

REUSE OF MONUMENTAL BUILDINGS AS A SUSTAINABILITY COMPONENT

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Summary

The concept of “sustainability” was developed in recent years in order to make decisions under the consideration of environment. The urban application of sustainability concept has the meaning for a city and its environment to continue their functions with public-wish life quality by not restraining the choices of the present and future generations and not causing any undesired effects in and out of the city. The sustainability in architecture is the belief of;

- Economic use of resources (reduction, reuse and recycle),
- Life cycle (the ability of analysis of the sustainability period and its effects on the environment) and
- A human-integrated design (covers the strategies questioning the relations between humans and natural environment).

In this context, when the monumental buildings are taken into consideration in terms of sustainability, the fact of “not giving any concession against the opportunities of meeting future generations’ needs by using both today’s needs and the opportunities provided by the past generations” comes into existence.

The reuse of monumental buildings is a sub-component of conservation concept that provides sustainability by many ways. When the most important point, active functional reuse of monumental buildings, is taken into consideration, it will be better to investigate the subject using the sub-titles of economic sustainability, environmental sustainability and socio-cultural sustainability.

The reuse of monumental buildings can be perceived as the policy of providing cultural sustainability that has the reference characteristic to social life. Cultural sustainability can be defined as the alteration of society with respect to the necessities of the present era without losing its identity and characteristics. Moreover, these buildings ensure the continuity of place-human harmony between past-today-future times.

Environmental benefits, combined with energy savings and the social advantage of recycling a valued heritage place make adaptive reuse of historic buildings an essential component of sustainable development. The protection of monumental buildings without destroying but reusing them became the component of environmental and economic sustainability in terms of energy and material.

Keywords: sustainability, reuse, environmental sustainable, socio cultural sustainable

1 Introduction

Cultural heritage is to maintain the formation of social history consciousness by the means of transferring – presenting the architectural and historical properties of past culture –

determined by historical and scientific researches – to the next generations. Cultural heritage has at the same time a great importance in the information accumulation process reaching to the determination of spatial development inputs directed at the future with the company of past urban – spatial experiences [1]. With this reason, historical fabrics and environments are assessed among the concept of “sustainability”, an increasing value of global architectural environment nowadays.

2 The Concept of Sustainability

Sustainability can be defined as “the development fulfilling the requirements of today without conceding the abilities of next generations to fulfil their own requirements” [2]. Sustainability is a dynamic process [3]. An object which is wanted to be in the same quality and positive situation for a while is in a continuous change [4]. The sustainability in the context of this change includes the concepts of time, continuity, conservation and living with change [3].

The sustainability in architecture is a system questioning the economical use of the sources, reuse actions and the relationships between the built environment and the human being. The thing we define as cultural sustainability in architecture is the duty and the responsibility of each generation to transfer the cultural values and signs gained from the previous period to the next generations by interacting with the other cultures and adding new ones to them [5].

3 Reuse of Monumental Buildings as a Sustainability Component

The strategies of the sustainability are “decreasing, reuse and recycling”. In this context the reuse of the existing monumental buildings is a subject required to be handled as a sustainable source usage. Especially the conservation of the buildings without destruction happens to be a component of the sustainability from the point of energy and material saving. Reuse is a tool for the monumental buildings to be saved from destruction and it provides many environmental benefits from the point of social and energy gain by the means of re-evaluation of important historical heritage areas. The only way for monumental buildings to be used at present and live in the future is using them by giving new functions squaring with the characteristics of the period in which they were built. If this situation is maintained the formation of the sustainable environment happens to be supported [Figure1-2].



Fig. 1 Tokat Taşhan view



Fig. 2 Tokat Taşhan court view, become used while becoming a suitable for presents furniture market and café

3.1 Adaptive Reuse Concept

Rehabilitation, renovation or restoration works that do not necessarily involve a change of use', and that adaptive reuse 'extends the useful life and sustainability in a combination of improvement and conversion [6]. Which posited that adaptive reuse 'retains as much of the original as possible, upgrading performance to modern standards and changing user requirements' [7]. However felt that adaptive reuse involved conversion to change of use required by new and existing owners' and this is a view held by others [8-9]. However just to confuse matters, states that refurbishment is defined by some as a 'conversion describing a change in use'. Therefore for some the terms refurbishment and adaptive reuse could mean the same thing [10].

The best way to conserve the monumental buildings unable to fulfill the requirements of its function or lost its function because of the changing cultural, physical and social conditions is to serve them to human usage. However here, the aim should be conservation, the tool should be reuse. The new function should not be the aim for the building; it should be a tool for the continuity of the buildings cultural entity [11] [Fig.3-4].



Fig. 3 Uşak Dülgeroğlu's Inn – the conservations function of providing the cultural continuity reaches its aim by joining it into the life from the point of visual and social view.



Fig. 4 A view from the closed courtyard of the building which has been used as a hotel at present.

3.2 Reuse of the Monumental Buildings for Sustainability

The evaluation of the monumental buildings with the aim of contemporary usage is an important approach from the point of forming a cultural connection between the past and the present by the means of keeping the cultural heritage, cultural, historical and aesthetical values alive [12]. In this context when the reuse of the monumental buildings in a suitable way is handled; the fact of "not to concede from the opportunities of the next generations to fulfil their needs by the means of using today's needs and the opportunities served by the past" comes forward. During the transfer of our cultural valued architectural products which have reached from past to present to the next generations, many benefits along with the social responsibility can be maintained to the society from the point of cultural, economical and social views by the means of the reuse of the existing sources. The monumental buildings qualified as a piece of our cultural heritage have an important role on the subject of maintaining both the economical sustainability and the socio-cultural sustainability as long as they are used as conserved [Fig. 5-6].



Fig. 5 By the reuse of Kayseri Hunat Hatun Madrasa historical continuity is maintained in socio-cultural meaning.



Fig. 6 The building being used as a bazaar is a sign of the sustainability to be maintained in cultural, economical and environmental meaning.

Socio-Cultural Sustainability:

The reuse of the monumental buildings as a piece of historical fabric by re-functioning can be seen as the politics to maintain the cultural sustainability [13]. Cultural sustainability can be defined as the change of the society as accommodating to the requirements of the era without losing its identity and its essence [14]. The evaluation of these buildings with the aim of contemporary usage is quite important from the point of forming a culture bond between the past and the future by the means of keeping the architectural heritage, historical, cultural and aesthetical values alive, because the monumental buildings provide the formation of a continuity of the space – human harmony between the past-today-the future [15] [Fig.7-8].



Fig. 7 Konya Karatay Madrasa

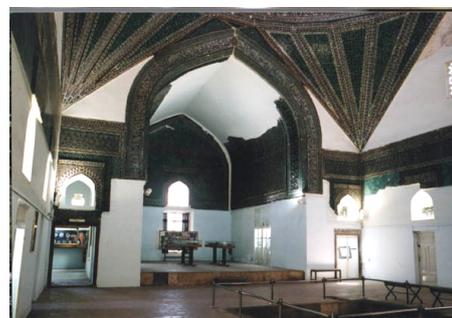


Fig. 8 The building used as the Museum of Ceramic Works forms a culture bond between the past and the future

Economical Sustainability:

The existence of the monuments continuing their structural lives can be sustained by the new functions. The reuse of these buildings forms a positive economical input on energy, material and manpower basis. New sustainable economical dynamics like tourism can be created by the reuse of monumental buildings. These buildings cause economical revival in their environment as long as they have been used and contribute to tourism with their properties of being worth to be seen [Fig. 9-10].



Fig. 9 Sivas Buruciye Madrasa is used as Handcraft Bazaar



Fig. 10 The madrasa both contributes to tourism and provides economical and social sustainability and happens to be the attraction point with its property of being worth to be seen with its use.

Environmental Sustainability:

As a result of global rapid consumption of energy and non-renewable materials, the formation of a new approach for the use of resources is one of the basic components of sustainability. Main strategies for sustainable uses of resources are; reduction, reuse and recycling [16]. In this context, the protection and reuse of monumental structures as a cultural heritage becomes a significant component that should be taken into consideration in the scope of “sustainability”[12]. [Fig. 11-12]



Fig. 11 Konya Horozlu Inn

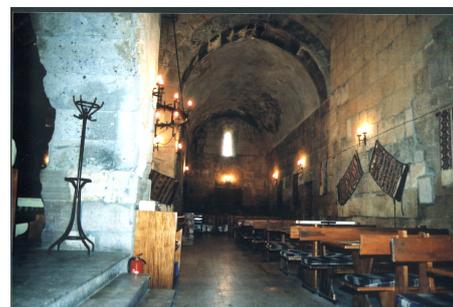


Fig. 12 The building has been used as a touristic restaurant

4 Conclusion

The monumental buildings qualified as culture entities are in charge of maintaining the sustainability between past-present and future with the signs they carry. These buildings provide the historical sustainability in socio-cultural meaning as a document and on the other hand they form a positive economical input on energy, material and manpower basis by their reuse. In addition to this, the harmful effect of the building sector on the natural environment will decrease by evaluating the existing building stock, the sustainability will be provided in the direction of the quality increase of the monumental buildings and living environments.

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