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Erkan Dünder – Şevket Aktaş
Mustafa Koçak – Serap Erkoç

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The Vexed Question of Kalkan/Bezirgân and the Stadiasmus Patarensis: Some Corrections to the Course of the Road between Patara and Phellos

Fatih ONUR*

πολλὰ τὰ ἔτη

Abstract

As the conclusion of our field surveys of 2009, we had claimed that the road leads from Patara to Phellos, via Akbel – Sarnıçbaşı – Uçova – Yayla Bezirgân – Sarıbelen/Sidek – Gökçeören/ Seyret – Yeniköy – Çukurbağ and Pınarbaşı. Our recent re-evaluations have shown that this road should have followed a different course in several places around Patara, Kalkan and Yayla Bezirgân. Starting from Patara this road first took a course across the mountainous sections to the east of Patara, not via the Kısık Pass, then it reached Sarnıçbaşı above Kalkan. From this point, the road for Phellos would not have climbed up to Yayla Bezirgân, which was most probably a lake/swamp in antiquity. The old road from Sarnıçbaşı/Kalkan leading up to Yayla Bezirgân in antiquity could go only to the north by the eastern slopes of Kışla Dağı /Köybaşı by the western banks of the Bezirgân lake/swamp, finally reaching Alcaışık Gediği, from where it could reach Milyas over Neisa, but this route was never practical to reach Phellos from Patara. The road reaching Sarnıçbaşı from Patara continues in the direction of Sarıbelen/Sidek, passing the Kaputaş Fault in its northern sections and finally reaches Gökçeören/Seyret, and this route was used by caravans in the Ottoman period. After Gökçeören/Seyret, it most probably did not lead to the south and to Çağlarca/Mumuda, but probably took a shorter route to Phellos, passing across the plain to the northeast.

Keywords: *Stadiasmus Patarensis, Patara, Phellos, Bezirgân, Kalkan.*

Özet

2009 yılı yüzey arařtırmalarımızın sonucu olarak, Patara'dan Phellos'a ulaşan antik yolun Akbel – Sarnıçbaşı – Uçova – Yayla Bezirgân – Sarıbelen/Sidek – Gökçeören/ Seyret – Yeniköy – Çukurbağ ve Pınarbaşı üzerinden gittiğini belirtmiřtik. Son zamanlarda yaptığımız gözlemler neticesinde, bu yolun

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This contribution results from the “Stadiasmus Patarensis” field surveys directed by the late Prof. Dr. Sencer Şahin until 2014 and thereafter by Prof. Dr. N. Eda Akyürek Şahin with permission from the Turkish Ministry of Culture and Tourism. These field surveys have been supported by the Akdeniz University Scientific Research Projects Coordination Unit (project no: SBA-2015-937, conducted by Prof. Dr. N. Eda Akyürek Şahin and project no.: SBA-2016-1675, conducted by Assoc. Prof. Dr. Fatih Onur). I appreciate the support provided by Koç University – Suna & İnan Kırac Research Centre on Mediterranean Civilizations. I am grateful to Prof. Havva Işık, who helped me to investigate this problem by asking locals about the possible routes of the road from Patara to Phellos, also to Mustafa Akgül, the watchman for Patara and Cemil Akgül, his father, for their description of the old way to Çukurbağ. I much appreciate Terrance M. P. Duggan, Şevket Aktaş, Mustafa Koçak and Erkan Dündar for their remarkable observations on the tunnel at upland Bezirgân and the Ottoman cistern at Sarnıçbaşı. All the photographs used in this paper are acquired from the archive of the Research Centre for Mediterranean Languages and Cultures (RCMLC) at Akdeniz University, under which the field surveys mentioned above are conducted. For all the places mentioned in the second section see below Fig. 23.

çeşitli noktalarda farklı güzergâhlardan ilerlediği anlaşılmıştır. Patara'dan başlayan yolun ilk kısmı Kısık Boğazı'ndan değil, Patara'nın doğusunda yer alan dağlık alandan daha kısa bir mesafede Akbel ve Kalkan-Sarnıçbaşı'na ulaşmaktadır. Bu noktadan itibaren, Phellos yolu, antik dönemde büyük bir ihtimalle göl olan Bezirgân Yaylası'na çıkmamaktaydı. Sarnıçbaşı'ndan Bezirgân Yaylası'na çıkan yol, gölün batı yakasından ancak kuzeye doğru ilerleyebilmekteydi ve sulu alandan dolayı karşıya doğu yönüne geçememişti. Bu yol Alacaışık Gedigi'ne, nihayetinde de Kışla Dağındaki antik yerleşime kadar ulaşmaktadır, ayrıca yine bu civarlardan Neisa üzerinden Milyaşa da ulaşmak mümkündür, fakat her koşulda Phellos için uygun bir yol değildi. Phellos'a giden yol Sarnıçbaşı'ndan doğuya doğru ilerlemekte ve Kaputaş Vadisi'nin kuzey kısımlarından karşıya geçerek Saribelen/Sidek üstlerine ve oradan da Seyret/Gökçeören'e ulaşmaktaydı. Bu yol Osmanlı Dönemi'nde de kervan yolu olarak kullanılmaktaydı. Seyret/Gökçeören'den itibaren ise güneye Çağlarca/Mumuda'ya gitmeden, muhtemelen doğrudan karşıya kuzey doğu yönünde geçerek Phellos'a daha kısa bir güzergâh takip etmişti.

Anahtar Kelimeler: *Stadiasmus Patarensis, Patara, Phellos, Bezirgân, Kalkan.*

In the *Stadiasmus Patarensis* (SP) the road from Patara to Phellos (R 6) is restored as ἀπὸ Πατάρων [εἰς Φελλὸν στάδια σμ'] (240 *stadia* = ca. 45-46 km) in line 16 of face C¹. As the conclusion of our field surveys of 2009, we had claimed that this road leads from Patara to Phellos, via Akbel – Sarnıçbaşı – Uçova – upland Bezirgân – Saribelen/Sidek – Gökçeören/ Seyret – Yeniköy – Çukurbağ and Pınarbaşı (Fig. 1)². The restoration of the distance is based upon the *Tabula Peutingeriana*, which gives 30 miles from Patara to Antiphellos and the modern distance between Gelemiş and Kaş (ca. 46 km)³. The distance restored is not necessarily correct, since it cannot exactly be known how long the distance to Phellos was, since it should have been the distance measured up to Phellos on the mountain, not to Antiphellos on the shore. It was probably less than 240 *stadia*, since it is understood that there are shorter courses than that which we had proposed for the route near Patara, upland Bezirgân and between Gökçeören/ Seyret and Phellos on the mountain. We expressed the complications and our uncertainties in the previous publication concerning this road⁴, and our recent re-evaluations shows that this road should have followed a different course from that suggested around Patara, Kalkan, upland Bezirgân and after Gökçeören/Seyret.

I. From Patara to Sarnıçbaşı/Kalkan

In our earlier publications (see above fns. 1. 2), we had proposed, besides the secondary possibility of another road passing through Delikkemer, that the road to Phellos from Patara first exits from the Kısık Strait on the line of the road to Xanthos. Two new milestones found on Bodrum Hill at Patara⁵, one mile away to the east-northeast from

¹ Şahin – Adak 2007, 252–255; Şahin 2010, 141–143; Şahin 2014, 336–344.

² For the details of this route see fn. above 1 and also on the earlier complexities see Işık – İşkan – Çevik 2011, 43. 44 and 97. 98; for a detailed account on this road see Onur – Alkan 2011, *passim*.

³ Şahin – Adak 2007, 252: “Denn auf der *Tabula Peutingeriana* X 2 ist dieselbe Strecke angeführt: *Patara XXX Antifillon LIII Coridallo XXVIII Phaselis*. 30 römische Meilen (etwa 44,5 km) entsprechen ungefähr der heutigen Entfernung (ca. 46 km) zwischen Patara und Kaş. Die ausgefallene Stadienzahl dürfte also etwa um 240 gelegen haben.”; Şahin 2011, 24. 25 (R. 54); Şahin 2014, 336. 337: “Çünkü *Tabula Peutingeriana* X 2'de aynı güzergâh, Antiphellos'a, yani Phellos'un hizasına kadar verilmiştir: *Patara XXX Antifillon LIII Coridallo XXIX Phaselis*. Verilen 30 Roma mili (yak. 44,5 km) yaklaşık olarak Patara/Ovagelemiş yol ayırımıyla Kaş arasındaki mesafeyi (46 km) karşılamaktadır. Kayıp durumda bulunan rakam şu halde 240 *stadia* civarında olmalıydı.”

⁴ Onur – Alkan 2011, 69.

⁵ C. Schuler, K. Zimmermann and A. Lepke in: Işık et al. 2016, 108: “Two milestones identified on the hills of Bodrum added to our knowledge of the Lycian road network. The one from the Vespasian's reign is the earliest example throughout Lycia. It also testifies that road work had continued in the province also after the Emperor Claudius (*Stadiasmus*). Additionally, the milestones have helped to fill out the sketch of the context for the three mausolea on the hill. Most probably, these mausolea were originally constructed on the road to Delikkemer so that they represented the intentions of their owners.” I would like to thank Prof. Havva Işık, who kindly permitted me to see the places, where the milestones were discovered, with Mustafa Koçak from the Patara Excavation team, and I would also like to thank Prof. Christof Schuler for informing me that these two milestones will probably be published in ca. 2017.

the place, where the Arch of Mettius Modestus was constructed in ca. 100 AD as the symbol of the entrance to the city, and our new geographical observations show that this was not the case, since there are convenient routes to the east of Patara, which reach Akbel or Delikkemer over a shorter distance, without entering into the Kısık strait to the north (Fig. 24). It is clear that this section requires further field research. Cockerell reports that in 1812 he was guided by a native from the port of Kalkan to Patara, which they reached in two hours following a narrow path alongside the aqueduct⁶. But the road given in the SP was probably shorter and it passed through the tombs and other ruins in the Bodrum vicinity⁷, near to where the two new milestones have been found, and it reached Çilidere via Tavas and then Akbel, where there was a junction for the roads to the north and to the southeast. The northern direction was to Mylias, over İslamlar, Alacaşık Pass, İkizce, Lengüme/Çamlıova, Sütleşen (Neisa) and Hacimusalar (Khoma), probably matching with the road from Patara to the northeast, the route which is recorded on Tabula Peutingeriana⁸. Within this route, the distance between the southwestern end of Lengüme/Çamlıova plain and Patara (near Tepecik) is ca. 24 km, matching with the distance (16 MP=ca. 23,7 km) on the milestone from Lengüme/Çamlıova⁹. The eastern direction from Akbel was to Phellos via Sarnıçbaşı.

II. From Sarnıçbaşı/Kalkan to Sidek/Sarıbelen

The second correction, that is the main one, should be made for the section around Bezirgân and Kalkan. One of the problems in this section is the water drainage tunnel, ca. 400 m in length, 2–2,5 m in height and 1–1,5 m wide, at the southern end of Bezirgân plain, constructed to drain the former lake (Figs. 2. 3). Şahin had claimed that this tunnel was cut by Roman engineers, in order to drain the water from the lake and keep the exposed plain dry to construct a direct road across the middle of this plain, from “Ambarlar”, to where an old road reaches from Kalkan, to the opposite slope, Yumru Tepe, in the direction of Sarıbelen/Sidek¹⁰. The water of the plain drains from this channel and descends the slope to reach “Sarnıçbaşı”, where there is a large Ottoman cistern, eventually meeting the sea within the port of Kalkan. There are also other researchers, who believe that the tunnel was cut in antiquity¹¹.

As was previously stated (see above fn. 4), this proposition concerning this claim contains some questions. Namely, if this tunnel was cut by the Romans in the reign of Claudius in order to construct a road passing through the plain, then it means that this was a new road, suggesting that there was no other better possibility of reaching Phellos. This is not convincing, since a good road connection between Patara and Phellos or any other settlement to the east like Antiphellos was always necessary. So either the tunnel was already built long before the Claudian period, so the ancient road was just renovated, or the tunnel is a much later construction, suggesting that Bezirgân plain was a lake/swamp in antiquity, being a larger muddy area than it is today, and there was no access across the lake/swamp. So, the natural conclusion is that, prior to Claudian period, there was already a road to Phellos, which led through another course. While there should have already been such a connection, it requires a strong reason to explain why another road might have been built, to the extent of even opening a tunnel to drain the water of this lake during

⁶ Cockerell 1903, 164-165: “We rowed into the port, which is a fine harbour, and when I had landed I found a boy to undertake to guide us to Patara. It took two hours to walk there, keeping all the way by the side of an aqueduct. We met a few savage-looking Turks armed, and a boy or two playing on wild simple reeds. The whole country was very wild and desolate, and the road a mere track”.

⁷ For the ruins on Bodrum Hill see Bulut – Gülşen 1997; Işık 2011, 81. 90.

⁸ Tab. Peut. 10, 2; French 1996, 3; cf. Şahin 2014, 146; I had suggested the road from Lengüme to Patara led through Kısık strait in Onur 2016b, 215. Given the current situation, reaching Patara from that direction is al shorter through a mountainous route, starting somewhere near Delikkemer or Yeşilköy/Fırnaz.

⁹ French 1996, 3 and 6 fig. 3; Şahin – Adak 2007, 135. 136; Şahin 2014, 151; French 2014, 60 no. 25; Onur 2016b, 215 (The missing name of the metropolis on this milestone has been restored as Patara).

¹⁰ Şahin 2010, 141.

¹¹ Büyükyıldırım 1994, 63; Hellenkemper – Hild 2004, II, 486 (citing Büyükyıldırım); Bildirici 2009, 147; Baykan et al. 2013, 465.

the early Roman period, since they surely could have rehabilitated the existing connection, which would have been both cheaper and quicker. It is also difficult to see a serious reason in terms of transportation for the people of antiquity here to drain the water of this large lake, as in undertaking this work the suggested route would not be reduced, in fact it makes the route longer than the route that is suggested here (see below). We have of course examples of ancient drainage channels¹², even, one of them is from the reign of Claudius in Italy, Lacus Fucinus, which actually had fertile lands and provided fish in large quantities, but was problematic because it flooded the agricultural lands around it, since it had no natural outlet. The attempt to regulate the water level in the lake was made with a tunnel of 5,6 km, built by 30,000 workers in eleven years with no certain conclusion, also it is reported by Dio, that a part of the tunnel collapsed¹³. There is also the example of an old tunnel for Söğüt Lake, which is said to be an ancient construction, 7 meters below the lake level¹⁴. This tunnel is today completely closed and does not work anymore because as the time passed it became filled and blocked, supporting the opinion of Duggan for the Bezirgân tunnel (see below). Apparently, the tunnel of Söğüt requires further research in order to understand its nature and its date of construction. It is quite difficult to find an important reason to climb from 350 m (Sarnıçbaşı in Kalkan) up to 800 m (Uçova) to connect Patara and Phellos, while the topography provides better access from the southern slopes of the Bezirgân lake-plain. Further we do not have a certain evidence that that Bezirgân lake was drained in antiquity. Unfortunately, there is not a proof positive testifying that this tunnel is an ancient work (see below on the tunnel). Consequently, the upland Bezirgân area was probably much deeper in water in antiquity and so it was impossible to construct any firm road across the middle of it (see Fig. 2).

In our former article, we had also tried to solve the puzzle by employing the territorial matters in the area and had reported that “The passengers from Patara to Phellos were using a path on the western side of the Bezirgân plain when it was a lake passing in the direction of Köybaşı, meaning that the path was entering the territory of Xanthos, dating to before the SP. The last option is the most sensible one, since the existence of an ancient connection between the coast and inland is indispensable” as the most plausible explanation amongst the options we provided (see above fn. 4). These statements together with their following commentary concerning territorial issues are based upon an erroneous idea concerning the territory of Patara vs. that of Xanthos around Göl Dağı (near Köybaşı) and upland Bezirgân, and are proven to be wrong by a recent study, which shows that Üzümlü, İslamlar, Göl Dağı, Köybaşı and upland Bezirgân were within Pataran territory during the Roman period¹⁵.

Now, as a theoretical immediate result, it is possible to say that the road for Phellos would not have climbed up to upland Bezirgân, which was most probably a lake/swamp in antiquity. The old road from Sarnıçbaşı/Kalkan leading up to upland Bezirgân¹⁶ (Fig. 9) in antiquity could go only to the north by the eastern slopes of Kışla Dağ, where a large ancient settlement was situated¹⁷, and by the western banks of the Bezirgân lake/swamp, finally reaching Alacaşık Gediği, from where it was possible to reach Neisa and Mylias and even northwest to Xanthos, but apparently was not practical for Phellos (Fig. 10). Our recent investigation shows that the ancient course of the road to Phellos after Sarnıçbaşı continues to the east following the modern route, contrary to what we had reported previously¹⁸. The road reaching Sarnıçbaşı from Patara continues in the direction of Sarıbelen/Sidek, passing the Kaputaş Fault in its northern sections and finally reaches Gökçeören/Seyret (Fig. 16), as it was used by caravans in

¹² See the examples given in Bildirici 2009, 146–154.

¹³ Suet. Claud. 20; Dio 61, 33, 5; see also Baykan et al. 2013, 466.

¹⁴ Büyükyıldırım 1994, 74–76; Bildirici 2009, 145. 146.

¹⁵ Onur 2016b.

¹⁶ For the details of this road see Onur – Alkan 2011, 67. 68.

¹⁷ For a detailed description of the ruins in Göl Dağı (near Köybaşı) see Borchhardt – Neumann – Schulz 2003; Schuler 2010, 69. 70.

¹⁸ Onur – Alkan 2011, 67.

the late Ottoman period¹⁹. Some of the early travellers, i.e. Fellows in 1840, Ross in 1844, Benndorf and Niemann in 1881 used this road²⁰. But unfortunately no precise remnant of this road could be found in the field, except for some retaining walls, which might also have belonged to terraces (Fig. 17. 18).

II.1. The Port of Kalkan

We do not know any ancient settlement in Kalkan, where there is almost no remarkable remain indicating any urban settlement in antiquity²¹. Ross mentions some ancient polygonal walls, while Benndorf also accounted a small town surrounded by a wall²², which he relates this “small settlement” with one of the *oppida* mentioned by Plinius between Phellos and Xanthos²³. Pyrrha amongst these *oppida* is also associated with that settlement²⁴. M. Zimmermann reported that he could not see any remain of this “small settlement” during his visit to Kalkan in 1988²⁵. The port of Kalkan is associated with the Lycian place name êtri *tuminehi* (Artymessos) mentioned in TL 44a, being the port of (*hrzzi*) *tuminehi*, which was identified with the ruins on Göl Dağı (near Köybaşı)²⁶. Köybaşı and Kalkan are connected by an old road, the best visible part of which is that lying between Sarnıçbaşı in coastal Bezirgân and the Bezirgân plain, and this road was not a part of the road between Patara and Phellos in the SP. It runs down in zigzags from upland Bezirgân through Ambarlar and Uçova, where there are the ruins of churches and cisterns, showing that the road was always in use throughout history²⁷. Kalkan (Kalamaki/Kalamin/Kalamata/Kanistrion/Kalmareia)²⁸ was an important subsidiary port for Patara, as was related by the *portus Phoenicus* mentioned by Livy as “less than two miles away” (ca. 2,8 km) from Patara, while narrating the related events in 190 BC²⁹. Actually the distance given does not conform with the actual distance of today, however Beaufort reports that it is two miles away from Patara (see below fn. 34). The north-western corner of the Kalkan bay is at a distance of ca. 4,5 km from Patara even as the crow flies. If the distance given began from the promontory at the south-eastern end of the Patara beach, it reaches the south-western entrance of Kalkan Bay in almost this distance. Within this section of the shore, there is no other suitable port that could provide “a safe shelter” than the port of Kalkan/Kalamaki. This port was most probably within the territory of Patara and this affiliation should have continued

¹⁹ Yıldız (2012, 358) reports that old caravan road continues to Saribelen/Sidek and the Döşeme district from this route; for the rest of the road after Saribelen/Sidek until Phellos see Onur – Alkan 2011, 70–74;

²⁰ Fellows 1841, 183. 184; Ross 1850, 43–46; Benndorf – Niemann 1884, 128.

²¹ Zimmermann 1992, 184.

²² Ross 1850, 44; Benndorf 1892, 66. 67.

²³ Plin. nat. 5, 100: “... Antiphellos, formerly called Habessus, and in a corner Phellos, after which comes Pyrrha, and then the city of Xanthus, fifteen miles from the sea, as also a river known by the same name. We then come to Patara, formerly Pataros, and Sidyma, situate on a mountain. Next comes the Promontory of Cragus.” (Trans. by Bostock – Riley, 1855, acquired from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D5%3Achapter%3D28>, 02.08.2016)

²⁴ Hellenkemper – Hild 2004, II, 824, s.v. Pyrrha.

²⁵ Zimmermann 1992, 184 fn. 50.

²⁶ Borchhardt – Neumann – Schulz 2003, 27–30.

²⁷ For the road and ruins in Uçova see Hellenkemper – Hild 2004, II, 485. 486; Onur – Alkan 2011, 67. 68.

²⁸ For the references to these names see Hellenkemper – Hild 2004, II, 584. 585.

²⁹ Liv. 37, 16, 3–7: “He (*Livius*) then set sail for Patara. A favourable wind carried them right up to the city, and they hoped that the suddenness of their appearance might frighten the citizens into deserting Antiochus. Afterwards the wind veered round and a heavy cross-sea arose. They succeeded by dint of hard rowing in holding the land, but there was no safe anchorage near the city and they could not lie off the harbour mouth in such a rough sea and with night coming on. Sailing past the city walls they made for the port of Phoenicus rather less than two miles away. This harbour afforded a safe shelter from the violence of the waves, but it was surrounded by high cliffs which the townsmen together with the king’s troops who formed the garrison promptly occupied.” (Trans. by Roberts, 1912, acquired from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0144%3Abook%3D37%3Achapter%3D16>, 02.08.2016); cf. Zimmermann 1992, 183 and Hellenkemper – Hild 2004, II, 582.

during the Roman period, as was the case for upland Bezirgân and Göl Dağı - Köybaşı³⁰. On the other hand, there is no mention of this port in the Ps. Scylax and Stadiasmus Maris Magni. It is possible that the commercial development of the port was mostly in recent centuries, mainly due to the timber export to Alexandria³¹, also since the harbour of Patara was already out of use at least from the 15th-16th centuries onwards³², as Pîrî Reis does not show or mention the port of Patara in 15th century (Fig. 19). The last evidence indicating that the Port of Patara was still functioning is accepted to be from 1361/2, when the Lusignian fleet ravaged several ports in southern Anatolia³³. Beaufort, when he visited the area in 1811/1812, described the difficulty in the ancient harbour of Patara and had to anchor in Kalamaki (Kalkan) Bay³⁴. Texier also wrote that they in 1836 had to anchor in this bay, in its north-western corner, from where he climbed up to the eastern slope and found himself by Delikkemer aqueduct the next morning³⁵. Following the development of the port of Kalkan, it is possible that in the Late Ottoman period the road from Sarnıçbaşı to Uçova near Bezirgân Yayla was renovated/extended in order to facilitate transportation. The word “bezirgân” or “bâzirgân” (originally a Persian word) in Ottoman Turkish means “trader; merchant”, referring to the history of this region and suggesting that Kalkan, with its port and upland Bezirgân that has a large plain having accommodation in its north, became the core area of a trade centre after the 15th century, when the port of Patara was no longer in use. The real development in Kalkan appears to have been in the 19th century, especially after the immigrants came from the island of Megisti / Kastellorizo³⁶.

II.2. The Drainage of the Bezirgân Plain

It is no doubt important for the history of the region to find out how old the Bezirgân drainage system is. The current construction of the tunnel seems most probable that it dates from the late Ottoman period based on its masonry, as identified by T. M. P. Duggan, an art historian, who came to visit the tunnel with us. He also observed that in the course of nearly two millennia since the reign of Claudius, the deposition brought into the lake bed would suggest that the mouth of the tunnel was not low enough to have drained the water from the lake 2,000 years ago, and that the mouth of the tunnel and the drainage canal leading to it were constructed recently, together with some later repair work (see below fn. 52), when the silt-water level was much as it is today. The drainage of this lake no doubt provided arable lands in the plain. There is also an old road, with an Ottoman cistern on it (Fig. 8), built above the tunnel passing this section and meeting the road from Sarnıçbaşı to Sidek, somewhere by the Kaputaş Fault. The water drained from this tunnel reaches the large Ottoman cistern in Sarnıçbaşı below in a straight line, then it leads to the northwest, finally flowing into the sea at Zeytin Kayası on the north-eastern shores of Kalkan port (Fig. 20. 23) quite close to the fresh spring water (see below), after passing through a deep and steep fault located at the north-eastern slopes to the port of Kalkan (Fig. 20). The significant point here is that the water from Bezirgân seems to have been specifically directed to the port of Kalkan. It would have been much easier and shorter to direct it to the Kaputaş Fault or to somewhere to the east of Kalkan, if the intention was just to get rid of this water. The reason behind this, is most probably associated with increasing demand of water, which should have

³⁰ Zimmermann 1992, 57; Şahin 2010, 141 (only for the southern part of the Bezirgân plain); Onur – Alkan 2011, 68. 69; Onur 2016b, 213–215.

³¹ Zimmermann 1992, 184; For the transportation of wood from Ak Dağ to the port of Kalkan, see Benndorf – Niemann 1884, 127 and Heberdey 1898, 153.

³² For a detailed history of Patara and its harbour during Seljuk and Ottoman periods see Duggan 2010, *passim*.

³³ Duggan 2010, 58–60.

³⁴ Beaufort 1817, 5–7: “... Patara had formerly a harbour; the situation is still apparent, but at present it is a swamp, choked up with sand and bushes, and all communication with the sea is cut off by a straight beach, through which there is no opening ... Patara is now uninhabited ... Two miles to the eastward of Patara, there is a large and gloomy bay, where, from the excessive depth of the water, our ship found but uncomfortable anchorage: but in some creeks, smaller vessels find some shelter, and a Greek polacra was loading in one of them with corn for Malta.”

³⁵ Texier 1849, III, 191. 192.

³⁶ Hellenkemper – Hild 2004, II, 585.

been connected with the increasing use of the harbour. This demand might have been on both drinking water, as we know from Purdy that the spring water in Kalkan Port became limited (see below fn. 42), and for other uses such as watering the animals, bathing, washing etc. But of course, the critical question is when could this demand have arisen?

Pîrî Reis visited and investigated many of the ports and for the rest he used reliable sources, and thus he compiled his *Kitâb-ı Bahriye* with a large quantity of information and maps for sailing³⁷ in the 16th century, as he himself said “Every word of mine is something that seafaring men have related and that they have personally seen”³⁸. As an important and reliable source, Pîrî Reis gives detailed information about Ilki Kara, today the port of Kalkan, and he did not show or mention any such water from Bezîrgân. Instead he drew and mentioned a constant stream providing fresh and cold water in the north-eastern corner of Kalkan Bay³⁹. It is clear that Pîrî Reis does not refer to the water pouring down from upland Bezîrgân into the port, since the water from Bezîrgân is seasonal and it cannot be fresh and cold all the time, and Pîrî Reis would not omit it, if there was such water pouring into Kalkan port in his time. The water Pîrî Reis mentioned must be a natural spring water somewhere near the north-eastern corner of the bay, as he describes in detail: “there is a red cliff and before it is a roundish rock that has fallen into the sea. The stream lies between that rock and the cliff” (see fn. 39), how to find it. This spring providing cold and fresh potable water is still used and a part of it can still be seen almost in the middle of the Kalkan beach, though perhaps its outlet might have changed, like that of İslamlar⁴⁰. He also mentions that there was another water source, smaller than the other one, in the northwest section of the bay, as this one can also be seen today in the Fîrnaz section of the Kalkan Bay. But he tells or shows on his map nothing about the tunnel and about any water reaching the port from Bezîrgan (Fig. 19). Texier was also informed, when he was in the western corner of Kalamaki in 1836, that it was possible to find a very abundant stream of good water in the eastern anchorage of the port⁴¹, while Purdy, ten years before Texier, reported “Good water may be obtained, but the supply is limited”⁴². From the port of Kalkan it was possible to continue inland in three directions: to the west, Patara/Gelemiş and other places in the Eşen valley; to the north, upland Bezîrgan, Göl Dağı, Köybaşı and the plain of Elmalı (Mylias) via Lengüme and Sütleğen (Neisa); to the east, Sarıbelen/Sidek, Gökçeören/Seyret and Çukurbağ (near Phellos), passing by the large cistern at Sarnıçbaşı. This large cistern must have served the travellers and traders journeying to the east, in the direction of Çukurbağ, and to the north, in the direction of Elmalı, via both the coastal and mountainous parts of Bezîrgân. The cistern of Sarnıçbaşı in coastal Bezîrgân (Fig. 11. 15) is on the course of the water from Bezîrgân plain and is

³⁷ Duggan 2014, 341.

³⁸ Pîrî Reis (Eng.), p. 11. 18: “(11) I have roamed the shores of the Mediterranean, Arabia, and Europe, and through the lands of Anatolia and the Maghreb. And I have written, my friend, all that needs to be written about each and everything:...Such knowledge cannot be known from maps; it must be explained. Such things cannot be measured with dividers, and that is why I have discoursed by writing at such length... (15) Now then there are a number of names on maps that if you will attend you will see what they are. The names of towns and citadels are in red while (the names of) uninhabited places are in black. You have learned the science of the map. There is but one more thing to say, and I will do so at once. There are a number of reefs: these are shown by black dots. Shallows that are entirely sandy are shown with red dots. Hidden reefs in the sea since ancient times have been shown by means of crosses. If one wishes to show tiny islets, points are marked equal to their number. Now if you can remember all this, I have told you all about the marking of maps ... Every word of mine is something that seafaring men have related and that they have personally seen”

³⁹ Pîrî Reis (Eng.), p. 249, s.v. The Shores of Kalkan: “This Ilki Kara (Kalkan) is a bay in whose mouth there are two islands. Between those islands and the northwestern shore of Anadolu there are places in which bargias may lie, though this is not a haven when southwesterlies blow and is but a summer shelter. If one would have drinking water at this shelter, on its northeastern side inside at the end of the bay on the shore there flows an excellent stream that is fine and cold. The landmark of this stream is this: there is a red cliff and before it is a roundish rock that has fallen into the sea. The stream lies between that rock and the cliff. This is a place of shallow, smooth-water anchorages. There is another stream on the western side of the bay and there are good anchorages there as well. Let it be known as such and so much for that.”

⁴⁰ Baykan – İşkan 2011, 68; see also İşkan – Baykan 2013, 94.

⁴¹ Texier 1849, 193.

⁴² Purdy 1826, 297. The same information is later given by Norie 1831, 304.

mentioned by Spratt and Forbes, who saw it in 1842, reporting that it was rebuilt three years ago⁴³. Apparently, if they were given accurate information, the cistern was renovated in 1838/9. Ross should also have seen this cistern, when he visited coastal Bezirgân in 1844, as can be deduced from his description of cisterns of this region⁴⁴.

There is an Ottoman inscription on this cistern still visible today and Mahmut Demir's reading⁴⁵ is as follows (Fig. 12):

صاحب الحيرات والحسنات سبب هذه الحيرات		Sahibü'l-hayrat ve'l-hasenat sebeb-i haze'l-hayrat
الحاج محمود و سائر المؤمنین و المؤمنات	2	el-hac Mahmud sairü'l-müminin ve'l-müminat
و ناظر هذه الحيرات عثمان بن محمود		ve nazır-ı haze'l-hayrat Osman Bin Mahmud
جملة اهل هذه [الحيرات] روحیچون	4	cümle ehl-i haze[l-hayrat] ruhu için
الفاتحه ١٢٣٧		el-fatiha. 1237.

The owners of this pious foundation and good deeds are | Hacı Mahmut and other Muslim men and women. | The custodian of this pious foundation is Osman, son of Mahmud. | For the souls of the owners of [this pious foundation], | al-fatehah. 1237.

This inscription does not concern a repair, but a new building⁴⁶. It gives a year of hijri 1237, which equals 1821/2 A.D., within the reign of Sultan Mahmut II (1808-1839). A further later inscription in the Latin alphabet above the Ottoman inscription on the cistern refers to repair work carried out in 1934 (Fig. 13) and reads as follow:

Mustafa | K.RUMSUN tarafı|nda<n> tamir olunmuştur. | Ustası 1934 Abdulaz[iz?]
Repaired by Mustafa K.RUMSUN. Its construction foreman is Abdulaziz. 1934.

The water draining from the Bezirgân plain pours directly in the direction of this cistern, suggesting that the cistern was also, at least partly, supplied with this water, in addition to rain water. But our observations concluded that there is no connection between the water from Bezirgân plain and the cistern of Sarnıçbaşı, even though a canal is shown between the exit of the tunnel and the sea⁴⁷. There are also other Ottoman cisterns of the same period on the same course around Kalkan⁴⁸, showing the demand for potable water reserves at that time. It therefore seems possible that the current drainage of water from Bezirgân plain was begun at the beginning of the 19th century⁴⁹, like date of these cisterns.

⁴³ Spratt – Forbes 1847, 52. 53: “it (coastal Bezirgân/Sarnıçbaşı) overlooks this bay (Kalkan/Kalamaki), which is encircled by an ironbound abrupt shore. This village, like most of the others on the arid limestone district bounding the south part of Lycia by the seacoast, depends for a supply of water entirely upon the winter rains, which are collected in a large circular reservoir, built over with a dome, perforated on the sides to admit the rain ... The reservoir in this village had rebuilt about three years since. On it was a rude representation of a sort of leopard and serpent, formed of broken pieces of tile, which were stuck in the plastered surface.” See this representation below in Fig. 14.

⁴⁴ Ross 1850, 44. 45.

⁴⁵ I am deeply indebted to Mahmut Demir, who read the inscription and translated into modern Turkish and T. M. P. Duggan for polishing my English translation of the inscription, both being affiliated with the Mediterranean Civilisations Research Institute (MCRI) of Akdeniz University; for an earlier reading and Turkish translation of the inscription by M. Cansız, see Yıldız 2014, 357 as: “Bu hayırlı ve güzel yapıyı yaptıran yapılmasına aracılık eden | Hacı Mahmud ve başka kadın ver erkek inananlar | ve bu yapının yapılmasına nezaret eden Osman oğlu Mahmud | Bütün bunların geçmişleri için fatiha”. 1237 [1821–1822].

⁴⁶ Nevertheless, it is not known if there was any ancient cistern in this spot before the Ottoman cistern was built.

⁴⁷ For a plan showing the canal between tunnel and sea, see Bildirici 2009, 147.

⁴⁸ Yıldız 2014, 356–363.

⁴⁹ Unfortunately, there has been no chance to search for such a work in Kalkan through the database of Ottoman archives, since the database on web has been constantly updated and has never been possible to access (<http://katalog.devletarsivleri.gov.tr/>; last check is on 12.08.2016).

II.3. A road across the Bezîrgân Plain?

It is clear that the Bezîrgân Plain was always muddy, so it was never convenient to build a firm permanent road. If there was a road passing across the plain, it should have been built on an arched construction, since the streams of the plain flowing south should not have been blocked. Unfortunately, neither any remain of such a road exists, nor is there any other antique material on the plain, except for in its northern sections, where the water did not reach. Further, even today, despite the existence of this working tunnel, most of the southern half of the Bezîrgân plain becomes a lake between December and March⁵⁰. According to geological examinations in the polje by N. Keser, there are natural rock ponors by the southern edges. One of these ponors, at a height of 9–10 m and in length 8 m, which should have transferred the waters into a natural underground system in much earlier periods, collapsed and was blocked due to fault motions⁵¹. She also states that the current tunnel is actually a soil ponor, which was recently plastered and strengthened and that limestone cracks and dolines on the bed of the plain release a part of the water of the streams and rain to the natural underground drainage. We know that the latest renovation of the tunnel, especially of the entrance and its canal, was carried out in 1968 by the State Hydraulic Works (Tr. Devlet Su İşleri)⁵², as was also inscribed at the entrance. However, it is not known if there was any older man-made drainage channel, that might have been collapsed by activity or earthed up through erosion or silting. A core sampling of the Bezîrgân plain is strongly advised in order to learn about the history of the plain sedimentation and of the tunnel.

III. From Gökçeören/Seyret to Phellos

The route between Gökçeören/Seyret and Phellos might have actually been through a northern mountainous course, probably without leading through Çağlarca/Mumuda (to where a surviving ancient road⁵³ leads probably in order to reach Kaş/Antiphellos), Yeniköy, Çukurbağ and Pınarbaşı. Such a route would have extended the route to Phellos for no reason, so our first option suggested in a former publication⁵⁴, seems to be the more plausible, because it should reach Phellos over a much shorter distance without so much topographic difficulty.

⁵⁰ Keser 2004, 13 and 24. 25 fig. 4. 5.

⁵¹ Keser 2004, 36.

⁵² Büyükyıldırım 1994, 65.

⁵³ French 1996, 3 and photo 1; Onur – Alkan 2011, 74 and 79 figs. 21. 22.

⁵⁴ Onur – Alkan 2011, 73.

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Fig. 1 The road connections around Kalkan as given by Şahin (2014)



Fig. 2 Bezirgân Plain. looking to the north. Two main canals draining the water meet at the main canal leading to the entrance of tunnel



Fig. 3 The canal to the entrance of the Bezirgân tunnel

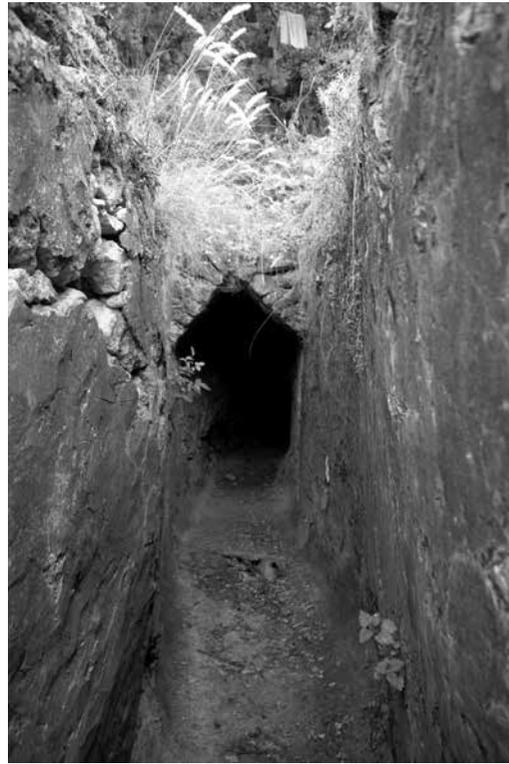


Fig. 4 The entrance of the Bezirgân tunnel



Fig. 5 The entrance of the Bezirgân tunnel



Fig. 6 The entrance of the Bezirgân tunnel (from inside)

Fig. 7
The exit of
Bezirgân tunnel



Fig. 8
The Ottoman
cistern on the road
above the tunnel



Fig. 9
The old road from
Sarnıçbaşı/Kalkan
leading up to
upland Bezirgân





Fig. 10
Bezîrgân Plain.
Looking to the south



Fig. 11
The cistern of
Sarnıçbaşı in
coastal Bezîrgân



Fig. 12
The late Ottoman
building inscription
of 1821/2 on the
cistern of Sarnıçbaşı



Fig. 13 The repair inscription of 1355 above the late Ottoman inscription on the cistern of Sarnıçbaşı



Fig. 14 The incised creature (Khimaira?) on the wall of the cistern of Sarnıçbaşı



Fig. 15 The view inside the cistern of Sarnıçbaşı



Fig. 16 The ancient route from Sarnıçbaşı to Sarıbelen/Sidek as suggested by the author (dashed line; base map: Fig. 1 above)



Fig. 17
The retaining wall on
the north-eastern bank
of Kaputaş Fault



Fig. 18
The retaining wall on
the north-eastern bank
of Kaputaş Fault

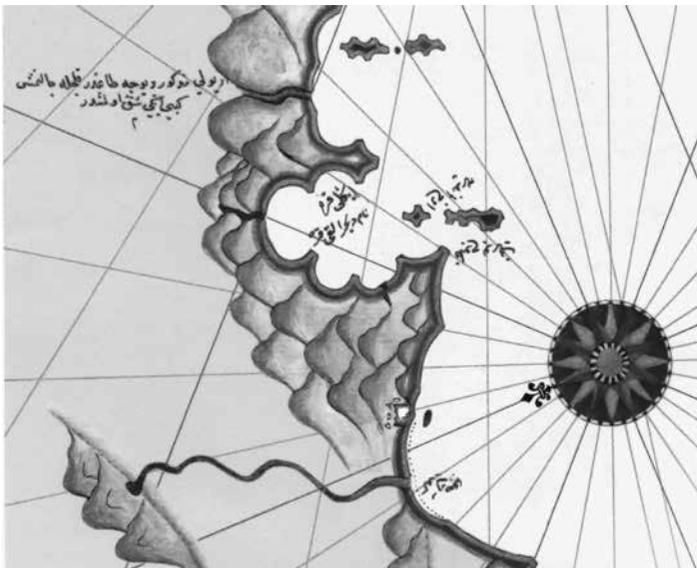


Fig. 19
The Port of Kalkan
(Piri Reis (Eng.),
The Shores of Kalkan,
p. 249; 16th century)

Fig. 20
Coastal Bezirgan/
Sarnıçbaşı, Kalkan
and its port



Fig. 21
Kalkan beach. Red
cliffs and roundish
fallen rocks before
them in the
background. The
water of the spring
is at left bottom



Fig. 22
The water of
the spring in
Kalkan beach



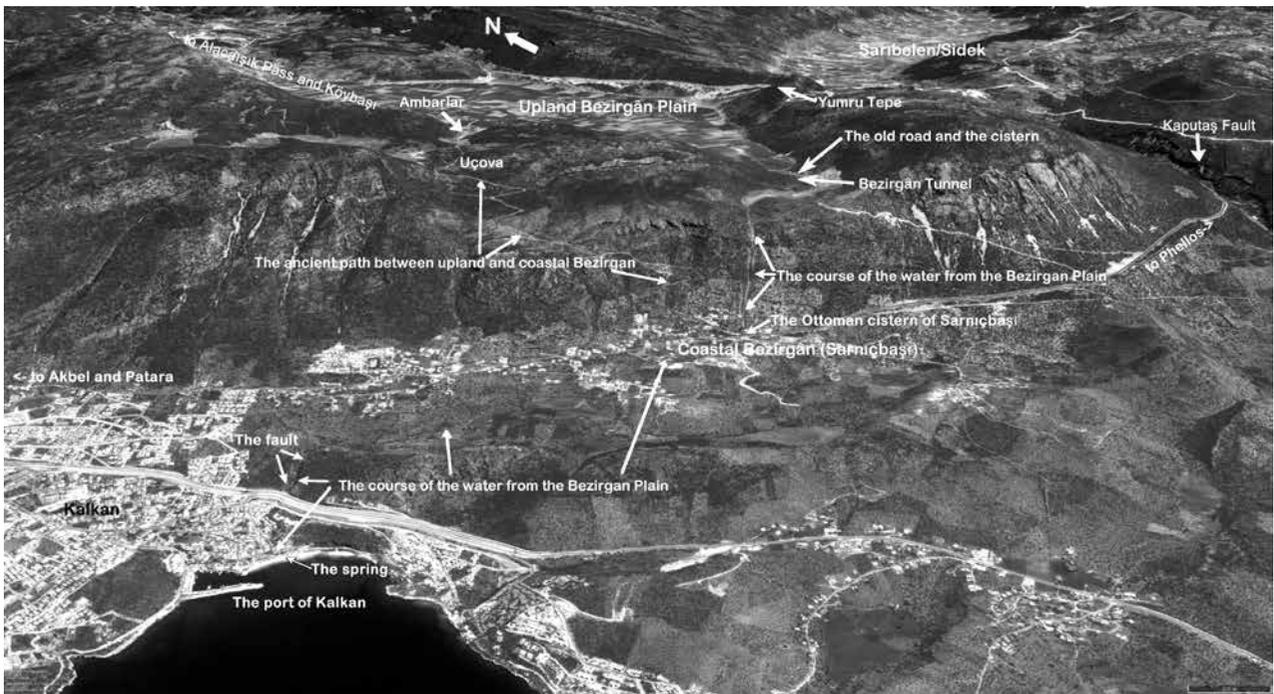


Fig. 23 The environs of Kalkan and Bezirgân
(Google Earth)



Fig. 24 The mountainous section to the east of Patara
(Google Earth)