



7th Intercontinental Geoinformation Days

igd.mersin.edu.tr



Geopark Potential of Osmaniye Province

Nuri Erdem*¹

¹Osmaniye Korkut Ata University, Faculty of Engineering, Department of Geomatic, Osmaniye, Türkiye

Keywords

Geopark
Geodiversity
Geotourism
Osmaniye

Abstract

Osmaniye province is a city with limited economic opportunities, which was heavily damaged by the earthquakes centered in Kahramanmaraş on February 6, 2023, and where the rural population is predominant. Natural, cultural and geoarchaeological sites with potential for establishing a geopark in the province identifying geosites, protecting them and bringing them into geotourism will make significant economic, social and cultural contributions to the region. The landforms, caves, hot springs, castles and especially the current view of the Lalegölü volcano found in Osmaniye also reflect information about the creation of the world and the change it has undergone. These and similar features increase the potential of a UNESCO-tagged geopark area in the province. Projecting this potential and opening it to geotourism is important for the protection of the geoh heritage in the region.

1. Introduction

Typical localities that explain the evolution of the earth's crust are geological elements with a great visual aspect, beautiful representatives of well-known events or processes, very rare formations, and pieces of "geological heritage" that need to be protected. Türkiye is like a "geological park" with its wide variety of formations. If we can protect the elements of this GeoPark and promote them well, we will have dozens of regions similar to Cappadocia and Pamukkale that attract many visitors (URL_1, URL_2).

Geopark: Geographic areas with defined borders that are of international importance in terms of landforms and geological features, where conservation, education and sustainable development activities are carried out and managed from a holistic perspective. Geoparks, which host many geosites, are conservation areas that aim to protect these geosites and transfer them to future generations; They are also sustainable development areas that aim for the social and cultural development of the local people. In addition to protecting geoh heritage, Geoparks also aim to raise public awareness on issues such as sustainable use of natural resources, reducing the effects of climate change and reducing risks related to natural disasters. Association for the Protection of Geological Heritage (JEMİRKO) proposes the establishment of the following geoparks in Turkey (URL_1): Nemrut Volcano and Lake Van Geopark, Kula

Geopark, Tuz Lake Geopark, Cappadocia Geopark, Karapınar Geopark, Narman Mutluluk Vadisi Geopark, Pamukkale Travertine Geopark, Mut Geopark.

UNESCO Global Geoparks are single, unified geographical areas where areas and landscapes of international geological importance are managed with a holistic concept of conservation, education and sustainable development. The UNESCO Global Geopark uses its geological heritage, in conjunction with all other aspects of the natural and cultural heritage of the region, to raise awareness and understanding of the key issues facing society, such as the sustainable use of our world's resources, mitigation of the effects of climate change, and mitigation of the effects of climate change (URL_3).

UNESCO Global Geoparks empower local communities and give them the opportunity to develop harmonious partnerships with the common goal of promoting important geological processes, features, time periods, historical themes linked to geology or outstanding geological beauty of the region. UNESCO Global Geoparks are established through a bottom-up process involving all relevant local and regional stakeholders and authorities in the region (e.g., landowners, community groups, tourism providers, indigenous people and local organizations). This process requires firm commitment from local communities, a strong local multi-partnership with long-term public and political support, and the development of a comprehensive strategy that will meet the objectives of

* Corresponding Author

(nurierdem@osmaniye.edu.tr) ORCID ID 0000-0002-1850-4616

Cite this study

Erdem, N. (2023). Geopark Potential of Osmaniye Province. Intercontinental Geoinformation Days (IGD), 7, 172-175, Peshawar, Pakistan

all communities while showcasing and preserving the geological heritage of the region (URL_3).

UNESCO started working with geoparks in 2001, and in 2004 the Global Geopark Network (GGN) came together in Paris (Figure 1). In 2015, at the 38th General Conference of UNESCO, it was decided that the status of geoparks changed and became a UNESCO Program with international registration by UNESCO. By adopting the International Geosciences and Geoparks Program (IGGP) Regulation, the concept of UNESCO Global Geopark was formed. There are 177 Geoparks from 46 countries in the UNESCO Global Geopark Network as of 2021 (URL_4).



Figure 1. the European Geoparks Network today.

2. Kula Salihli Geopark

Kula-Salihli UNESCO Global Geopark is located in the middle part of the Gediz Graben and the western part of the Inner Western Anatolian Plateaus. The Geopark covers the entire administrative borders of Kula and Salihli districts of Manisa province. The total area of Kula Salihli Geopark is 2320 km². Kula-Salihli Geopark, located in a region where crustal movements are frequently seen and effective, shows a geologically and tectonically complex and geomorphologically rich structure. The Geopark contains evidence of more than 300 million years of history of the earth, from Paleozoic metamorphic rocks (schist, gneiss) to prehistoric volcanic eruptions, and in this respect, it hosts a very rich geodiversity. Kula Salihli UNESCO Global Geopark is one of the youngest volcanic areas in Turkey. Volcanism, which started in the region approximately 15 million years ago, continued until ancient times. The traces of volcanism in Kula (Katakekaumene) are as fresh as if it happened yesterday. Kula Salihli UNESCO Global Geopark is one of the rare areas in the world where human footprints are found on volcanic tuffs in Salihli. Geological and geomorphological features in the region have led to the development of intensive agriculture, trade and culture since the earliest times of history. For this reason, the geopark area has hosted many civilizations. Sardes, the capital of the Lydian state, where money was first printed and used under state guarantee It is located within the borders of the geopark. The Geopark is Turkey's most important area in terms of geotourism due to its geological, cultural and archaeological richness (Figure 2). Kula-Salihli UNESCO Global Geopark is the first and only UNESCO-labeled

geopark of Turkey and the Turkish World. Some photos from <https://kulasalihligeopark.com/> (URL_5).



Figure 2. Kula-Salihli UNESCO Global Geopark (URL_5).

3. Features of Osmaniye Province as A Geopark

Osmaniye, located in Upper Çukurova, on the east bank of the Ceyhan River, with its wide hinterland; It is a wetland area due to the Ceyhan River, Hamis , Karaçay, Kesiksuyu and Sabun Streams, and is in a busy area because it is at the junction of the roads connecting Çukurova to the east. It is a charming province with its rich agricultural lands and large forests unique to Çukurova. Osmaniye; Karatepe is an important tourism center with its Aslantaş Open Air Museum and ancient cities. Osmaniye, located in the east of the Mediterranean Region and Çukurova; It is located between 35° 52'- 36° 42' Eastern Meridians (longitudes) and 36° 57'- 37° 45' Northern Parallels (latitudes) (Figure 3). It has Gaziantep in the east, Hatay in the south, Adana in the west and Kahramanmaraş in the north. Its surface area is 3,279.9 km² and it is 121 m above sea level. height and 20 km from the Mediterranean. distance (URL_6).

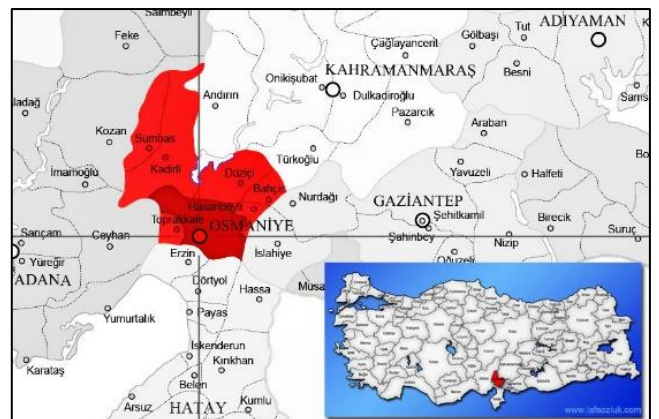


Figure 3. Location of Osmaniye province

Geologically, Osmaniye province is located on the western foothills of the Amanos Mountain (Nur Mountain) range and on alluvial units with poor engineering properties, where large agricultural areas known as Çukurova are located (URL_7; Özgül, 1976).

This region is located in a geography where faults are abundant (Figure 4).

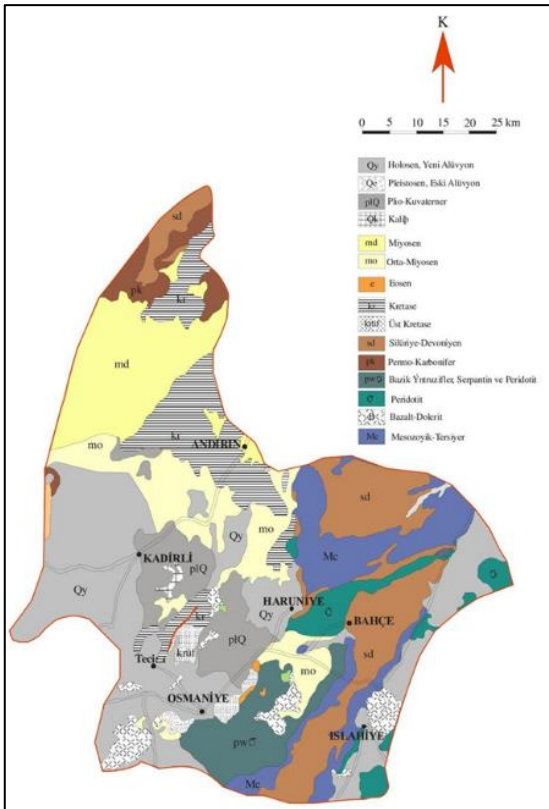


Figure 4. Geological map of Osmaniye province (URL_7).

The main data sources of this research, which deals with landforms that have the potential to become geosites in Osmaniye, are primarily field studies, secondary data collected from various institutions and individuals, and satellite images.

3.1. Lalegölü Volcano

It is thought that if the Lale Lake volcano becomes active again, there will be a significant climate change in Çukurova, and the cities of Osmaniye, Ceyhan and Erzin will probably be affected by this (Figure 5). The current image of the Lale Lake volcano also reflects information about the creation of the world and the change it has undergone. Those who enter the highway from Adana and go towards Ceyhan and Osmaniye can see the pitch-black mountain peak when they approach the Adana-Osmaniye border. When they look a little more carefully, they notice the presence of an area of black stones on the shore of the highway. In popular parlance, this is the "Leçelik" area. In today's parlance, it also means "Volcanic land" (URL_8).



Figure 5. Lalegölü Volcano and Crater Photos (URL_8).

3.2. Toprakkale

Toprakkale Castle is within the borders of Toprakkale district and is at the intersection of Osmaniye, Adana and Iskenderun roads. The history of the castle dates back to 2000 BC. The castle was called Kınık Castle during the Ottoman Period. The castle, built on a masonry hill, was reconstructed with black stones in the 8th century during the time of Abbasid Caliph Harun Reşit (Figure 6). The rectangular planned castle has 12 bastions and outer courtyard walls (URL_9).



Figure 6. There is a lava flow under Toprakkale and the castle, there are cooling cracks on the surface.

3.3. Culture and Tourism

The region where Osmaniye is located, to the east of Çukurova, has preserved its characteristics as a settlement since the earliest periods of history and has been under the influence of many civilizations, and is located in a geography with a significant amount of historical and cultural artifacts. The ruins in Domuztepe and the mounds in Osmaniye belong to the Neolithic, Chalcolithic and Bronze periods. Since ancient times, it has been the scene of the lives of states such as Hittite, Assyrian, Persian, Greek, Roman, Byzantine and some tribes. Later, Turkish tribes came to these lands, where Umayyad and Abbasid people lived, starting from the 1080s with the conquest of Anatolia by the Turks (URL_10).

You should see these: Kastabala (Hierapolis) City, Zorkun Plateau, Karatepe-Aslantaş Open Air Museum, Kadirli Ala Mosque, Karatepe Rugs, Haruniye Thermal Springs, Kırmıtlı Bird Sanctuary, Savrun Canyon, Hamite Castle, Toprakkale Castle, Hamite (Amuda) Castle, Kaypak (Savrandı) Castle, Çardak Castle, Karafenk Castle, Babaoğlan Castle, Olukbaşı-Ürün Plateaus, Sumbas -Bağdaş Plateau, Kadirli- Maksutoğlu, Beyoğlu-Savrungözü -Dokurcun and Çığsar Plateaus, Hasanbeyli-Almanpınarı Plateau, Kırmıtlı Bird Sanctuary are other important tourism values (Figure 7), (URL_10).



Figure 7. Important tourism values of Osmaniye (URL_10).

4. Conclusion

Osmaniye; Its location, geological features and landforms need to be preserved as geosites and geoheritage and transferred to future generations. Within the scope of the research, four waterfalls, many caves, two canyons, dialects and cliffs, 30 nearby castles, many 1st, 2nd and 3rd degree archaeological sites and intangible cultural geosites such as Karatepe rugs were identified. These geosites were discussed in terms of their accessibility, number, touristic and scientific features, and were evaluated to determine their geotourism potential. The results are summarized as follows:

- It is thought that these shapes, which are insufficient in terms of tourism on their own, will be important when taken together with other attractions.

- Although the geosites identified in the study area are valuable in terms of geotourism, most of them have not been the subject of academic studies yet. Conducting research on these geosites will contribute to the literature.

- The most important problems of geosites in Osmaniye are their lack of transportation, lack of promotion, lack of tourism investments in general and their lack of protection status. These deficiencies should be corrected as soon as possible. However, natural beauties can suffer great damage when opened to tourism. Great attention should be paid to this.

References

- Özgül, N. (1976). Toroslar'ın bazı temel jeoloji özellikleri, TJB, 19, 65-78.
- URL_1: <https://www.jemirko.org.tr/>
- URL_2: <https://tr.wikipedia.org/wiki/Jeopark>
- URL_3: <https://www.unesco.org.tr/>
- URL_4: www.europeangeoparks.org
- URL_5: <https://kulasalihlgeopark.com/>
- URL_6: <https://osmaniye.csb.gov.tr>
- URL_7: Maden Tetkik ve Arama Genel Müdürlüğü Doğu Akdeniz Bölge Müdürlüğü, Osmaniye İli Jeolojik Özellikleri, <https://docplayer.biz.tr/20798648-Maden-tetkik-ve-arama-genel-mudurlugu-dogu-akdeniz-bolge-mudurlugu-osmaniye-ili-jeolojik-ozellikleri.html>
- URL_8: <http://cukurovastrateji.blogspot.com/>
- URL_9: <https://www.kulturportali.gov.tr/>
- URL_10: <https://www.osmaniyedeyatirim.com/sektorler/kultur-ve-turizm>