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Investigation of the existing situation of the Surp Ağpırig (Déra Spî) Monastery

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ABSTRACT

Preserving historical buildings and transferring them to future generations is both a human duty and a social need. In order to contribute to this goal, the Surp Ağpırig Monastery, located in the Mutki district of Bitlis, will be discussed in the study. First of all, the current situation of the monastery and then the strengthening works to be done in order to bring the monastery to tourism will be mentioned.

Introduction

Historical buildings have been built to meet the needs of people since human beings. In such structures, generally regional materials were used, they were built with the workmanship of the people of the region, and some of them have survived to the present. Many studies have been investigated on these historical buildings, which have high cultural value [1-3].

The province of Bitlis has a very important place because it contains many historical and cultural heritages. With this study, it is aimed to evaluate the state of the structural system of the Surp Ağpırig Monastery, which has an important place for the cultural heritage of Bitlis and is known to belong to the Armenians, and to include suggestions for improvement. It is stated that the monastery, which has been used with different names in various sources since the 12th century, was built and used in the 10th century. There are some studies examining the historical process of the monastery [4-5]. Although it has an important place in the history of Bitlis, no study has been found by civil engineers about this monastery, which reflects the current state of the building and includes suggestions for strengthening the structural system. By filling the gap in this area with the evaluations to be made, the first step will be taken to bring the monastery to tourism.

Material and Method

First of all, the current situation of the monastery was reported. In the report, the damage of the structural system, the excavations made in the monastery and the interventions that ruined the original state of the monastery were mentioned.

In order to determine the current state of the monastery, it was examined in detail and the entire monastery and its surroundings, especially the structural performance, were documented with photographs. The current state of the historical structure is shown in Figure 1. The situation of the monastery and the wrong interventions in the monastery are presented in the results section. As a result of the observations, the current status of the building was interpreted and the steps that could be made to the historical monastery were specified.

Figure 1. General view of the monastery (photo by author)

Results

The monastery, which developed with the additions made at different times, was used as the episcopacy center of the region until the end of the 19th century. A large part of the monastery, which consists of two churches, two jamatuns, a bell tower and a large number of monks' rooms, is in ruins today. The plan we prepared for the Monastery after the survey work is shown in Figure 2.

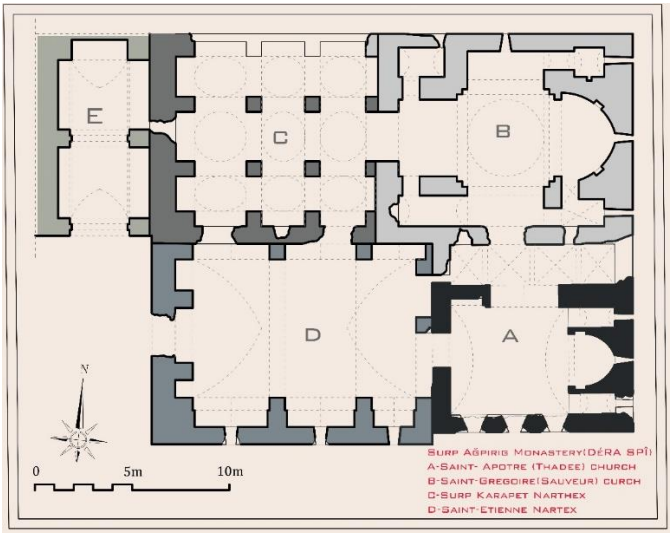

Figure 2. The plan of the Surp Ağpırig (Déra Spî) Monastery (drawn by author)

As a result of the investigation, it was observed that the monastery was in a very bad condition. The neglect of the monastery and leaving it alone caused the people of the region unconsciously to intervene in the monastery. Also, treasure hunters excavated in many parts of the monastery, resulting in large pits in the ground. These negativities and damages will be mentioned in the relevant sections of the study.

Deep pits were dug by treasure hunters in many parts of the monastery floor and this caused emptying on the ground. As can be seen in Figure 3, the interior walls, rooms and arches of the monastery were partially or completely destroyed. Due to these mortars and stones accumulated in the building, the ground floor level has risen and the entrances to some rooms have been closed. This has caused the historical structure to move away from its originality.

Figure 3. Pits in the ground and damaged walls (photo by author)

The mortars on the dome and arches have eroded and largely disappeared. Therefore, some domes and arches were partially or completely destroyed. It was observed that columns in the historical building were heavily damaged and some parts were destroyed. Images of collapsed domes, arches and columns are given in Figure 4. It also poses a great danger to those who enter such a damaged monastery.

Figure 4. Damaged domes, arches and columns (photo by author)

Conclusion

The objectives to be achieved as a result of the observations and investigations can be listed as follows:

1) This structure, which is a work of art and a historical document, needs to be conservated in order to prevent further damage.
2) Strengthening works should be carried out to restore the monastery's lost strength and resistance to harsh weather conditions, the area should be re-examined with an interdisciplinary team and a work program should be prepared.
3) For a complete evaluation of the historical building, first of all, the material properties should be known. For this purpose, after getting permission, without damaging the structure, material specimen should be taken and experimental test should be carried out to determine its physical and mechanical properties in the laboratory.
4) The damaged parts of the building should be rebuilt and restored by choosing materials suitable for the historical structure instead of segregated materials.
5) The behavior of the structure under self-weight and earthquake effects should be determined by modeling the structure with the finite element method.

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Conflicts of interest:

The authors declare no conflicts of interest.

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