

Evaluating Landscape Design Projects of Archaeological Heritage: The Case Study of Turkey

Aysun TUNA^{1*}, Parisa GOKER²

¹Inonu University, Faculty of Fine Art and Design, Department of Landscape Architecture, Malatya, Turkey

²Bilecik Seyh Edebali University, Faculty of Fine Art and Design, Interior Architecture and Environmental Design, Bilecik, Turkey

Received: June 7, 2017

Accepted: October 20, 2017

ABSTRACT

Archeological sites carrying the marks of human are the sources of information of the past having rich historical and cultural data. Protection of the archeological sites is essential for protection of city culture and sustainable urban developments. In this sense, landscaping design projects are being realized for increasing perceptibility of the archeological heritage by the visitors via protecting it, and improvement of the physical environment quality as the cultural destination points, in order to make unique historical cities important at international level sustainable. In this paper, the general principles and targets of the construction process for solving the issues arising from the existing use and circulation for protection of the archeological heritage effectively by the landscaping projects put in application in Turkey, the contents and form of the projects, and the methods and studies to be followed in the works to be performed are defined in detail.

Within the scope of the study, Archeological Heritage Areas Landscape Design Projects aiming to improve of spatial quality of the archeological protection sites in Turkey increase the tourism potential of the archeological landscape in local and regional scales by increasing perceptibility of the archeological sites were studied. By the interviews held with the project coordinators and assessment of the project result reports, the SWOT analysis was made to determine the contributions of the archeological site landscape design projects, whose implementations are completed, in the scope of the archeological heritage protection and improvement, presentation and exhibition and their negative aspects to be generated. The contributions of the project examples completed as coordinated by the Ministry of Culture and Tourism as the responsible institution for archeological sites in Turkey, to the readability of the urban information as the common value of the society and their effects to the archeological heritage were discussed developing suggestions thereon.

KEY WORDS: Archeological Heritage, Landscape Design Projects, Turkey

INTRODUCTION

Archeological sites have been shaped as memory sites with various activities of people living in different spatial scales. Archeological landscapes as anthropogenic systems form multilayer culture structures by taking their shape with the restrictions and potentials of atmospheric factors and they convey information about the land use of the past living forms and reflect the change of the current landscape characters and identity. Today, archeological landscapes, which have the marks of the civilizations and cultures and are the information sources of the region they are located in, are faced with the physical wearing problem and the possibility to lose their functions with the threat of structuring within the urban area. These reasons lead to the placement of archeological landscapes in the focal point of historical environmental renovation studies which consist of various actions and strategies including the preservation, improvement, revival and cultivation. The main purpose of the historical civic centers that contain archeological wealth is to put efforts to transform these sites to quality sites appropriate to the changing living conditions and to reflect the cultural backgrounds generated by human communities in different periods and to add character to the region, and to convey them to the future generations. The protection of archeological landscapes, which hosted many cultures during the historical process and have survived until today, emerges as a more extensive process in comparison to the renovation of other urban areas and it raises the necessity to implement various renovation strategies in conjunction. In this context, this study scrutinized the Archeological Site Landscape Design Projects, which are coordinated by the Ministry of Culture and Tourism aiming to improve the spatial quality and perceptibility of the archeological sites in Turkey in the scope of the national and international legislations.

The Legislative and Administrative Framework in the World and Turkey in the Archeological Site Landscape Designs: The presentation and reinterpretation of archeological landscapes, which are confined within the “archeological site” concept, are defined in the codes of the ICOMOS (International Council on Monuments and Sites) as “the disclosure of the multiple meanings, values and significance of cultural heritage”

(ICOMOS, 2005). Shalaginova (2008) clarified the cultural heritage administration and presentation activities as a “communication process” to improve public awareness for attaining public support and the presentation function of cultural heritage. There are principles defined in the national and international levels concerned with the protection and presentation of archeological landscapes. The international principles concerned with the preservation applications in archeological sites have been discussed and improved in the international level during the past 60 years. In this field, there are the codes of the “European Convention on Culture” signed on December 19, 1954, the UNESCO’s 1956 “the recommendation for the international principles to be implemented in archeological excavations”, “Venice Chart” (1964), the European Council’s the “European Covenant for the preservation of archeological heritages” signed first in London in 1969 and its modified form signed in Valetta in 1992, the UNESCO’s “the recommendations for the protection of historical sites and their contemporary roles” decided in Nairobi in 1976, the ICOMOS’s the “Management of Archeological Heritages” (1990, Lausanne), and the “Protection and Management of Underwater Cultural Heritages” (1996, Sofia). The archeological sites of universal value included in the World Heritage List are protected as per the codes of the UNESCO’s “Covenant of World Heritage” in 1972.

The Ministry of Culture and Tourism is authorized to protect the immovable cultural and natural entities pursuant to 2863 Code on the Protection of Cultural and Natural Entities in Turkish legislation. For the studies to be conducted in the scope of the protection and exhibition in archeological sites, the “regulation on the principles and procedures to be followed in the renovation, restoration and conservation projects and implementations to be executed in archeological excavations and excavation fields” has been announced. In the said regulation, the methods for the protection of the excavation findings against natural and human factors are discussed and the protection technique details are provided. In Article 21 of the regulation, the statement is used as “the materials and features (adobe, mosaic, flooring, ceramics covered walls, fresco, etc.) which are inconvenient to be exposed shall be contained in covered protective systems by not creating unfavorable effects in the site and by avoiding mighty architectural solutions having a monumental characteristic on their own”, and information on the protection technique have been presented. In Article 31 of the Regulation, archeological sites are mentioned as “ruins” (Ören yeri) and the applications that are to be executed for bringing out the archeological potentials and tourism potentials of ruins are discussed. In this context, the general technical specification on the landscaping project for ruins has been issued. It has been stated that the landscaping projects encompassing structural units (gates, ticket offices, service and service sale units, parking lots, etc.) can be carried out by referring to the scientific opinion of the excavation committee, if any, with the special permit of the authorized Protection Region Council (KTVKK, 2005)

General Technical Specification of the Archaeological Landscape Design Project defines the principles to be implemented in the landscape design projects that are to be prepared to open the archaeological sites for visits under supervision as to protect their archaeological potential, to solve problems originating from their current use and circulation and to fulfill the needs of the area by using the gears required by modern, technological developments. Projects consist of designation of the aims, principles, approaches and technics and appointing the management models concerned with any type of physical-spatial organizations for implementation based on the features of the archaeological site. It is essential that these projects (for protection purpose or others) are prepared based on the implementation plans. The project preparatory process included in General Technical Specification of the archaeological site landscape design project is shown in Table 1.

MATERIALS AND METHOD

In this research, landscape design for archaeological site in the scope of presentation of archaeological sites in Turkey was assessed. In this context, the process and design principles were scrutinized to be followed up in landscape design projects to be conducted in the archaeological sites in the scope of the international conventions where Turkey is a contracting part and national regulations. The main materials of the study consisted of Adiyaman Perre Antique City, Ankara Gordion Archaeological Site and Şanlıurfa Göbeklitepe Archaeological Site landscape design projects. The sample areas investigated in the study scope are selected because of their high annual visitor numbers since they are located in the regions of Turkey with different climatic features and are included in the UNESCO’s World Heritage List. The general information and visual materials concerned with the projects were acquired from the Ministry of Culture and Tourism of Turkey and the unit of the General Directorate of Cultural Heritage and Museums. A SWOT analysis was made on the landscape design projects investigated in the scope of the interviews held with the project coordinators and the collected data, and recommendations were made for the current situations of the archeological landscapes in Turkey.

Table1. The Preparatory Process of the Archaeological Site Landscape Design Project as per General Technical Specification published by the Ministry of Culture and Tourism of Turkey (the table has been generated based on the information included in the official website of the Ministry of Culture and Tourism.)

The Preparatory Process of the Archaeological Site Landscape Design Project in Turkey					
Site Analysis	Preliminary Project	Final Project	Application Project	Details	Infrastructure Projects
-Upper scale plan/project assessment	-Accessibility (Upper scale access-circulation) solution	-Final solutions of the approved preliminary project	Designation of the rises and measurements according to the approved final project and scale	References, system and point details concerned with the structural and vegetative materials included in the application project and detailed drawings in a scale of 1/20, 1/10, 1/5 and 1/1	Preparation of the infrastructure and installation projects including road, water, electric, gas, machinery waste water, drainage, retaining wall, telecommunication, potable-use-irrigation water, fire, rain water, etc. Preparation of explanatory schemes, drawings and reports on canal excavation depth, pipe-cable diameter, route slope, connection places, etc.
- Designation of natural resource values (climate, soil state, geology, hydrology, flora, fauna)	-Pedestrian way circulation within the archaeological site	- Access-circulation, designs concerned with open spaces (planting project, hard floor material details)	Appropriate architectural and engineering details Performing quantity takeoffs of structural and vegetative materials (plant type-height-number, hard floor covering type, amount)		
-Socio-cultural analysis (economy, property, population, etc.)	- Designation of open-closed spaces (Reception center-service units, parking lots, etc.)	-Designing the urban gear elements (illumination elements, direction and informing plates, urban furniture, etc.)			
-Definition of trends and demands	Recommendations regarding the infrastructure	Prepared in a scale of 1/500, 1/200 and/or 1/100			
- Determination of the site’s potentials (SWOT Analysis)	Prepared in a scale of 1/5000, 1/1000, 1/500 and/or 1/200		Prepared in a scale of 1/100, 1/200 or 1/50		
-Opinions of the Excavation Director					
-Establishing the necessity program					
Tender File Preparation					
<div>- Performing quantity takeoff to be the base of approximate cost estimation</div> <div>- Preparation of the site list to be the base of approximate cost estimation</div> <div>- Issuing the special technical specification draft to be the base of the application</div>					
Work Delivery					

RESULTS AND DISCUSSION

Turkey has hosted many civilizations during the historical process owing to its geopolitical position and rich resources. Therefore, there are numerous archaeological sites left by many different civilizations in the city. The landscape design projects: Adıyaman Perre Antique City, Ankara Gordion Archaeological Site, Şanlıurfa Göbeklitepe Archaeological Site were scrutinized, aiming to improve the spatial quality of the archaeological sites in Turkey and to improve the tourism potential of archaeological landscape in the local and regional scale by improving the archaeological site perceptibility and as coordinated by the Ministry of Culture and Tourism and as their application completed.

Adıyaman Perre Antique City Landscape Design Project: Perre Antique City, one of the five large cities of Kommagene Kingdom during 1st century BC, is located at 5 km. north of Adıyaman (It is located in southeastern Anatolia region of Turkey). There were 208 rock-cut tombs in the area which was used as a Necropolis during the early Roman Period. There were partial fortification walls standing up today, a Roman fountain still in use today and rock-cut tombs left from the city which maintained its significance during the antique period and Roman period (Adıyaman Provincial Directorate of Culture and Tourism). Since there were no tour routes for the visitors visiting Adıyaman Perre Antique City and the disabled visitors could not tour the site easily and there were inadequate units to answer to their rest and general needs, a necessity emerged for the preparation of a

landscape design project and a tender was lodged and prepared for the project execution work and was approved by the authorized protection region board. The tender for the application work was lodged by Adıyaman Special Provincial Administration based on the prepared projects. With the completion of the visitor reception center in the project scope, it was aimed that a box office, café and terrace, restrooms, security-custodian and cine-vision rooms will be put into service and a security system will be established with cameras, city furniture, walking trails with timber travers flooring, observation and resting terraces, sitting benches, garbage cans, information and direction boards etc. and the visiting comfort will be improved (Fig.1-3).



Figure1. The walking trail with its application completed in the project scope (travers bordered, cut concrete plate stones)

Figure 2. The shading components positioned along the antique city visitor center route

Figure 3. The parking lot and vehicle road built for visitors in the area remaining out of the Archaeological Site (interlocking paving concrete plate stones were used) (Archive of Ministry of Culture and Tourism of Turkey)

Ankara Gordion Archaeological Site Landscape Design Project: Gordion is one of the most important archaeological sites of the antique world and it is known to be the capital of Phrygia during the first 1000 years BC and to be the throne center of the most renowned Phrygia King Midas who ruled towards the end of the 8th century BC (Middle Phrygia period) (Museum of Anatolian Civilization). Gordion had a great significance in the east-west direction since it was situated on a busy trading road starting at Ephesus by the Aegean shores and passing through Phrygia land and extending till Mesopotamia. It had maintained its importance militarily and commercially owing to its position on this strategic route (Umar, 1982). Pieces with a width of more than 6m of a crucial antique road were uncovered as a result of uninterrupted excavations that started in 1950s. The best protected part of this road situated at the southeast near Mida Tumulus between two stone curbs as its surface covered with gravelly sand.

Excavations started at the beginning of 1950s and continued uninterruptedly until today in Gordion situated in Yassıhöyük Village, Polatlı County, Ankara City and served as the capital of Lydia. More than ten thousands of cultural properties from this place, where life continued uninterruptedly since the Old Bronze Age till the end of Roman Period, have been exhibited as a result of the excavations (URL 1). The Ministry of Culture and Tourism prepared the landscape design project including the visitor reception center as well due to the inadequacy of the units to answer the rest and general needs of the visitors and since the visitors could not tour the area comfortably in Gordion Archaeological Site and it was approved by the authorized region board. In this context, the application studies of the work “*Gordion Museum Restoration, Exhibition Organization and the Archaeological Site Landscape Design*” started on 28.11.2013. In the scope of the said work, there are a visitor reception area and parking lot, security system and unit, walking trails and environmental gear elements; and providing effective visit means has been aimed in the applied project (Fig 4-6).



Figure 4-5. The reception center erected in the scope of Gordion Archaeological Site Landscape Design Project

Figure 6. King Midas Tumulus entry road (granite block stones were used) and the renovated retaining wall at the entry direction (Archive of Ministry of Culture and Tourism of Turkey)

Şanlıurfa Göbeklitepe Archaeological Site Landscape Design Project: Göbeklitepe Archaeological Site situated at 18km northeast of Şanlıurfa City (It is located in southeastern Anatolia region of Turkey) center near Örencik Village hosts the oldest known temple in the world and has been included in UNESCO Tentative World Heritage List since 2011 owing to this property. It was understood that the area was a cultural center dated back to 12000 years ago as a result of the excavations made by Prof. Klaus Schmidt since 1995 (General Directorate of Cultural Assets and Museums).

General Directorate of Cultural Assets and Museums has prepared a 3-stage landscape design project at Göbeklitepe Archaeological site which has become one of the important areas in Şanlıurfa owing to all these features and the site was delivered on 16.01.2014 and the said project started to be applied. New arrangements have been made at the visitor reception center in the scope of the project. Two more areas have been defined on the road leading to the excavation area namely the first reception square and the entry square. Moreover, shading elements were used for the visitors in this area including a box office, toll gates and a security unit. The visitors entering the archaeological site through here will be transported to the entry square situated at the upper level by ring vehicles waiting at the parking lot and they will visit the area.

There is a camera monitoring room and a small sale kiosk for the visitors at the entry square situated at the upper level in the project. Travers was used on the tour roads situated around the visiting area (Fig 7-9).



Figure 7. The hiking trail and the shading elements situated on the archaeological site entry route

Figure 8. The visitor reception center situated within the archaeological site

Figure 9. The hiking trail situated within the archaeological excavation area (Archive of Ministry of Culture and Tourism of Turkey)

Antalya Perge Archaeological Site Landscape Design Project: Perge was one of the largest cities of Pmphyliya, which was an important antique settlement area in southwest Anatolia, and it situated near Murtuna Village at 18km east of Antalya between Düden and Aksu Creeks and 2 km. away from Antalya-Alanya Highway. Today, Perge archaeological site has a typical Roman city appearance due to its spatial organization and structuring character (Erdogan, 2006). It has the fundamental features of the settlement areas of the 2nd and 3rd centuries AD with its provincial texture and monumental structures. The city is divided into four main sections by two large colonnaded avenues at the north-south and east-west directions. The antique city consists of the city ramparts surrounding the city, an acropolis at the north, temples at the south, a theater situated on the brow at the southeast, an agora surrounded by colonnaded roads, a stadium between the city ramparts and theater, bathhouses at the north and south and Nymphaeum (an antique fountain) section and structures at the western square. The other important monuments in Perge are palestra, northern bathhouse and two basilica structures situated at the northwest of the city. There is a necropolis out of the eastern and western doors (Erdogan, 2006).

New reception units have been established consisting of units for the visitors' needs by changing the current entry place in the scope of the landscaping studies in Perge archaeological site included in UNESCO's Tentative World Heritage List (Fig 10-12).



Figure 10. The entry square and parking lot built outside of the archaeological site limits

Figure 11. The archaeological site pedestrian entry road (basalt-marble cut stones were used.)

Figure 12. The detail of the shading positioned on the entry road (Archive of Ministry of Culture and Tourism of Turkey)

Considering the examples of the reviewed archaeological site landscape design projects, whose applications have been completed, it was seen that the use of structured analyses and provincial gear elements were prioritized including the immediate vicinity-area-interior area circulation system and the reception and service units in the scope of the spatial organization in the completed designs. By the interviews held with the project coordinators and assessment of the project result reports, the SWOT analysis was made to determine the contributions of the archeological site landscaping projects, whose implementations are completed, in the scope of the archeological heritage protection and improvement, presentation and exhibition and their negative aspects generated/to be generated (Table 2).

Table 2. SWOT Analysis of Landscape Design Projects for Archaeological Sites in Turkey (Ören Yeri)

Strengths	Weaknesses
Accessibility-availability, improvement	The structural components' inability to comply with the regional climatic conditions
An opportunity for convenient visits with urban furniture	The lack of plant landscaping projects
Development of exhibition-presentation means for urban information accumulation	The use of species not complying with the regional climatic conditions
Improvement of urban prestige area potential in terms of silhouette-view	Unsupervised irrigation-maintenance studies
Improvement of cultural tourism potential with the accessibility-informing functions	The failure to meet open-green area needs
Providing an opportunity for controlled vehicle and pedestrian visits	The risk of the deterioration of the silhouette-view, visual-aesthetic values of archeological sites due to the used structural components
Opportunities	Threats
A recreational potential for fulfilling daily, weekend relaxation and site-seeing needs	The possibility of archeological ruin damages by structural components
Inclusion of structural components to provide in situ exhibition-presentation of archeological heritage	The case of lowering the perceptibility of archeological entities with the color, scale and form of the used structural components
Structural solutions protecting archeological heritages against natural environmental conditions	

CONCLUSION

Some recommendations were made for improving the influence areas of the implemented projects selected in the study scope and attaining sustainability for the protection of archeological heritage.

Considering the examples analyzed in the research scope, the structured analyses are remarkable for fulfilling the visitors' needs and improving the legibility of the archaeological sites. However, it is seen that vegetative design resolutions completing the landscape designs are incomplete. The vegetative texture is crucial for the understanding of the relationship of the past cultures established with the natural environment. Establishing the ecological balance as well as the indigenous plant species and their symbolic meanings is significant for correlating the present and future. On the other hand, whereas the plant selection varies based on the geographical and climatic data in landscape design projects, there are some constrictions in the use of plants in archaeological sites. In general, archaeological sites are barren and dry areas suffering from water inadequacy and lack of maintenance especially during summer months. Hence, landscape design projects to be prepared by using natural plants in these areas have gained significance. In the vegetative designs to be made in archaeological sites in the scope of the reviewed examples in this context; attempting to form a background effect as not to compete with the archaeological ruins, emphasizing the ruins and assisting visitors for routing, establishing a connection point between the walking trails and ruins, establishing inspection points, establishing natural drainages should be aimed (Tuna, 2015).

Furthermore, the use of ornamental plants should be avoided by considering that they may spoil the cultural identity of the area. Vegetation, structural elements and gear elements must be plain and should not compete with the monuments. Unique, unmatched features of each archaeological site should be preserved and the use of conflicting elements should be balanced. The scale, form, color and texture variations and new interventions/designs should be able to be distinguished from their originals. The archaeological sites should be integrated with the environmental landscape features.

An "archeological site protection-improvement plan" should be prepared under the management of an expert team with extensive participation for sustainable protection of archeological heritage existence defining the implementation decisions on the spatial and functional use forms that are to be suggested in the archeological site. An "archeological site protection-improvement plan" should be prepared under the management of an expert team with extensive participation for sustainable protection of archeological heritage existence defining the implementation decisions on the spatial and functional use forms that are to be suggested in the archeological site. An "archeological site management plan" should be prepared defining the legislative framework concerned with the institutional and administrative sustainability of archeological heritages both for today and for the

future, and an “archeological site management unit” should be established with the property of the archeological site supervision-administration mechanism.

REFERENCES

- Adıyaman Provincial Directorate of Culture and Tourism, <http://www.adiyamankulturturizm.gov.tr/TR,61374/antik-kent-kaya-mezarlari-ve-magaralar.html>, Access date:10.03.2017
- Erdogan, E. (2006), Perge Archaeological Site Landscaping Properties and Preservation Problems, Bartın Forestry Faculty Journal, 8/10, pp: 36-47.
- General Directorate of Cultural Assets and Museums <http://www.kulturvarliklari.gov.tr/TR,103662/gobeklitepe-oren-yerinde-cevre-duzenleme-calismalari-hi-.html>, Access date: 10.03.2017
- ICOMOS, 2005. http://www.icomos-.org.tr/Dosyalar/ICOMOSTR_08448_61001353670083.pdf Access Date: 23.03.2017
- KTVKK. 2005. Arkeolojik Kazılarda ve Kazı Alanlarında Yapılacak Düzenleme, Restorasyon ve Konservasyon Proje ve Uygulamalarında Uyulacak Usul ve Esaslara İlişkin Yönerge. <http://teftis.kulturturizm.gov.tr/TR,14728/arkeolojik-kazi-lardave-kazialan-larinda-yapilacak-duze-.html>. Access Date: 19.10.2016
- Museum of Anatolian Civilization, <http://www.anadolumedeniyetlerimuzesi.gov.tr/TR,77791/gordion-muzesi.html>, Access date: 08.03.2017
- The Ministry of Culture and Tourism, 2008, (Resolution 745) the resolution on the permit issued by the Ministry for the use of archaeological sites and archaeological real culture properties situated in archaeological sites by legal entities in the scope of Codes 5225 and 5228. <http://teftis.kulturturizm.gov.tr/TR,14362/745-nolu-ilke-karari--oren-yerleri-ve-oren-yerlerinde-b-.html> Access date: 10.03.2017
- Shalaginova, I. 2008. Ethical Principles of Heritage Presentation for World Heritage Sites. In Finding the spirit of place – between the tangible and the intangible: 16th ICOMOS General Assembly and International Symposium. http://www.international.icomos.org/quebec2008/cd/toindex/77_pdf/77-M4nS-252.pdf Access Date: 21.03.2016
- Umar, B. 1982. Phirgia. Ak Yayınları Kültür Serisi 6, Istanbul, Turkey
- URL 1. Penn Museum University of Pennsylvania “Digital Gordion”, <http://sites.museum.upenn.edu/gordion> Access date:10.03.2017
- Tuna, A. 2015. Landscape Design on Archaeological Site, 1st Ankara University Landscape Architecture Conferences, Ankara, Turkey