

Formation of Protection Zones of Tangible and Cultural Heritage Objects on Republican and Local Significance

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Abstract – This article describes information on the state registration of objects of historical and cultural value, as well as maintaining the state cadastre of objects of tangible and cultural heritage and the list of objects of Intangible Cultural Heritage. In addition, the article presents recommendations on the implementation of the establishment of protective zones in the cultural environment of the objects of cultural heritage.

The procedure for the allocation and use of lands of historical and cultural significance, the establishment and protection of protection zones, zones for the construction of buildings and regulation of economic activity, protected natural landscape zones in adjacent territories are described. In addition, on the basis of the analysis of the main normative-legal documents regulating the formation of protective zones of cultural heritage objects, the stages of the creation of protective zones of cultural heritage objects of regional importance are detailed by the author.

This research work was carried out at the Samarkand State Architecture and Civil engineering Institute and was taken as an object of Registan complex located in the city of Smarkand for the formation of protection zones of cultural heritage objects of Republican and local significance, as well as for the formation of various protection zones of the object and the work was carried out to clarify in detail the economic and social significance of the work done.

Keywords – Cultural Heritage Sites, Tangible Cultural Heritage Sites, Intangible Cultural Heritage Sites, Register, Protected Areas, Development And Economic Activity Regulation Zone, Protected Natural Landscape Zone, Coordinates List, UNESCO World Heritage List.

I. INTRODUCTION

The Unified State Register of Cultural Heritage Sites in the territory of the Republic of Uzbekistan is maintained in accordance with the Regulation "On the procedure for maintaining the state cadastre of tangible cultural heritage of the Republic of Uzbekistan", which contains information about such objects. According to Chapter 3, Article 10, Paragraph 2 of the Law of the Republic of Uzbekistan "On protection and use of cultural heritage sites", the following is indicated on the state protection of cultural heritage sites [1,2]:

- State registration of objects of historical and cultural value, as well as maintenance of the state cadastre of objects of intangible cultural heritage and the list of objects of intangible cultural heritage;
- Development of scientific and scientific-technical research of cultural heritage sites;
- Historical and cultural examination of cultural heritage sites;
- Development of projects for the protection of tangible cultural heritage;
- for excavation, land management, construction, land reclamation, economic and other works on the lands

where the objects of tangible cultural heritage are located and adjacent territories, work on preservation of objects of tangible cultural heritage, as well as scientific and technical research on objects of tangible cultural heritage issuance of permits;

- Demarcation of the boundaries of urban planning activities, which should be regulated separately and related to the protection of tangible cultural heritage;
- Installation of protection signs on objects of tangible cultural heritage;
- Monitoring the condition of cultural heritage sites.

State protection of cultural heritage sites may be ensured by other measures in accordance with the legislation.

Based on the above considerations, cultural heritage sites included in the state list of cultural heritage sites are under state protection, which includes requirements for the development, approval and approval of projects for the protection of cultural heritage sites, as well as activities and urban planning norms, regulations and requirements are set. Today the protection of cultural heritage, the creation of protection zones plays an effective and important role with great relevance [1].

II. MATERIALS AND METHODS

Measures to prevent adverse effects of man and the environment on such objects (see [1,2]). In addition, the following protection zones may be established in the cultural environment of the cultural heritage site at the source:

- protected area;
- zone of development and regulation of economic activity;
- protected natural landscape zone [1].

According to the Law of the Republic of Uzbekistan "On State Cadastres", information on the protection zones of such objects should also be placed in the State Real Estate Cadastre and transferred to zones with special conditions for the use of territories [3,8]. However, in the Land Code of the Republic of Uzbekistan states:

- Lands of historical and cultural significance - lands where objects of tangible cultural heritage are located (paragraph 5 of Article 8 of Part 2);

In order to preserve the immutable features of the object of tangible cultural heritage and its historical environment, protection zones, zones of construction and regulation of economic activity, protected natural landscape zones are established in the adjacent territory (Chapter 9, Article 75, Parts 2-3) [4].

The procedure for allocation and use of lands of historical and cultural significance, protection zones in adjacent areas, zones for construction and regulation of economic activity, protected natural landscape zones and the procedure for their protection shall be established by legislation [4].

It was determined that the information on the boundaries of this zone, which should include textual and graphic descriptions of the location of the boundaries of the zone, a list of coordinates of the characteristic points of these boundaries in the coordinate system established for the State Real Estate Cadastre. In this case, the legislation of the Republic of Uzbekistan does not provide for the development and approval of a document form containing the information on the boundaries of the zones [1,2,3,4]. However, according to the letter of the State Registration, Cadastre and Cartography Service (list of cultural heritage sites): boundaries of protection zones and construction regulation zones (plan based on the supporting document, brief description), diagrams, graphic and textual forms, location, size of the zone, it is necessary to use as a document containing the boundaries and other features and sent to the body of cadastral registers, land management object card (plan), scheme, land management object card (plan) document. However, it is recommended to fill out these documents in relation to the zone where there are special conditions for the use of the area on the basis of similarity with the completion of such a map (plan) drawn up in connection with the object of land survey. Excludes information on the submission of documents to the state database obtained as a result of the study of the land (see [1,2,3]). In the case of protected areas, the preparation of such documents is based solely on the design of the protection zone for the cultural heritage site, which makes it difficult to enter relevant information into the State Real Estate Cadastre and may harm all stakeholders in land relations.

The Government of the Republic of Uzbekistan determines the procedure for developing the project of protection zones of cultural heritage sites, the requirements for land use regimes and the general principles for determining the requirements for urban planning in the territories of such zones [1,2,3]. Development of projects for protection zones of cultural heritage sites depending on the importance of the monument is carried out by the Ministry of Culture of the Republic of Uzbekistan, structural subdivisions of the Republic of Uzbekistan, state bodies and local authorities.

Based on the analysis of the main regulatory documents governing the formation of protection zones of cultural

heritage sites, the author identified and summarized the stages of creation of protection zones of cultural heritage sites of national and local significance as follows:

Step 1. Decision on the development of a joint zone project for the protection of cultural heritage:

Such a decision is made by the executive bodies of the constituent entities of the Republic of Uzbekistan. Besides these, the work can be initiated by local authorities, as well as owners or users of cultural heritage sites, owners of land plots located within the boundaries of cultural heritage protection zones.

Step 2. Development of projects on cultural heritage protection zones:

Development of projects of such zones can be carried out at the expense of both Republican and regional target programs, and also at the expense of the initiator of development of the project of protection zones (see [1,2]). Development of the project is carried out by individuals or legal entities, institutions authorized in the field of study and restoration of monuments on the basis of historical-architectural, historical-urban and archival research materials, as well as using existing State Real Estate Cadastre data [1,2].

The following work will be carried out during the development of the project of the protection zone of the cultural heritage site:

Preliminary study of the object of cultural heritage;

- Development of materials to justify the design of the protection zone;
- Analysis of existing urban planning documents.

The project should include project materials, land use regimes and urban planning norms to define the protection zone of cultural heritage sites [1,2].

The project of the protection zone of the cultural heritage site is a document in the form of text and in the form of borders, maps, (schemes), which includes the boundaries of the projected zones and cultural heritage areas located in these zones, land use regimes and urban planning regulations [1,2,3].

Step 3. Confirmation of protection zone boundaries:

Taking into account the positive conclusion of the examination of the territorial cultural heritage department on the basis of the project of protection zone for the object of cultural heritage of republican or local (municipal)

significance, the requirements for land use regime and town-planning rules within the boundaries of such zones. [1,2].

The state body that approved the boundaries of the protection zone of the cultural heritage site, land use regimes and the requirements of urban planning regulations within such zones, records and stores all documents and materials related to the organization of such zones in accordance with the rules of workflow organization (see [1, 2]).

Step 4. Registration of information on the boundaries of the zone of protection of cultural heritage:

Information on the boundaries of the protection zone of the cultural heritage site, restrictions on the use of real estate located within these boundaries in the State Real Estate Cadastre in accordance with the Regulation "On the procedure for maintaining the state cadastre of buildings and structures" is recorded [1,5]. Information on the boundaries of the cultural heritage protection zone, textual and graphic descriptions of the location of the cultural heritage protection zones (shown in Figure 4 in the form of a border map (diagram)), a list of coordinates of the characteristic points of these boundaries in the coordinate system should include.

III. MEASUREMENT RESULTS AND ANALYSIS

The state body approving the boundaries of the protection zone of the cultural heritage site, land use regimes and the requirements for urban planning regulations within such zones shall send a copy of the decision to the relevant local authority within 7 days from the date of entry into force.

Based on the above, based on the methodology of organization of protection zones and taking into account the role of design in the stages identified by the author of this article, we consider the procedure for developing a project of protection zone of cultural heritage of national importance. The selected object of research is the Registan complex, the official center of the ancient city of Samarkand, where three madrasahs were built: Ulugbek madrasah (1417-1420), Sherdor madrasah (1619-1636), Tillakori madrasah (1647-1660). There is also the Chorsu trading center, built in the 15th century and rebuilt in the 18th century, at the north-eastern back of the square.

The ensemble of these three madrasahs is a unique example of the art of urban planning and a wonderful example of the architectural design of the main square of the city. This is one of the most obvious examples of Islamic architecture. In 2001, the ensemble was included in the UNESCO World Heritage List, along with other ancient historical sites of Samarkand [9]. This object is located on Registan Street in Samarkand, Samarkand region (Figures 1-

2), belongs to the Ministry of Culture of the Republic of Uzbekistan and was transferred to the fund of the Samarkand Regional Department of Cultural Heritage of the Main

Department for Protection and Use of Cultural Heritage [9,10].

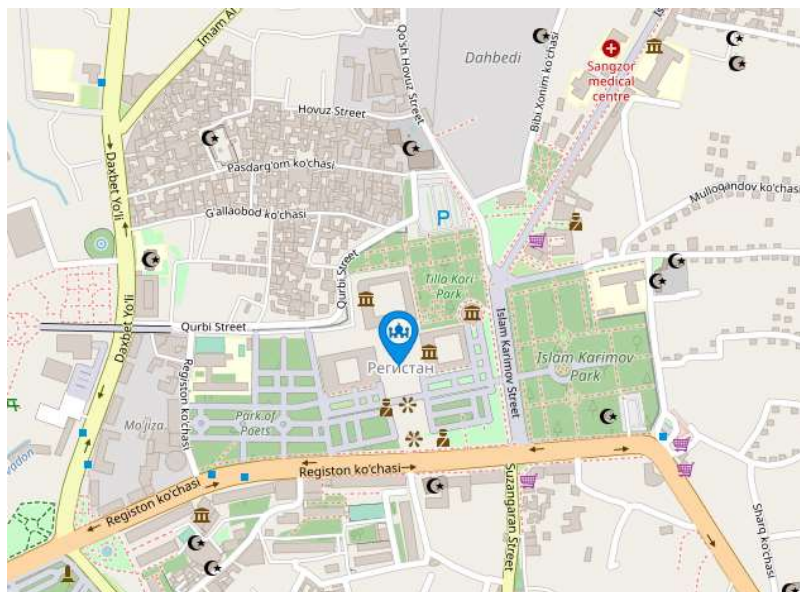


Figure 1. Map of Registan Square

The Cultural heritage protection zone project consists of three main parts.

1. Visual analysis of the landscape. In this analysis, work is carried out to determine the relationship between the object

of cultural heritage and the environment using the method of radiation sections. The viewing radius of the cultural heritage site is 1471 meters (Figure 3).

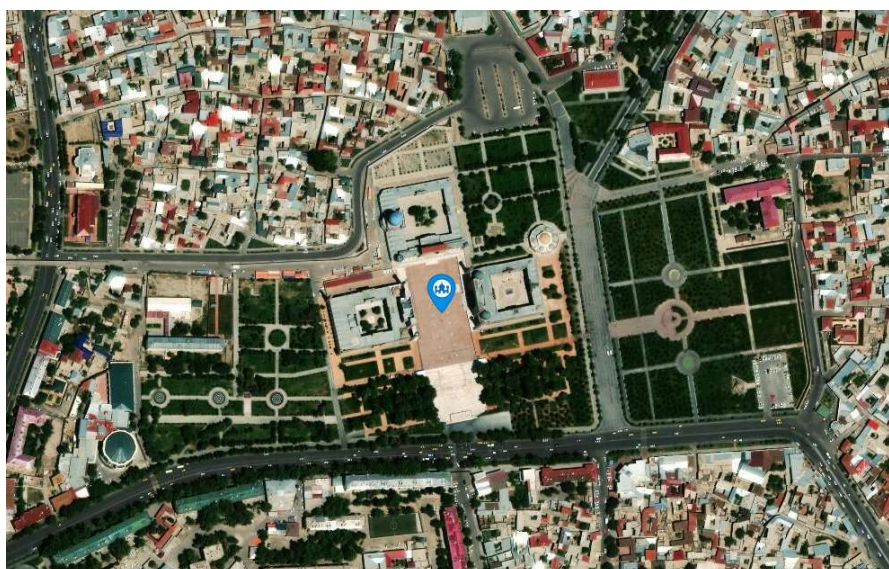


Figure 2. Space photograph of the Registan Square

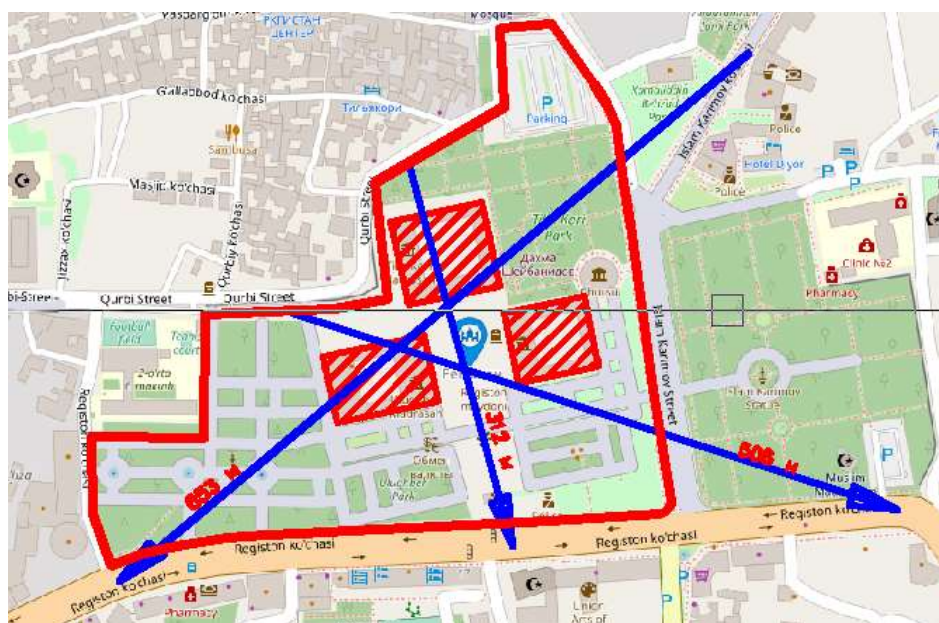


Figure 3. A method of cutting light during visual analysis of a landscape.

According to the analysis, the Registan complex, the pearl of the East, is visited by thousands of local and foreign tourists every year. It hosts a variety of cultural events, including the biennial “Sharq Taronalari” International Music Festival. In this case, mainly this area is used only as an amphitheater. As an exception, only the interior halls of the Tillokori Madrasa have been turned into a unique restoration museum. This museum displays pre- and post-restoration paintings and photographs of the city's historical monuments. These expositions are of interest only to a small number of tourists who come to our city [10].

However, madrassas were first and foremost centers of science and culture, and not only their appearance but also their interior must match them.

2. Historical and cultural analysis of the area. The following work was done in this analysis:

- 1) Initial work;
- 2) Development of materials for the design of the cultural heritage protection zone:
 - Analysis of historical and cultural features of the study area;
 - Analysis of existing urban planning documents;
 - The historical area of the monument is determined;
 - The aim of the project is to ensure the physical security and visual perception of the object of cultural heritage, including the objects of its protection.

The cultural heritage area must ensure the safety and restoration of the object of cultural heritage protection and the possibility of restoration, and the protection zone must provide visual perception and technical safety of the entire cultural heritage.

3. Development of proposals for the design of materials for the protection of cultural heritage sites, including land use regimes (see [1,2,3,5]). The project envisages several zones for development and regulation of economic activity (protection zone of the region (XMZ) - in the diagram shown in Figure 4). One of them can be defined as the protection zone of the territory of the cultural heritage site as follows (see table):

- In the southern part bordering on Registan Street (XMZ-1);
- The second in the east, Islam Karimov Street (XMZ-2);
- The third in the north-eastern part of the territory of the cultural heritage site with shops, Kamoliddin Bekhzod Park and settlement, residential area ie Kubri Street (XMZ-3);
- The fourth is the Koshovuz mosque in the northern part, Kubri Street and the settlement in the north-western part (XMZ-4);
- The fifth in the north-western part with Registan Street and Secondary School No.2 (XMZ-5);
- The sixth is bordered on the west by restaurant Mujiza (XMZ-6).

Figure 1 . Cadastral numbers of land plots located in cultural heritage protection zones

Name of Area	Cadastral numbers of land plots located in the territory of the zone
The territory of the cultural heritage site	Cadastral number of the land plot: 14:16:01:02:04:0157:0001
Development and Economic Regulation Zone Division (XMZ-1 and 2)	Cadastral number of the land plot: 14:16:01:02:04:0157:0001 Cadastral number of the land plot: 14:16:01:02:04:0157:0001
Development and economic activity management zone part (XMZ - 3,4,5,6)	Cadastral number of the land plot: 14:16:01:02:04:0157:0001 Cadastral number of the land plot: 14:16:01:02:04:0157:0001 Cadastral number of the land plot: 14:16:01:02:04:0157:0001 Cadastral number of the land plot: 14:16:01:02:04:0157:0001
Land protection zone	Cadastral number of the land plot: 14:16:01:02:04:0157:0001



Figure 4. Zone for protection of cultural heritage site

The author also calculated the cost of developing a project based on the methodology for determining the cost of work on visual analysis of the landscape [7] and the collection of basic prices for work on historical and cultural research and development of projects for protection zones of cultural heritage [7]. The cost of work is determined by entering the minimum wage for certain types of operations, calculated from September 1, 2019 (according to the Decree of the President of the Republic of Uzbekistan dated May 21, 2019 No. PF-5723 from September 1, 2019 to 223,000 soums) [6]. The methodology and data presented in the kit were, in our opinion, supplemented with missing coefficients.

The cost of work at current prices is calculated on the basis of base prices at the following prices [11]:

$$C_{vl(A)} = C_{b(2019)} \times C_{wc} \times C_{des} \times \prod_{i=1}^n K_i$$

Here $C_{vl(A)}$ – the performance value of a single object on visual landscape analysis at current prices;

Central Bank $C_{b(2019)}$ – base price of works at the price level from September 1, 2019;

Base price of works at the price level from September 1, 2019;

C_{wc} – the coefficient of completeness of the work content;

C_{des} – the coefficient of conversion of the base cost of design work to the current price level;

$$\prod_{i=1}^n K_i$$

– a product of corrective factors taking into account complicating (simplifying) factors and design conditions.

Significant shortcomings of the presented methodology and collection, in our opinion, are the need to recalculate the base prices annually, update the information on the work

$$C = C_C \times C_Z \times B_M \times C_{TF} \times I_{NR} \times \left(1 + \frac{C_{HIS}}{100}\right) \times C_{CW} \times C_{PR} \times C_{CT}$$

Here C_C – the new construction value;

C_Z – the coefficient of territorial zone;

B_M – the coefficient of building materials;

C_{TF} – a time factor for the construction of a memorial building;

I_{NR} – an indicator of the quality of non-residential buildings;

C_{HIS} – historical coefficient;

C_{CW} – the coefficient of wear;

C_{PR} – the coefficient of accounting for the work done on the preservation of the object of cultural heritage;

C_{CT} – the coefficient of consideration of the category of cultural heritage object.

Monument buildings are closely related to intangible assets, which always impose certain rights on real property - servitude (see [1,3,5]). It should be understood that the concept of the most efficient use of these facilities differs slightly due to the usefulness of such facilities to society in general. These intangible assets can form price-lowering factors (concessions and liabilities), as well as price-raising (ownership prestige).

In the proposed computational methodology, the cost of conducting large-scale historical and cultural research and development of projects for the protection of cultural heritage sites is calculated at current prices on the basis of the following coefficients [11]:

$$P_{SO} = \sum_{i=1}^n \times (V_{cad.land} + V_{cad.obj.}) \times C_f$$

Here V_{SO} – the performance value for a single object;

$V_{cad.land.}$ – cadastral value of lands given to the object of cultural heritage;

performed, recalculate the base prices for certain types of operations in 2019 prices.

We propose to calculate wages not at base prices, but on the coefficients of the cadastral value of the land and the cultural heritage located in the area.

The cadastral value of a cultural heritage site is calculated by us according to the following formula [11]:

$V_{cad.obj.}$ – cadastral value of the studied cultural heritage object;

C_f – a correction coefficient that takes into account complicating (simplifying) factors and design conditions.

IV. CONCLUSION

The main distinguishing feature of our methodology is the use of coefficients in the calculation of labor costs, rather than in base prices. Coefficients allow us to determine which part of the cadastral value is a particular type of work.

The protection of cultural heritage sites is becoming increasingly important. The creation of zones for the protection of cultural heritage sites can make a significant contribution to the identification, restoration, conservation and use of historical and cultural monuments, the involvement of cultural heritage sites in economic and tourism activities.

In the absence of such facilities, the cultural ties of generations are disrupted, the educational value of the country's cultural heritage and individual settlements is reduced. Consideration of cultural heritage sites helps to increase the historical significance of the territories, the cadastral and market value of neighboring areas and the object, and expands the scope of cadastral action.

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