview was based on the characteristics of the house that subjects currently live in. 10 subjects who live in traditional vernacular houses and 10 subjects who live in modern houses was selected from each village, giving a total of 40 for the whole sample.

Concerning objective measurement of facades three methods have been proposed so far in the literature. The first method is based on the ratings and estimates of the frequencies of occurrence of certain features such as number of storeys, of windows, of window forms, of roof surfaces, estimated age of the building etc. (Wright 1973, Krampen 1974, 1978). The second method is called Type-Token-Ratio (TTR) and was adapted to architecture from linguistics by Krampen (1974). For calculating the TTR's, the number of different types of facade parts (such as different types of windows, balconies, doors etc.) is divided by the number of realizations in these type classes in a given sample of facades. The third method which is based on the Information Theory can be applied in two ways: Either an inventory of all facade parts in a sample is taken as the repertory and the information measure is calculated on the basis of relative frequencies (probability occurrence) of the facade parts, or the surface of a facade is subdivided in to grid units which are then labelled according to their content (e.g. roof surface, wall surface, window surface etc.).

In this study, for the objective measurement of facades, a new method (which may be placed as forth) proposed by Östürk (1978) based on Birkhoff’s (1968) aesthetic analysis of forms, Arnheim’s (1959) work and Information Theory, was used. This method consisted of three steps:

1) Abstraction (the facade is abstracted as two dimensional model through syntactic abstraction, set theory aided abstraction and simplification).

2) Determining relationship between the elements of the abstracted facade to each other and to the whole (for micro aesthetics), and relation with environment as silhouette (for macro aesthetics).

3) Digitizing and calculation (after digitizing, the values of micro and macro aesthetics of a facade is calculated by the following formula using DAt (table of evaluation) (Fig le, 1b).

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C_2 = \frac{(IeAt/n) + S}{2}
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Figure 2a: Photographs of the traditional houses.
RESULTS

In order to test the hypothesis that if the subjective impressions of people is related to the objective properties of the facades Spearman’s rank-order correlation was used. Spearman test was applied to the relationship between the subjective and objective measurements of facades for the 12 traditional houses (Table 1), the relationship between the subjective and objective measurements of facades for the 12 modern houses (Table 2) as well as to the subjective and objective measurements of facades for the 24 traditional and the modern houses (Table 3).

As can be seen from Table 1, Table 2, and Table 3, the subjective and objective measurement of facades are strongly related to each other for the aesthetic dimension. The $r_s$ value 0.896 for the subjective and objective measurement of 12 traditional facades indicates that they are significantly related to each other at $\alpha = 0.01$ level (0.712). The $r_s$ value 0.647 for the subjective and objective measurement of 12 modern facades indicates that they are significantly related to each other at $\alpha = 0.005$ level (0.506). The $r_s$ value 0.703 for the subjective and objective measurement of 24 facades indicates that they are significantly related to each other at $\alpha = 0.01$ level (0.485). Therefore, we can conclude that the subjective measurement of facades are significantly related to the proposed method for the objective measurement of the facades. $r_s$ values also indicates that although the objective and subjective measurement of modern facades are related to each other, this relationship is less stronger than in the other two cases.

Concerning the hypothesis that the aesthetic value for the traditional houses will be higher than the aesthetic value for the modern houses, while in the objective measurement of facades it was found that the aesthetic value of traditional houses (1.826) is higher than the modern houses (1.584), in the subjective measurement of facades the reverse was true. That is, in the subjective measurement of facades, the modern houses were rated as having high aesthetic value (Table 4). There was also differences in ratings of the subjects who live in traditional houses and modern houses, as well as subject who live in Şerah (a mountainous village), and in Balıklı (a coastal village). The aesthetic value for the traditional houses was rated higher by the subjects who live in modern houses and in Balıklı. As can be seen from the table, the preference ratings for the traditional houses were even much more lower for the traditional houses.

Although traditional houses were not preferred by the local people and they did not want to live in these houses, based on Table 4, it may be still possible to say that along the aesthetic dimension the traditional houses are considered more acceptable by the subjects. Based on the continuing