A REVIEW OF THE CAPE GELIDONYA AND ULUBURUN SHIPWRECKS SHED LIGHT ON CYPRUS MARITIME ACTIVITIES*

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ABSTRACT

Cyprus had an important place in the ancient Mediterranean trade thanks to its geostrategic location. The island, drew attention with its copper resources and ceramic products in the Bronze Age. Archaeological remains unearthed in Uluburun and Cape Gelidonya shipwrecks support this situation. The cargo of shipwrecks and the route they followed show both the extent of maritime trade during this period and Cyprus' position in these commercial activities. The high ratio of Cypriot copper and ceramics to the total amount of goods in the shipwrecks is instructive in terms of understanding the role of Cyprus in the maritime activities. The hypothesis of their potential Cypriot origin is supported by the higher quantity of Cypriot-origin products found on these wrecks compared to others. The fact that Cyprus is an important port on the route followed by merchantships and even the view that it could be the initial departure point of them, makes it worth to consider. Accordingly, in this study, the Cape Gelidonya and Uluburun shipwrecks, and the Cypriot goods they contain are examined, and the active role of Cyprus in the maritime trade of the period is investigated.

Key Words: *Uluburun Shipwreck, Cape Gelidonya Shipwreck, ingot, Cyprus, trade*

Kıbrıs Denizcilik Faaliyetlerine Işık Tutan Gelidonya ve Uluburun Batıkları Hakkında Bir İnceleme

ÖZET

Jeostratejik konumu itibariyle Kıbrıs, Eski Çağ Akdeniz ticaretinde oldukça önemli bir yere sahiptir. Tunç Çağı'nda, sahip olduğu bakır kaynakları ve keramik ürünleri ile dikkat çeker. Uluburun ve Gelidonya Burnu batıklarında ele geçen arkeolojik kalıntılar bu durumu desteklemektedir. Batıkların muhteviyatı ve takip ettikleri rota hem dönem deniz ticaretinin boyutunu hem de Kıbrıs'ın söz konusu ticari faaliyetlerdeki yerini göstermektedir. Kıbrıs bakırı ve keramiğinin batıklardaki toplam ürün miktarına oranının fazla olması, Kıbrıs'ın denizcilik faaliyetlerinin anlaşılırlığı açısından yol göstericidir. Gemilerin Kıbrıs kökenli olabileceği savı, batıklardaki Kıbrıs kökenli ürün miktarının diğerlerine oranla fazla olması gerçeğiyle de örtüşmektedir. Kıbrıs'ın ticaret gemilerinin izlediği rota üzerinde önemli bir uğrak yeri olması ve belki de gemilerin ilk çıkış noktası olabileceği görüşü konuyu üzerinde düşünmeye değer kılmaktadır. Bu doğrultuda bu çalışmada Geç Tunç Çağı'nda Kıbrıs deniz ticaretine ışık tutan Gelidonya Burnu ve Uluburun batıkları ile içinde barındırdıkları Kıbrıs malları incelenmekte, Kıbrıs'ın dönem deniz ticaretindeki aktif rolü araştırılmaktadır.

Anahtar Kelimeler: *Uluburun Batığı, Gelidonya Burnu Batığı, bakır külçe, Kıbrıs, ticaret*

* This article was produced from the author's doctorate thesis titled *The Cultural and Economic Effects of Phoenician Colonization in the Mediterranean World*, which she completed at Bursa Uludağ University Social Sciences Institute in 2023.

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Research Article / Araştırma Makalesi

Cite as / Atıf: Günel, İ. (2024). A review of the Cape Gelidonya and Uluburun Shipwrecks shed light on Cyprus maritime activities. *Uludağ University Faculty of Arts and Sciences Journal of Social Sciences, 25*(47), 467-477. https://dx.doi.org/10.21550/sosbilder.1414674

Sending Date / Gönderim Tarihi: 4 January / Ocak 2024
Acceptance Date / Kabul Tarihi: 24 March / Mart 2024

Introduction

In the 2nd millennium BC, the Eastern Mediterranean was the region with the most intense maritime trade. This situation continued until the opening of ocean routes. The "Bronze Age Empires" such as the Hittites, Mesopotamia, Ancient Egypt, the Minoans, the Mycenaeans, Cyprus, and the Canaanite countries, were the key players in this extensive maritime trade (Özdemir, 2007: 505).

Cyprus is located in the eastern Mediterranean. Due to its location, the island served as a cultural, political, and commercial bridge between the West and the East (Vermeule-Wolsky, 1978: 294). Its position along the sea routes connecting Egypt, the Levant, Anatolia, and the Greek world increased the geopolitical importance of Cyprus. As a result, Cyprus became a subject of hegemonic struggles among the political powers in the Near East (Oberhummer, 1924: 59; Maier, 1964: 13 et al.; Solsten, 1993: 5). Additionally, its possession of significant resources such as copper, iron, chromium, and timber, along with its success in seafaring, contributed to Cyprus's prominence in ancient history (Gürsoy, 1962: 194 et al.; Tarhan, 1971: 37 et al.).

The inherent risks of being an island had little impact on Cyprus thanks to its connections with the outside world. While, under normal circumstances, living with its own land, climate, and natural resources would have been the main challenge, Cyprus established connections with the external world and mitigated these risks. Throughout the Bronze Age, these external relations were primarily determined by the natural resources and their trade. The island's most important natural resource was copper (Knapp, 1992: 54-55). The Bronze Age, especially the Late Bronze Age, witnessed transformation of Cyprus from a village-centered isolated culture to an urban-centered international community. During this period, there was an increase in copper production and trade. In addition to the growing population, the establishment of new port cities like Kition, Hala Sultan Tekke (Larnaca), and Marion contributed to this transformation (Knapp, 1992: 60; Knapp et al., 1994: 426; Randers, 2003: 868).

Information about Cyprus's political structure and economic situation in the 2nd millennium BC can be found through documents belonging to the Hittite kings and the Amarna letters. Documents from cities like Ugarit, Babylon, and Mari also provide valuable insights. In addition to the aforementioned written texts, another crucial source group is archaeological finds. They offer significant information about the Bronze Age Cyprus. Two important shipwrecks can be mentioned in this regard: the Gelidonya Cape Shipwreck and the Uluburun Shipwreck. Both of them have provided archaeological artifacts that shed light on Cyprus's Late Bronze Age. For example, the Kition ceramics and tons of copper ingots from the Uluburun wreck, dating to the 14th century BC, are invaluable for understanding of Cyprus's role in the trade of the Near East. The presence of Cypriot ceramics in large quantities in Anatolia, Egypt, Syria-Palestine, and the Aegean world, as well as the consistent emphasis on Cypriot copper in written texts, substantiates this role.

To delve further into the shipwrecks, two shipwrecks dating to the Late Bronze Age (c. 1600-1200 BC) are notable. These are the Uluburun Shipwreck, and the Cape Gelidonya Shipwreck. They are particularly significant for offering a different perspective on the Bronze Age history of the Eastern Mediterranean (Bass, 2006: 306; Özargun&Pınarcık, 2021: 568). Due to their significance, they will be discussed in detail below.

The Cape Gelidonya (Taşlık Burnu) Shipwreck

The first of these shipwrecks is the Cape Gelidonya (Taşlık Burnu) Shipwreck, which is approximately dated to around 1200 BC (Bass, 1986: 269-296; Berkaya, 2017: 297). The

excavation of the shipwreck began in 1960 and was carried out by G. F. Bass. The excavations continued in 1988, 1989, 1990, and 1994 (Özdaş et al., 2011: 115).

It is believed that the ship's lower part was opened and fractured when it collided with a rock. The damaged vessel became embedded about 27-28 meters deep after hitting the rocky shore. Upon examining the ship's contents, it is observed that it carried 34 flat and rectangular copper ingots, each weighting around 25 kg. These ingots have handles at their corners for transportation. The shape of the ingots was resembled to cattle hides, and they were referred to as "ox-hide ingots." This nomenclature is supported by the assumption that they were valued like cattle before the use of coinage. However, the discovery of a variety of ingot weights in the Cape Gelidonya wreck refuted this claim. Furthermore, the oldest ingots found in the wreck do not have handles. Similarly, the ingots retrieved from the Uluburun Shipwreck were multiform. In addition to the ox-hide ingots originating from Cyprus, there are also pillow shaped and loaf-shaped ingots (Bass, 2006: 306-307; Bass, 2010: 797, 800; Pulak, 2010: 864, 869; Bass, 1967: 53; Knapp, 2013: 582). In addition to the mentioned ingots, the shipwreck also contain numerous bronze tool parts designed for bronze production and agricultural implements. Among the scrap metal pieces, plow parts, sickles, axes, hooks, shovels, sickles, hoes, and spearheads were discovered (Bass, 2006: 307; Monroe, 2010: 19-33; Bass, 2010: 802).

Regarding the ship's origin, Bass, in his excavation report dating back to 1967, suggested that the vessel might have had Cypriot origins, but he identified it as a Canaanite ship. However, based on the results of the 2010 excavations, the final consensus regarding its origin shifted towards the belief that the Cape Gelidonya wreck was indeed of Cypriot origin. Another Late Bronze Age shipwreck found in Point Iria, Greece, also being of Cypriot origin, supports this view. Similarly, the prevalence of Cypriot pottery in the ship's immediate surroundings, about 100 meters to the southeast, strengthens the belief that it had Cypriot origins (Özdaş et al., 2011: 116-120; for Point Iria Aström, 1999: 131-138; Bass, 1967: 73; Höckman, 2006: 315; Matthaus, 2006: 341).

Uluburun Shipwreck

The Uluburun Shipwreck was discovered by coincidence in 1982 by a group of sponge divers. Archaeological excavations related to the shipwreck began in 1984, approximately 8.5 kilometers southeast of Antalya, Kaş (Fig. 1). Upon examining the wreck's cargo, an astonishing collection of 20,000 artifacts from various civilizations, including the Aegean world, Egypt, the Hittites, Syria-Palestine, the land of Canaan, and many others, was uncovered. This shipwreck provides a glimpse into the organized trade activities of the era in the Mediterranean, exhibits an assemblage of diverse commercial goods from different nations. Unfortunately, the ship sank before reaching its destination. Without the discovery of the Uluburun wreck, the scale and scope of trade in the Late Bronze Age Mediterranean and specific regional commodities would have remained unknown (Katz, 2008: 128; Alparslan, 2013: 82; Berkaya, 2017: 298; Pulak, 2010: 862-863; Monroe, 2010: 19).

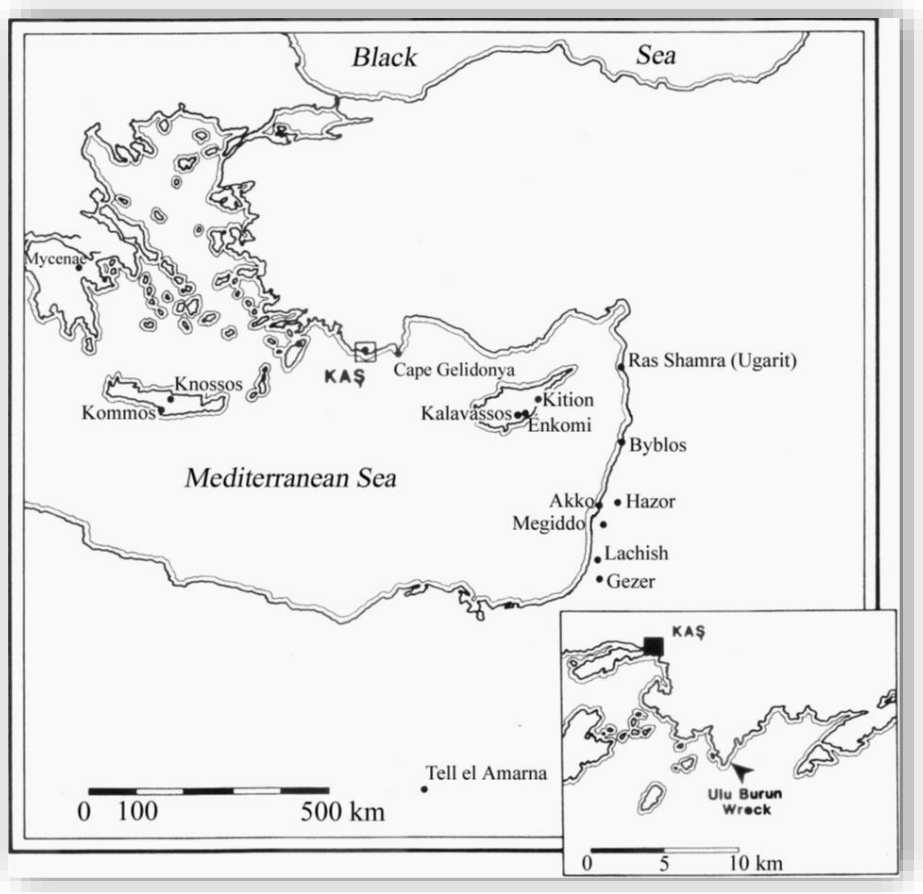

Figure 1: Location of the wreck site in the Eastern Mediterranean (Lin, 2003: 5)

A wide range of material groups were found during the excavation, including Cypriot pottery vessels, beads made of agate, glass, faience, and ostrich eggshells, cobalt-blue and turquoise glass ingots, bronze and stone balance weights, seals made of steatite, as well as bronze knives, tools, and fishing hooks. Among the archaeological finds, there were also metal scraps, such as plow parts, sickles, axes, hooks, shovels, hoes, and spearheads (Pulak, 1994: 225; Katz, 2008: 128).

The origin of the Uluburun ship remains uncertain. Determining the ship's place of origin is challenging. The stone anchors found on the ship indicate that the ship might have been manufactured in regions like Cyprus, Syria-Palestine, or Egypt (Alparslan, 2013: 83). Susan Sherrat argues that the ship could be of Cypriot origin (Sherrat, 2000: 89, No: 3; Muhly, 2006: 513).

It is believed that the ship sailed during the late 14th century BC when both land and sea trade flourished. The Eastern Mediterranean region was a central hub of maritime trade since influential trading powers, including the Hittites, Egypt, and the Mycenaeans, were located in the area. The city-states of Canaan, Assyrians, Mitanni, and Cyprus were also other key players determining the course of maritime trade (Yalçın, 2006: 23; Muhly, 1977: 73).

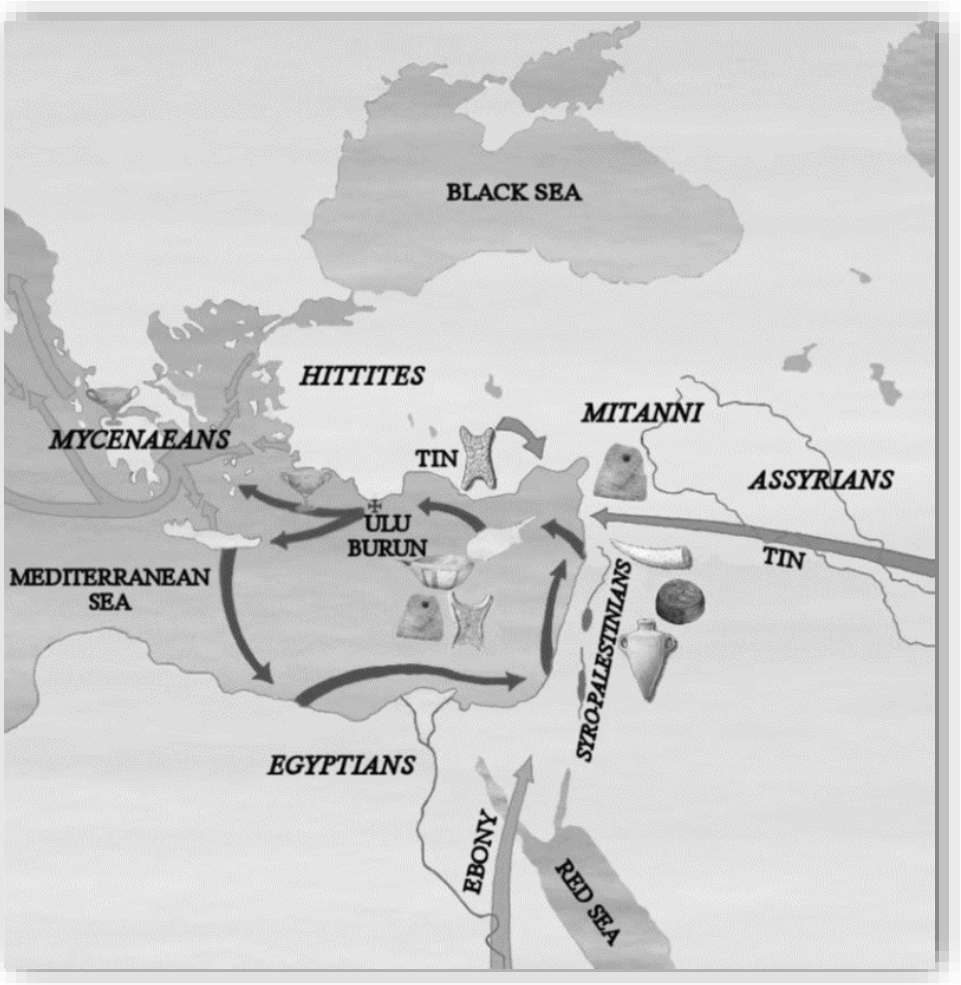

Figure 2: Trade routes in the Eastern Mediterranean (Fawcett & Zietsman, 2001: 19)

The route followed by the Uluburun ship and other long-distance vessels during 2nd millennium BC trade is believed to have started from a port in Levant or Cyprus. They would progress towards Anatolia's southern coasts, then head from Rhodes to Crete. Finally the journey would end up by reaching North Africa and Egypt. Upon returning to the Levant coast, they would complete a clockwise circular route (Kuruçayırlı, 2013: 70; Pulak, 2010: 870) (Fig. 2). They either left their cargo in the main ports along this route or added new goods to existing ones (Pulak, 2010: 862; Kuruçayırlı, 2013: 70; Doğan, 2012: 79). The Uluburun ship is thought to have followed this route, beginning its journey from a Syrian or another Levantine port, stopping by Cyprus to load copper, then proceeding toward Anatolia. The journey would likely conclude at a Mycenaean Palace. However, the ship sank along the southern coast of Anatolia, unable to reach its final destination (Yalçın, 2013: 44; Pulak, 1994: 227; Bachhuber, 2006: 359). Another important shipwreck is the Cape Gelidonya wreck dated back to around 1200 BC, about a hundred years after the Uluburun wreck. Although its cargo was much more modest than the Uluburun wreck, it is understood that this ship followed the same route (Kuruçayırlı, 2013: 65; Knapp, 2013: 413-414; Gale, 1991: 227-231; Pulak, 2000: 146-150; Bass, 2010: 801; Wheeler, 1975: 34). Considering the various weapons and equipment found on board, it suggests that the crew was prepared for potential threats and difficulties during their journey. Nonetheless, it was probably hard to resist violent storms and the ship crashed into the rocky shores.

The Uluburun shipwreck holds a crucial place due to its rich collection of cargo. It consisted of sought-after raw materials, including copper, glass, and tin ingots, African ebony, ivory, ceramic vessels, and numerous other items collected from different regions, such as spices, vegetable oils, and organic materials like resin. These findings substantiate records of commercial goods found in Egyptian and Near Eastern written sources of the time (Yalçın, 2013: 56; Mangaloğlu Votruba, 2013: 101). Such a vast collection had never been discovered before in a prehistoric shipwreck. Thus, the rich assemblage from the Uluburun wreck contributed significantly to the understanding of Late Bronze Age trade and economy. It is presumed that the ship, which was roughly 15 meters long and primarily made of cedar wood with oak pegs, had a carrying capacity of approximately 20 tons (Pulak, 2010: 864).

The cargo of the ship was likely destined for royal palaces, with the majority of the load consisting of copper ingots and bronze tools (Pulak, 2006: 61; Alparslan, 2013: 82; Muhly, 2006: 505; Pulak, 2010: 864). The shipwreck contained 354 copper ingots, ranging in shape from ox-hide, plate, loaf, and disc. The majority of these ingots were of the ox-hide shape, with another substantial portion belonging to the pillow and disc group. The number of ingots in the pillow and disc group, which constitutes the second largest majority, was 121 (Yalçın, 2006: 22; Muhly, 2006: 505; Pulak, 1994: 222; Bachhuber, 2006: 348). Along with the ingots, the wreck included 175 glass ingots, Canaan amphoras filled with pine resin, African ebony, ivory, amber beads, faience, resin, gold, and silver jewelry, and various items like statuettes and small sculptures (Yalçın, 2006: 23; Pulak, 2006: 57-104; Alparslan, 2013: 82; Muhly, 2006: 505; Monroe, 2010: 21).

The products thought to be related to Cyprus in the Uluburun Shipwreck are copper ingots, ceramic pots, spices and condiments (coriander, horsetail grass), 150 Cyprus pots, oil lamps, jars, weights, bronze tools, as well as agricultural products. It is quite diverse, including raw materials (Genz, 2006: 379). One of the crucial aspects of the shipwreck is the copper ingots, Cypriot ceramics, and Cypriot weaponry found on board. Lead isotope analysis of the copper ingots found in the Uluburun wreck confirmed their origin in Cyprus. Specifically, these ingots matched the isotopic fingerprints of copper ore found in the Apliki mines in northern Cyprus, dating back to the mid-13th century BC. However, there are disparities between the Uluburun ingots and the isotopes of a known Cyprus ore body. It is believed that the copper used for producing the ingots might have been extracted from a different nearby mine. This mine might have been depleted during the period (Pulak 2006: 64; Gale&Gale, 2006: 131; Knapp, 2013: 3, 409; Wheeler, 1975: 32).

The Cypriot ceramics retrieved from the Uluburun Shipwreck form the sole collection of artifacts recovered during commercial transportation, and they are remarkably well-preserved. The ship's cargo includes around 140 finely crafted vessels, comprising bowls and jugs of various shapes and sizes. All the mentioned Cypriot ceramics are crafted from meticulously purified clay, featuring thin walls and handcrafted precision. The ceramics are adorned with great care, employing techniques such as burnishing, shaving, molding, and painting. The majority of these vessels were designed for everyday use (Bachhuber, 2006: 347; Bennet & Galaty, 1997: 94; Hirschfeld, 2006: 105; Pulak, 2010: 868: Gürgen, 2018: 333-334).

Pottery is one of the most important archaeological artifacts due to its exceptional preservation over time. Ceramics, serving a broad spectrum of purposes, encompass both large and small vessels, varying in thickness, and designed for storing liquids like oil, perfume, and wine, as well as high-quality tableware. Moreover, sizeable jars and amphoras were employed as transport containers (Matthaus, 2006: 345). Analyzing the findings, it becomes evident that multi-colored wheel-made amphoras were utilized for liquid transportation, while single-colored ring-bottomed jugs were designated for transporting opium used in pharmacy

(Matthaus, 2006: 347). The jars and containers discovered on the Uluburun wreck were identified as vessels for the transportation of both imported and exported products such as liquids and pottery (Pulak, 2006: 81; Gürgen, 2018: 334). Gürgen also provides detailed information about the types of ceramics uncovered in the Uluburun wreck (2018: 334-335).

The trade routes and commercial goods discovered on the ship provide valuable insights into Late Bronze Age trade and economics in the Eastern Mediterranean region. Copper, glass, and tin ingots, African ebony, ivory, ceramic products, and various other items in the cargo were gathered from different regions. For example, tin, which could not be localized at the time, was likely transported from an Eastern country, possibly Afghanistan, to Ugarit. Copper ore, on the other hand, was undoubtedly brought from Alašia, as it was one of the primary copper sources on Cyprus (Desti, 2005: 102; Akkermans, 2003: 341).

The Uluburun shipwreck holds a significant place in underwater archaeology and has had a profound impact on Late Bronze Age archaeological research in the Eastern Mediterranean. It has contributed to our understanding of the economy, as well as socio-cultural and political aspects of the era (Newton et al., 2006: 117; Pulak, 2010: 862). Depictions in the tomb of Kenamun in Thebes provide visual confirmation of trade scenes involving a Mediterranean trading ship. In paintings dating back to the 14th century BC, a Syrian trading fleet entering an Egyptian port, with laborers unloading goods from the ship, resembles the cargo from the Uluburun Shipwreck. The star-patterned necklaces worn by the ship's crew in these depictions are reminiscent of the star-patterned pendants found in the Uluburun Shipwreck. Furthermore, the similarity between the ceramic jars onboard and Cypriot pottery strengthen the possibility that the ship was involved in trade along this route (Pulak, 2006: 92). Under any circumstances, the cargo of the ship highlights the importance of ensuring access to raw materials throughout history, and it clearly played a determining role from political, social, and cultural perspectives. The significant role of Cyprus in the period's trade has become evident through this wreck (Yalçın, 2013: 46).

Conclusion

When considering the economy of the entire Mediterranean, particularly the Eastern Mediterranean, maritime and coastal trade can not be ignored. Documenting maritime trade routes, which are much more challenging to trace than land routes, can often be achieved through shipwrecks or the distribution of raw materials originating from islands. In this context, the ships dating back to the Late Bronze Age, such as those found at Uluburun and Cape Gelidonya, are highly valuable in understanding the vitality of maritime trade in the Eastern Mediterranean. The diversity of goods, raw materials, and scrap materials found in these shipwrecks demonstrates the significance of maritime trade routes during the era. The estimated routes of ships carrying products from various civilizations like the Mycenaeans, Canaan, Cyprus, Egypt, Assyria, and more, moving counter-clockwise, indicate the existence of a particular trade route. The route followed by the Uluburun ship and other long-distance vessels during 2nd millennium BC trade is believed to have started from a port in Levant or Cyprus. They would progress towards Anatolia's southern coasts, then head from Rhodes to Crete. Considering the various weapons and equipment found on board, it suggests that the crew was prepared for potential threats and difficulties during their journey. Nonetheless, the ship ultimately succumbed to violent storms and crashed into rocky shores.

Wrecks provide clues about maritime trade during a certain period in different ways. The products they contain, their variety, and quantity offer insights into the scale and scope of maritime trade, while also revealing the likely ports and routes followed by the ships. Additionally, they provide information about the power centers and political structure of the

era. From the variety of products found in the wrecks, it is understood that Cyprus interacted with multiple civilizations simultaneously and exported its commercial goods to these powers. In this regard, the Cape Gelidonya and the Uluburun shipwrecks, dating back to the Late Bronze Age, are highly valuable for understanding the position and significance of Cyprus in maritime trade during that period. The archaeological findings recovered from shipwrecks, claimed to be Cypriot origin, which were discovered on the coastline between the present-day cities of Kaş and Kemer, in Turkey, are solid evidence of the extent of Mediterranean maritime trade, as discussed in detail.

Maritime trade in the Eastern Mediterranean was highly active, and these two mentioned ships harbor important findings for understanding this trade. According to the estimated route of the ships, Cyprus is considered either the starting point or an important stop. It is assumed that the estimated route of the ships started from a port in Cyprus or the Syria-Palestine coast, progressed to Anatolia, and then further westward. It is believed that goods were transported to the Mycenaean palaces and then followed a route in the opposite direction of the clock-wise to reach Egypt. This is sufficient to illustrate the power centers involved in trade and the scope of commerce. Wrecks, likely submerged due to reasons like adverse weather conditions in the southern Anatolia, carried the most significant cargo of the period.

In conclusion, it can be stated that based on written records and archaeological discoveries, there was a significant increase in Cyprus' external relations during the Late Bronze Age. The island's strategic importance, along with its wealth in materials like copper, iron, and timber, played a significant role in this development. As it is clearly evident, Cyprus is believed to have been the primary producer of copper during the Late Bronze Age. Ingots, with this distinctive shape were exclusively crafted, appear to be the prevalent form in which pure copper was transported as a raw material to the ports of the eastern Mediterranean. The discovery of the Uluburun shipwreck with a cargo exceeding 10 tons of Cypriot copper ingots, significantly confirms the extensive international metals trade, in which Cyprus evidently held a significant role in terms of raw materials. Thus the copper ingots, the most important product group found in the Uluburun containing thousands of goods, are of Cypriot origin. Therefore, it is clear that Cyprus was a significant copper source and actively participated in trade. Cypriot pottery was the another commercial actor of that time. When looking at the quantity of goods carried by these two wrecks, it is evident that copper and ceramics belonging to Cyprus are abundant. In fact, the tons of copper ingots recovered from the Uluburun wreck highlight Cyprus as a major copper source of the era.

Information Note

The article has been prepared in accordance with research and publication ethics. This study does not require ethics committee approval.

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