

Integration of Archaeological Sites from the Romanian Region of Dobrogea into Cross-Border Cultural Routes with Bulgaria in the Context of Accession to the Schengen Area

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Abstract. *In the current geopolitical context in which the Schengen Area has expanded to Romania and Bulgaria, our study proposes new directions for the development of tourism near the border between the two countries, in the Dobrogea region. Thus, by using Geographic Information Systems tools, we will outline several thematic cross-border tourist routes between the two countries. Characterized by strong dynamics, tourism is one of the main economic activities in the European Union. This economic sector has had a positive evolution in recent decades, statistics that come as a result of the reduction of obstacles to the movement of tourists between member states. European integration has driven the rapid development of cross-border tourism. The full accession of Romania and Bulgaria to the Schengen Area in January 2025 may be a good opportunity for certain forms of tourism that bring common elements between the two states to be developed simultaneously by creating tourist routes that unite tourist resources from the two neighboring states. Geospatial technologies provide an overview of the spatial relationships between tourist attractions, helping us to extract new information on the directions of regional economic development. The diversity of archaeological resources in a region where coastal tourism is the main form of tourist activity, constitute important advantages from which our analysis starts. The results obtained indicate that the road distances between the main archaeological sites in Dobrogea have been considerably reduced, new tourist routes being able to sustainably capitalize on the archaeological resources of Dobrogea as a result of accession to the Schengen Area*

Keywords: Tourism, Dobrogea, Bulgaria, Heritage tourism.

Introduction

Tourism is one of the main economic activities that has experienced a strong evolution in the European Union in recent decades, the European integration of numerous states being an important advantage in cross-border tourist routes. Although the COVID-19 pandemic has strongly affected the tourism sector, statistics show that after 2022 the flow of tourists reached the values of 2019, announcing the return of tourism in both Bulgaria (Zheleva et al., n.d.) and Romania (Dascălu et al., 2022). The potential through which tourism in Romania and Bulgaria can take advantage of the geopolitical context is obvious, even more so in the Dobrogea region, where the border is on land, without the need to pay any tax for a bridge like Giurgiu-Ruse or Calafat-Vidin, which makes transportation difficult.

The integration of archaeological sites from the Romanian part of the Dobrogea region with those from the Bulgarian side in cross-border cultural routes represents an important opportunity for promoting common cultural heritage and developing tourism in the context of Romania and Bulgaria's accession to the Schengen Area on January 1, 2025. This accession facilitates the free movement of persons and eliminates controls at land borders, creating favorable premises for cross-border cultural and tourism initiatives. In the context of the full accession of Romania and Bulgaria to the Schengen Area in January 2025, the opportunities for cultural and tourism integration are becoming increasingly promising. The elimination of border controls could facilitate not only the mobility of citizens, but also the development of cross-border tourist routes that harmoniously connect tourist resources. Thus, tourists could experience a complete historical circuit, crossing the border without barriers and discovering the rich cultural heritage of both countries.

Both for Romania, but especially for Bulgaria, the Black Sea coastal area represents the main tourist attraction (Costea et al., 2016). Coastal tourism is the main form of economic activity in this sector. However, heritage tourism through the numerous archaeological sites and thematic museums contributes to the economic development in the Dobrogea region of both European countries. The most well-known and exploited archaeological resources are those of ancient age, from the Greek and Roman periods, respectively.

This study contributes to the existing literature by shifting the focus from the general assessment of spatial accessibility in tourism to the strategic development of cross-border cultural routes. Unlike previous research that primarily quantified accessibility changes, our approach emphasizes the practical implications of integrating archaeological sites and heritage tourism into structured tourist circuits. This research also highlights the importance of cross-border cooperation, as joint projects that highlight archaeological sites in Dobrogea can contribute to a better visibility of the region on the European tourism map.

Literature review

According to Eurostat, the tourism sector in Europe is highly developed and varied, accounting for high shares of the GDP of many countries (Tourism Satellite Accounts in Europe - 2023 Edition, n.d.). However, (Pascariu & Ibănescu, 2018) highlight that, while countries in Western Europe, such as Portugal, Croatia, Greece or Italy, have a high direct contribution of tourism to GDP and job creation, in Eastern European countries these contributions are lower, due to the relatively low level of development and competitiveness, as well as the lack of integrated tourism development policies. It is also mentioned that Eastern Europe has only had open international tourism for a few decades. However, the tourism potential in the states located in the eastern half of Europe is strong and detailed studies are needed to develop this economic sector. In this context, the sustainable

development of cross-border tourism can be a viable solution for the better exploitation of tourism resources and the economic and social development of cross-border regions. Studies addressing this topic do not have a very distant history. Most of these studies focused on Europe, with the context of the increasingly evident European integration of EU member states (Tambovceva et al. 2020; Okrožnik et al. 2024; Jelinčić et al. 2019; Bozhuk & Buchko, 2018; Stoffelen & Vanneste, 2017; Studzieniecki et al., 2016; Vodeb, 2010).

The Schengen Area, which eliminates customs controls, has considerably shortened road distances between two neighboring states, facilitating foreign tourists' access to tourist attractions between two neighboring countries (Gosar & Cigale, 2015; Jeřábek, et al., 2024). Studies that have focused on the development of cross-border tourism in Romania are numerous, especially after Romania's accession to the European Union in 2007. (Munteanu & Iatu, 2016) analyze the theoretical accessibility of peripheral tourist destinations in Romania, considering the cross-border dimension. The authors emphasize the importance of assessing accessibility in the context of cross-border tourism, given that transport infrastructure and proximity to borders can significantly influence tourist flows. The results of the study suggest that although some peripheral areas in Romania benefit from favorable theoretical accessibility due to their proximity to borders, in practice, these destinations face challenges related to insufficient infrastructure and lack of adequate promotion. In another spatial analysis, (Christodoulou & Christidis, 2019) indicate that along the Danube are some of the most obvious and extensive areas with greater potential tourist accessibility at an international level than at a national level.

Moreover, the degree of accessibility is one of the main parameters influencing tourism success. Multiple methodologies have attempted to quantify its role, some of them using GIS technology (Wang et al., 2021). (Adeyinka-Ojo & Nair, 2016) emphasize that accessibility is an essential factor in the development of rural tourism, directly influencing the tourist experience and the success of destinations. The study highlights the importance of collaboration between stakeholders, such as local authorities, tourism operators and local communities, to improve infrastructure and transport services, thus facilitating tourists' access to rural destinations. (Bulai & Eva, 2016) underline that accessibility is a key factor in determining tourist flows, influencing both the number of visitors and the length of their stay. The results of the study indicate a positive correlation between road accessibility and tourist demand, highlighting that destinations with well-developed transport infrastructure attract a higher number of tourists. The research also suggests that improving accessibility can contribute to reducing regional disparities in tourism, stimulating economic development in less accessible areas.

On the other hand, although there are studies that address the development of cross-border tourism in the context of the expansion of the Schengen Area, our analysis focuses on a methodology that emphasizes spatial information, having as basic tools the capabilities of Geographic Information Systems. Our study is directed towards a type of tourism, heritage tourism, and aims to develop well-defined tourist routes that will lead to the most sustainable development of tourism in the analyzed region in the new European geopolitical context.

Methodology

Our analysis required a deep documentation of tourism statistics. These were obtained from official sources of the two states, available online on the websites of the national statistical institutes. The two official platforms from which we extracted statistics are available at <http://statistici.insse.ro:8077/tempo-online/> for Romania, and <https://www.nsi.bg/en/content/1847/>

tourism for Bulgaria. We used both information on the internal flow of tourists and data on foreign tourist visits to the two states, to observe the current dependence of tourism in the two states on tourists from these states (Figure 1).

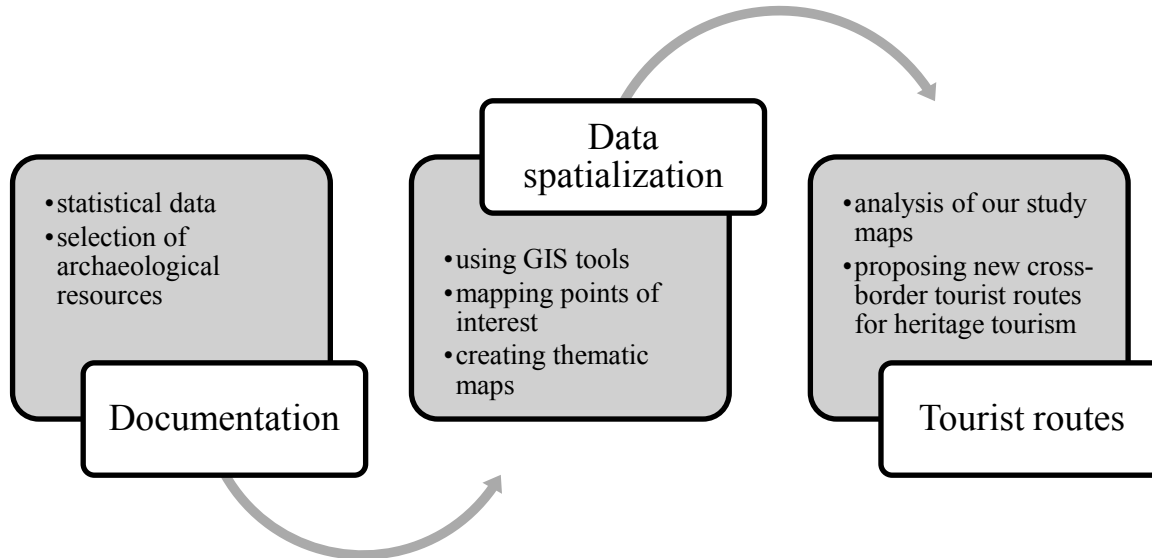


Figure 1. Study workflow

Our study area includes the historical and geographical region of Dobrogea, spread over both Romania and Bulgaria (Figure 2). The Romanian part consists of the counties of Tulcea and Constanța, being located between the Danube River, in the west, and the Black Sea, in the east. The Bulgarian part includes the counties of Dobrich and Silistra. The common elements are both geographical, through the access to the Danube and the Black Sea of the entire studied area, but also historical. Since ancient times, Greek settlements were built here by migrants from the south. After this, the Roman period would bring about the emergence of a great diversity of settlements in this region. This results in the large number of archaeological sites distributed in the 4 counties.

With the help of Geographic Information Systems, we spatialized the data regarding the archaeological sites, as well as the extracted statistical information. We used the open-source program Quantum GIS, the main advantage being the variety of tools that allow the analysis of spatial data.

Initially, we mapped the main archaeological sites in Dobrogea, using the online application Google My Maps, then we integrated the .kmz files into QGIS.

Mapping archaeological sites and calculating road distances between them gives us an overview of potential thematic tourist routes that would integrate these tourist attractions. The tourist locations were chosen based on their historical value, state of conservation, but also on the basis of the existing tourist infrastructure. Dobrogea is dotted with former rural or urban settlements founded or developed by the Romans, approximately two millennia ago. However, the Greek settlements are the oldest, from a historical point of view having the most significant values.

The accession of Romania and Bulgaria to the Schengen Area was finalized on 1 January 2025, with land links between the two states becoming more developed with the elimination of

customs controls. Between the Bulgarian and Romanian sides of Dobrogea, three customs points operated: at Silistra, at Kardam, near Negru Vodă and at Vama Veche. Waiting times were influenced by the time of year, any national or religious holidays and the time of day. According to press reports, waiting times at Vama Veche were approximately 60 minutes. The same situation was also encountered at Negru-Vodă, with the other customs points having a waiting time shorter than 30 minutes. Thus, the accession of the two European states to the Schengen Area led to an increase in the degree of road accessibility for tourists to the tourist attractions in the Dobrogea region.

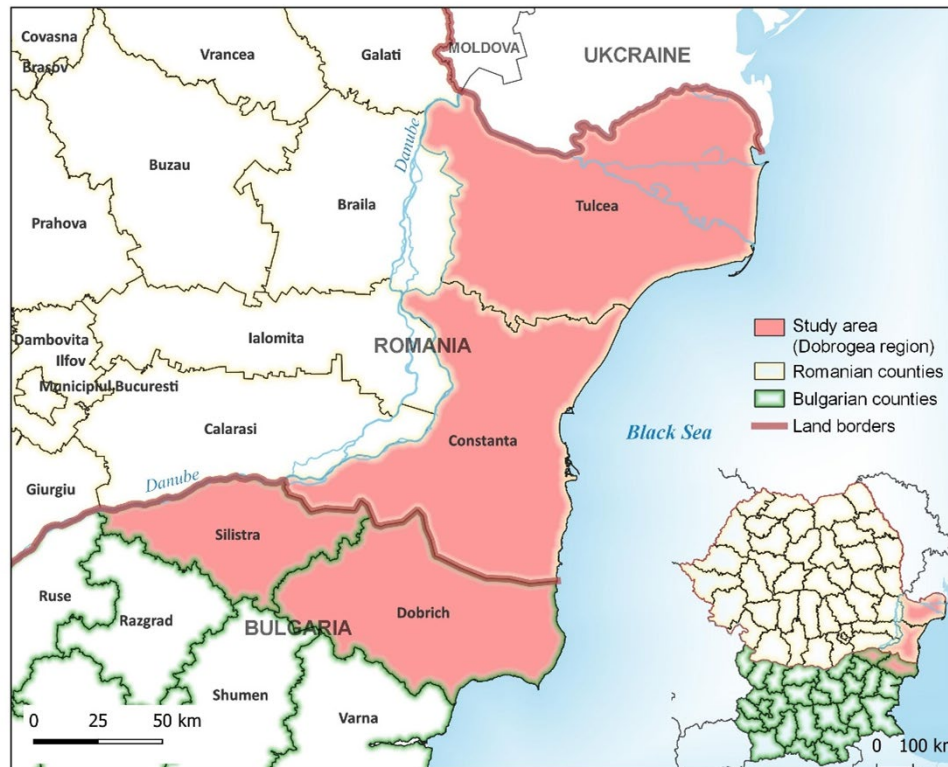


Figure 2. Study area – Dobrogea

Source: Authors

Results and discussions

Our study focused on the spatial analysis of 20 heritage tourism-specific tourist attractions in the Dobrogea region, both in the Romanian and Bulgarian parts. The number of archaeological sites and museums with archaeological themes is noticeably higher, but the historical value and the diversity of the geographical landscapes in which the Bulgarian ones are located can complete very interesting tourist routes, as alternatives to the classic forms of tourism in the region.

Tourism relations between the two countries are very strong. In Romania, the number of tourists arriving from Bulgaria has been high in each of the last years (Figure 3), in a ranking for the year 2023, Bulgaria is in 3rd place after Moldova and Ukraine (The National Institute of Statistics ROMANIA, 2025). The upward trend in the total number of foreign tourists in Romania is also visible for tourists from Bulgaria, during the period 2008-2022. However, statistics indicate that tourism in Bulgaria is more dependent on Romanian tourists, who are the most numerous

among the foreigners. Including in 2024, most foreign tourists who visited Bulgaria were Romanians, most arriving during the summer, between May and September (National Statistical Institute of Bulgaria, 2025). During the period 2008-2022, there was a progressive increase in the number of Romanian tourists arriving in Bulgaria, with a peak in 2019, which has not yet been reached in the post-pandemic period (Figure 4).

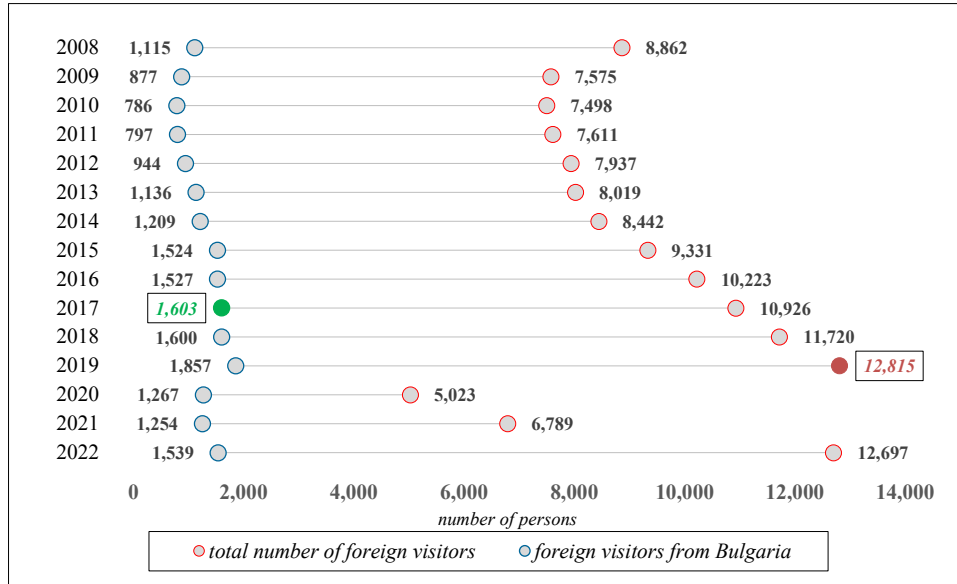


Figure 3. Evolution of arrivals of foreign visitors to Romania from Bulgaria for period 2008-2022

Source: Authors

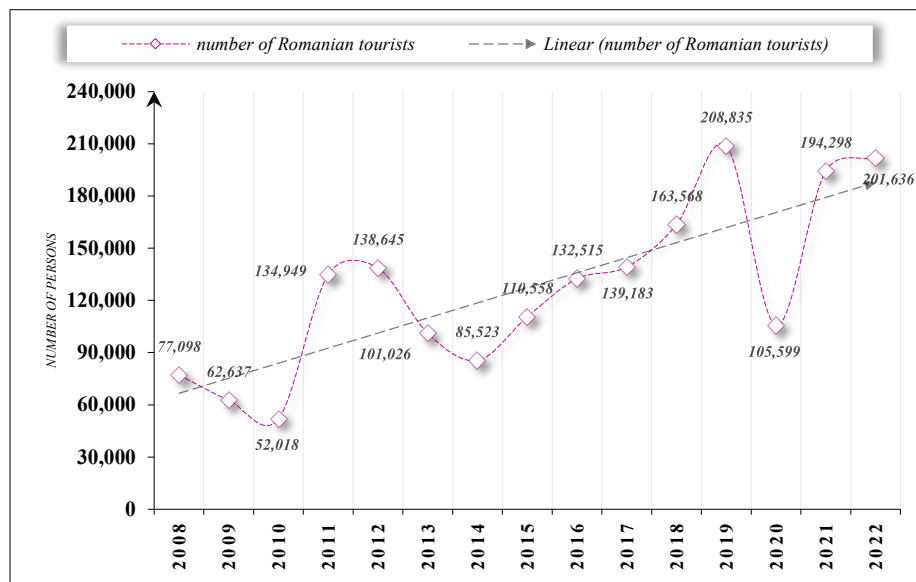


Figure 4. Evolution of number of Romanian tourists in Bulgaria for period 2008-2022

Source: Authors

Road transport is the main way in which these archaeological resources can be accessed by tourists and economically exploited. In general, two areas with high densities of archaeological sites can be distinguished: the Black Sea coast and the Danube River valley.

Constanța county in Romania ranks first in the ranking of the most visited counties in that state. Also, Dobrich County is one of the main tourist attraction areas in Bulgaria. This shows the obvious development potential of the two parts of Dobrogea. Each archaeological site should follow an upward trend in the coming period in terms of the number of visitors given the fact that road distances have been considerably reduced after the accession of the two countries to the Schengen Area.

Using QGIS tools, we created a map showing the main archaeological sites and museums with archaeological themes, through which the archaeological resources in the study area are economically exploited. We also calculated the road distances between them to facilitate the drawing of tourist routes that exploit these resources in the most sustainable way (Figure 5).

In such analyses, the starting and ending point of a route is very important. To make these routes more efficient, we considered as starting points those areas with a large number of arrivals in accommodation units throughout the year. Heritage tourism can also be developed as an alternative to the activities specific to coastal tourism, those involved remaining the visitors to the coast.



Figure 3. Archaeological sites analyzed and road distances between them

Source: Authors.

In this direction, the Black Sea coast can diversify its tourist offer through tourist routes that connect the city of Constanța, where there are the ruins of the ancient city of Tomis, as well as several important museums with an archaeological theme, to the city of Mangalia, with the ruins of the ancient city of Callatis and the archaeological museum. The route can continue towards the ruins of the Albești fortress, the route advancing into Bulgaria, towards the Durankulak archaeological site and the ancient Roman fortress of Kaliakra.

A useful tourist route option for Bulgarian citizens is Kaliakra – Durankulak – Callatis - Tomis – Histria – Capidava – Axiopolis -Tropaeum Traiani – Zaldapa – Palmatis. Thus, the route starts in Bulgaria, continues in Romania and ends in Bulgaria.

In the analyzed area there are numerous archaeological remains that are not exploited for tourism, whose contribution to the economy of the region is very difficult to track. This, together with the weak promotion of heritage tourism in the coastal area of the two states, constitute the main challenges in terms of exploiting cross-border tourist routes. Also, with the elimination of customs controls, it is necessary to create new road connections between the two countries, in the Dobrogea region being the easiest to achieve due to the land border. Thus, several roads with regional status can be united or even a highway can be built that would connect Constanța and Varna. In this way, tourist access to the analyzed tourist attractions would increase considerably.

The study of the accessibility of tourist attractions plays an important role in the development of methodologies for analyzing the evolution trends of local economies, accessibility being an essential component in their sustainable development (Peptenatu et.al. 2012; Pintili et al. 2017). Also, the accessibility study can complement a series of analyses regarding the role of the attractiveness of tourist attractions in generating multiplier effects in the local economy (Ianos et al. 2012; Drăghici et al. 2015; Herman et al. 2020 and 2021; Grecu et al. 2017).

Unlike previous studies that analyzed the possibility of developing cross-border tourism in Romania, our analysis focused on proposing tourist routes based on new road distances. Grouping archaeological sites with similar characteristics and historical ages into thematic routes can contribute to the development of links between the two neighboring states analyzed.

Conclusion

Our study showed one of the advantages resulting from Romania and Bulgaria accession to the Schengen Area by demonstrating the evolution of road accessibility to archaeological sites in the two parts of the Dobrogea region.

Geographic Information Systems, by integrating information on maps, helped us to better understand the spatial relationships between the tourist attractions included in the study. Thus, based on the observations we were able to extract a series of archaeological-themed tourist routes.

Also, our analysis leaves room for a larger study, which would extract more quantitative information. The population of the counties of the two states, but also of other states, such as Ukraine, Turkey or Moldova, represent other parameters that require attention for a more sustainable exploitation of heritage tourism on the Black Sea coast.

The validation of this study will be carried out after statistical data on the tourist flow in the studied area, specific to the period after accession to the Schengen Area, are available. Thus, increased attention is required to how the number of visitors in the localities of Dobrogea will evolve. Against the backdrop of the elimination of customs controls, but also due to the type of border that does not require the payment of any bridge toll, a situation encountered in the west of Dobrogea, at Giurgiu-Ruse and Calafat-Vidin, we expect an increase in the number of visitors in the coming years, with peaks also reached in the summer months.

The success of the initiative depends on a coherent strategy that combines heritage protection with sustainable development, thus ensuring both the conservation of archaeological sites and the increase in the economic and social impact of cross-border tourism.

Joining the Schengen Area is expected to bring significant economic benefits to both countries. For Romania, some publications estimate a GDP growth of up to 2% in the year following accession, with tourism being one of the sectors targeted by positive developments. The elimination of border controls reduces waiting times and logistical costs, facilitating the flow of tourists and investments in the region.

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