



The Interlinking of Nature and Culture in Göreme National Park

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■ Abstract

Located on volcanic topography, in the center of Anatolia, Cappadocia has been a World Cultural and Natural Heritage Site since 1985. The region has also been designated by national authorities as a National Park, Protected Archeological Site, Protected Natural Site, Protected Urban Site, and a Tourism Conservation and Development Area. The volcanic structure and the geological formations of the land constitute the main natural assets of the region. The human-made physical environment, which is generated by carving out the tuff masses and tuff ground, form the cultural assets. Thus, nature and culture have an extraordinary relationship in Cappadocia.

This paper aims to examine the relationship between nature and culture in Cappadocia, with a focus on the agricultural landscape as a significant component of the overall heritage value. It proposes to consider the agricultural landscape as a link between the cultural and natural assets.

KEY WORDS: national park, Göreme, nature, culture, cultural landscape, agricultural landscape

■ 1. Introduction

1.1 Overview of the heritage site

Cappadocia is located in Central Anatolia, Turkey and comprises of the administrative districts of five provinces: Nevşehir, Aksaray, Kırşehir, Niğde, and Kayseri, which have common geological features. Nevşehir province is the core area of the region and contains the settlements that are referred to in this paper (Figure 1).

Cappadocia has a rich historical background and it is known that the region has been settled since the early ages of human occupation; however, the observable heritage mostly dates back to the Middle Byzantium

period (Rodley 1985). Hittites, Persians, Romans, Seljuks, and Ottomans have inhabited this part of Anatolia¹. Cave dwellings, churches, and monasteries, as well as underground settlements, reveal how this region has been settled over the course of time. Furthermore, it is believed that the region was an important center for religious and secular life during the Middle Byzantine period (Kalas 2004). Today, several rock-cut churches, decorated with rich frescos, constitute part of the significant cultural and historic value of the area.

The distinct topographic and geological structures of the region have been generated by the volcanic eruptions of the nearby mountains, Hasan and Mount Erciyes. The entire area is covered with layers of tuff,

¹ For more information about the history of Cappadocia, see: Rodley, L. 1985. Cave Monasteries of Byzantine. Cambridge: Cambridge University Press; Giovannini, L. (Ed.). 1971. Arts of Cappadocia. London: Barrie and Jenkins; Kalas, V. 2004. Early explorations of Cappadocia and the monastic myth. Byzantine and Modern Greek Studies, V.28 (1):101-119



Figure 1. Ortahisar Castle and the settlement pattern (Solmaz Şakar, 2010)

which have been eroded by the effects of climatic factors, such as rain, wind, and flooding (Topal and Doyuran 1998). This process has formed the unique geological formations that can be seen today, called fairy chimneys.

In this region, since the early period of Christianity, the inhabitants have used this geological structure to create spectacular structures. The tuff layers were carved out to form caves, which were used as living spaces for both people and their animals. Later, over the carved out spaces, masonry buildings were constructed with local stones from the quarries in the vicinity. Together, these masonry structures and carved spaces formed the residential architecture. In this way, an outstanding architectural pattern was generated in which the built environments and the natural environments are interlocked (Solmaz 2013) (Figure 2).



Figure 2. Plan layout of the ground floor of a rock carved house (Erençin, 1976)

In the 1980s, the geology of the area became

more widely known and the site began to attract great attention due to its unique natural heritage and historic/cultural heritage that dates back to early ages. Thus, Cappadocia was declared as a World Cultural and Natural Heritage Site in 1985.

1.2 Brief description of the agricultural landscape

Agricultural landscapes should be considered of significant value within the Cappadocia World Heritage site since agriculture is an activity that has shaped the local people's way of life and the space in which they lead their daily lives. Traditional living habits, such as agricultural production and consumption activities, have shaped the vernacular architecture. In this region, some spaces, such as storage spaces and cellars, occupying the ground floor of a traditional building were created according to the crop types and related to agricultural production. Courtyards were also designed by taking agricultural practices and livestock breeding into consideration (Figure 3).

Viniculture is the most significant agricultural practice, which strongly supports the heritage values of the region. Every year in September, grapes are harvested and used for producing wine, vinegar, and *pekmez* (molasses-like syrup made from boiling grapes). Special places for wine making located in the ancient monasteries show that viniculture has been in progress in Cappadocia since early times. In addition to the tuff formations, vineyards are an essential component of Cappadocia's cultural landscape. It is possible to see the impressions of viniculture, not only in the natural landscape



Figure 3. Şıralık from the Ortahisar settlement (Solmaz, 2012)

but also in the built environment. Today, some special architectural elements and/or spaces for wine and *pekmez* production still exist in traditional houses in Ortahisar, Ürgüp, and Uçhisar towns and the small villages of Cappadocia (Solmaz 2013). These architectural elements, created from carving the rock or built from masonry, include *şıralık*, built in kitchens, aiwans, and storage rooms in traditional houses (Figure 3). To make *pekmez*, the grapes are squeezed using the stone or rock carved *şıralık*. The fermented grape juice is moved to another space, with a hole or a pot, to rest after squeezing. The mixture is boiled after the grape juice is blended with marl, a calcium carbonate or lime-rich mud or mudstone, which contains variable amounts of clays and silt (Solmaz 2013). These architectural elements, built in traditional houses, are examples of how agricultural activities and production affects the formation of residential architecture. Thus, agricultural landscapes are strongly related with the vernacular architecture and these two elements should be considered as significant in supporting the value of each other.

Storehouses, a characteristic of this region, must be considered along with agricultural activities. These underground spaces are built by carving out the tuff layers and adding a ventilation pipe, which allows for the optimum humidity level to be achieved to



Figure 4. The agricultural landscape behind the settlement in Ortahisar (Solmaz Şakar, 2016)

2 According to Christian Norberg-Schulz (New York: Rizzoli, 1980, pp:5): "... Since ancient times the genius loci, or "spirit of place", has been recognized as the concrete reality man has to face and come to terms with in his daily life. Architecture means to visualize the genius loci, and the task of architect is to create meaningful places, whereby he helps man to dwell."



maintain the freshness of the produce, mostly potatoes and lemons. (Ministry of Food, Agriculture and Animal Breeding- MFAAB 2015). In the Cappadocia region, 65% of the land can be used for cultivation. There are several types of crops in the region; the important ones, according to production rates, are wheat, potato, sugar beet, grape, pulse, and pumpkin seeds. In Turkey, 30.6% of the pumpkin seeds, 13% of the grapes for wine, 6.4% of the grapes for other products, and 5.3% of the potatoes are produced in Cappadocia (MFAAB 2015).

Extensive vineyards surround Göreme Open Air Museum, which is an important part of the National Park. The vineyards are irreplaceable elements of the landscape and the museum's "spirit of place" would disappear without these vineyards. Thus, it is crucial to encourage the local people to continue this type of agriculture in the rural areas of Cappadocia.

Although it is not the main source of income nowadays, agricultural activities are still widely undertaken using traditional techniques (Figure 5). They are regulated by the government in the protected sites, such as the National Park, the World Heritage site, and other nationally listed areas. Sustaining the existing types of crops and agricultural techniques in these protected sites is encouraged by the governmental organizations since they represent the values of these rural



Figure 5. Vineyards surrounding the Göreme Open Air Museum (Solmaz Şakar, 2016)



Figure 6. Vineyards in the National Park (Solmaz Şakar, 2016)

areas (Figures 4 to 6). The growth of new plant species is prohibited in these protected sites. In relation to the agricultural activities of the region, there are 61 cooperatives, with 3,950 members, and 5 associations, with 4,942 members (MFAAB 2015). Agricultural activities are the visible traces of the relationship between the people and the landscape. It is important to keep this relationship alive.

■ 2. Significance of the heritage place, including natural and cultural values

In the beginning of 20th century, Cappadocia was a theme in engravings and drawings by early travelers (Kalas 2000). By the end of the 1960s, the region began to become a popular destination for tourists and, in the 1970s, it received increasing attention.

The conservation activities also arose during the same period. One of the first long-term development plans for Turkey was prepared for Cappadocia in 1967. Unfortunately, it was not implemented due to the National Park Law at the time, which covered only the forested areas, not the geological areas, like Cappadocia. In 1986, a new National Park Law changed this situation. Protected sites were defined by the High Council of Immovable Monuments and Antiquities, in 1976, and they instigated classification according to the type of asset, such as archaeological site, natural site, and urban site. The first two classifications are graded as degree I, II or III according to the perceived importance and features of the site (Figure 7). In 1985, UNESCO declared a large part of Cappadocia as a World Mixed Natural and Cultural Heritage Site (the formal name is: Göreme National Park and the Rock Sites

of Cappadocia). It was one of the first sites on the World Heritage List from Turkey. The site complies with the requirements of the criteria (i) as representing a masterpiece of post-iconoclastic Byzantine art period, criteria (iii) as having the remnants of Byzantine, Seljuk, and Ottoman civilizations, criteria (v) as being an outstanding example of traditional human settlement, and criteria (vii) as having exceptional natural beauty and an aesthetic importance (UNESCO 2016). In 1986, the Ministry of Forestry declared the area to be a National Park, and in 1989, the land was designated as a Tourism Development Area by the Ministry of Tourism. Thus, it can be seen that several governmental organizations are responsible for the Cappadocia region, which has both natural and cultural values.

The natural assets are the focal point in the significance of the region. Not only the tuff formations and fairy chimneys but also the agricultural areas surrounding the settlements strengthen the value of the landscape. There are both large agricultural areas around the traditional settlements and some smaller areas adjacent to traditional buildings in the settlements. In the center of the World Heritage site, Göreme National Park contains significant relics of the earlier monastic life in Cappadocia and is encircled by vineyards and orchards. Thereby, this spectacular cultural landscape within the National Park is generated not only by the relics but also by the surrounding agricultural landscape, underscoring that the heritage values of the site are of both cultural and natural worth.

3. Current management arrangements (Legislations, institutions, resources)

The Cappadocia World Heritage site does not currently have a comprehensive management plan yet. It is a challenging situation due to the fact that it covers a wide area of land, there are different types of protected sites involved, five provincial boundaries, and the number of settlements in the region.

There are two council authorities engaged in managing the cultural and natural heritage. All projects related to cultural heritage in the protected sites are negotiated and finalized by the Regional Conservation Council for Cultural Property; natural heritage is overseen by the Regional Conservation Commission of Natural Property. In addition to these two main boards, local municipalities also have a small office, which is in charge of the implementation of conservation activities. Unfortunately, no non-governmental organization currently has an active role in the conservation activities of the region.

One of the negative impacts of the

current legislation is the lack of communication between the two main councils. Natural properties, which involve the agricultural landscapes, are now considered separately from the cultural properties. As mentioned above, the agricultural landscape is one of the key elements of this cultural landscape and they cannot be detached from the cultural assets. However, separate conservation development plans for each settlement have been drawn up by the governmental organizations and local municipalities. To safeguard and protect this heritage site, Cappadocia needs an integrated and comprehensive plan including all settlements and agricultural areas.

4. Current State of Conservation and Challenges for Continuity

The legal and administrative aspects of the process of preserving the cultural and natural heritage in Cappadocia have changed several times. There used to be only one council; however, the 2011 division into two separate councils, for these two heritage categories, has

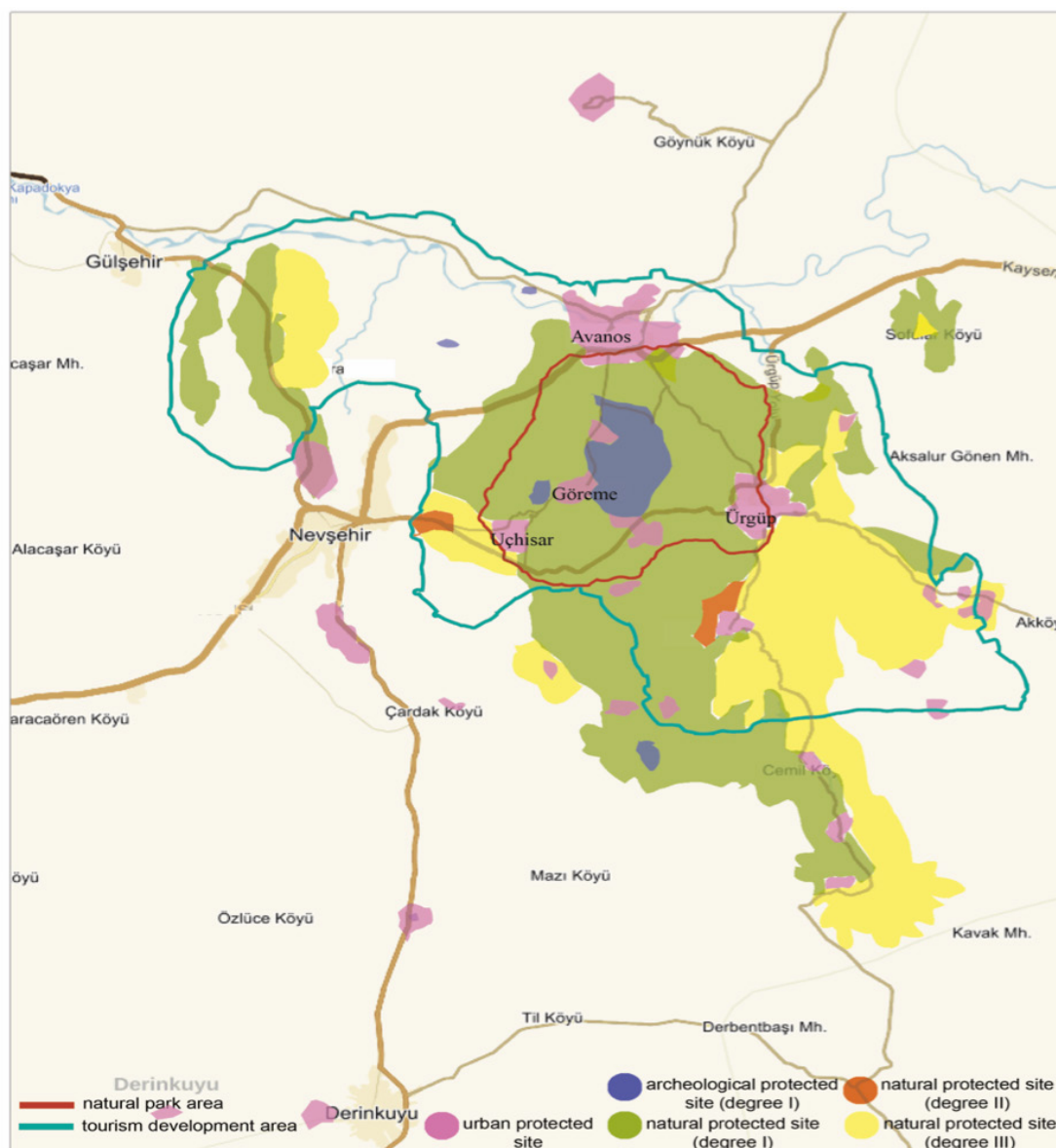


Figure 7. Protected sites in central Cappadocia (Yandex map used as template) (Solmaz Şakar, 2016)

led to many situations and problems since it was not possible to uniformly separate the natural and cultural assets. In Cappadocia, the cultural and natural heritage is interlocked and cannot be managed without one another. This legal modification in 2011 may be suitable for many other heritage sites, but it may cause some conflicts in such a site in which culture is embedded with nature. The complex situation in Cappadocia reveals that an integrated approach needs to be developed for this kind of mixed heritage site.

Tourism is also one of the challenges for the preservation of authenticity in Cappadocia. Due to the increasing number of tourists, a significant number of traditional houses have become tourist facilities and as a result, they have been altered in the process of restoration. Starting in the 1970s, many of the traditional buildings in protected sites were abandoned due to the danger of rock falls. When the region became popular, these dangerous areas were renovated and transformed into tourist facilities; however, these transformations to the settlements had a negative impact on the authenticity of the area. Reports on the state of conservation, submitted to the World Heritage Centre in 2006 and 2014, reveal the past and current challenges of preservation. In the 2006 report, "pressure by new tourism investments, development pressure, natural disasters, and visitor/tourism pressure" were considered as risks and threats to the site (UNESCO 2006). In the 2014 report, impacts on the authenticity of the heritage place are emphasized as "changes in traditional ways of life and knowledge system" and "identity, social cohesion, changes in local population and community" (UNESCO 2014).

■ 5. Recommendations

The Cappadocia World Heritage site is appreciated not only for its natural beauty and unique geologic forms but also for the physical environment, which has resulted from human activities; therefore, a nature-culture approach is crucial for this location. This spectacular cultural landscape area has been created using the advantages of nature and the abilities of the inhabitants over the centuries. However, conservation approaches in the region mostly focus on one side of the heritage value and it is important to adopt a holistic approach in order to preserve the relationship between nature and culture.

First, a conservation council should be founded to manage both the natural and cultural heritage. There needs to be a research project focusing on the agricultural land in need of protection in Cappadocia region. The study should determine the features of the land, types of crops, as well as the relationship with the built environment. It is important to understand how the built environment

and agricultural land affect each other. The traditional agricultural techniques used in Cappadocia should be defined and sustainable development methods of these techniques should be sought.

The agricultural landscape needs to be regarded as a junction between cultural and natural assets. This integrated relationship between culture and nature could be the key to the sustainable conservation for the whole Cappadocia region.

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