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Depiction of Bodrum Halicarnassus in the historical cartographic materials between 15th and 19th Centuries

Burak BEYHAN[1], ORCID: 0000-0001-7301-4639
Feray KOCA[2], ORCID: 0000-0003-0351-8123

Keywords

Urban history; Historical maps; Critical map history; Eastern Mediterranean; Bodrum

Abstract

Historical cartographic materials provide us with significant evidence not only about the evolution of spatial setting in a city and region, but also conception of it from different worldviews. In this context, Bodrum, the site of ancient Halicarnassus in the Eastern Mediterranean, can be considered as a perfect laboratory for the observation of this evolution and conceptions owing to the availability of a number of historical maps belonging to the different eras and traditions. By revealing four mapping traditions for elaboration of the historical cartographic materials available for Bodrum, the study re-read the history of Bodrum city with reference to, on the one hand, the evolution of spatial configuration of the old and remarkable buildings in the city, and on the other hand, the manifestation of the different world views and conceptions, which is realized by employing a two-folded lens that reformulates history as cartography while contextualizing cartography as history. Georeferencing is also used as an auxiliary method of analysis for the fixation of spatial elements.

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Highlights

- Study cross-fertilizes history and cartography for urban history.
- Study formulates a non-prescriptive approach.
- Study reveals the political aims behind the maps depicting Bodrum.
- Study questions the possibility of a unifying perspective.
- Study presents Bodrum as depicted in the maps.

Contact

1. Faculty of Architecture, Muğla Sıtkı Koçman University, Muğla, Türkiye
burakbeyhan@mu.edu.tr
2. Faculty of Architecture, Muğla Sıtkı Koçman University, Muğla, Türkiye
feraykoca@mu.edu.tr

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15. ve 19. yüzyıllar arası tarihi kartografik malzemelerde Bodrum Halikarnas tasviri

Burak BEYHAN[1], ORCID: 0000-0001-7301-4639
Feray KOCA[2], ORCID: 0000-0003-0351-8123

Anahtar Sözcükler

Kent tarihi; Tarihi haritalar; Eleştirel harita tarihi; Doğu Akdeniz; Bodrum

Öz

Tarihsel kartografik materyaller bize sadece bir şehir ve bölgedeki mekansal ortamın evrimi hakkında değil, aynı zamanda farklı dünya görüşlerinin şehir ve bölge anlayışı hakkında da önemli kanıtlar sağlar. Bu bağlamda, Doğu Akdeniz'deki antik Halikarnas'ın konumlandığı Bodrum, farklı dönemlere ve geleneklere ait çok sayıda tarihi haritanın mevcudiyeti nedeniyle bu evrim ve anlayışların gözlemlenmesi için mükemmel bir laboratuvar olarak düşünülebilir. Çalışma, Bodrum için mevcut olan tarihi kartografik malzemelerin irdelenebilmesi için dört haritalama geleneğini ortaya çıkararak, bir yandan, şehirdeki eski ve dikkat çekici binaların mekansal biçimlenişinin evrimine ve diğer yandan, farklı dünya görüşlerinin ve anlayışlarının tezahürüne atıfta bulunmak suretiyle, Bodrum şehrinin tarihini yeniden okumaktadır. Bu, tarihi, haritacılık olarak yeniden formüle ederken, haritacılığı da tarih olarak bağlamlaştıran iki katlı bir mercek kullanılarak gerçekleştirilmiştir. Coğrafi-sabitleme de yardımcı bir çözümleme yöntemi olarak mekansal unsurların sabitlenmesinde kullanılmıştır.

Öne Çıkanlar

- Çalışma, kent tarihi için tarihi ve haritacılığı harmanlar.
- Çalışma, kuralcı olmayan bir yaklaşım formüle eder.
- Çalışma, Bodrum'u tasvir eden haritaların arkasındaki siyasi amaçları ortaya koyar.
- Çalışma, birleştirici bir bakış açısı olasılığını sorgular.
- Çalışma, Bodrum'u haritalarda gösterildiği gibi sunar.

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İletişim

1. Mimarlık Fakültesi, Muğla Sıtkı Koçman Üniversitesi, Muğla, Türkiye
burakbeyhan@mu.edu.tr
2. Mimarlık Fakültesi, Muğla Sıtkı Koçman Üniversitesi, Muğla, Türkiye
feraykoca@mu.edu.tr

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INTRODUCTION

Both for the exploration of evolution of historical cities and also for the elaboration of evolution of mapping traditions, the Mediterranean provides us with a unique laboratory. This is because of not just its ancient history, but also availability of a rich set of cartographic materials for many cities in the Mediterranean. One of the exceptional locations for which a good number of historical cartographic materials is available in the Mediterranean basin is Bodrum, the site of ancient Halicarnassus. Elaboration of these historical cartographic materials within their time frame provides us with important inferences not only for city and regional planning, but also for architecture. Indeed, proper intervention into spatial processes necessitates a more complex understanding and comparison of both the spatial configuration of entities in a given environment and various depictions and representations of these configurations. In addition, the analysis of the spatial processes helps us to decipher the patterns and the relationships in the geographic context.

Ancient Bodrum, home to Halicarnassus, was founded in Caria Region, where the sea-dependent Minoan colonies coming from Crete and the islands in the Aegean Sea settled in the coastal areas around 1000 BC. While the presence of indented shores in Caria provided natural bay and harbor features, the forested areas behind the steep mountains in inner Caria provided timber to the sea-dependent colonies (Gür, 2012). With the Persian invasions in Anatolia in 480-386 BC, the colonies were destroyed and satrapies were established. Like this; Halicarnassus became the capital of the Carian Satrapy around 400 BC. Under Hekotomnid Rule, Halicarnassus and its local region was Hellenized and a modern Greek-style metropolis was founded for the first time in Caria (McNicoll & Milner, 1997). It was a first for Asia Minor that Halicarnassus was a developed maritime trade center and had a defensive power surrounded by strong fortification walls and adopted a modern lifestyle for its period. Halicarnassus, which was the synthesis of the political and administrative style of the east and the modern life style of the west, under the influence of both Persian and Greek, had been significant in terms of influencing the political and cultural history of Anatolia in ancient times. In the following ages, due to the importance of being the capital of the ancient period, Bodrum preserved its historical importance and turned into a research and observation area for many travelers and explorers. The iconic structures of the city of Halicarnassus have been important landmarks for all travelers' cartographic maps.

The first historical cartographic material in which Bodrum is denoted with its landmarks belongs to 15th century. It is available in Cristoforo Buondelmonti's (1465-1475) *Liber Insularum Archipelagi*. Although the center of attention of the respective book is islands, some parts of the Anatolian coasts are also described with reference to the basic landmarks of the time. Similar maps such as

the ones in Pîrî Reis' (1521; 1526) *Kitâb-I Bahriye* were mainly produced from 15th to 17th century. Beginning from 18th century onwards, one can find the maps in which the center of attention is directly Bodrum and its close environs (such as Giovanni Battista Borra's map). In the 19th century, the modern maps prepared for military purposes also portray Bodrum in a detailed context (such as Thomas Spratt's map).

Based on these materials, in this paper there is an attempt to re-read the history of Bodrum as depicted in maps, which also necessitates a re-reading of the history of maps. The main method of analysis employed in this paper is actually a two-folded lens. The first fold of the lens is based on Harley's (1989a) suggestion for consideration of cartographer as an author using a sign system for the production of maps that can actually be considered as a form of text. Although both map readers and cartographers view map as objective and scientific representations of reality, the selection of elements displayed on maps and the way of their exhibition is determined by the values of the cartographers and the culture into which they were born (Harley, 1989b).

Thus, cartographer tells the story he or she wants to tell by selecting, omitting, classifying and symbolizing actions, events, experiences, and ideas, which makes the final product extremely subjective. In this context, along the first fold of the lens, a deconstructive effort is made. This deconstruction process is described by Harley (1989b) as a discovery of the silences and inconsistencies testing the map's superficial trustworthiness. Hence, main task along the first fold is an exploration of the social forces structuring cartography and contextualization of the existence of power together with its effects "in all map knowledge", which actually contextualizes cartography as history via critical map history.

The second fold of the lens is based on Ethington's (2007) suggestion for reformulation of history as cartography. Accordingly, it is argued that presentation of the past's knowledge can actually be considered as a cartographic experience in terms of mapping the places of history. This consideration is based on the expansion of the meaning of mapping so that it represents the topological relations among *topoi* covering not only points, lines, or polygons, but also actions, events, experiences, and ideas that are imperative in the construction of both space subject to mapping and mapping over time.

Along the second fold of the lens, the main task is a close examination of interconnections between, on the one hand, events and experiences accumulated in place, and on the other hand, evolving actions and ideas in the representation of the space. In this context, along the second fold of the lens, reading history can be considered as a cartographic experience in terms of establishment of interconnections between not only the *topoi* in each layer, but also two sets of particular layers and their *topoi*. While the first set of layers can be defined as the various configurations of space evolving over time in Bodrum, the second set of layers can be defined as the various representations of this space.

In addition to the main method of analysis which is a qualitative one based on a novel combination of suggestions of Harley (1989a; 1989b) and Ethington (2007), georeferencing method in GIS (Geographic Information Systems) is also used as an auxiliary method of analysis for the fixation of spatial elements over time. Georeferencing provides us with a one-to-one match between two sets of 'ground control points' (GCPs) that are map elements that can be recognized in both reference map

whose projection is known and the historical map. In this process, if possible, GCPs should be equally distributed through the whole raster image of the historical map. GCPs should also be designated as the spatial elements that are well-identifiable (such as holly spaces that have remained unchanged over time). The methods used for georeferencing a map can be categorized into two general groups (Balletti, 2006; Cajthaml, 2011; Herrault et al., 2013); (1) those with global & non-exact algorithms using all GCPs for obtaining a transformation to be applied on the whole raster image, and (2) those with local & exact algorithms using different sets of GCPs for different portions of the raster image.

Although for the historical cartographic material having a correct map projection or high degree of accuracy (such as Thomas Spratt's Bodrum map), global & non-exact algorithms (such as linear and lower order polynomials) can be used for georeferencing (Podobnikar, 2010), for the historical maps without any map projection and low degree of accuracy, it is more appropriate to use local & exact algorithms such as 'thin plate spline' (TPS) (Podobnikar and Šinkovec, 2004). Employment of TPS also requires the fulfilment of basic topological conditions. Since, except for the map prepared by Spratt, the historical maps used in this study do not fully meet the basic topological conditions, only Spratt's map is georeferenced by using Quantum GIS (QGIS), a Free and Open Source Software (FOSS) for GIS, to produce a map showing the significance of spatial elements in various depiction of Bodrum.

Within the framework drawn above, the next section is devoted to the contextualization of different versions of Bodrum in historical maps with an emphasis on the imprints of different geo-political manifestations encoded in the maps. Later, these manifestations are further deconstructed by using various perspectives and by revealing the possibility of a unifying framework as opposed to a polarizing framework. The final section presents some concluding remarks based on the non-prescriptive approach formulated in the paper.

BODRUM IN HISTORICAL MAPS THROUGH A HISTORY OF MAPS

The chart showing Kos Island and its environs in Cristoforo Buondelmonti's (1465-1475) *Liber Insularum Archipelagi* can be considered as the first cartographical material partly depicting Bodrum (Figure 1). Buondelmonti was a Florentine monk and known for his travels made through Ionian and Aegean Seas at the beginning of the 15th century (Tolias, 2012). According to Tolias (2007), *Liber Insularum Archipelagi* provides us with an example of early regional geography.

Buondelmonti's *Liber Insularum Archipelagi* is the first example of a genre called *isolario* meaning 'Book of Islands' (Tolias, 2007). Sometimes, the charts in *isolario* are also accompanied by geographical and historical information, textual annotations on the maps, and in rare cases, by a poem-like structure such as the one authored by Bartolomeo Da Li Sonetti (1485), a Venetian ship captain. Sonetti's maps particularly exhibit a nautical character in terms of employment of the technique of the portolan charts associated with a compass and scale (Tolias, 2012).

As a representation of the Mediterranean region the first *isolario* was actually part of the territorial rivalries between the Ottoman Empire and the Western Christian nations in terms of its reflection of the territorial imperatives of a given society, more precisely the vested interests of the European powers in the Eastern Mediterranean (Tolias, 2007; Perreault, 2019). Indeed, when examined, a

clear political aim for the legitimization of the Latin presence throughout the territories of the Eastern Mediterranean can be found in the *Liber Insularum Archipelagi* such that the cartographic images and the accompanying text link the classical heritage to the Latins while reaffirming their presence and the so-called legitimate and temporal possessions of the Christian Church in the Eastern Mediterranean (Tolias, 2012; Perreault, 2019).

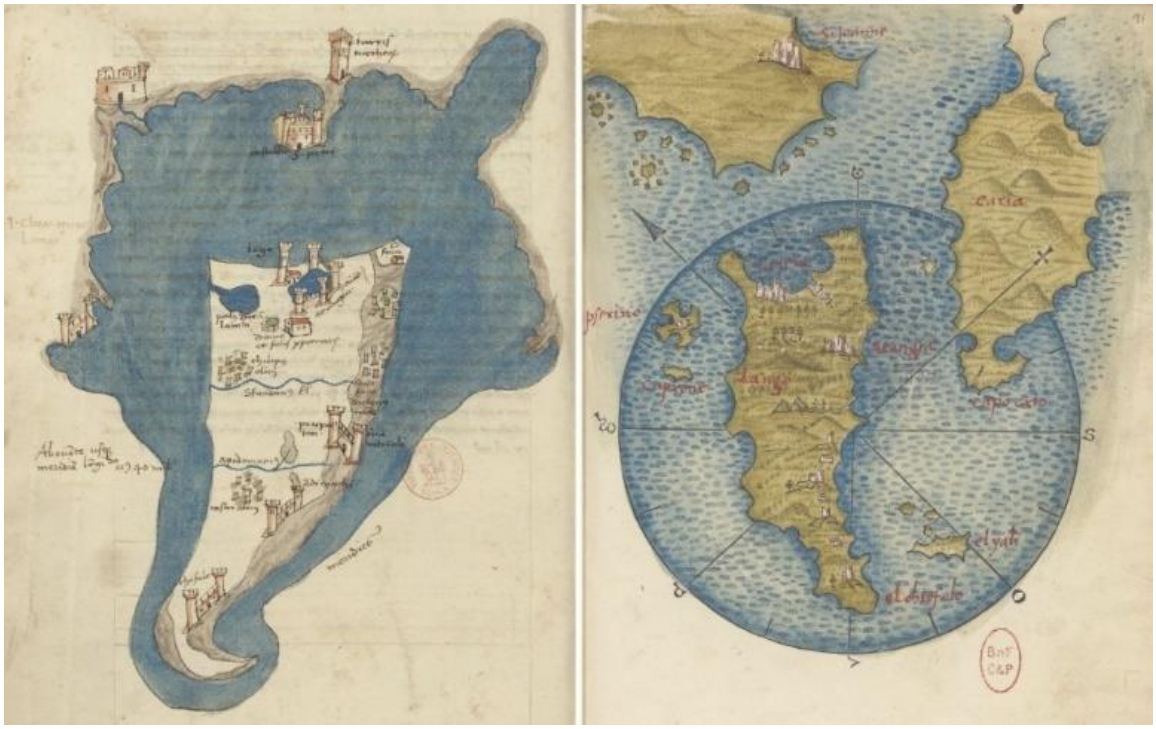

Figure 1 - Buondelmonti's (left) and Sonetti's (right) charts showing Kos Island, Bodrum Harbor and Knidos. Source: Buondelmonti (1465-1475, p. 26v) and Sonetti (1485, p. 35).

In the cartographic images involved in the *Liber Insularum Archipelagi*, the island is represented as surrounded by water, which emphasizes the territory as a piece of land independent of the mainland. Kos Island is also depicted in a similar fashion. What is remarkable in the chart whose center is Kos Island is the importance assigned to some locations along the Anatolian coasts such as Bodrum. Bodrum Castle together with a tower to its north-east in inland can be identified in the charts of Buondelmonti (1465-75) and Sonetti (1485) in the form of both symbolic and textual annotations (Figure 1). Although the tower is depicted separate from the castle, most probably it represents one of the towers in the castle, particularly the highest one known as French Tower. Bodrum Castle built by the St. Jean Knights in 1402 under the name of St. Peter's Castle is titled accordingly in these charts, which reveals the importance of Bodrum for Christianity in the Eastern Mediterranean. Datça peninsula is also titled Caria showing the antique roots of the region.

In the 16th century, Bodrum can also be seen in the maps in *Kitâb-ı Bahriye* (usually translated as "The Book of Navigation") authored by Pîrî Reis (1526) (Figure 2). Although Emiralioglu (2016) considers *Kitâb-ı Bahriye* as the first *isolario* in Ottoman Turkish, Tolias (2007) positions it in between a narrative portolan and an *isolario*. Indeed, *Kitâb-ı Bahriye*, on the one hand, parallel to the portolan, follows the seaways along the Mediterranean coasts, and on the other hand, parallel to the *isolario*,

provides the readers with a detailed mapping of each island and the nearby coasts. There are two versions of *Kitâb-ı Bahriye* (Yilmaz, 2010; Emiralioglu, 2016). The first one is dated 1521 and it was prepared for the use of sailors in a simpler and handier form. The second one is a more detailed and ornate work prepared as a deluxe edition to be presented to Suleyman the Magnificent in 1526 for the use of the imperial court.

Pîrî Reis served as the master of one of the ships of Kemal Reis, a famous Admiral of the Ottoman Navy and his uncle, and sailed with him all around the Mediterranean, which allowed him to examine the harbors and make the maps which were collected in his *Kitâb-ı Bahriye* (Yilmaz, 2010; Nemlioğlu Koca, 2020). As being a narrative portolan, each map in *Kitâb-ı Bahriye* is associated with a detailed description of not only maritime conditions, shallow waters and reefs, but also potable water sources along the coasts and geographical features of both the islands and inland in terms of history of the settlements and local culture (Pîrî Reis, 1521, 1526). In this respect, in his work, Pîrî Reis (1526) particularly warns us about the illusion created by the topography of the region. Accordingly, in his description of Kos Island, he notes that although a high mountain on the south side of the Island creates an impression of another island from afar, all are one island. As elaborated in the subsequent part of this section, the cartographers in the Russian Navy seems to have fallen into a similar failure in their map depicting Bodrum and its environs.

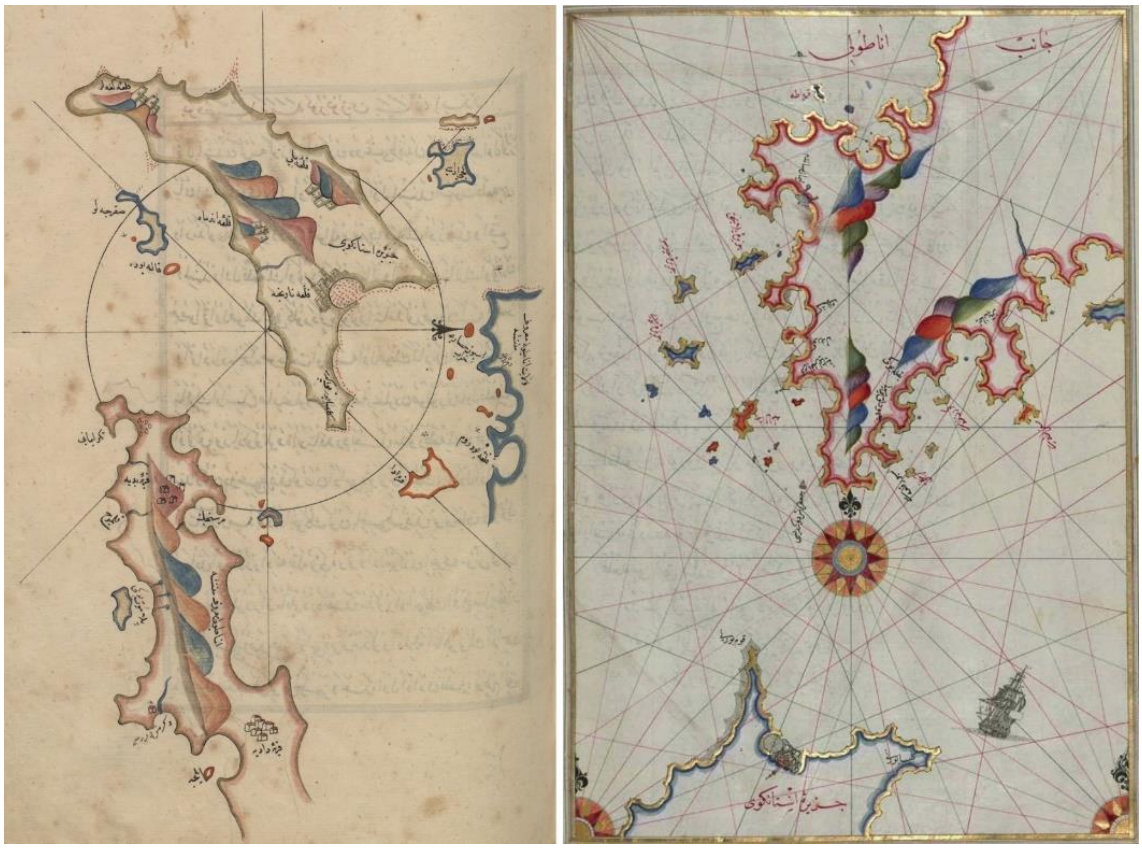

Figure 2 - Kos Island and Bodrum – maps from detailed versions of Kitâb-ı Bahriye. Source: Pîrî Reis (1526).

On Pîrî Reis' maps covering Bodrum (Figure 2), there is no particular symbol showing the castle or tower in Bodrum harbor. However, in one of the detailed versions of the book, the existence of a castle in the harbor is explained in a text annotation attached to the entrance of the harbor (the map on the left of Figure 2). In the map, the island to the south-east of Bodrum harbor is titled as "Sığır" island that should be Görecek Island, today. Compared with inland, Kos Island is described by using symbol annotations in a more detailed context, which affirms its similarity with *isolario*s.

Pîrî Reis's map can also be contextualized with reference to, on the one hand, the exposition of a different worldview, and on the other hand, the declaration of an imperial claim in terms of instrumentalization of maps as a tool of power. For the latter, as Emiralioglu (2016, p. 3) argues, the Ottoman Empire was the largest empire in the Old World and "was broadcasting its imperial claims to universal sovereignty in both the East and the West" via practical geographical information, which reveals the fact the "Ottoman court was aware of the symbolic and practical value of the geographical works and took advantage of them". When the name of the book is reconsidered, the worldview behind *Kitâb-ı Bahriye* also becomes more traceable. The book can also be translated in to English as "Book of Seafaring" or "Book of Sea Lore". Since Pîrî Reis considered the sea as a science and sailing as an art, he actually named his book only "Bahriyya" designating the image of the sea as the building block of his work, which has also roots in Sufism (Tasavvuf) (Sır, 2015).

In the 18th century, one of the first maps mainly focusing on Bodrum was produced by Giovanni Battista Borra in 1750 (Figure 3). Giovanni Battista Borra was an Italian engineer and architectural draughtsman. After meeting Robert Wood in Rome, he joined Wood's team as an architectural draughtsman for his antiquarian expedition to Asia Minor and Syria in 1750-51. Starting their journey from Izmir, they first followed a route to Istanbul, and then, to the sites of Laodicea (Eskihisar) and Hierapolis (Pamukkale), and after visiting these ancient cities, they returned back to the sea at Bodrum on October 10th, 1750 (Hutton, 1927; Mighetto, 1995). Borra's (1751) sketches provide us with the first graphical records of many antique cities.

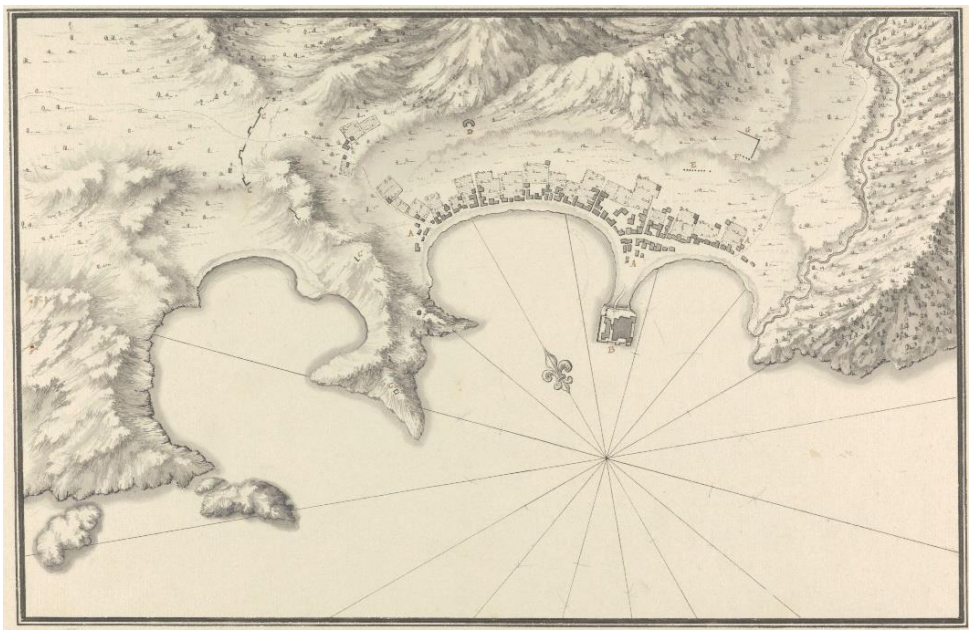

Figure 3 - Topographical Map of Halicarnassus at its Harbor. Source: Borra (1750).

Borra's Bodrum map presents a bird's eye view to the north-east over the harbor and its environs. The view seems to be segmented by Gümbet Bay, Bodrum Bay, mountains and hills. Towards the south-west of Gümbet Bay, two islands are visible. The big one to the south of small one should be Görecek Island. Farming plots with houses (marked on the map with letter A) attached to them surrounds Bodrum harbor. The Castle (B), parts of the walls (C), and Amphitheatre (D) are noticeable on the map together with other historical remains. Those remains marked with E should be "Doric Portico" with 30 columns belonging to Stoa. Compared with the other buildings, the castle is drawn in a detailed context in the map. The remains marked with F and G indicate a great platform and its southeastern extension, most probably occupied by the Temple of Mars. The particular details given in the map for ancient remains are in line with the search for exposition of Christianity in the Eastern Mediterranean and its link with antiquity.

Chronologically, the second map depicting Bodrum in the 18th century was prepared during the first archipelago expedition of the Russian Navy between 1769 and 1774 (Figure 4). The map made in 1772 presents a panoramic view of Bodrum that was taken from the frigate Tino (marked on the map with letter D) taking part in Russian-Turkish war of 1768-1774. According to description provided for the map, the city of Bodrum has an ancient fortification (A) with cannons and the building (B) used by a military battery. The map also shows the position of Turkish ships (C) in the harbor. Although at first glance the island to the west of Tino can be considered to be Görecek Island, the symbols on the map showing five windmills situated on top of the hill between Bodrum and Gümbet bays reveal that it is actually a small peninsula at the southern end of a relatively bigger peninsula separating these bays. In spite of this mistake that seems to stem from the illusion created by topography of the region in the map, it helps us trace the origin of the well-known historical windmills of Bodrum to 1772. In the Russian map, the island to the south of Tino should be Kara Island.

Figure 4 - Chart and a panoramic view of Bodrum. Source: Modified from https://commons.wikimedia.org/wiki/File:Bodrum_1772.jpg

The third map depicting Bodrum in the 18th century and published in 1782 focuses on the harbor and town (Figure 5). The map titled "Plan du port et de la ville de Boudroum" (Map of the port and town of Bodrum) was published in Marie-Gabriel-Florent-Auguste Comte de Choiseul-Gouffier's (1782) well-known *Voyage Pittoresque de la Grèce* whose illustrations were produced by his team of skilled artists and draftsmen who were in charge of taking records of the location and topographical images of the places they visited during his journey to the Ottoman Empire to find the sites of ancient history and literature (Pedley, 2012).

Figure 5 - Map of the harbor and town of Bodrum. Source: https://commons.wikimedia.org/wiki/File:Plan _du_port_et_de_la_ville_de_ Boudroum_-_Choiseul-gouffier_Gabriel_Florent_Auguste_De_-_1782.jpg.

Auguste de Choiseul-Gouffier was a monarchist elite who served as French ambassador to the Ottoman Empire from 1784 until the fall of the French monarchy. After arriving at the Anatolian shores along the Gulf of Macri (Fethiye) in 1776, Choiseul-Gouffier proceeded inland for exploration of the Ottoman territories. As Brummett (2020) remarks, in the *Voyage Pittoresque*, Choiseul-Gouffier (1782) created an image of Ottoman local space for his readers with the engravings serving to illustrate Ottoman space and style to his audience. Choiseul-Gouffier had a passion for antiquity that can be contextualized within the late 17th century's historiographical movement based on not only literature but also the relics and topographical descriptions for reproduction of imageries of the landscape and the material objects of the past (Pedley, 2012).

A plan of the ancient Halicarnassus is placed on left corner of Choiseul-Gouffier's Bodrum map as a cartouche, which reveals the search of Choiseul-Gouffier for the remnants of the ancient city in the picturesque remains found on the surface. The detailed version of this cartouche can be found as a separate map in Arrian & Chaussard (1802) to depict the ancient Halicarnassus for the contextualization of circumstances of Alexandre the Great's siege of the city (Figure 6).

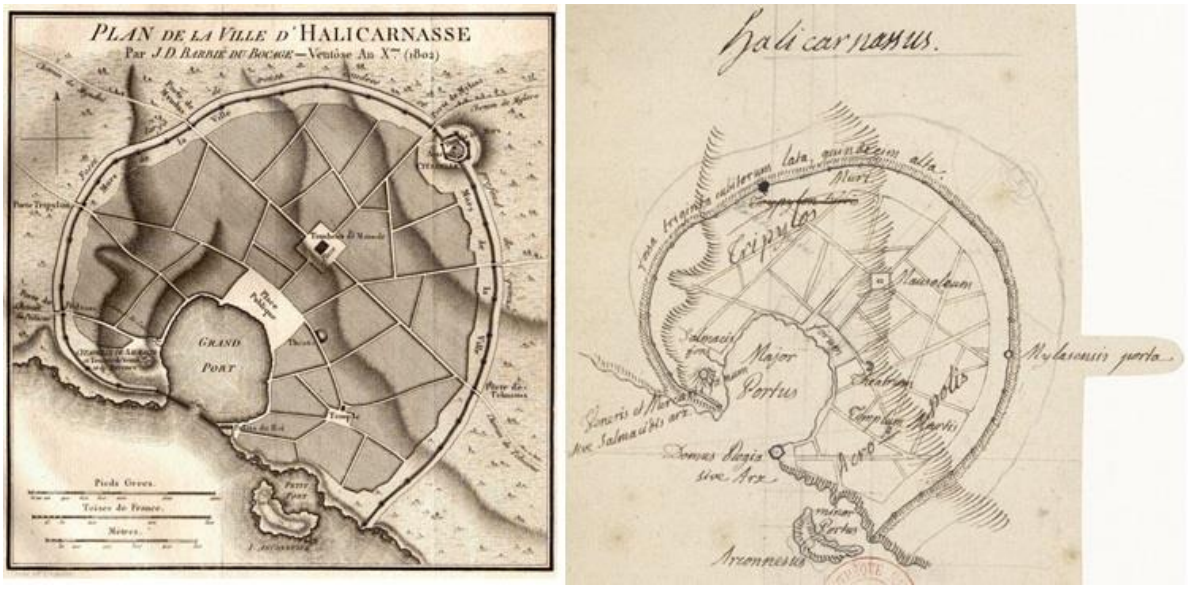

Figure 6 - Map of the city of Halicarnassus (left) and original sketch (right) by Barbié Du Bocage. Source: for published version (left) Arrian & Chaussard (1802), and for sketch (right): modified from https://gallica.bnf.fr/ark:/12148/btv1b84701203/f20.item.

It is drawn by Jean Denis Barbié du Bocage who also revised the maps accompanying Choiseul-Gouffier's the *Voyage Pittoresque* in 1782. Barbie du Bocage was a French cartographer and cosmographer active in Paris during the late 18th and early 19th centuries. Although after Choiseul-Gouffier's death, Barbié Du Bocage sustained the publication of the *Voyage Pittoresque* (Lowe, 1936, p. 206), he also prepared the maps and plans to accompany some other books of the time. Plan de la ville d'Halicarnasse seems to be actually product of such a cooperation with Chaussard.

In Choiseul-Gouffier's Bodrum map, Palace of Agha, the Fort, bazaar area and central mosque of Bodrum are marked together with the buildings and plots of land and fields (Figure 5). However, parallel to the map of Borra, except for location of these important buildings and places, the road network and buildings in the town can be considered as picturesque elements. The bazaar area is marked next to the castle. To the north of the Fort in Choiseul-Gouffier's map, there is a Turkish Cemetery which is not marked in other maps. In the map, there is a symbolic annotation for the Amphitheatre whose location seems to be wrong.

The mosque marked in the map is Tepecik Mosque which was built in 1740 by Haji Hasan Agha, the steward of shipbuilder Kızılhisarlı Mustafa Pasha. This mosque is an example of the Yalı Type Mosques having rare examples in Ottoman architecture. The mosque was built on an island formed by the sea, and its connection with the land was provided by a bridge, which was due to the fact that the founder of the mosque was a sailor and it was aimed for sailors to perform their prayers

immediately before coming ashore (Maden & Eğilmez, 2018). For this reason, Tepecik Mosque had a pier so that ships could dock.

A close examination of the ancient Halicarnassus map attached to Choiseul-Gouffier's Bodrum map provides us with important inputs for the exploration of the hidden agendas. Barbié Du Bocage's ancient Halicarnassus map published in Arrian & Chaussard (1802) particularly differs from both the original sketch and the one attached to Choiseul-Gouffier's Bodrum map in terms of location of a specific ancient gate, namely Mylasa gate (Figure 5 and 6). The location of this gate in Arrian & Chaussard (1802) is wrong. Another issue is related to the location of the castle. In the ancient texts, the fort is described on an island, called Zephyria or Zephyrion (Newton & Pullan, 1862; Bean & Cook, 1955). Although it was connected to the land by an isthmus, it seems to have been artificially sundered (Bean & Cook, 1955). There is further mention of a minor secret port hide by a wall circuit terminated in the castle. Based on these considerations, it seems that Barbié Du Bocage was loyal to the description of the ancient texts instead of the scientific considerations. Indeed, according to Vitruvius' (Vitruvius & Morgan, 1914) description of the panorama, the secret harbor should have reclined approximately to the south or even south-east of the palace, which is completely in line with the spatial configuration of secret harbor and the palace in Barbié Du Bocage's map.

Overall, these plans and charts prepared by Borra, Russian Navy, Choiseul-Gouffier and Barbié Du Bocage are different from other geometrically surveyed city plans of the time. Particularly, the ones produced by Borra and Choiseul-Gouffier's team for small towns located along the Aegean coasts were intended to serve as illustrations providing readers with an orientation for the texts of antiquarian research. Thus, as emphasized by Pedley (2012), these plans can only be properly considered within the framework of antiquarian mapping of the 18th century during which the European scholars were particularly interested in everything related to the ancient Greek civilization. The extent of this interest was such that, as Papachristou and Pazarli (2011) remark, on the base of descriptions of Pausanias in his Voyage in Greece, a plan showing Olympia sanctuary was created by Barbié Du Bocage.

In this respect, what is further problematic is the misplacement of some artifacts in these maps. For example, Papachristou and Pazarli (2011) argue that Barbié Du Bocage's Olympia plan published by Barthélemy in *Voyage du jeune Anacharsis* is wrong owing to the fact that the stadium positioned to the west of Mount Kronos instead of east. A similar observation can also be made for the maps prepared for Bodrum by these early surveyors. For example, the Amphitheater is placed in both Choiseul-Gouffier and Barbié Du Bocage's maps to the south of Mausoleum in a location close to the port. On the contrary, the actual location of Amphitheater is to the north-west of Mausoleum in a location farther from the port compared with the Mausoleum.

It is known that due to his post tying him to Paris Barbié Du Bocage produced his maps on the base of the site work conducted by the civil engineer Foucherot during Choiseul-Gouffier's expedition (Della Dora, 2007). Little is known about Foucherot who is identified by some as a civil engineer and by some others as an architect (Lowe, 1936). This may be the reason for these kinds of misplacements (such as Amphitheater). It seems that Barbie´ du Bocage didn't visit the area. He used what is produced by Choiseul-Gouffier's team on the site.

Two other maps depicting Bodrum at the beginning for 19th century can be mentioned. The first one belonging to 1804 is actually a portolan chart showing Bodrum port and its environs (Figure 7). It was available in the collection of maps of the ports and harbors of the Mediterranean originally compiled by Joseph Roux and revised by Jean Joseph Allezard, a former captain of the French Navy (Johnson, 2004), in 1804 and 1817 with the addition of plans generally relating to the Eastern Mediterranean. The first edition of these maps depicting harbors, gulfs and coves, and the shallows and deep points of the sea in detailed drawings was published by Joseph Roux, the French royal hydrographer, in 1764 (Johnson 2004; Faričić & Mirošević, 2017).

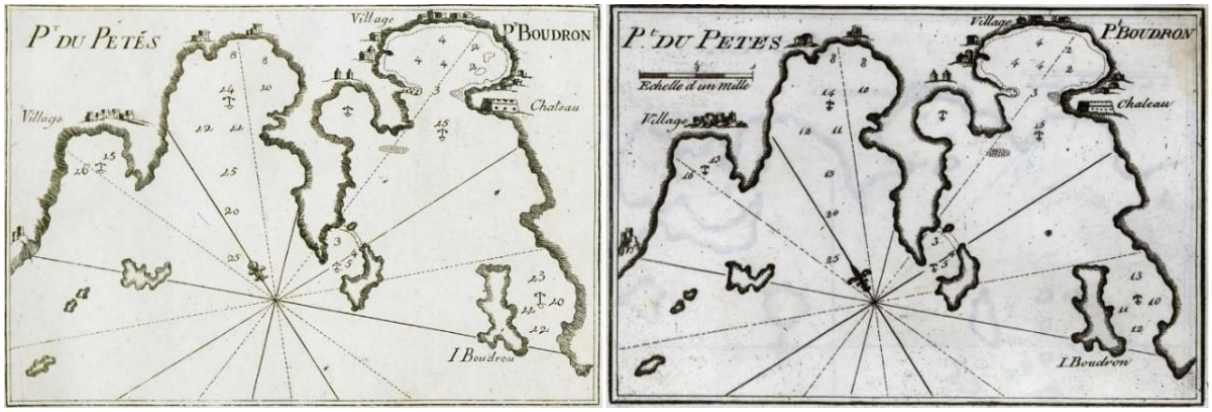

Figure 7 - Port du Petes (Bitez), Port Boudron from 1804 (left) and 1817 (right) editions by Allezard.

These maps can be best described as examples of post-portolans which were followed by a mapping tradition based on modern cartographic techniques. Apart from the information required to enter the ports, these maps often include details of city buildings, mills, bird's eye view of castles, etc. In Allezard's Bodrum map, a chateau is visible in the place of the Castle. Most probably two towers-like building symbols shows one of the towers on Salmakis (Kaplan Kalessi) part of Bodrum. The symbols for buildings surrounding the coastal area of the port is in line with the description of the town in other maps.

The second map is available in Beaufort (1817) (Figure 8). This map is based on the sketch produced by Beaufort for Bodrum harbor in 1811. In the British Navy, Beaufort was mainly responsible for the preparation of the accurate maritime charts of the coastline, harbors, reefs, shoals and islands, and also investigation of the historical sites and noteworthy features of the coastline such as climate, inhabitants, settlements, and landscape (Friendly, 1977; Duggan, 2017). Under Beaufort's direction, the number of ships involved in navigational and hydrographic research had increased to 17 in 1855 (Friendly, 1977). With activities of Captain Beaufort and subsequently his colleagues including Captains Graves in the 1830's and 1840's, British hydrographers produced the maps of the shores of Mediterranean (Duggan, 2017).

In Beaufort's map, important landmarks such as mosques, burying ground, castle and palace (Seray) are marked together with the location of Bazaar. Interestingly, Beaufort's map also informs us about the existence of a shipyard. Although Beaufort also mentions about the remains of a theatre, he didn't show it in his map given in Beaufort (1817). Nevertheless, in his map titled as "Chart of the Promontory of Boodroom with the Karabaghla Islands and the North Point of the Island of

Kos", the location of the ancient theatre is shown. In this map, there is also a "Sketch of the Harbour of Boodroom" which provides us with further details about the ancient city parallel to his map in Beaufort (1817, p. 84). In the respective sketch there is also information in relation to the latitude and longitude for a tower (SE Tower) in the castle: 37° 1' 21" North 27° 25' 18" East.

In his book, Beaufort (1817) provides us with a description of the harbor and its two ancient stone piers which were then demolished. He further mentions about the fact that the remains of walls of the ancient city and columns, damaged sculpture, and "broken inscriptions are scattered in different parts of the bazaar and streets" together with the other ruins in the vicinity of the town (Beaufort, 1817, p. 90).

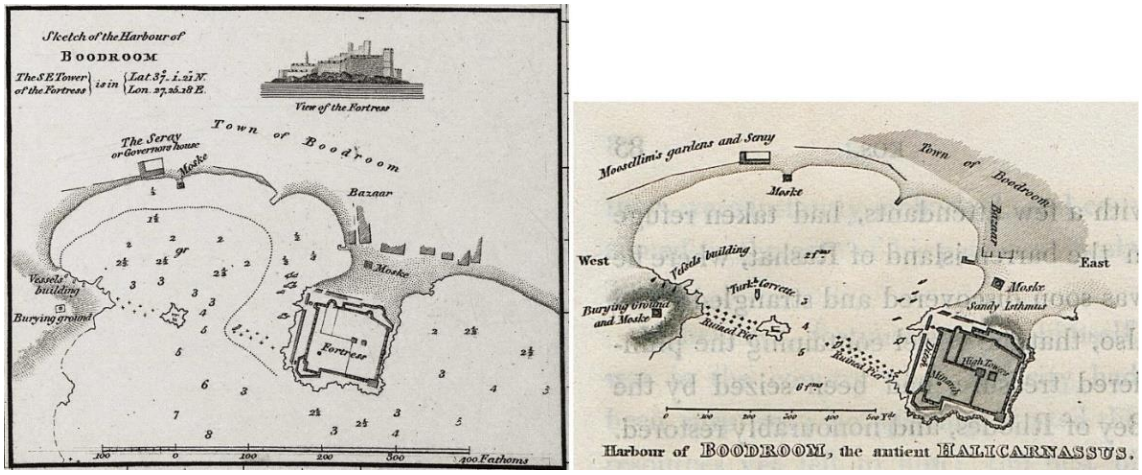

Figure 8 - Harbor of Bodrum, the ancient Halicarnassus in 1811. Source: Sketch (left) from https://commons.wikimedia.org/wiki/File:Chart_of_the_Promontory_of_Boodroom_with_the_Karabaghla_Islands_and_the_North_Point_of_the_Island_of_Kos_-_by_Francis_Beaufort_F.R.

Three mosques and one minaret are marked in Beaufort's map. The first mosque close to Seray is Tepecik Mosque. The one to the north of the castle is Kızılhisarlı Mustafa Pasha Mosque. The mosque was built in 1723 by Kızılhisarlı Mustafa Pasha who came to Bodrum with his sons between 1688 and 1718 to build a shipyard (Maden & Eğilmez, 2018). After the construction of the shipyard, building activities increased intensively in Bodrum. After his death, Kızılhisarlı Mustafa Pasha was buried with his son, Cafer Pasha, who was a captain (*kaptan-ı derya*) like himself, in the tomb located in the Tersane District of Gemibası Neighborhood. Burying ground marked with the third mosque in Beaufort's map actually shows the location of this tomb. The minaret marked in Beaufort's map inside the castle is the evidence of another mosque in Bodrum harbor. It was actually Bodrum's oldest mosque known as "Kale Mosque" which was converted by Suleyman the Magnificent from a church in 1523 (Evliya Çelebi, [1671-1672] 1935).

The last map analyzed was prepared by Thomas Spratt in 1847 for the United Kingdom Hydrographic Office (UKHO) (Figure 9). The map has the latitude and longitude information for Kalessi Point (37° 1' 52" North, 27° 27' 35" East) that interestingly corresponds to one of the towers known as English Tower in Bodrum Castle. In the map, there is a note in relation to "Magnetic variation in 1901, decreasing 5' annually". Thus, some information in Spratt's map may

have been added or modified after the original survey. When examined, it becomes evident that this seems to be valid for the lighthouse located at the entrance of Bodrum harbor. It is known that the Lighthouse was constructed in the second half of 19th century (Nemlioğlu Koca, 2018).

Thomas Spratt served in the flotilla of ships developed under Beaufort's direction for navigational and hydrographic research (Friendly, 1977; Maempel, 1986). He was a man with a strong interest in the geology and archaeology of the Eastern Mediterranean for the identification of ancient cities (Maempel, 1986; Della Dora, 2007). In his map, Bodrum castle is titled as the Castle of St. Peter recalling its connection with the Christianity in the Eastern Mediterranean, which confirms his interest in antiquity. Thanks to his interest in archeology, the site of Mausoleum is also depicted in its correct location.

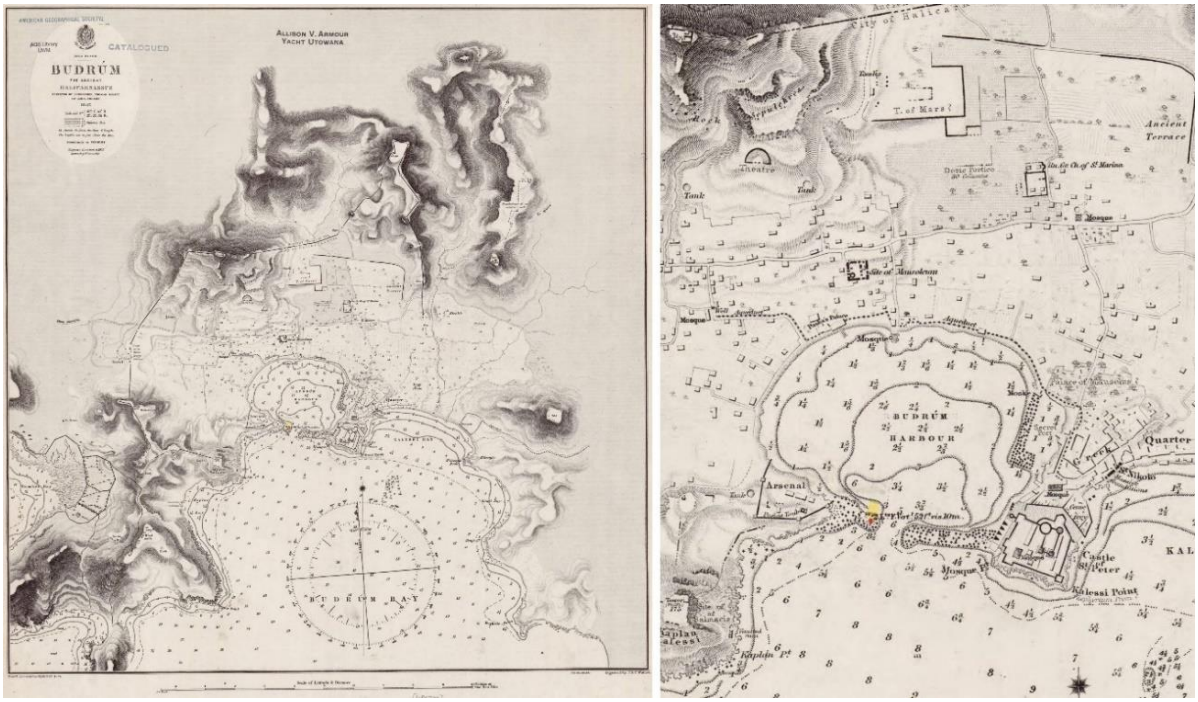

Figure 9 - Bodrum – the Ancient Halicarnassus (focus on harbor - right).
Source: modified from UKHO (1847).

Three additional mosques are marked on Spratt's map. The first one located on the map to the north of Bazaar on the coast cannot be followed today. The second one located to the east of Mausoleum is Türkkuyusu Mosque built in 1767. There is no information about the builder of this mosque (Maden & Eğilmez, 2018). To the north of this mosque, the Ruins of Greek Church of St. Marina is marked on Spratt's map. The third additional mosque marked on the map is either Tulumba Masjid or most probably Eski Çeşme Masjid built in 1746 by a person named Haji Ibrahim for whom there is no information (Maden & Eğilmez, 2018). Although the mosque in the Eski Çeşme Neighborhood is also referred to as Tulumba Mosque, it is known that Tulumba Masjid was built by Tabak Haji Ali in the same neighborhood near the shipyard in 1780. As a matter of fact, when Spratt visited Bodrum, the settlement mentioned as a town in Ottoman official documents was consisting of nine districts (Umurca, Çarsi, Kelerlik, Greek, Kiliseli, Tepecik, Yenikoy, Turk-Kuyusu and Eski Çeşme Neighborhood) (Erdoğru & Özgiray, 2017).

The ruins of a Greek Church to the west of the site of Salmakis (Kaplan Kalessi) and St. Nikolo Church to the east of Kızılhisarlı Mustafa Mosque are also marked on Spratt's map which describes the part of Bodrum settlement around St. Nikolo Church as Greek Quarter. Inside the harbor, a line of aqueduct can be followed from Kızılhisarlı Mustafa Pasha Mosque in the east to Eski Çeşme Mosque in the west to convey water. St. Georgio point can be seen in the map together with Ikinji and Meshrik Points to the east and Deguir Point to the west. Windmills are particularly visible together with these points in Spratt's map.

It is important to remark that neither the ruins of the churches nor the location of Mausoleum are depicted in Thomas Graves' map, which confirms Spratt's strong interest in the archaeology and history of the eastern Mediterranean. Spratt's map can also be easily distinguished from the preceding maps of Bodrum by its depiction of ancient remains in a more scientific manner. Instead of depiction of the existence of apparently missing items and being loyal to the ancient texts, Spratt relied on the actual evidences observed in the field for spatialization of the artifacts mentioned in the ancient texts.

It is observed that Spratt's map was actively used and enriched in the subsequent years by the scholars focusing on the area. For example, Newton and Pullan (1862) marked the fields and gardens of remarkable residents of Bodrum on the map produced by Spratt in their book about the history of discoveries at Halicarnassus, Cnidus & Branchidæ. Bean and Cook (1955) also uses Spratt's map in their study depicting ancient remains in Bodrum peninsula. Overall, the depiction of ancient city walls, ruins of both churches and ancient landmarks in Spratt's map reveals the effort to expose the presence of Christianity in the Eastern Mediterranean and its link with antiquity. Nevertheless, the map also increasingly depicts the components symbolizing Islamic values. This may be attributed to the strategic military concerns requiring objective knowledge about the social and cultural characteristics of the geography subject to mapping.

For the fixation of the spatial elements discussed in this section, a map (Figure 10) showing the location of the elements concerned is produced on the base of Spratt's map. For this purpose, 19 couples of GCPs are identified on the historical map and reference map already georeferenced in WGS 84 / UTM zone 35N. Tanks, Windmills, corner of old buildings such the Castle, Mosques and ruins were used as GCPs. After designation of GCPs, Spratt's map is georeferenced by using the first order polynomial transformation (POL1). In QGIS (2022), the list of residuals for individual GCPs can also be exported as a table that can be further processed to calculate Root Mean Square Error (RMSE) values for the historic map georeferenced in this study. RMSE provides us with a quality assessment in terms of map's mathematical correctness by reviewing the positional accuracy of the individual transformed points (Podobnikar, 2010; Panecki, 2015). Accordingly, RMSE value for Spratt's map is calculated as 20.631 meters. When the scale and time of the map is considered this error seem to fall within the acceptable limits. The existence each of spatial elements in various historical maps analyzed in this paper can also be checked in Table 1. The next section will further address the silence of the maps for those elements in connection with the method of analysis developed in the paper by combining the suggestions of Harley (1989a; 1989b) and Ethington (2007).

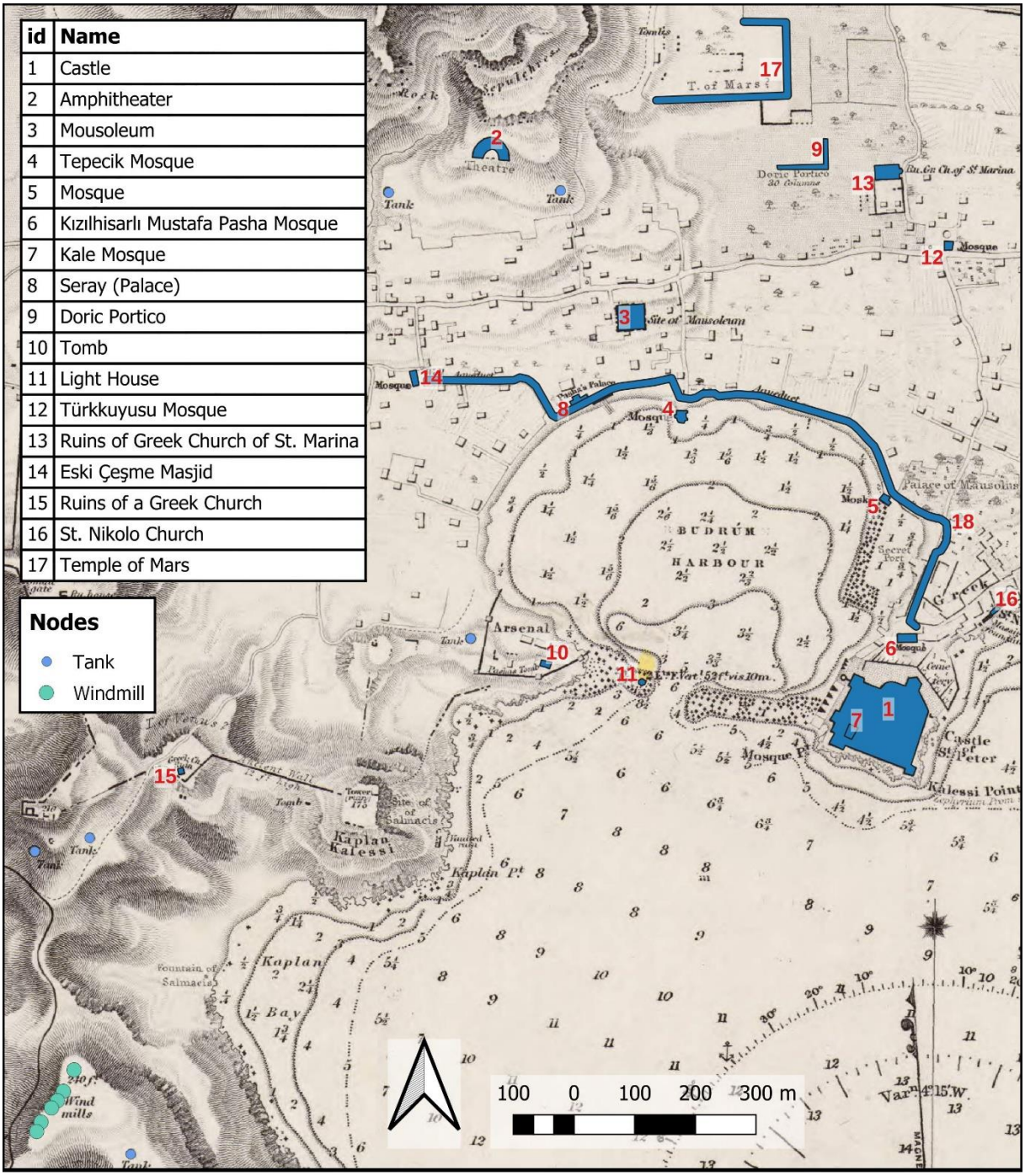

Figure 10 - Some of the spatial elements traced over time and maps used in the study. Source: Authors' (2022) elaborations on the map modified from UKHO (1847).

Table 1 - Comparison of the existence of some of the spatial elements in the maps used in the Study.

id	Name	Historical Maps Depicting Bodrum								
		Buondelmonti and Sonetti	Pîrî Reis	Borra	Russian Navy	Choiseul-Gouffier	Du Bocage	Allezard	Beaufort	Spratt
1	Castle	X	X	X	X	X	X	X	X	X
2	Amphitheater			X		X				X
3	Mousoleum						X			X
4	Tepecik Mosque				X?	X			X	X
5	Mosque									X
6	Musafa Pacha Mosque								X	X
7	Kale Mosque								X	X
8	Palace (Seray)					X			X	X
9	Doric Portico			X						X
10	Tomb								X	X
11	Light House									X
12	Türkkuyusu Mosque									X
13	Ruins of St.Marina									X
14	Eski Çeşme Masjid									X
15	Ruins of a Church									X
16	St. Nikolo Church									X
17	Temple of Mars			X						X

AN ELABORATION OF THE VARIOUS PERSPECTIVES

The attempt to re-read history of Bodrum in maps reveals the importance of also re-reading maps in history in terms of exposition of the hidden agendas encoded in the maps and the evolution of the spatial configuration of the landmarks encapsulated in the maps. The chronological order and the dominant characteristics of the historical cartographical materials used in this study is summarized in Figure 11 together with their short descriptions. Overall, four mapping traditions can be identified for the period analyzed with a specific focus on Bodrum; (1) charts and maps produced between the 15th and 17th centuries for various types of *isolario*s and similar books (such as the ones in Buondelmonti, Sonetti and Pîrî Reis' books); (2) the 18th century mappings of antiquity (such as Borra and Choiseul-Gouffier's maps) characterized by picturesque representations; (3) post-portolans (such as Allezard's map) mainly serving for navigational purposes before the military surveys; and (4) the 19th century military surveys (such as Spratt's map) characterized by modern cartographic techniques.

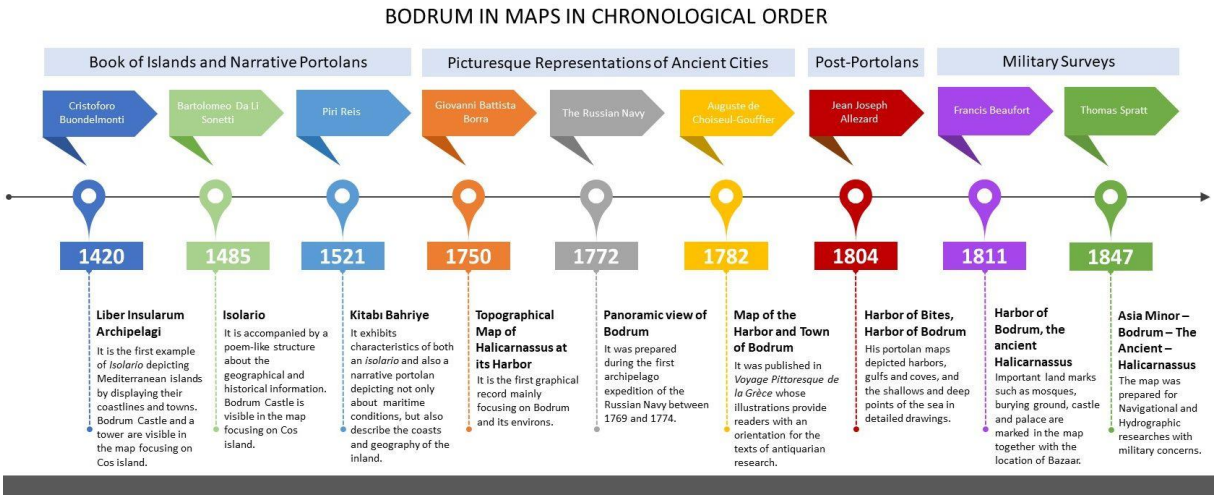

Figure 11 - Chronological order and characteristics of the historical cartographical materials for Bodrum (Produced by the authors).

The Menteşe Principality, which dominated the Southern Aegean before the era of "Book of Islands and Narrative Portolans", provided an important economic activity between the east and the west by developing maritime trade with the Genoese and Venetians, who held the Mediterranean trade, due to its strategic position in Anatolia and the Mediterranean (Metin, 2013). In addition, due to the fact that the Menteşe Principality was not strong enough to threaten the Venetians as a navy power, it made the development of commercial relations beneficial for both parties by keeping the Venetians unresponsive to the Turkish advance (Laiou, 2003). However; during the era of "Book of Islands and Narrative Portolans", southern Aegean region covering Bodrum witnessed the increasing Ottoman Rule in both the inland and sea thanks to the institutionalization of the Ottoman Navy during the same era, which resulted in the complete restructuring of the administrative, political and economic life in the region. Although the ongoing trade with the Venetians in the South Aegean under Ottoman rule was interrupted, new ships were built in the shipyards on the shores of Bodrum in order to strengthen the Ottoman Navy, which would pave the way for the Ottomans to become a military power in the Mediterranean.

It is actually for this interruption that "Book of Islands" came into existence. As argued in the previous section, an obvious political strategy for the legitimization of presence of the Latin over the territories of the Eastern Mediterranean can be observed in *the Liber Insularum Archipelagi*. In this paper, the second fold of the lens is developed to further explore the inner dynamics of construction of this strategy. Along the second fold of the lens used in this study, each map or chart can be considered as a layer whose *topoi* involves not only the physical entities forming a spatial configuration in terms of accumulation of events and experiences, but also the ideas and actions giving direction to the representation of these configurations. Actually, the trajectory of each *topoi* between different layers provides us with the material evidence of historical categories, which can, in turn, be examined for the possible implications for continuity, interruption and evolution of various styles of narratives and world views imperative in the mapping practice at the very beginning along the first fold of the lens that looks for conceptualizations behind various representations.

Continuity of trajectories of both representations of physical entities and conceptualizations of the representations can easily be first observed in the tradition of *isolario* as exemplified in the works of Buondelmonti and Sonetti. This mapping tradition with small interruptions in the method of narration evolves into a hybrid model in the case of Pîrî Reis' *Kitâb-ı Bahriye* imprinted with the characteristics of both *isolario* and portolans. Although the early charts and maps prepared by Buondelmonti, Sonetti, and Pîrî Reis seem to serve for navigational purposes, as elaborated in the paper, a hidden agenda can be easily identified behind their creation in terms of declaration of a particular world view with reference to visual enjoyment of the ancient narratives or the imperial power. In this respect, the particular silences and inconsistencies embedded in the maps provides us with some further clues about the social norms and values encoded in the maps. Particularly, the discontinuity of trajectories can be considered as a special case of silences and inconsistencies because ignorance occupies the initial phase of any silence.

Indeed, the silence of Borra's map about the mosques in Bodrum deserves attention. It is a known fact that in 1750 when Wood's team visited the town, there were at least four mosques in Bodrum. Although this ignorance is relatively interrupted with the depiction of a mosque in Choiseul-Gouffier's map, it seems that this is an acceptance of the reality of the time owing to the fact that the basic intention for this particular map can also be easily read via the cartouche depicting the ancient Halicarnassus and placed on left upper corner of the map. One can easily sense the tension and inconsistency between the images of the ancient city given in the cartouche and the actual one depicted in the map. For example, the secret port marked in the cartouche suddenly disappears in the map of the town. By revealing the existence of apparently missing items, as Della Dora (2007) argues, Choiseul-Gouffier meant to do justice to ancient narrators one of whom is Herodotus born in Halicarnassus. Based on this argument, Della Dora (2007) further argues that Choiseul-Gouffier's work was not only antiquarian and ideological but also metaphysical in character.

Nevertheless, some inconsistencies between different maps depicting Bodrum seem to have stemmed from technical issues not conscious interventions that can be considered as being part of deliberate strategies. For example, the inconsistencies between different Bodrum maps in relation to the location of ancient Mylasa Gate and the Amphitheater are illustrative for the technical problems experienced in the translation of an observation to the map or in the finalization of a sketch as a map.

While, probably owing to its military intention, there is, again, no written depiction for Islamic symbols in Bodrum map prepared by the cartographers in the Russian Navy during their first archipelago expedition; in the panoramic view attached to the bottom of the map, a minaret like structure can actually be identified (Tepecik Mosque in Table 1).

For a fuller depiction of those landmarks symbolizing overwhelming existence of Islamic values in Bodrum maps, one should wait the maps prepared by the members of UKHO in line with the modern cartographic techniques, which again seems to stem from a necessity of the reality of the time because of the fact that a more detailed depiction of the ancient Halicarnassus prevails the other elements in these early modern maps. In these mapping practices, while a trajectory of reality is extended by inclusion of some previously neglected *topoi* such as mosques probably because of military strategic concerns, a trajectory of retrospectivity evolves into a trajectory of evidences as

in the case of depiction of ancient Halicarnassus with reference to material evidence. Thus, although a comparison of the volumes authored by Beaufort (1817) preceding the maps of UKHO and Choiseul-Gouffier (1782) reveals, as Duggan (2017) remarks, rather different approaches for the use of both the textual narrative and the illustrations; sharing a common ancestral past their maps are characterized by a search for the presence of Christianity in the Eastern Mediterranean and its link with antiquity.

Of course, the silence observed in the early maps prepared by the European surveyors for some elements in the depiction of Bodrum can also be argued to be valid on the other side of rivalries between the Ottoman Empire and the Western Christian nations. On the Ottoman part, as remarked in the previous section, Pîrî Reis marks neither the castle nor the tower with a symbol in his maps showing Bodrum. With relative interruption in the trajectory concerned, the symbolic importance attached to them is weakened in the representation of Pîrî Reis, who exposes a different worldview in his map that can be characterized by the declaration of imperial claims together with the other maps in his book.

Instead of providing a perspective polarizing the various depictions of Bodrum in historical maps, a perspective uniting what is in hand can also be formulated. Interestingly, the help comes from Cevat Sakir Kabaagaçlı, a famous novel and story writer known as the Fisherman of Halicarnassus who lived in Bodrum. According to Özveren (2017), many parallels can be found between the views and thoughts of "Fisherman of Halicarnassus" and Fernand Braudel. Özveren (2017, p. 15) argues that "[b]y characterizing the Mediterranean as a continent in its own right, the Fisherman accomplished a revolution of almost equal significance to that of Braudel who relocated the Mediterranean from the subordinate status of a backdrop or stage to history to becoming its main" central character. The 16th century is particularly important for Braudel in his characterization of the Mediterranean world as a unit of analysis in terms of establishment of a certain balance of power between the rival poles of not only East and West, but also North and South. According to Braudel (1972), the Mediterranean world as "a meeting place of many peoples" functions as a "melting-pot of many histories" such that almost identical worlds with the same rhythm of life and without any need for adaptation in case of a movement from one world to the other can be found in the countries bordering the Mediterranean.

The unity of the Mediterranean as conceived by Braudel can also be observed in the Fisherman's (Halikarnas Balıkçısı, 1991) conception of the Mediterranean as a continent in its own right. According to Özveren (2017), this can be considered as the Fisherman's reaction to the claims about the Western civilization's superiority having philhellenic foundations that he was taught at Oxford University while he was studying history there. Instead of counterpoising himself in the East as against the West, the Fisherman conceived the Mediterranean as distinct from the West (Özveren, 2017).

At a higher level, the general similarity between the charts and maps presented in *isolario*s and Pîrî Reis' *Kitâb-ı Bahriye* can actually be conceptualized on the basis of this melting pot characteristics of the Mediterranean that should be definitely considered as a unit of analysis. This seems to be an alternative and yet more convincing way of re-reading the history in maps via the historical evolution of mapping traditions in the Mediterranean. The continuity in the general style of

narration in the charts and maps of Buondelmonti, Sonetti, and Pîrî Reis can be considered as a special case of the continuity in the life styles of the Mediterranean people mentioned by both Braudel and Fisherman of Halicarnassus.

CONCLUDING REMARKS

In recent years, a number of researchers has reinforced the consideration of maps as tools of projection of world perspectives of the central powers by using Harley's (1989a; 1989b) methodology. In this context, it can be easily argued that without exception those European cartographers and surveyors having a common ancestral past tried to reflect past in the present by superimposing history on geography with an intention to master territory through a search for exposition of Christianity in the Eastern Mediterranean and its link with antiquity. Nevertheless, it is observed that over time the symbols revealing the prevalence of Islamic values were increasingly and inevitably depicted in the maps of which Bodrum is part thanks to the empirical observations made on the site to frame the truth instead of prioritizing the ancient narratives for the formulation of the truth.

Overall, maps depicting Bodrum help us trace the origin of not only basic spatial elements involved in the construction of a place, but also various and different representations of this place as a configurational framework of these elements. In this respect, based on the maps produced for Bodrum, although this study reaffirms Harley's (1989a; 1989b) argument about the fact that "cartographic facts are only facts within a specific cultural perspective" and maps are "a particular human way of looking at the world", it also put forward a new agenda and perspective via the elaboration of Braudel (1972) and the Fisherman of Halicarnassus' (1991) contributions for the contextualization of the historical cartographical materials by questioning the possibility of a unifying perspective instead of a polarizing one.

A unifying perspective is valuable as a connotation for the legitimization of intervention into the spatial processes at different scales. In this context, for geographical studies of the settlements, with particular reference to Bodrum Halicarnassus, this study exemplifies the provision of a complex understanding of what is manifested not only in the spatial configuration of entities in a given environment, but also in various depictions and representations of these configurations.

By shedding some light on the sociocultural and political context of Bodrum maps' creation, the study also reveals the importance of conceptualization of history as cartography, as suggested by Ethington (2007), in the provision of a non-prescriptive approach. The possibility of looking at the maps from various and different perspectives balances the analytical priorities assigned to the high- and low-level trajectories of *topoi*. While the traces of a low-level trajectory tend to reveal opposing world views, the trace of a high-level one may well support a shared destiny and world view that also seems to epitomize the history of civilization having roots in the Mediterranean.

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Author Contribution Statement | Yazar Katkı Beyanı

A. Fikir / Idea, Concept	B. Çalışma Tasarısı, Yöntemi / Study Design, Methodology	C. Literatür Taraması / Literature Review
D. Danışmanlık / Supervision	E. Malzeme, Kaynak Sağlama / Material, Resource Supply	F. Veri Toplama, İşleme / Data Collection, Processing
G. Analiz, Yorum / Analyses, Interpretation	H. Metin Yazma / Writing Text	I. Eleştirel İnceleme / Critical Review

AUTHOR 1: A/B/C/G/H
AUTHOR 2: C/E/G/H

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BIOGRAPHIES OF THE AUTHORS

Burak BEYHAN (Prof. Dr.)

Burak Beyhan is a Professor at the Department of City and Regional Planning, Muğla Sıtkı Koçman University. He received his degrees (Bachelor of City Planning - B.CP., Master of Regional Planning - M.RP., and Doctor of Philosophy - Ph.D.) in the Department of City and Regional Planning at Middle East Technical University, in Ankara, Turkey. His main research interests are in the areas of urban and regional planning, regional development and innovation systems, geographic information systems (GIS) in planning, and urban and planning history in Turkey.

Feray KOCA (Assoc. Prof. Dr.)

Feray Koca is an Associate Professor at the Department of City and Regional Planning, Muğla Sıtkı Koçman University. She received her Bachelor of Science (B.Sc.) degree in the Department of Landscape Architecture, Ankara University, and her Master of Urban Design - M.UD., and Doctor of Philosophy - Ph.D. degrees in the Department of City and Regional Planning at Middle East Technical University, in Ankara, Turkey. Her main research interests are in the areas of urban design and planning, urban morphology, environmental policies, management and issues, traditional settlements, and settlement pattern in Turkey.