

Review

Coastal landscapes and conservation issues: Antalya-Phaselis

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Phaselis is an antique settlement situated on the Mediterranean coasts of Turkey on the way to Antalya coastal highway, 35 km. far from Antalya. It was one of the most important antique cities of Pamphylia founded over a peninsula that narrowed into bays to the north and south. Phaselis was a city of natural harbors founded by the colonists from Rhodes in the 6th century B.C. It had three harbors one on the north, one on the northeast and one on the southwest side of the peninsula. Phaselis is an archeological site near the Mediterranean coast and the ruins of the city are partially under the sea and partially covered with vegetation that can be considered among the most picturesque ancient remains of Turkey. The buildings still visible on the site are mainly concentrated on the neck of the peninsula between the north eastern and south western harbors. Historic archeological sources above and below the ground and sea level are important cultural heritages that has to be transferred to future generations as the evidences of past cultures. Coastal landscape quality of Mediterranean Region of Turkey is very rich. There are numerous significant resources as rare survivors of archeological sites reflecting the cultural traditions and patterns of settlements having local, regional and national importance. So, archeological resources must be protected and preserved in place in order to protect the original characters of the historic sites and their near environs. So, the conservation of archeological sites under the sea and the coastal areas should be held more sensitively. In this article, Phaselis antique settlement which is a unique and distinguished example in the Mediterranean coasts of Turkey was presented with its natural and cultural values. Then, the concepts of coastal archeology, coastal landscapes and their conservation issues were discussed and at the final stage, the problems and potentials of Phaselis archeological site were evaluated. Besides, conservation issues of coastal archeological sites were discussed with special reference to Phaselis.

Key words: Phaselis, coastal archeology, coastal landscape, landscape quality.

INTRODUCTION

One of the most interesting combinations of sea, history, culture and forest is seen in Phaselis (Figure 1). Along the road on the shore towards Antalya, there is an important antique settlement of Pamphylia established in 6th century B.C. by the Rhodian colonists during the reign of Lacuis. The city is on the trade-route between Greece and Syria and Paletsine and boasts of three natural harbors. However, as in other areas of the coasts of Anatolia, there were settlements here before the arrival

of Rhodian colonists (Aksit, 2001). At the beginning, the city was the part of Pamphylia but later joined to Lycia. Nowadays, the ruins of the antique settlement are lying between the harbors blended with nature. Part of the ruins is under the sea as a cultural source to culture and underwater diving tourism. The antique settlement had three harbors: one on the north, one on the northeast a done in the southwest side of the peninsula. The ruins of the buildings existing today are mainly concentrated between the northeastern and southwestern harbors on the neck of the peninsula.

The harbors are connected to each other by means of a fine paved street beginning near the south western harbor where the gateway erected in honor of Hadrian

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Figure 1. Location of Phaselis (Anonymous, 2009a).

was built. The actual ruins of the city lie on both sides of the main colonnaded street. The theater lies on the west side of the street; and the agora of the city is located near the north eastern end. Besides, the ruins of the aqueduct, bath-gymnasium building; a cistern, a temple, a church and the necropolis spread along the coastline at the edge of the harbor are existing. These archeological ruins are forming a unique coastal silhouette integrated with natural elements.

History

Phaselis which was founded as a colony dates no further back than 7th. Century B.C. Phaselis came under the Persian rule in the middle of the 6th. Century B.C. but was liberated in 469 B.C. by the Athenian commander Cimon. Alexander the Great arrived at Phaselis early in 333 B.C. After his death, the city was under the rule of Egyptians from 309 B.C. TO 197 B.C. From 190 B.C. to 160 B.C. it remained under Rhodian hegemony, but after 160 B.C., it was combined into the Lycian league established by the Romans. Phaselis like Olympos was under the constant threat of pirates in the 1st Century B.C. In 42 B.C., Brutus had linked the city to Rome again in which the settlement lived the most brilliant period in its history and during the Byzantine period, the city became a bishopric (Akurgal, 1985) (Figure 2).

In the 3rd Century A.D., the harbor of the city had fallen under the threat of pirates once again. Than, suffered from further losses at the hands of Arab vessels until totally impoverished in the 11th Century A.D. When the Seljuks began to concentrate on Antalya and Alanya their

ports, Phaselis lost its importance (Aksit, 2001). The location of the city of Phaselis is definitely established and supported by the ruins lying in the North-east of Tekirova village. The inscriptions here mentioned the name of the city and most of the remains are from the Roman and later period. In the first century, Phaselis was under continuous siege of the Cician pirates to which the Romans put an end. During the Byzantine period, high city walls were built in defense of Phaselis. In 1158 A.D. Phaselis was captured by the Ottomans and faded into insignificance as Antalya and Alanya harbors became prominent.

Landscape quality of Phaselis antique settlement

Phaselis is a city of natural harbors formed of three bays situated in the west, north-east and in the south-west. There is a breakwater between the two small islands near the northern harbor. The ancient city of Phaselis is lying between the sea and the forest having a nature based environment. The main avenue is linking the military harbor to the northern harbor. The three bays surrounding the peninsula on which Phaselis is situated provide the city with a north, middle and a southern harbor. The city is entered under a well - preserved aqueduct beside the eastern harbor whose ruins. In the southern harbor which is the smallest one, the ruins of the ancient breakwater and embankment of cut stone are still exist. Ruins of another breakwater on the south-eastern harbor also exist. The north-western harbor is the smallest but the most efficiently used one protected by a sea wall. As this harbor was used for military purposes,



Figure 2. General view (Anonymous, 2009b).

there are also the remains of the defense walls and fortification towers. It was enlarged to accommodate a large number of ships. The military harbor to the south was protected by walls around the promontory. From here one can reach to the main colonnaded street on which the remains of two Roman baths and three small agoras are seen. The largest agora here was built by Domitian in the 1st Century A. D. Round brick columns and heating system of the baths are still visible (Aksit, 2001). There is a main avenue passing through the city connecting the military harbor to the south harbor measuring 125 m long and 20 - 25 m wide (Aksit, 2001) with sidewalks on either sides which are elevated by three steps. Both the main avenue and the sidewalks are covered with stone. The south harbor is reached from a square situated approximately in the middle of the main avenue. The ruins of the buildings are taking place on both sides of colonnaded street.

Half way along the colonnaded street, the ruins of the theater is seen with 20 rows of seats holding 1500 - 2000 people whereas the ruins of the Hadrian gate is standing at the end of the street. It was situated on the north-western slopes of the site. The theater has three timber doors of three meters high and beside the entrance on both sides there are two windows at a height of two meters each. There is also a small door opening on to the stage. The theater was built in Roman style in the 2nd Century A.D. The auditorium and scene of the theater still exist. There is a curving stairway in the southwest side of the theater representing the entrance from the street. On the west side of the theater through the avenue there is a

small bath building belonging to 3rd and 4th centuries. The frigidarium, tepidarium and calidarium sections are still exist. The ruins of the public toilets are seen adjacent to the bath building on the north side of it. Mosaic floor covering of the toilets are also exist. The city walls are surrounding the whole peninsula. At the tip of the peninsula there are ruins of a building which may have been a light house and remains of a breakwater. Besides, relief's having depictions reflecting social event, richly decorated archeological pieces and marble blocks are scattered to the whole site.

The Gate of Hadrian is giving way to the western harbor which is situated at the end of the main colonnaded street. This harbor is the largest of the three bays and has a unique beach. There is a hill which once forming the acropolis of the city. The summit of this hill offers a unique view over the three harbors and the whole antique site and the surrounding natural elements. There is a fortified settlement on the northern hill situated on the slope above the marshland enclosed by a Hellenistic masonry wall. In the northeast part of the enclosure there is a spring forming the source of an aqueduct (Figure 3). The two temples on the low hill opposite to the theater are erected to the honor of Athena Polias. On the northern harbor there are a few tombs. Further to the west of the southern part of the site there are the agora buildings namely Hadrian's Agora, Domitian's Agora (81 - 96 A.D.) and the late period agora which one of them has a rectangular plan scheme. There is a basilica type of church on the west side of the agora building belonging to Byzantine period. At the south end of the main road, to



Figure 3. Ruins of the aqueduct (Anonymous, 2009c).

the north there are rooms. The acropolis was surrounded with walls. The necropolis of the city is seen in several places; however the most dominant one is situated at the end of the road, stretching beyond the aqueduct along the coast over the steep slopes behind the harbor. Many tombs still exist in this area. Just before reaching the northern harbor, there are the ruins of the temple. It is a massive cut stone masonry building. The whole antique site and the ruins of the buildings are covered with vegetation with a forest foreground exhibits unique cultural landscape quality. The ruins of the theater, aqueduct, temples, tombs, etc. blended with nature create a special coastal landscape together with the harbors (Figure 4).

Coastal archeology and coastal landscapes

The sea has played a fundamental role in the history of Anatolian settlements through history especially in ancient times. So, there are many archeological sites situated in the coastal regions of Anatolia especially in the Mediterranean and Aegean coastline. The coasts of Turkey have diverse natural, cultural, historical and archeological values with different characteristics and the Mediterranean Sea is very rich as far as archeological sources are concerned. Coasts are the most populated areas where the interaction between human beings and the environment often throws the natural coastal system out of equilibrium. So, an effective management is required to militate against these human impacts on the environment. In order to minimize these impacts, which

affect the natural environment, coasts and coastal archaeological sites must be managed. The aims of coastal management are to facilitate the human use of the coastal zone, but minimize the impacts of such human use while protecting human interest at the coast from natural and human-related processes (Haslett, 2009). The shoreline, occurring between land and sea, is dynamic in nature. It undergoes frequent changes, short term and long term, caused by hydrodynamic changes geomorphological changes and other factors such as sudden and rapid seismic and storm events (Maiti and Bhattacharya, 2009). Shoreline, the boundary between land and sea keeps changing its shape and land formation continuously due to dynamic environmental conditions. The change in shoreline is mainly associated with waves, tides, winds, periodic storms, sea-level change, and the geomorphic processes of erosion and accretion and human activities. They affect human life, cultivation and waterway transportation activities. Detection and measurement of shoreline changes are an important task in the preservation of coastal landscape, environmental monitoring and coastal zone management (Van and Binh, 2008).

Shore lands of the coastal zone are used for human settlement, agriculture, trade, industry and as shore bases for maritime activities such as shipping and fishing. These several of the coast are not always compatible and may result in a wide array of conflicts and problems for resource users and decision makers (Clark, 1996). Sea level change is one of the main factors in stimulating coastal change which causes a dynamic effect on the



Figure 4. General view (Anonymous, 2009d).

environment. The level of sea is not constant it is always rising and falling whether through the passing of waves, meteorological influences or gravitational effects (Haslett, 2009) which causes damages and changes in coastal landscapes and archeological sites. Historic archeological resources forming cultural landscapes above - below the ground level, under the sea or partially under the water are important cultural heritages that have to be transferred to future generations because they were revealing significant information about past civilizations of Anatolia. Landscape quality of Mediterranean Region of Turkey is very rich and variable. There are numerous significant resources as unique survivors of archeological sites reflect settlement patterns of Greek and Roman periods having local, regional and national importance dating back to historical periods. There is a continuous change in archeological and coastal landscapes originating from the human activities and natural processes which are sometimes perceptible like geomorphologic changes on landform, sunken cities caused by earthquakes or progressive changes such as vegetation growth as seen in Phaselis case (Figure 5). Phaselis is also a partially sunken city. Ruins of such buildings are under the sea and the whole site is covered with plants densely through in time. However, all of these natural and cultural values combined with each other are creating the cultural and coastal landscape character of the settlement which is unique and contributing to the historical and coastal character of the environment. Besides, it has an ecological context as a habitat and with its natural

qualities.

RESULTS

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity and materials of any historic property or archeological value (Birnbbaum and Peters, 1996). In this sense, the historic character of a settlement should be retained and conserved as it is. The coastline of Turkey where many ruins of archeological settlements exist must be protected by national legislation. The ancient harbors as seen in Phaselis should be kept as they are. The drowned landscape of Phaselis antique city carrying archeological evidence of such civilizations reflecting the nature, scale and the coastal changes of the cultural landscape must be kept properly as it is. A sustainable coastal zone management is necessary for Phaselis archeological site in order to have an effective coastal and archeological conservation compromising the whole Mediterranean coastal zone. Besides, underwater cultural heritage of the area should be preserved. Archeological sites should be preserved in their own original locations with all changes occurred in time as the physical records of their period, place and construction techniques. The quality of the settlement, the landform, site arrangement, building material and other landscape and natural features that become a part of the archeological site identifying the character of the settlement should be preserved as they



Figure 5. A general view of Phaselis (Anonymous, 2009e).

are in their original formations. Coastal landscapes like as cultural landscapes are retentions of the landscape's existing form, features and materials, provided that such actions will not result in a degraded landscape condition or threaten historic resources (Birnbbaum and Peters, 1996).

The character of a coastal landscape is defined by its spatial organization and land patterns, features like topography, vegetation, circulation, hard landscape elements and building materials. So, spatial organization, land patterns, panoramic views, scenic pullouts should be planned and conserved as they are in coastal landscape areas. Accessibility to coastal archeological sites is of prior importance. Access to these areas both from land and sea has to be solved properly in a conservative way by giving the least harm to the environment. Existing vegetation should be identified and preserved as a part of the landscape. Trees, shrubs, dunes, endemic plants, local formations and ground covers in their original scale, form and texture qualities must be preserved. The landform, plants, dunes, sea and the ruins of the buildings combined and met each other in a coast should be kept as it is. Archeological resources must be preserved in place. New additions, alterations and new construction activities should be avoided in order not to disturb the original quality of the settlement and spatial relationships characterizing the archeological site and the settlement pattern bordering the coast. False sense of coastal site development should not be undertaken. Phaselis with its rich archeological resources site offering diving facilities. So, submerged archeological ruins of the antique city can be regarded as a tourism potential for such activities. On the other hand, a development plan based on cultural and diving tourism is needed. Phaselis has a rich cultural

heritage both on land and at sea. So, there is a need for local institution to implement a policy to ensure the long term stability of a cultural management process both for Phaselis and the whole Mediterranean region of Turkey. Appropriate aesthetic criteria should be set. The aesthetic value of the ruins of Phaselis antique city deriving from its well- combined natural and structural cityscape quality should be kept with its cultural, natural and vegetative qualities. The landscape and seascape will continue to evolve in the future as new demands are placed upon them. Therefore, these demands must be managed so that coastal landscape retains its value and distinctiveness even after development (Kim and Kang, 2009). Therefore, the panoramic seascape and the landscape quality of Phaselis should be preserved as it is by avoiding further erosion and such building activities. On the other hand, to ensure the cityscape and the photographic consistency among the environmental components of Phaselis such as cultural heritage, sunken ruins of the antique city, the harbors, and the landscape quality of the whole archeological site, plant material and the all panoramic silhouette of the beach, harbors and the land should be preserved in their original formations. Conservation must be undertaken in situ. Intervention should only be undertaken when absolutely necessary and kept at minimal level. The main goals of conservation and management measures are to preserve the site's existing condition and to slow deterioration. Besides, regular maintenance is needed so, a routine maintenance program should be established to carry out regular monitoring to eliminate potential threats and to repair minor deterioration (Anonymous, 2004). Negative impacts that are caused either by natural or man-made factors could be mitigated through different conservation

techniques and methods. Conservation could be approached from two perspectives, which are technical and management perspectives (Sarikaya Levent, 2008).

From technical perspective, 'conservation' refers to physical interventions differing from case to case on archaeological heritage, such as stabilization, restoration, repair, reconstruction, liberation or renovation which has to be applied according to the quality of the antique settlement. Archaeological heritage can not be preserved only by means of conservation techniques and archaeological studies, but also conservation of archaeological heritage requires a comprehensive and multi-disciplinary approach which needs also a 'management' perspective for the sustainability of the environmental resource. Conservation of archaeological heritage, as a part of cultural heritage, is like managing any other resource. It represents a balance among competing forces, it requires a multidisciplinary, collaborative work, and it is subjected to changing social, political and economic conditions (Sarikaya Levent, 2008).

Agenda 21 did not, in itself, attribute any importance to cultural heritage and especially coastal landscapes and archaeological sites. This lack of attention to coastal cultural heritage is surprising however; it is alien to a holistic view of the social and cultural endowments of this important part of the world as a result, the perception of the coastal system as a bi-modular system including ecological and social components. Given this non-holistic representation of the coastal area, there remains a clear need to balance the original perspective with one leading to strategies able to optimize sensitivity to cultural heritage in the individual coastal areas (Vallega, 2003). In the preservation of coastal landscapes and cultural heritage, there are some basic criteria that have to be taken into consideration which are physical, ecological and economic criteria. Physical criteria: compromises the coastal area according to physical qualities of the coastline such as the geographical coverage, landform, topographic properties, etc. Ecological criteria consists the preservation of ecological conditions, sensitive areas, protection of endemic species, habitats and ecosystems, such as Mediterranean scrub and coastal woods and, seawards, the neritic zone, Economic criteria consists the existing coastal resource uses and the location of structures and facilities and agricultural activities. According to the Constitution Law of Turkish Republic, the coasts are at the disposal of the government. In utilizing from the sea, lake and river shore lines one must take care of first of all the public benefit. According to the 2001 date Turkish Civil Law, the places with no property and the goods in the benefit of the public are in no ones ownership and can never be a subject of a private ownership. According to the Coastal Law numbered 3621/3830, the detection of the shore border line is obligatory to be able to make plans and plan's implementation on the coast and shore line. But unfortunately, the usage out of public benefit is being seen because of lack of planning and the handicaps in the detection of coast lines. Turkey has cultural and historical merits, blended with natural values gaining

attractiveness to the environment (Sesli and Aydinoğlu, 2003). The concept of protecting, conserving and preserving these sites is legislated by the Law for the Conservation of Natural and Cultural Assets. Natural sites are defined by the Ministry of Culture and a comprehensive piece of legislation is determined. The areas above and below ground and water that belong to historical, pre-historical and geological periods and possess significant values and attractions' are considered as 'cultural heritage'. These sites are categorized in three groups with respect to the level of protection that is needed. Archaeological sites are defined as the 'areas and settlements that feature all kinds of cultural assets depicting cultural, economic and social characteristics of past civilizations and their outputs above and below ground and water and classified in three groups with respect to the characteristics and values that they carry such as: 1st degree archaeological sites: The sites that will be preserved as they are. Only scientific studies aimed at conservation are allowed; 2nd degree archaeological sites: The sites that deserve preservation as they are whilst supporting scientific studies aimed at conservation. Protection councils define the conditions of their use and conservation; 3rd. degree archaeological sites: the sites where new arrangements can be made in the light of the use and conservation principles as they are articulated by protection councils. Urban Archaeological Sites are defined as the 'areas within archaeological sites where immobile cultural assets depicting the town fabric are present'. The most popular archaeological sites located along the southern Aegean and western Mediterranean coasts of Turkey (Anonymous, 2005). In this respect, a special reference should be taken and a comprehensive implementation process should be developed for such regions and coastlines of Turkey where cultural heritage, natural values and environmental formations are subject to special preservation approaches as in Phaselis case. Phaselis as being a 1st. degree archaeological site has to be treated specially with special reference to its unique landscape character.

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