

The Ancient Population of A Chersonessian Heir: Phoinix

Kersonesoslu Bir Varisin Antik Nüfusu: Phoinix

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Öz

Karya orijinli Bozburun Yarımadası (güneybatı Anadolu)'ndaki tarımsal faaliyetler, bölgenin Geç Klasik çağa doğru politik örgütlenmesinin tamamlanması üzerine, arazinin yoğun işletilmesine bağlı olarak büyük ölçüde hız kazanmıştır. Yarımada'daki demoslar (δήμοι), İ.Ö. 3. yy'ın başından itibaren kendilerini, Rodos'un çıkarları altında faaliyet gösteren periferideki ekonomilere dönüştürmüş, yanı sıra uluslararası pazara dolaylı hizmet verir hale gelmiştir. Teras sistemlerinde uzmanlaşan ekonomi ve yaşadığı patlama, en sonunda bölgede demografik büyüme ve genişlemelere hız vermiştir. Bu makale, kırsalda, bugüne kadar ihmal edilmiş Phoinix demosunun (δήμος)'sinin Hellenistik nüfusunu, tarihsel veri ışığında yeniden yorumlamakla birlikte yerleşim verisi ve arazi kullanım oranlarının uyumlaştırılması yoluyla tahmin etmeyi amaçlamaktadır. Sayılar, Klasik Phoinix'in, Hellenistik döneme doğru yaklaşık %255'lik bir nüfus artışı yaşadığını ortaya koymuş; işgücünün yarattığı üretim fazlası olasılıkla kıt kaynakları ikameye ve ihracata hizmet etmiştir.

Anahtar Kelimeler: Bozburun Yarımadası, Phoinix, antik ekonomi, teras sistemi, besleme kapasitesi, Hellenistik nüfus, üretim fazlası

Abstract

Upon the completion of its political organisation down to the late Classical era, the agrarian activities in the Carian origin Bozburun Peninsula (southwest Anatolia) accelerated due to the exploitation of the terrain to a large extent. The demes of the Peninsula transformed themselves to peripheral economies operating under the interests of Rhodes as well as indirectly serving the international market, beginning from the 3rd century B.C. The economy, which specialized in terrace systems, and the boom thereof ultimately gave rise to tremendous demographic

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expansions within the region. This paper aims to estimate the Hellenistic population of an unattended deme, namely Phoinix in the countryside, by reconciling the settlement data and land exploitation rates as well as reinterpreting them in light of the historical data. The figures put forward that the Classical Phoinix experienced ca. a 255% increase as it grew into the Hellenistic period while the surplus her workforce created possibly substituted the scarce resources and served for export.

Keywords: Bozburun Peninsula, Phoinix, ancient economy, terrace system, feeding capacity, Hellenistic population, surplus

Introduction

Bozburun Peninsula (ancient Carian Chersonesos/former Daraçya) lies in southwest Anatolia, bordering part of the coastal line (Fig.1). Due to the physical setting being far from more attractive locations in the Aegean, it was a big *chora* (χώρα), whose origins lie in the Carian culture and which was made up of rural settlements, namely the *demes*.

The destructive process brought by the Classical wars probably affected many groups in Asia Minor.² Following the withdrawal of the great powers and eradication of the adverse conditions, the rising prosperity accorded with the “Ionic Renaissance” (preferably termed as the Anatolian Renaissance by the author of this paper) and, accompanied by the urban projects that were launched by the reformist Hecatomnid dynast- King Mausolus in the late Classical period³ accelerated the upheaval of Hellenism in various parts of Caria. The process eventually led to the formation of hybrid populations composed of locals groups and Greeks.

Although we have a remarkable share of archaeological knowledge, particularly from northern and inner Caria and, the Halicarnassian Peninsula that were drawn into the orbit of Hellenism in the west, the links of southern Caria with Rhodes and possibly the islands in the Dodecanese⁴ forms the background which frame the past down to the late Classical period. A big

² Simon Hornblower, *Mausolus*, Clarendon Press, Oxford, 1982, s. 80-1.

³ Zs Visy, “Towns, Vici and Villae: Late Roman Military Society on the Frontiers of the Province Valeria”, In Burns, T.S. and Eadie, J.W. (eds.), *Urban Centers and Rural Contexts in Late Antiquity*, Michigan State University Press, East Lansing 2001, s. 172-3.

⁴ Christopher Mee, *Rhodes in the Bronze Age*, Aris and Phillips Ltd., 1982; Paul Åström, “Relations Between Cyprus and the Dodecanese in the Bronze Age”, In Dietz, S. and Papachristodoulou, I. (eds.), *Archaeology in the Dodecanese*, The National Museum of Denmark, Copenhagen 1988; Ronald T. Marchese, *The Historical Archaeology of Northern Caria: A Study in Cultural Adaptations*, BAR International Series 536, 1989; John Boardman, *The Greeks Overseas: Their Early Colonies and Trade* (4th ed.), Thames and Hudson, London 1999; George E. Bean, *Eskiçağ'da Menderes'in Ötesi (Turkey Beyond the Meander)*, trans. Pınar Kurtoglu, Arion, İstanbul 2000.

“but” comes to mind as to whether the southern *poleis* (πόλεις) had a share of the reformist atmosphere of the Anatolian Renaissance, which involved the Hecatomnid dynasty to a great deal and experienced a revival during the 4th century B.C (as new architectural forms are quite understandable, e.g. from tooled work ashlar masonry)⁵, including the Peninsula.

Despite the continuous clash of interests amongst the Diadochi in the early Hellenistic period, we can speak of the altered conditions resulting in favour of the periphery-based economies like the Island of Rhodes. The whole Peninsula and many other sites on the rest of the mainland (lying further inland or neighboring coasts) became “dominions” of Rhodes beginning from the 3rd century B.C. whereby the territories held by Rhodes are often referred to as the “Rhodian Peraea” (we hereby skip the two major nomenclature: Subject and Incorporated Peraea).

There seems nothing unusual about the Rhodian takeover as early as the 3rd century B.C. since *de-facto* conditions possibly emerged in the pre-Hellenistic era. A good reason can be found in the long-established connections with the Dorians on the islands⁶ and relations expressed in various contexts⁷ but particularly in the economic sense during the Archaic and Classical periods.⁸ Hence, we could also expect two-flow infiltrations from both sides which ultimately could have affected the socially perceived and economically shared interests. As the *demes* in the Peninsula (hereinafter referred to as the “Peraea”) and those at the islands became dependents of the three old *poleis* (Ialysos, Lindos, Kamiros) of Rhodes, thus formed her ‘incorporated’ territory⁹, the pace of “development” and change in the mode of economy of former self-sufficient regions increased notably. The impacts on the socio-economic life began to be expressed through agrarian practices, particularly via intensive terracing in the Peraea. The agrarian motives between the 3rd - 2nd centuries B.C also led to a physical expansion in the countryside, finally affecting the layout and settlement pattern of the Peraean *demes*. Phoinix (associated with the modern Taşlıca Village)¹⁰, lying in the south of the Peraea, was one of them.

⁵ Hornblower, *Ibid.*, s. 91-2; Alfred Laumonier, “Archéologie Carienne”, *Bulletin de Correspondance Hellénique*, Sayı 60, 1936, s. 321-5.

⁶ Mee, *Ibid.*; Åström, *Ibid.*; Marchese, *Ibid.*; Boardman, *Ibid.*; Bean, *Ibid.*

⁷ Hornblower, *Ibid.*, s. 52.

⁸ Murat Aydaş, *M.Ö 7. Yüzyıldan 1. Yüzyıla Kadar Karya ile Rodos Devleti Arasındaki İlişkiler*, Arkeoloji ve Sanat, İstanbul 2010, s. 3, 12, 15.

⁹ Peter M. Fraser and George E. Bean, *The Rhodian Peraea and Islands*, Oxford University Press, London 1954, s. 53.

¹⁰ Eser D. Oğuz-Kırca, “Restructuring the Settlement Pattern of A Peraean *Deme* Through Photogrammetry and GIS: The Case of Phoinix (Bozburun Peninsula, Turkey)”, *Mediterranean Archaeology and Archaeometry*, Sayı 14 (2), 2014, *passim*.

Amongst the *demes* of the Peraea, Phoinix abounds in epigraphic inventory and relatively less disturbed architectural ruins. A four-year research (2009-2012) was particularly centered around this *deme* to inquire about the demographic breakdown and population trends, which reached a peak during the 3rd - 2nd centuries B.C. Various contextual data has contributed to our interpretation of the settlement structures, which once left a substantial mark on the organisation of the land and in-site vertical relations, and reconstruction of the sporadic layout of the *deme*. Referring to a selection of comparative data (e.g. results of experimental archaeology, some productivity records, the knowledge disseminated by some scholars through their recent surveys) and some base models for development, a projection on the population of Phoinix was endeavored in light of different variables, however, it particularly banked on the agricultural potential of the *deme* as linked to the sustaining capacity. The number of “settlement units” recorded during field work; epigraphical hints which are deemed to help explore the demographic breakdown and, the cultivation potential in terms of land use, have been reconsidered in conjunction with the historical census counts (Ottoman enrollments). The carrying capacity of the questioned land, although disputable, is assumed to be a baseline for projecting the past, partly depending on the Middle Range approach.

Ethnicity, Citizenship and Social Mobility

For those interested in estimating past populations, many topics like the issue of ethnicity and citizenship, which are still being questioned for various communities, need consideration. Ethnicity is the sum of collective identity based on the shared characteristics of a community. Among these, perhaps ethnic consciousness takes the foremost place when mobilization of people is the focus of interest¹¹ while, for instance, gender can offer some insight into social mobilization¹² as well as issues of citizenship. Pertinent to the olden context, many regional ethnics, city-ethnics or sub-ethnics could have had their roots in toponyms by which a *kome* (κώμη), a *demos* (δῆμος) or a *phyle* (φυλή) were named once the exceptions are disregarded. Though is a difficult task and may highly relate to settlement, there is always a chance to explore further by adducing examples before we move on to some details involving the Peraea. On the use of city ethnics and sub-ethnics, as Hansen conveys, the Athenian practice was perhaps more interesting than

¹¹ David Konstan, *To Hellenikon Ethnos: Ethnicity and the Construction of Ancient Greek Identity- Ancient Perceptions of Greek Ethnicity*, Harvard University Press, Washington D.C. 2001, s. 29-30.

¹² David C. Thorns, *The Transformation of Cities: Urban Theory and Urban Life*, Palgrave Macmillan, New York 2002, s. 8.

the rest of the Greek world: sub-ethnics were restricted outside. However, a sub-ethnic and an ethnic could complement a person's name in Athens. A general rule applied for the Hellenistic *poleis* that sub-ethnics were seldom used inside *poleis* whereas *onoma* (*ὄνομα*), to which patronymics were added, was widely applied. Whenever a sub-ethnic is come across, one may get involved with demotics which often denote *demoi* (*δῆμοι*) derived from toponyms in which case some notable examples come from Rhodes, Euboea and Attica. In other words, sub-ethnics were essentially related to civic subdivisions- e.g. a *deme*, limited to citizenship in antiquity and were seldom applied outside. On certain occasions, the inhabitants used the city-ethnic. Some Cnidians, who were honored by virtue of financial aid to Miletos in 282 B.C, were named with patronymic and their city-ethnic. On the other hand, according to a 209/208 B.C Milesian decree mentioning *isopoliteia* (*ἰσοπολιτεία*) between Miletos and Mylasa, the Mylasans, whom were willing to get citizenship from Miletos, had to have their names registered by using 'their patronyms and the name of the Milesian *phyle* to which' they would belong. For those whom were non-Greek, the name of the region to which they belonged could be used in addition to full names.¹³

The case of the Peraea is somewhat unfortunate in terms of pure Carian onomastics. Also, ethnicity, as to normally be expected, was never inscribed/implicit on the utilitarian objects e.g. Rhodian origin amphorae stamps far more introduced by Cankardeş-Şenol¹⁴, hence the Peraean amphorae. The evidence is much owed to the epigraphical fragments¹⁵, the bulk of which are made up of the Hellenistic epitaphs. When we turn an eye again to the relationship between ethnicity and toponymy, we see that the Chersonesos (the whole mainland) is called under the regional ethnics that were the mixtures of toponyms and is referred to as the 'collective external' (due to attestation in the Athenian Tribute Lists (ATL)) and 'collective internal' (due to the usage of XEP on 6th century B.C. coinage¹⁶) at the same time, by Hansen and Nielsen. That is to say that before the infiltration of the Rhodians into the mainland, the Peraea was surviving its federative structure under which the city-ethnics (that are 'primarily political' and often forming

¹³ Mogens H. Hansen, "City-Ethnics As Evidence For *Polis* Identity", In Hansen, M.H. and Raaflaub, K. (eds.), *More Studies in the Ancient Greek Polis*, Franz Steiner Verlag, Stuttgart 1996, s. 170-3, 176, 178-9, 181.

¹⁴ Gonca Cankardeş-Şenol, *Klasik ve Helenistik Dönemde Mühürlü Amfora Üreten Merkezler ve Mühürleme Sistemleri*, Ege Yayınları, İstanbul 2006, s. 107.

¹⁵ Bean, *Ibid.*, *passim*; Peter M. Fraser "The Bosphoranoi of the Rhodian Peraea", *The Journal of Hellenic Studies*, Sayı 103, 1983, s. 137-9.

¹⁶ Barclay V. Head, *Historia Numorum: A Manual of Greek Numismatics*, Spink & Son Ltd., London 1963, s. 614.

an ethnic identity) could have prevailed¹⁷. Hence, it would not be weird to state that a political community granting citizenship was there in the Peraea which also calls attention to the early practices of co-habitation of the locals and foreign residents in the region.

The Greeks did not work on the lands where they settled. It was the native populations- real owners, who ran the land on condition that they paid annual rents.¹⁸ Only the citizens could own land (*αγρός*) or participate in *komai* associations.¹⁹ In ancient Greece, granting citizenship meant adopting a person to a clan, *phratric* (*φ(ρ)ατρία*), etc. and often granting land or house.²⁰ Citizenship was oftentimes reserved under ancestral lines. A different group was formed by the slaves and aliens who far exceeded the number of natives, e.g. in the cosmopolitan state of Rhodes. However, no exact figure could be assigned on the demographic structure.²¹ In spite of weak evidence, citizenship seems to have been limited to the local elites of the Carian communities before 188 B.C²² in the Peraea. However, populist policies- generally imposed through benefactors or religious associations and targeted at the poor, were always there as pursued by the Rhodians.²³ Adversely, if correct, the urbanisation attempts of Mausolus involved the incorporation of the ‘upper stratum’ of the society and recruitment of the intellectuals, at first.²⁴ According to Gabrielsen, the *demes* of the “Incorporated” Peraea were fledged with full citizenship. The degree and terms and conditions of citizenship, involvement in public affairs and participation in the administration of the three mother *poleis* or the federal state of Rhodes are

¹⁷ Mogens H. Hansen, “Introduction”, In Hansen, M.H. and Nielsen, T.H. (eds.), *An Inventory of Archaic and Classical Poleis: An Investigation Conducted by the Copenhagen Polis Center for the Danish National Research Foundation*, Oxford University Press 2004, s. 56-71; Mogens H. Hansen and Thomas H. Nielsen, “Part III: Indices”, In Hansen, M.H. and Nielsen, T.H. (eds.), *An Inventory of Archaic and Classical Poleis: An Investigation Conducted by the Copenhagen Polis Center for the Danish National Research Foundation*, Oxford University Press, 2004, s. 1114, 1316-7.

¹⁸ George Thompson, *Eski Yunan Toplumunu Üstüne İncelemeler: Tarih Öncesi Ege (Studies in Ancient Greek Society: The Prehistoric Aegean)* (1st ed.), trans. Celal Üster, Homer, İstanbul 2007, s. 304.

¹⁹ Nicholas F. Jones, *Rural Athens Under the Democracy*, University of Pennsylvania, Philadelphia 2004, s. 89.

²⁰ Thompson, *Ibid.*, s. 302-3.

²¹ Richard M. Berthold, *Rhodes in the Hellenistic Age*, Cornell University Press, Ithaca and London 1984, s. 54-5.

²² Riet van Bremen, “Networks of Rhodians in Karia”, *Mediterranean Historical Review*, Sayı 22 (1), 2007, s. 113.

²³ Strabo, *Geographika: Antik Anadolu Coğrafyası* (Books 12-14), trans. Adnan Pekman, Arkeoloji ve Sanat, İstanbul 2005, 14.2.5.

²⁴ Marchese, *Ibid.*, s. 56-7.

open to question.²⁵ From this point of view, there exists no fully completed comparative study on the subject matter. Notwithstanding, the scholars call attention to a social unbalance between the residents in that the category of dwellers ranged from free citizens to slaves; those permitted to live on the Island or had no rights.²⁶ What we know is, free people, whom were not granted membership to a *deme*, were called *katoikeutes*.²⁷ On the other side and although rarely found elsewhere, some information regarding the status of slaves has been reported from Amyzon: they were hung as punishment.²⁸⁽²⁹⁾ Concerning the campaign of Lysander in Caria, Xenophon³⁰ mentions that the inhabitants of Cedreae were declared slaves by the same person before his departure for Rhodes. A note of interest may be that slavery was not simply related with the extent of liberty. Slaves were able to have their own community or were deprived of membership of a community.³¹ Yet, we may find out, with the aid of papyrological sources, that there were no rural slaves in Roman Egypt but the number of urban slaves attested was not satisfactory, either. Costs arising from the labour they created probably made the landowners or entrepreneurs stay away from this institution unless they built up a highly specialized work force including the non-agricultural sector (e.g. building activity).³² Hence, it might be that the endless fertility of the Nile, which would offer advantages all year round for an ordinary peasant, did not necessitate slavery operating at the agricultural

²⁵ Vincent Gabrielsen, "Introduction", In Gabrielsen, V., Bilde, P., Engberg- Pedersen, T., Hannestad, L. and Zahle, J. (eds.), *Hellenistic Rhodes: Politics, Culture, and Society*, Studies in Hellenistic Civilization (vol. 9), Aarhus University Press, 1999, s. 20.

²⁶ Adnan Diler, *Kedrai (Sedir Island)*, Archaeology and Art Publications, İstanbul 2007, s. 29; Aydaş, *Ibid.*, s. 48.

²⁷ Ioannis Papachristodoulou, "The Rhodian Demes Within the Framework of the Function of the Rhodian State", In Gabrielsen, V., Bilde, P., Engberg- Pedersen, T., Hannestad, L. and Zahle, J. (eds.), *Hellenistic Rhodes: Politics, Culture, and Society*, Studies in Hellenistic Civilization (vol. 9), Aarhus University Press, 1999, s. 31.

²⁸ Gustav Hirschfeld and Frederick H. Marshall, *The Collection of Ancient Greek Inscriptions in the British Museum, Part 4: Knidos, Halicarnassos and Branchidae/ Supplementary and Miscellaneous Inscriptions*, Oxford 1893-1916, s. 173-5.

²⁹ For more on epitaphs of slaves, refer to Jules Martha, "Inscriptions de Rhodes", *Bulletin de Correspondance Hellénique*, Sayı 2, 1878, s. 615-21.

³⁰ Xenophon, *EAAHNIKA (Yunan Tarihi)*, trans. Suat Sinanoğlu, Türk Tarih Kurumu, Ankara 1999, 2.1.15.

³¹ Hiromu Ando, "A Study of Servile Peasantry of Ancient Greece: Centering Around Hectemoroi of Athens", In Yuge, T. and Doi, M. (eds.), *Forms of Control and Subordination In Antiquity*, The Society for Studies on Resistance Movements in Antiquity, Tokyo; E.J. Brill, Leiden 1988, s. 323-4.

³² Jan-Jacques Aubert, "The Fourth Factor: Managing Non-Agricultural Production in the Roman World", In Mattingly, D.J. and Salmon, J. (eds.), *Economies Beyond Agriculture in the Classical World*, Routledge, London and New York 2001, s. 101-2.

basis and that their positions were completely different from what would normally be expected.

Presumably, the Peraea was formed of ‘semi-formal population groups of non-citizens’, which means that two type of citizenship could have been there.³³ In Rhodes, known from 227 B.C earthquake, the admission to citizenship was subject to payment. Following the siege in 304 B.C, many slaves, mostly the native groups of Asia Minor, were admitted to citizenship.³⁴ It must have been a lively and interactive process in Rhodes and the Peraea as rich numbers of epitaphs mirrored the marriages of the Peraeans with the Rhodian women residing on the Island.³⁵ Presumably, they were attracted by the wealth of the cosmopolitan Island and mobility was achieved at the end. The reverse could well be true in consideration of the search for economic wealth or social status. We are already informed of Peraeans men who participated in the Rhodian official affairs in the 3rd - 2nd centuries B.C.³⁶ However, the local groups and foreigners were never treated equally. The ruling elite benefited from the indigenous populations by creating a labour force in the society and economy.³⁷ As Polybius attests, the inhabitants of the Peraea were ‘like slaves unexpectedly released from their fetters’ when Rhodes was deprived by the Romans of their garrisons in Caunos and Stratoniceia.³⁸ Hardly any other place has been depicted as a slave market except the Rhodian Peraea and the Black Sea (somewhere nearby Olbia).³⁹

As is valid for many cases, it is also hard to seek a correlation between ethnicity and citizenship in recognition of the Rhodian policy pursued on the mainland. With a few exceptions, a general Rhodian rule applied that demotics were only used to describe people who lived outside their *demes* as well as on the Island. Two examples mentioning the use of demotics were

³³ Fraser- Bean, *Ibid.*, s. 3.

³⁴ Cecil Torr, *Rhodes in Ancient Times*, Cambridge University Press, London 1885, s. 66.

³⁵ Christy Constantakopoulou, *The Dance of the Islands: Insularity, Networks, The Athenian Empire, and the Aegean World*, Oxford University Press 2007, s. 249.

³⁶ Ellen E. Rice, “Relations Between Rhodes and the Rhodian Peraea”, In Gabrielsen, V., Bilde, P., Engberg- Pedersen, T., Hannestad, L. and Zahle, J. (eds.), *Hellenistic Rhodes: Politics, Culture, and Society*, Studies in Hellenistic Civilization (vol. 9), Aarhus University Press, 1999, s. 49-51.

³⁷ Guy Bradley, “Colonization and Identity in Republican Italy”, In Bradley, G. and Wilson, J-P. (eds.), *Greek and Roman Colonisation: Origins, Ideologies And Interactions*, The Classical Press of Wales, U.K 2006, s. 174-5.

³⁸ Polybius, *The Histories* (Vol. 6; Books 28-39), trans. William R. Paton, Harvard University Press, London 1927, 6.30.21, 24.

³⁹ Patrick K. O’Brien (ed.), *Atlas of the World History: From the Origins of Humanity to the Year 2000*, Oxford University Press, USA 2007, s. 40.

found in Thysannos in the Peraea. When men were commemorated in their original *demes*, they were called with patronymics. When a man was recruited in another *deme* or system, it was a special case: e.g. *strategos* (στρατηγός, στραταγός ἐκ πάντων), which implied a post and probably involved (presumably reserved to a limited number of) both the citizens and the *demesmen*, and showed the source of appointment. The use of demotics was, however, taken seriously. The Rhodian *demesmen/demotes* were identified with the place of their demotic under the ethnic name, *Rhodium* (Ρόδιος) but the name *Rhodioides* majorly addressed those in relation with the three old *poleis* and distinguished through demotics. Specific to the Peraea, the citizens of the three old *poleis* living in the Peraea and acknowledged with the name of the *demes* (e.g. Tymnians, Cedraeans, Amians, etc.) were called *Peran* (τό πέραν). However, if a Rhodian origin man living in a Peraean *deme* was commemorated in another *deme*, he was given both a patronymic and demotic. The rule for the foreigners differed such that they were never given patronymics but were acknowledged under their ethnic background.⁴⁰ We are familiar with many foreigners from ‘Alexandria, Antiochia, Selge, Soli, Cnidus, Ephesos, Chios, Cyzicus, Symbra, Amphipolis, Lysimachia, Tenos, Hermione’.⁴¹ An epitaph identifying the ethnic (Παταρεύς) of Patara, in the north of Lindos⁴² along with many others, including those found in the Peraea, has corroborated the ideas about the cosmopolite structure of the Rhodian State. Also, being a foreigner meant a lot in Rhodes. That around 1000 foreigners helped defend Rhodes during the siege in 305/304 B.C makes the situation noteworthy.⁴³ Notwithstanding, the legal status of foreign residents is uncertain; what is at least known is that they were called *metics* (*métokos*) while some of them acquired *epidamia* (ἐπιδαμία; quasi-citizenship). The wife of Philocrates was a Selgian and even though she was probably born in Rhodes bearing a privileged status, she was still identified as a foreigner. A problem with

⁴⁰ George E. Bean and John M. Cook, “The Carian Coast III”, *The Annual of the British School at Athens*, Sayı 52, 1957, s. 80; Ellen E. Rice, “New ΝΙΣΥΡΙΟΙ from Physkos (Marmaris)”, *The Journal of Hellenic Studies*, Sayı 104, 1984, s. 185; Ender Varinlioğlu, “Pera’da Rodos Yurttaşı Olmak”, *Araştırma Sonuçları Toplantısı*, Sayı 8, 1990, s. 223; Sviatoslav Dmitriev, “The ΕΤΡΑΤΑΓΟΣ ΕΚ ΠΑΝΤΩΝ”, *Historia*, Sayı 48, 1999, s. 250-3; van Bremen, “Networks of Rhodians”, s. 115.

⁴¹ Paul-François Foucart, “Inscriptions de Rhodes”, *Bulletin de Correspondance Hellénique*, Sayı 10, 1886, s. 207.

⁴² Jules Martha, “Inscriptions de Rhodes”, *Bulletin de Correspondance Hellénique*, Sayı 2, 1878, s. 618-9.

⁴³ Thomas H. Nielsen and Vincent Gabrielsen, “Rhodos”, In Hansen, M.H. and Nielsen, T.H. (eds.), *An Inventory of Archaic and Classical Poleis: An Investigation Conducted by the Copenhagen Polis Center for the Danish National Research Foundation*, Oxford University Press, 2004, s. 1206-7.

onomastics is that it has remained indecisive about the definition of a real Rhodian, hence we are sometimes left with unusual words, which must have been differently perceived regarding citizenship, e.g. the status of an offspring of a Rhodian citizen and a foreigner (e.g. a Peraean mother) was acknowledged as *matroxenos* (ματρόξενος), almost holding a citizenship⁴⁴ whereby the extent of citizenship often appear as an enigma.

The exact identity and roles of all those *Rhodioi* (foreigners travelling for trade or acting as financial aiders during wartime, permanent residents of the Island) are debatable. By all means, the Peraea welcomed the *Rhodioi* in many instances. They generally appear on the late 3rd century B.C - 3rd century A.D inscriptions in the ‘Subject’ Peraea. Evidence shows that many local *koinons* (κοινοῖ) could make dedications to those who could have been the wealthy *Rhodioi* or the local elites. As the relations grew into a mature stage, the *Rhodioi* probably married the local women so that the offsprings could benefit from the civic and social rights under full-citizenship.⁴⁵ On the other hand, the practice of honoring people, as was widely echoed on the inscriptions, has profound connotations within the social context. For instance, a *metic* was honored for having acted for the second time in Phoinix, on one of them.⁴⁶ Likewise, some fragments mentioned *euergetai* (εὐεργέται) who could have had certain interests while intervening in the city hierarchy.⁴⁷ Obviously, similar inscriptions have helped the elucidation of some problems about the status of the *Rhodioi*. As van Bremen attests, about two thirds of the inscriptions (centered around Pisye and datable to 225-150 B.C) recovered on the mainland call attention to the patterns of presence of *Rhodioi*. A distinguished altar found in Yeşilyurt was a dedication made in the honor of Zeus Atabyrios of Rhodes. However, the presence of commercially oriented true Rhodians, as should be expected to not be limited to the administrative or military personnel, is still arbitrary since no direct evidence has been found concerning their ‘financial profiteering in the region’. An inference may be that, the imprints left by the honored or commemorated *Rhodioi* might not necessarily be attributable to the native

⁴⁴ Paul-François Foucart, “Inscriptions Attiques et Inscriptions de Rhodes”, *Bulletin de Correspondance Hellénique*, Sayı 13, 1889, s. 366-7; Berthold, *Ibid.*, s. 54-5; Riet van Bremen “Networks of Rhodians in Karia”, In Malkin, I., Constantakopoulou, C. and Panagopoulou, K. (eds.), *Greek and Roman Networks in the Mediterranean*, Routledge, London and New York 2009, s. 120; van Bremen, “Networks of Rhodians”, s. 123.

⁴⁵ van Bremen, “Networks of Rhodians”, s. 119-20.

⁴⁶ Louis Robert, “Documents d’Asie Mineure”, *Bulletin de Correspondance Hellénique*, Sayı 102 (1), 1978, s. 403.

⁴⁷ Mireille Corbier, “Kent, Arazi ve Vergilendirme”, In Rich, J. and Wallace- Hadrill, A. (eds.), *Antik Dünyada Kırsal ve Kent (City and Country in the Ancient World)*, trans. Lale Özgenel, Homer, İstanbul 2000, s. 217.

and wealthy Hellenized Carians, who were granted full citizenship. Views about their real origin in favour of the local elites are now gradually being replaced by the theories on the presence of those from the Island, by virtue of round funerary altars often peculiar to Rhodes. However, an alternative answer would reject a one-way assimilation in that the *Rhodioi* might have been gradually swept into the cultural and psychological sphere of the local communities over time, due to excess involvement on the mainland, including the Subject Peraea. Perhaps a more problematic side, in respect of this last case, is that we still feel the need to question the patterns of presence in the Incorporated Peraea beginning from the end of the 5th century B.C since a 'two-tier model of citizenship' could have prevailed as a result of flow of continuous interaction.⁴⁸

Highlighted with the word *θρεπτός* (*threptos*), the adoption of children was not foreign to Asia Minor.⁴⁹ Adopting daughters is also known from Athens and Rhodes. An inscription of 115 B.C echoed a Tymnian girl who was adopted by a Lindian, perhaps through marriage or some other reason. It would be a simplistic way of contemplation that her family moved to Lindos and she was adopted there.⁵⁰ We cannot be sure. Rice thinks that a preferential purpose could be to keep families intact against the extinction of the heirs or when there were no heirs for the remaining property (as in the case of Athens) or, to become eligible for the priesthood of Athena Lindia due to the general rule of succession for the priestly post. The author also conceives that adoption in Rhodes can neither be linked to the introduction of the *deme* system nor to the reforms made in the election system. It might have been a natural reflex of the fully fledged citizens - mainly the *demesmen* holding offices in the three old *poleis* against the growing number of the *Rhodioi* over time and that this could have been a state-imposed phenomenon. Hence, the institution of formal adoption could have been abused and the real purpose ceased.⁵¹

Mobility was a common thing in the Peraea. It became widely practiced with the development of trade. There were two categories for the foreigners at Rhodes. The first group, named as *xenoi* (*ξένοι*), was involved with

⁴⁸ van Bremen, "Greek and Roman Networks", s. 113-6, 121-3.

⁴⁹ Archibald Cameron, "ΘΡΕΠΤΟΣ and Related Terms in the Inscriptions of Asia Minor", In Calder, W.M. and Keil, J. (eds.), *Anatolian Studies Presented to William Hepburn Buckler*, Manchester University Press, U.K 1939, s. 35.

⁵⁰ Rice, "Relations", s. 51-2.

⁵¹ Ellen E. Rice, "Adoption in Rhodian Society", In Dietz, S. and Papachristodoulou, I. (eds.), *Archaeology in the Dodecanese*, The National Museum of Denmark, Copenhagen 1988, s. s. 138-42.

commerce while the other had to do with the list of magistrates.⁵² The Peraean *demesmen*, following line of gender, probably held the eponymous magistracy in Kamiros (e.g. Timokrates (whose father was the priest of Sarapis in Kamiros), the priest of *Asclepius* in Thysannos in the first half of the 1st century B.C was a *demiourgos* (δημιουργός) in Kamiros in 183 B.C). There is little doubt about the presence of numerous priests (who also served as *hieropoioi* (ιεροποιοί) in Kamiros) of Thysannos on the Island. Inscriptions found in Rhodes have revealed information about the Rhodian origin officials and priests of Tloioi (Phoinix).⁵³ Besides the administrative and religious posts, the *demesmen* of the Peraea were also engaged in the judicial system of the Peraea.⁵⁴ Few Hellenistic bronze jury tickets in blade shape with a rose on each (probably lettered in the 2nd century B.C) with Lindian demotic abbreviations in Rhodes Museum contain names from the *demesmen* of the Peraea.⁵⁵

Regarding social mobility and transformation, it is very difficult to establish objective criteria for ethnicity. Hence, it is futile to construct a satisfactory approach. It seems that the problem needs to be sought in the ‘relations of power within groups’ rather than multi-ethnic groups highly shaped by social forces, in the future studies.⁵⁶ There could have been irregular variations⁵⁷ before the arrival of the Rhodians. The situation could well have turned into a rhythmic expansion with intermarriage under local citizenship, as well.

The Question of Population

The puzzle of population in a particular piece of land or region in antiquity has always been a topic which many scholars have mulled over. A core of truth is that variations in the population figures of regions can be interrelated with altered settlement practices and land exploitation models. Nevertheless, socio-cultural and political evolutions move at different speeds and directions, and are also related to living standards and areal expansions

⁵² Foucart, “Inscriptions de Rhodes”, s. 206.

⁵³ IG XII, 1 1449, <http://epigraphy.packhum.org/inscriptions/main>; Fraser- Bean, *Ibid*, s. 34-9; Alan Bresson, *Recueil des Inscriptions de la Pérée Rhodienne (Pérée Intégrée)*, Les Belles Lettres, Paris 1991, s. 118-22; Rice, “Relations”, s. 50-1.

⁵⁴ Bean-Cook, *Ibid.*, s. 79.

⁵⁵ Peter M. Fraser, “Notes on Two Rhodian Institutions”, *The Annual of the British School at Athens*, Sayı 67, 1972, s. 119-20.

⁵⁶ Jonathan M. Hall, *Ethnic Identity in Greek Antiquity*, Cambridge University Press, Cambridge 1997, s. 19, 111-28.

⁵⁷ Ernest T. Hiller, “A Culture Theory of Population Trends”, *The Journal of Political Economy*, Sayı 38 (5), 1930, s. 530.

in a society. It is also hazardous to divorce ancient population debates, at least theoretically, from demographic drives and growth rates.

Scheidel conveys that demographic expansions gradually took place by the beginning of the 1st millennium B.C, encompassing the Aegean core, the Black Sea and the Mediterranean basin. The explosive growth beginning in the 8th century B.C was correlated with the quality of life and economic shifts. The abrupt expansions in the 5th - 4th centuries B.C. nucleated settlements were caused by the power relations and agrarian practices highlighted particularly through labour intensive terrace building. Decreases in the two indicators of growth - demographic and economic regressions took place in the 4th - 3rd centuries B.C.⁵⁸⁽⁵⁹⁾ Until the 4th century B.C., low density populations were generally confined to the rural landscapes.⁶⁰ The Hellenistic period was a period of booms in population trends but the upper limits were experienced when the countryside was completely occupied in the Roman period. Off-site pottery surveys have shown that extensive land use and intensive manuring caused a rural depopulation in Greece during the Classical period while, a similar situation had grounds for political and economic recessions during the Ottoman period. Depopulation in the countryside was presumably caused by a decline in productivity of agricultural soils and manuring in the Late Classical and Hellenistic Boeita.⁶¹

Demographic growth in antiquity is a big problem. As *polis* and countryside can be interwoven, population estimates are difficult to tackle. Whatever their limitations were, the site size, configurations and their spatial relationships offer the only semi quantitative access to prestatistical population aggregations. Hence, ratios of urban and non-urban populations

⁵⁸ Walter Scheidel, "The Greek Demographic Expansion: Models and Comparisons", *The Journal of Hellenic Studies*, Sayı 123, 2003, s. 120-1, 124.

⁵⁹ Scheidel is doubtful about sharp increases in the 8th century B.C (128). Regional differences mean much for such debates. He clarifies that 'due to lack of quantifiable data, growth rates can only be derived from final population size' (Scheidel, *Ibid.*, s. 122).

⁶⁰ Stelios Andreou and Kostas Kotsakis, "Counting People in an Artefact-Poor Landscape: The Langadas Case, Macedonia, Greece", In Bintliff, J. and Sbonias, K. (eds.), *The Archaeology of Mediterranean Landscapes: Reconstructing Past Population Trends in Mediterranean Europe*, Oxbow Books, Oxford 1999, s. 35.

⁶¹ John L. Bintliff, "Regional Survey, Demography, and the Rise of Complex Societies in the Ancient Aegean: Core-Periphery, Neo-Malthusian, and Other Interpretive Models", *Journal of Field Archaeology*, Sayı 24 (1), 1997, s. 12, 14; John L. Bintliff, "Landscape Change in Classical Greece: A Review", In Vermeulen, F. and de Dapper, M. (eds.), *Geoarchaeology of the Landscapes of Classical Antiquity* (Annual Papers on Classical Archaeology, Supplement 5), Bulletin Antieke Beschaving (BABESCH), Leiden 2000, s. 57-8, 66.

are sometimes simulated from early statistics of preindustrial economies.⁶² Some scholars try to seek population figures by quantifying mortal remains. It is fallacious to depend on the burial counts since the visibility of tombs may have changed over time.⁶³ Furthermore, habitation in the countryside may be non-yielding in certain cases. Taking cognizance of citizens but disregarding slaves, women and children would be another pitfall for any kind of survey. Also, if increases in the number of sites are only linked to farmstead expansions (e.g. in a late Classical case), the method is again unpromising.⁶⁴ There is often need for more, e.g. cultural and environmental parameters.⁶⁵ For this reason, various approaches on the models of development have been introduced in the scholarly world. For example, Neo-Malthusianism and Eco-Demographic models try to find out a relationship between demography and ecological factors. Regional development models, as opted by Bintliff, address the core theoretical structures whereby local production and local-agricultural demographic cycles can reflect human ecology and socio-economic transformation within the regional-macro regional context. In the meantime, population distribution maps may be of importance to a certain degree but size, function, age, type of settlements and even historical estimations make sense. Along with many models, there is growing necessity for cumulative approaches to derive population estimates of the people in antiquity.⁶⁶

Dickinson notes that the function of a settlement is also a criterion for analyzing population structures. Hence, the regional needs may be a reflection of 'ratio of basic/non-basic activities'. The way of involvement in agriculture in rural areas might be sought to discover the 'ratio of agricultural population to the serving population' which is generally alleged to be fixed in a given area. However, there is also need to consider that mobility degrees are not constant when proportioned to the density of a population.⁶⁷ In the words of Osborne, productivity is no less an important key to understand the conjectural population of sites. For example, a configuration of a landscape measuring 105 km² was sampled for Kyeneai (a

⁶² Karl W. Butzer, "Other Perspectives on Urbanism: Beyond the Disciplinary Boundaries", In Marcus, J. and Sabloff, J. (eds.), *The Ancient City: New Perspectives on Urbanism in the Old and New World*, School for Advanced Research Press, New Mexico 2008, s. 78-81.

⁶³ Scheidel, *Ibid.* s. 129-30.

⁶⁴ Mark Golden, "A Decade of Demography. Recent Trends in the Study of Greek and Roman Populations", In Flensted-Jensen, P., Nielsen, T.H. and Rubinstein, L. (eds.), *Polis and Politics: Studies in Ancient Greek History*, Museum Tusulanum Press, Aarhus 2000, s. 24-5.

⁶⁵ Hiller, *Ibid.*, 523.

⁶⁶ Bintliff, "Regional Survey", s. 17, 21-2.

⁶⁷ Robert E. Dickinson, *Some Problems of Human Geography*, Leeds University Press, Cambridge 1960, s. 10-1, 16.

member of the Lycian League), where two thirds of the land was allocated to olive processing to produce 560.000 liters of oil per year/ requiring 224.000 'man days of labour' calculated quarterly. It is thought that ca. 2500 people could have worked in Kyenai where 14.000 liters were to be consumed. Concordantly, one third of the territory could have produced 2.100.000 kg of grain to sustain 10.500 people when worked by 2,500 adults for 45 days⁶⁸ although these figures are not thought to be totally reliable. An agricultural potential was not simply owed to technology or a fertile territory surrounding the core, but very much to the amount of labour as far as we can estimate. Also, the potential use of ancient territories was not necessarily related to modern soil characteristics suitable for arable land, either. Preferably, production rates for good and bad years are needed. For example, olives are vulnerable to changing conditions. Ancient evidence on the olive production disclosed that a hectare yielded 100 olive trees on average in Greece. These produced around 400 kg of olive oil during the good years and 150 kg during the bad years. The experimental archaeology applied in certain parts of Greece has shown that 1000-1500 kg of wheat per hectare could have been reaped. The worst case is 3 ha which could feed a family of five over a year.⁶⁹

We are also familiar with some production estimates relevant to the post-Hellenistic period. Libya, for instance, has revealed evidence that each press operation area encompassed a land of 2 km² in the 2nd century A.D. The large operations are expressed with 5000-10.000 liters, the smaller ones with 2500-3000 liters, *per annum*. 20 liters of olive oil production recorded *per capita* during the Roman period leads to a figure of total production for about 2500-5000 people.⁷⁰

Environmental determinants for production potentials; the carrying capacity of a settlement with its hinterland; climatic conditions such as annual precipitation and soil studies⁷¹ pave the way for further estimations. The issue of surplus has also drawn the scholars' attention as it had to be 'transformed' to cash in order to meet the expenses of things like public works, warfares and festivals. A famous case emerged in the form of tributes paid to the Athenian State by the members of the Delian League in the 5th

⁶⁸ Robin Osborne, "Configuring the Landscape", In Kolb, F. and Müller-Lückner, E. (eds.), *Chora und Polis*. Schriften des Historischen Kollegs Kolloquien 54, R. Oldenbourg, München 2004, s. 373.

⁶⁹ Robin Osborne, *Classical Landscape with Figures: The Ancient Greek City and Its Countryside*, George Philip, London 1987, s. 44-6.

⁷⁰ Richard E. Blanton, *Hellenistic, Roman and Byzantine Settlement Patterns of the Coast Lands of Western Rough Cilicia*, BAR International Series, Oxford 2000, s. 70-1.

⁷¹ Blanton, *Ibid.*, s. 11-3.

century B.C.⁷² Regarding productivity, questions may be raised on the extent of self-sufficient local populations as to whether they produced a surplus. According to Argolid survey data, during the Classical and Roman periods, approximately 1 ha was arable by a single person; 5 ha⁷³ were reasonable on a family basis, for self-sustaining purposes. The figures (around 7.8 ha land worked out by a family) were discovered to be around 140-200 kg/ha as per the 'productivity value' while it was 175-200 kg/ha of wheat for *per capita* consumption. On average, 10 ha were reserved for a single family, keeping 7.8 ha for self-sustaining purposes while the rest was kept as surplus for sale. Estimations also showed that ploughing a 5 ha farm would bring 2000 kg/ha of wheat production where 1000 may have gone to the household and 1000 for sale. Interestingly, earlier Turkish statistics (mainly Ottoman Period) revealed that the figures for agricultural production were similar to those of the Greek and Roman periods.⁷⁴

Garnsey makes a mark that some scholars refer to epigraphical evidence which provided some information on the amount of grain in Classical Athens, in order to theorize on population figures. Famous references are the inscriptions recording the 'First Fruits' on the total production of wheat and barley. They were offered to Demeter at Eleusis in 329/8 B.C. As the full conditions are never known, they remain speculative in every instance. He continues that when the frontiers (e.g. Boeotia) are excluded, 2400 km² of cultivable land may be realistic for Classical Attica, where there was mixed and small scale intensive farming and certain percentage of land had to be reserved for fallow. Bearing in mind the effect of climatic conditions, recent estimates have shown that 2.5 hl (193 kg.) and 3 hl would be a generous allowance on wheat and barley consumption. Due to poor soil conditions and overpopulation, wheat must have yielded less than barley (which is resistant to drier conditions) in Athens. Hypothetically, 200.000-300.000 of Athenians were there between 450-320 B.C. Under the worst conditions and with the final figure of about 120.000-150.000 in population of the core residents and 20.000-25.000 Athenians in the dependent territories, Attica was able to support 175.000 people at the maximum.⁷⁵⁽⁷⁶⁾ From

⁷² Jens E. Skydsgaard, "Agriculture in Ancient Greece: On the Nature of the Sources and the Problems of Their Interpretation", In B. Wells (ed.), *Agriculture in Ancient Greece*. Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16-17 May, 1990, Paul Aströms Förlag, Stockholm 1992, s. 11.

⁷³ Foxhall takes the approximate number of 5.5 ha as the basic value (on the basis of household) which is explainable with the 'subsistence portion' for those having land in Attica (Lin Foxhall, "The Control of the Attic Landscape, In B. Wells (ed.), *Agriculture in Ancient Greece*, Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16-17 May, 1990, Paul Aströms Förlag, Stockholm 1992, s. 156).

⁷⁴ Blanton, *Ibid.*, s. 12-4.

⁷⁵ Peter Garnsey, *Cities, Peasants and Food in Classical Antiquity*, Cambridge University Press, Cambridge 1998, s. 184-92.

Aristophanes⁷⁷, we hear of a population of 20.000 in the *polis* center of Athens. Bintliff suggests that Athens must have experienced the peak of population pressures in the 4th century B.C with around 180.000 inhabitants including those from the hinterland.⁷⁸ Some scholars underline that Athens had a territory of 50-100 km² with a population of 2500-4500. And, 500 inhabitants would have shared a minimum number of 38 km².⁷⁹

It is thanks to many scholars that they have added to the quantitative background. According to Torr, Rhodes had a figure of around 220.000 inhabitants before the prosperous times. What he suggests seems to be a highly exaggerated sum whereof he notes a number of 60.00 free people and 160.000 slaves at times of peace and that out of the 60.000 free people, 6000 could have been made up of the foreigners and 6000 of the citizens.⁸⁰ Jones generalizes that the three *phylae* of Rhodes had almost two thirds of the entire *deme* population on the Island itself. Others were in the Peraea and few resided on the dependent islands.⁸¹ For Tuna, Cnidus sustained a population of ca. 40.000 inhabitants.⁸² Cos and Halicarnassus were ratable to 30.000-65.000 inhabitants, while the middle-sized settlement of Samos figured to 65.000-100.000.⁸³ In Caria, Iasos' population was composed of 800 citizens whilst the rest is still uncertain.⁸⁴ Lakiadai, as a small *deme* near the Mount Aigaleos, had a population of around 120 people.⁸⁵ 50 *oikoi* (*oïkoi*) was allowed for each scattered *kome*; no less than 12 *komai* and 100 *komai* had to create a small and larger *polis*, respectively, in Phokis.⁸⁶ Evidently, variations in the counts of the theoreticians are open to question.

⁷⁶ Athenian slaves made up 30% of the population, including all those involved in agricultural activity (Garnsey, *Ibid.*, s. 94).

⁷⁷ Aristophanes, *Eşekarıları, Kadınlar Savaşı ve Diğer Oyunları*, trans. Sabahattin Eyüboğlu and Azra Erhat, Türkiye İş Bankası, İstanbul 2006, s. 36.

⁷⁸ Bintliff, "Regional Survey", s. 8-10.

⁷⁹ Ayşe G. Akalın, "Antik Grek Yerleşim Tipleri, Kavramlar ve Tartışmalar", *Olba*, Sayı 12, 2005, s. 79.

⁸⁰ Torr, *Ibid.*, s. 55.

⁸¹ Nicholas F. Jones, *Public Organization in Ancient Greece: A Documentary Study*, American Philosophical Society, Philadelphia 1987, s. 243.

⁸² Numan Tuna, "Batı Anadolu Kent-Devletlerinde Mekan Organizasyonu Knidos Örneği" (Ph.D. thesis), Dokuz Eylül University, 1983, s. 62.

⁸³ Michael Grant, *A Guide to the Ancient World: A Dictionary of Classical Place Names*, The H.W. Wilson Company, New York 1986, s. 36.

⁸⁴ Lucia Nixon and Simon Price, "The Size and Resources of Greek Cities", In Murray, O. and Price, S. (eds.), *The Greek City from Homer to Alexander*, Clarendon Press, Oxford 1990, s. 160.

⁸⁵ Jones, *Rural Athens*, s. 75.

⁸⁶ Demosthenes, *Orations: XVIII-XIX (De Corona, De Falsa Legatione)*, trans. Charles A. Vince and James H. Vince, Harvard University Press, London 1926, 19.325; Diodorus

Unexceptionally, surveys have put forward upward trends in the populations of Aetolia, Epiros, Crete and adjacent southeastern lowlands of Athens in the Hellenistic period.⁸⁷ The population in the “capitals” of larger city states was somewhere between 1000-100.000, depending on the tributes. Also, a considerable number of farmers lived in large states, for protection and also against warfare. Interstate trade for luxury goods was realized by the merchants; full-time specialists were involved in feeding the population and reducing transport costs. The city-states were able to support a considerable number of nonfood producers who made up 10-20 % of the population.⁸⁸

The role of some other criteria used for minimum population estimations are valuable, e.g. theatre capacity, the rural settlement pattern, military power, food resources, subsidies, carrying capacity, areas reserved for settlement, registration in tribute lists at any place whether it was a *polis* or small scale settlement. The list may be continued.⁸⁹ A reference implying a minimum population for Rhodes might be that the theatre has a capacity of welcoming crowds of ca. 10.000 people as noted by Cook.⁹⁰ Amos, (a *deme* in the Peraea) on the one hand, was designed for an audience of only 1300 people.

A standing point for the purposes of this paper is that projections of the past might have some connection to recent facts, as well. Based on food production and agricultural activity (comparable to the modern data), a regional estimation about the 4th century B.C Boeotia made by Bintliff has shown that around 70% of the population was composed of the core dwellers while the rest was made up of the farmers and/or countryside dwellers during the Classical period.⁹¹ The hinterlands of the *poleis* and the functional parts of the *chora* were, without doubt, significant. In modern Greece, the average size of a field was less than 0.5 hectare during the 1960s⁹² in which

Siculus, *Diodorus of Sicily 3: The Library of History* (4.59-8), trans. Charles H. Oldfather, Harvard University Press, London 1939, 16.60.2; Mogens H. Hansen, “*Kome*. A Study In How The Greeks Designated And Classified Settlements Which Were Not *Poleis*”, In Hansen, M.H. and Raaflaub, K. (eds.), *Studies in the Ancient Greek Polis*, Franz Steiner Verlag, Stuttgart 1995, s. 77.

⁸⁷ Bintliff, “Regional Survey”, s. 12, 14.

⁸⁸ Bruce Trigger, “Early Cities: Craft Workers, Kings and Controlling the Supernatural”, In Marcus, J. and Sabloff, J. (eds.), *The Ancient City: New Perspectives on Urbanism in the Old and New World*, School for Advanced Research Press, New Mexico 2008, s. 55-7.

⁸⁹ Golden, *Ibid.*, s. 24.

⁹⁰ John M. Cook, *The Greeks in Ionia and the East*, Thames and Hudson, London 1962, s. 197.

⁹¹ Bintliff, “Regional Survey”, s. 22.

⁹² Osborne, *Classical Landscape*, s. 39.

case one may find out common grounds by checking the size of Classical farmsteads (ranging between 0.1- 0.3 ha) given by Alcock.⁹³ Although the level of development in pre-industrial societies, the quality of soil and environmental conditions may pose constraints to the agenda, it is worth thinking on the average yields of 629.1 kg/ha and 793.7.1 kg/ha in wheat and barley in Attica between 1911 and 1950. Whatever the pace of development was, the production aggregates of the land mattered to the landowners at various levels in antiquity since they were obliged to raise cash to meet the expenses imposed by the *polis* and occasioned by their position in the society.⁹⁴ The territorial model, totally against the city-state concept, is a moderate indicator of a small group of urban elite landlords exploiting the rural base. Hansen marks that: ‘*Consumer city presupposes opposition between urban and rural population; urban is a small portion of the total population and hinterland and; the core comprises consumers who derive their maintenance not from what they produce, but from taxes and rents extracted from the rural population*’. Classical archaeologists present a dilemma at this point. Most of them, except Finley, indicate that the ancient economy was based on agrarian subsistence. 10% of the population at the maximum was urban- a home for a small portion and landowners. Numerous landscape surveys proved the reverse, though at times being unreliable for demographic estimates. However, to an extent, nucleated settlements until modern times acted in the process of transformation of city-states to urban centers, e.g. the case of Sicily and Greece in the 19th century. The majority of people lived as farmers in the urban centers and worked in the fields outside the city walls.⁹⁵ However, it is often impossible to assert a percentage of land that groups in the population owned as we are, unlike the case of Attica, devoid of e.g. the number of people like hoplites which has been used as one of the criteria in Osborne’s⁹⁶ analysis.

The Population of Phoinix

We are devoid of a comprehensive survey regarding the ancient population of the entire Peraea, which leaves many unanswered questions. In

⁹³ Susan E. Alcock, “The Essential Countryside”, In Alcock, S.E. and R. Osborne (eds.), *Classical Archaeology*, Blackwell Publishing, UK 2007, s. 126.

⁹⁴ Garnsey, *Ibid.* s. 201-2.

⁹⁵ Mogens H. Hansen, “Analyzing Cities”, In Marcus, J. and Sabloff, J. (eds.), *The Ancient City: New Perspectives on Urbanism in the Old and New World*, School for Advanced Research Press, New Mexico 2008, s. 73-4.

⁹⁶ Robin Osborne, “‘Is It a Farm?’ The Definition of Agricultural Sites and Settlements in Ancient Greece”, In B. Wells (ed.), *Agriculture in Ancient Greece*, Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16-17 May, 1990, Paul Aströms Förlag, Stockholm 1992, s. 24.

order to refrain from greater risks and avoid rigid counts for the whole mainland, the sampling case of Phoinix, which covers a considerable area within the borders of modern Taşlıca Village, is presented below.

Although no demotic of Phoinix has been witnessed up to now, the inscriptions have disclosed that it was a *deme* with a fortified *Acropolis* on top of a hill between the Lower and Upper Fenaket. However, the names marking Φοινίκη are also found in a 3rd century B.C inscription detected in a neighbouring site of Loryma.⁹⁷ When the ethnic divisions are taken into account, although a difficult task to tackle, the map of Meyer visualizing the *demos* of the Chersonesioi⁹⁸ and the Tloans all over the *territorium* of Phoinix, is referable. The appellation of such an ethnicity has also been vindicated through their appearance in the list of *damiourgoi*, the priests with demotics in Kamiros.⁹⁹ Presumably, the names commemorated on the lists addressed the Peraean *demesmen*, as noted before.¹⁰⁰

It appears that, as it faced a ‘regional demographic and economic growth following core contact’¹⁰¹, the core-periphery and eco-demographic models fit to the Peraea. Was Peraea a closed economy? Probably not. Various methods are in line to make projections on the small scale settlement of Phoinix. Concurrently, we opt to dwell on a selection of figures from the literature including the experimental studies and link the discussions to some recent (comparative) data in the following paragraphs.

In the late Ottoman records, the name Tarahye (corrupted form of Daraçya), addresses the modern Bozburun Peninsula, which falls into the administrative borders of the former Mentеше Province (modern Muğla). The method of census applied in the 19th century was based on the number of men according to their religious beliefs. The public was either categorized under the “Reaya” group (meaning the Greek origin people involved in agriculture) or the “Islam” group.¹⁰² Apparently, the population records were unrealistic due to limited census and two category demographic data. The real problem with the census and methodology however is that ‘family’¹⁰³

⁹⁷ Fraser- Bean, *Ibid.*, s. 33-4, 58.

⁹⁸ Ernst Meyer, *Die Grenzen Der Hellenistischen Staaten in Kleinasien*, Verlegt Bei Orell Füssli, Zürich 1925, Blatt I.

⁹⁹ Meyer, *Ibid.*, 50; Louis Robert, “Une Épigramme Hellénistique de Lycie”, *Journal des Savants*, Sayı 4, 1983, s. 257; Fraser- Bean, *Ibid.*, s. 80.

¹⁰⁰ IG XII,1 1449; Fraser- Bean, *Ibid.*, s. 34-9; Bresson, *Ibid.*, s. 118-22; Rice, “Relations”, s. 50-1.

¹⁰¹ Bintliff, “Regional Survey”, s. 30.

¹⁰² Enver Z. Karal, *Osmanlı İmparatorluğu'nda İlk Nüfus Sayımı 1831* (2nd ed.), State Statistics Institute, Ankara 1997, s. 17, 194.

¹⁰³ Cem Behar, *The Population of the Ottoman Empire and Turkey 1500-1927*, Historical Statistics Series 2, State Institute of Statistics, Ankara 2003, s. 19-20.

was the criteria in calculations. In the overall picture, 942 inhabitants living in Tarahye show why the area was not that attractive (when compared to the rest of Menteşe Province). Interestingly, all the counted people were of Islamic male origin, disregarding the total sum of Reaya or any others. It may also have meaning that no foreign population was recognized in Tarahye. The dilemma is, the population of Rhodes (under the domination of the Ottoman Empire at that time) was fixed to 10.515, of which 3095 were Muslims and 7420 were Reaya¹⁰⁴, whereas none of the Reaya was registered at the opposite mainland. Was Peraea completely abandoned? There is a probability that it wasn't. It could be that a shift in the agricultural practice occurred during the reign of the Ottoman reformer Sultan- II. Mahmud.¹⁰⁵ Many other reasons could have been there, in the Menteşe Province where all the sub-provinces lacked the Reaya populations at the same time except the districts (namely "liva").¹⁰⁶⁽¹⁰⁷⁾

Anyone who looks at the productivity records of 1909 agricultural statistics of the whole region of modern Muğla can see that they are not representative for the Peraea since the environmental conditions change from a sub-region to another. The records show 1795 kg/ha for wheat production and 1054 kg/ha for barley. The rates for oat and rye were higher, possibly indicating far more economical products. In 1913 and 1914, Muğla rated 109.602 and 144.732 acres for wheat and, 91.673 and 87.100 acres for barley, respectively while the numbers were quite poor for the oat and rye. Regarding olives, figures fluctuate. For example, 1.572.780 trees were counted in 1909, 3400 acres of olive trees in 1913, 10.130 trees in 1914. For viniculture, the numbers given for the three periods are not as satisfactory as some other favourite provinces like Elazığ, Antep, Tekirdağ or even Ankara. 8565 acres were reserved in 1914, 19.200 acres in 1913 and 21.000 acres in 1909, all of which display a sharp fall in viniculture activity over the years.¹⁰⁸ In fact, these records mean nothing, perhaps apart from the productivity values rated for the entire region. In any case, the given figures

¹⁰⁴ Karal, *Ibid.*, s. 204, 211.

¹⁰⁵ The foreigner section of Reaya meant the regular collection of taxes for the state (5). A census was tax oriented (11) and necessary to measure the military potential (Behar, *Ibid.*, XIX); a supplementary reason was to remedy the inequalities and over imposed taxes (Karal, *Ibid.*, s. 11-2).

¹⁰⁶ Behar, *Ibid.*, s. 23.

¹⁰⁷ A contradiction is that according to 1831 census based on men, a total number of 2781 Reaya were ascribed to the Menteşe province (Behar, *Ibid.*, s. 23).

¹⁰⁸ Tevfik Güran, *Agricultural Statistics of Turkey During the Ottoman Period 1909, 1913 and 1914*, Historical Statistics Series: 3, State Institute of Statistics, Ankara 2003, s. 39, 66-7, 88, 133-4, 160, 210-11.

are limited since the estimations on the agricultural potential and resources of the late Ottoman period were also extracted through inadequate techniques.¹⁰⁹

Although the growth rates of populations must have differed in antiquity, we have some idea about the lowest figures of population in light of the Bouletic quotas. The calculations based on some regular criteria in Attica (e.g. 500 *bouleutai* (βουλευταί), citizens aged over 30, number of *demes*, etc.) provide a limited insight on the population counts which ranged between 130-1500 people from the smallest to the largest *demes*. Naturally, the conditions under which the Bouletic quotas were fixed cannot be copied to the Peraea. However, this range may be taken into account as being a worst case scenario and perhaps involving some more aspects more than ‘simply a family unit’ and distribution of wealth.¹¹⁰ At the same time, there is information about the amount of tribute payments made by the dependents to the Athenian State in the 5th century B.C, including the Carian *poleis*. A problem is that the status of the *poleis* in inland Caria is disputable, thus it gets difficult to state an opinion about the general population trends. Nevertheless, there seems a way if we refer to the scale of populations estimated by Tuna, according to the payments which appeared on ATL. Therefore, by looking at the ranking population of the *poleis* based on territorial size, one may see that the scale of population of the Peraea (recognized as the Carian Chersonesos in the 5th century B.C.) possibly corresponded to that of Erine, which fell into a category ca. or below 2000 people while the others paying over 5 talents like Cnidus reached 20.000, or the three old *poleis* of Rhodes exceeded 30.000 at the best.¹¹¹ The population of Phoinix was included in the figure of 2000 in all likelihood, in the Classical period. Though it may seem inapplicable, the poor number of theatres or theatre-like structures (only three all over the Incorporated Peraea¹¹²) might raise a concern over this total figure when far attractive and larger territory *poleis*¹¹³ were often associated with an audience capacity not less than 10.000 in antiquity, e.g. Rhodes. Amos (see above) is one case

¹⁰⁹ Güran, *Ibid.*, IX.

¹¹⁰ Robin Osborne, *Demos: The Discovery of Classical Attika*, Cambridge University Press, Cambridge 1985, s. 43-5.

¹¹¹ Numan Tuna, “Antik Devir Batı Anadolu Kıyı Yerleşmelerinde Mekânsal Örgün” (M.Sc. thesis), Middle East Technical University, 1978, s. 170-1.

¹¹² Bean, *Ibid.*, s. 170; Turgut Saner and Zeynep Kuban, “Kıran Gölü 1998”, *Araştırma Sonuçları Toplantısı*, Sayı 17 (2), 1999, s. 289.

¹¹³ Hansen, “Introduction”, s. 71-2.

(designed for 1300 people), which implies small size gatherings where foreign travelers could possibly attend.

The Classical Peraea was equivalent to a *polis*.¹¹⁴ With the formal introduction of the new *deme* system (beginning with the 3rd century B.C.) by Rhodes on the mainland and the attachment of the *demes* of the Peraea and the islands to either three old *poleis* of Rhodes, the Rhodian type of administration began to be internalized in these dominions. The basis of territorial allocation to the three old *poleis* was probably owed to the old administrative forms and patterns on the Island, particularly to the notion of *ktoina* (*κτοίνα*; the smallest political unit based on territorial division).¹¹⁵ Similar to the land division practices on the Island¹¹⁶, equal numbers of Peraean *demes* must have been attached to each of the three *poleis* on account of egalitarianism. Hence, this research takes it for granted that the *territorium*s of the Peraean *demes* were drawn on equal shares both arising from the Classical practices and those of the Island. Held puts forward that the Incorporated Peraea was composed of 10 (ten) *demes*.¹¹⁷ Assuming that this was the correct number in the Classical Chersonesos, then the worst possible case is the ascription of 200 inhabitants to each Peraean *deme* under a uniformitarian approach. The genuine contradiction here would possibly emanate from the profile of the inhabitants and the elite's dependency on the countryside populations, as such cases are offered to attention by Hansen. Presumably, the exploitation of the landowners from the rural base via taxes and rents¹¹⁸ was there when the Rhodians were controlling the mainland during the Hellenistic period. A more problematic side relates to the pre-Hellenistic period. If the Peraea maintained amicable relations with the three old *poleis* before the Social War (357/6 B.C.)¹¹⁹, at least within the economic context, there seems no choice left but to treat the Classical Peraea in favour of a land-oriented system. Assuming that the conditions were constant, the figure of 200 inhabitants residing in Phoinix could also have addressed or

¹¹⁴ Benjamin D. Meritt, Henry T. Wade-Gery and Malcolm F. McGregor, *The Athenian Tribute Lists*, vols 1-4, Harvard University Press (vol. 1), Cambridge, Massachusetts 1939-1949- 1950- 1953; Harvard University Press, Princeton, New Jersey 1939- 1949- 1950-1953, (vol.1), s. 458; Pernille Flensted-Jensen, "Karia", In Hansen, M.H. and Nielsen, T.H. (eds.), *An Inventory of Archaic and Classical Poleis: An Investigation Conducted by the Copenhagen Polis Center for the Danish National Research Foundation*, Oxford University Press 2004, s. 1114.

¹¹⁵ Fraser- Bean, *Ibid*, s. 95; Berthold, *Ibid.*, s. 41; Constantakopoulou, *Ibid.*, s. 244.

¹¹⁶ Papachristodoulou, *Ibid.*, s. 32-40.

¹¹⁷ Winfried Held, "Loryma ve Karia Chersonesos'unun Yerleşim Sistemi", *Olba*, Sayı 12, 2005, s. 86-7.

¹¹⁸ Hansen, "Analyzing Cities", s. 73-4.

¹¹⁹ Naomi R. Kloudis, "Money, Power, and Gender: Evidence for Influential Women Represented on Inscribed Bases and Sculpture on Kos" (M.A. thesis), University of Missouri, 2007, s. 13, 36, 100.

covered a group of elites or a certain number of *oikoi* serving the interests of the elite, however, an egalitarian atmosphere of the Classical era may need to be reconsidered even for this part of Anatolia. Whatever the case, the Classical population was conceivably less than expected for any place of social attraction in antiquity. If we continue and assume a standard family size of five people (given by Alcock¹²⁰, this number may reach up to 1000 people regardless of the inhabitants' status, in Phoinix. On one hand, we have no idea about the bouletic quotas attributable to the Peraea within the federative structure of the Carian *Koinon*¹²¹. Hence, we may have to be contented with the literary evidence attesting 130-1500 people (see above, Osborne, *Classical Attika*). This range may support the speculative figures of 200 and 1000 so mentioned. An encouraging source is that the 19th century records approximate 1000 (942 people) inhabitants in Tarahye, regardless of the demographic profile and total *capita*.

Continuing with the number of the *demes* stated by Held¹²² and the population range put forward by Tuna¹²³, we may test the case by referring to the potential land (based on the pottery assemblages) used for terracing during the Classical period. The criterion set for the following calculation is the "feeding capacity" of land. Some basic map operations, which were run through GIS work, have shown us that as much as 30,8 ha could have been reserved to the agricultural terraces in which case this figure may be rounded down to 30 ha, for the surveyed Classical catchment area of Phoinix. It was also understood that, with the available data of 70 ha for the depression area of Sindili (which was under the control of the *Acropolis*), the total land used for agriculture makes up a sum of about 100 (70+30) ha. In line with the previously stated data (which fixes 3 ha (to feed) to 5 *capita*), we can theoretically state that 100 ha could feed ca. 167 people at most. A better case would be if 5 ha could feed 5 *capita*, then the figure decreases to ca. 100 inhabitants. The mean value of both figures ((167+100): 2) is equal to the final figure of 134 inhabitants at Classical Phoinix. Although our reference number, which was assumed to be as 200, is never attainable from this figure, we may state that the hypothetical population at least does not exceed the final figure. To be on the safe side, 200 inhabitants are preferred to be used henceforward, for Classical Phoinix.

The potsherd scatters recorded in the *territorium* of Phoinix¹²⁴ in a way proved that the *deme* must have experienced a boom in her population down

¹²⁰ Alcock, *Ibid.*, s. 128.

¹²¹ Hornblower, *Ibid.*, s. 55.

¹²² Held, *Ibid.*

¹²³ Tuna, "Mekansal Örgün", s. 170-1.

¹²⁴ Oğuz-Kırca, *Ibid.*, s. 288-9.

to the Hellenistic and Roman eras. The growth rates may also be sought in the wider expansions of the Rhodians before 167 B.C (3rd Macedonian War)¹²⁵ therewithal. When the necessity to sustain land cultivation by the family networks in the countryside is taken into account, the expansion is plausible with the increase in the volume of production, even trade flow of wine and possibly olive oil. It is beyond controversy that the bulk of the economy was dependent on the exportation of wine since numerous Late Rhodian discards reported from Hisarönü, Turgut and Bayır verified the Rhodian effect on the mainland. These were overwhelmingly made up of the stamped amphorae with typical thick bases and mushroom rims, dated to end of the 4th - beginning of the 3rd centuries B.C.¹²⁶ Also, many utilitarian objects in the form of pressing installations are widely encountered along the coasts, including the inland Caria. Arising from the character of terrain, terracing was suitable for olive plantation whilst grain was cultivated on the alluvial plains according to Diler.¹²⁷ An encouraging answer to the deployment of the terraces for olive plantation on the Greek mainland (specifically in the region of Attica) since the Classical era also finds room in the paragraphs of Lohmann.¹²⁸

We also accept that the recent data extracted through experimental archaeology (given above) would seemingly be safer when compared to far ancient speculations. On the other hand, we know that the terrain of Phoinix is composed of patchy formations. The vast majority of land is terraced while only a small amount of land must have been used for plain agriculture. Two plain areas suitable for grain cultivation catch the eye: the widest depression area lying in the middle of the *deme*, known locally as the Sindili location- near the lower settlement and, another one in the very northeast of the *Acropolis*¹²⁹ (Fig.2). Further, as it is hard to estimate what percentage of manuring could have been applied on the land, we assume it to be zero. As a beginning, the first method has been grounded on the economic catchment areas/ site exploitation (the potential coverage areas from which the food

¹²⁵ Polybius, *The Histories* (Vol. 5; Books 16-27), trans. William R. Paton, Harvard University Press, London 1926, 21.19.3-10.

¹²⁶ Numan Tuna, "Datça Yarımadası'nda Hellenistik Dönem Amphora Üretim Merkezleri", *Türk Tarih Kongresi Bildirileri*, Sayı 10 (1), 1990, s. 357; E. Doğer and Ahmet K. Şenol, "Rodos Peraiasi'nda İki Yeni Amfora Atölyesi", *Arkeoloji Dergisi*, Sayı 4, 1996, s. 59, 61-5.

¹²⁷ Adnan Diler, "Tradition and Change in Olive Oil Processing in Rural Caria", In Takaoğlu, T. (ed.), *Ethnoarchaeological Investigations in Rural Anatolia*, Ege Yayınları, İstanbul 2004, s. 55, 57.

¹²⁸ Hans Lohmann, "Agriculture and Country Life in Classical Attica", In B. Wells (ed.), *Agriculture in Ancient Greece*. Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16-17 May, 1990, Paul Aströms Förlag, Stockholm 1992, s. 51.

¹²⁹ Oğuz-Kırca, *Ibid.*, *passim*.

resources are obtained and consumed), through a rough extrapolation. Hence, we chose to take a start with the number of “units of settlement” recorded during the field works.

Method 1

Assumption: Average family size (5)

- Exception: 3 (three) large operation farmsteads functioning as the possible nexuses for the distribution economy, so the household number is assumed to be 10 (ten) people including the slaves

Available data at hand: 201 dwellings (excluding ca. 50 possible dwellings recorded in the possible pre-Classical site discovered at Gökçalça Location in the northeast of the *Acropolis*) and 11 (8 small scale, 3 large scale) farmsteads = 212

Assumption: $201+8=209$ and 3 units of settlement (families) respectively

Estimated population: $(209 \times 5) + (3 \times 10) = 1075$ inhabitants

Final tentative estimation: ~ 1075

Assumption: 5 ha could feed a family (5 *capita*) regardless of multi-partite rotation of products

Data: Total amount of land suitable for agriculture aggregates to 340 ha (Alluvial Plain: 131 ha, Terraced Area: 209 ha, Manuring %: ? (assumed 0))

Estimated population: ~ 340 inhabitants (68 families) fed by 340 ha

If the two cases had a minimum relation, the population figure could be rated as ~ 708 (~ 142 families) if we normalize the stated numbers of 1075 and 340. We chose to compare the results (in Method 1) with the historical data. If similar territorial boundaries were perceived during the 19th century, then the figure occurring as ~ 94 families (942:10) is less than the two results found as 212/relative 215 and; 68, respectively. If 5 *capita* was the approximate figure in the Ottoman period, then it makes a figure around 470 inhabitants, which may denote a recession (linkable with the political and economic recessions) in the late periods. When the assumptions are based on 200 inhabitants of the Classical period (regardless of some privileged groups), then a 254 % increase in population in the course of the Hellenistic and early Roman periods may be put forward. Assuming 708 is correct; Phoenix does not appear to be self-sufficient in terms of the feeding capacity such that 340 ha would not suffice the demands of such a population. Although the modern data is normally expected to have exceeded the ancient

situation over ca. 2000 years of change, the figure of 708 inhabitants does not dramatically contradict with the figure of 596 people (addressed by Soylyuer) before the 1st World War¹³⁰ and the current record of less than 500 people¹³¹ living within the borders of modern Taşlıca Village. This number at least falls to the range (130-1500) attained from the literature. If the Classical population was around 134 people (as was stated according to the catchment area in the Classical period), then it is possible to talk about a 428 % increase in upcoming era, which seems more unlikely.

Method 2

It is quite hard to tackle issues concerning the labour force and cultivation realized by a family as they always fluctuate and may change according to the mode of agriculture. We again put a limitation here and assume that the average value for the cultivation potential was 5 ha on a family basis.

Hence the following estimations are made:

Assumption (1): 5 ha cultivated by a family (*5 capita*)

Data: Total sum for the land suitable for agriculture: 340 ha (Alluvial Plain: 131 ha, Terraced Area: 209 ha, Manuring %: ? (assumed 0))

Cultivating population: ~ 340 inhabitants (68 families)

From above, we need to estimate the non-cultivating portion, which is the key to calculating the rest. Referring to the results of Method 1 where the mean value corresponds to 708 inhabitants, the percentage of cultivating population rounds up to 48 % and the rest goes to 52 % representing 368 people (74 families) in the “urban” or elite group.

Assumption (2): 3 ha cultivated by a family (*5 capita*)

Data: Total sum for the land suitable for agriculture: 340 ha (Alluvial Plain: 131 ha, Terraced Area: 209 ha, Manuring %: ? (assumed 0))

Cultivating population: ~ 567 inhabitants (ca. 113 families)

Re-referring to the results of Method 1, the percentage of the cultivating population rounds up to 80 % while the rest is ca. 20 % representing 141 people.

¹³⁰ Serdal Soylyuer, “XX. Yüzyılın Başlarında Menteşe Sancağı’nın İdari ve Nüfus Yapısı”, *Çağdaş Türkiye Tarihi Araştırmaları Dergisi*, Sayı 5 (13), 2006, s. 130.

¹³¹ Nuran Taşlıgil, “Datça-Bozburun Özel Çevre Koruma Bölgesi ve Turizm”, *Ege Coğrafya Dergisi*, Sayı 17 (1-2), 2008, s. 78.

Assumption (3): 10 ha cultivated by a family (5 *capita*)

Data: Total sum for the land suitable for agriculture: 340 ha Alluvial Plain: 131 ha, Terraced Area: 209 ha, Manuring %: ? (assumed 0))

Cultivating population: ~ 170 inhabitants (34 families)

The results generated by the third assumption put forward that the cultivating population rounds up to ca. 24 % and the rest goes to 76 % representing ca. 538 people.

Relevant to Method 2, the results of Assumption (2) seems to back up or at least approach the range brought by the Classical view (10-20 % of populations was made up of non-food producers or urban groups, in close relation to the agrarian subsistence). On the contrary, the results of Assumption (3) highlight the territorial model which takes the view that the urban dwellers, exploiting the rural base, made up the greatest percentage in antiquity. A key to fathoming as to which case is the most applicable may be found within the paragraphs of the ancient historians and in the light of epigraphical evidence. Hence, the following clues may lead to further efforts on the problem.

The Peraea was a land of slaves in the writings of Polybius.¹³² Although there appears a name like ‘Kantharos Armenios’ (perhaps an exceptional one) where Kantharos is conveyed to have been used amongst the slaves¹³³, we can never be sure about the relationship between onomastics and slavery. What is widely acknowledged is that terracing is labour intensive¹³⁴ and requires considerable investments in capital and time. Hence, a great deal of the population must have been composed by the “labourers” whether or not they were local and/or the tenants of the land. Regarding the extensive agrarian activity, Amos is a perfect case to obtain information from the leases dated to 200 B.C.¹³⁵

An inscription of the 3rd century B.C donation list (for the construction of a temple in the name of Dionysos) found at the *Acropolis* bears ca.77 names refreshed over time.¹³⁶⁽¹³⁷⁾ If the number of the settlement units recorded

¹³² Polybius, *Histories* (Vol.6), 6.30.21, 24.

¹³³ Bresson, *Ibid.*, s. 147.

¹³⁴ Scheidel, *Ibid.* s. 120-1, 124.

¹³⁵ Hüseyin Köktürk and Nicholas P. Milner, “A Land Dispute From the Lycian Borderland”, *Anatolian Studies*, Sayı 53, 2003, s. 134.

¹³⁶ Félix Dürrbach and Georges A. Radet, “Inscriptions de la Péréé Rhodienne”, *Bulletin de Correspondance Hellénique*, Sayı 10, 1886, s. 252-8.

¹³⁷ Also see Shear (Theodore L. Shear, “Inscriptions from Loryma and Vicinity”, *The American Journal of Philology*, Sayı 34 (4), 1913, s. 451-60) for the corrections.

during our surveys is not fluctuating at extreme levels, then the practice of donating might not have been limited to an urban or elite group such that certain groups from the entire population might have participated in the construction of the public edifice. The only data available (as can be read from Dürrbach and Radet and, Bresson) regarding the distinguished/equivalent status may be found on an inscription about the list of priests (the mid 3rd century B.C) which bears ca. 26/27 names (whose tasks were subject to regular rotation)¹³⁸ and that some names reappear on the donation list noted short above. Note that 77 names in which the priests were probably there could have been inscribed on a family basis. Now, if the above stated 142 families is correct, then 70 'foyers', as noted by Bresson¹³⁹⁽¹⁴⁰⁾ would correspond to ca. 49 % of the total hypothetical population of Phoinix during the Hellenistic period. If all these men were from the elite category, then such a result would also approximate the percentage of the elites' share attained through Method 2 Assumption (1). That is, if Phoinix was composed of 142 families, the figure of 70- almost half is covered by what has been endeavored up to here.

In order not to stay away from the territorial models but to leave enough space to a reality of the Peraea, we can state more. As (i) a notable work force pioneered by slaves or quasi-slave status people; (ii) granting citizenship, as an instrument of a colonial strategy, to the indigenous people- even to the slaves in certain instances or appointing the local elite to higher posts; (iii) allowing intermarriages for reconstructing hybrid communities through assimilation, as evident on numerous epitaphs with patronymics or the use of demotics, and recruiting different status people- e.g. *matroxenoi* could have been there, moderate estimations need to be favoured. In view of the above, Method 2 Assumption (3) also seems to prove futile. Briefly, Method 2 Assumption (1) appears to be realistic.

Was Phoinix a self-sufficient economy? An answer to the question is deemed to invoke a threshold about the production potential of the *deme* and interpret about the economic aspirations of Rhodes in antiquity. Inspired from the results of experimental archaeology and the Ottoman records, the following assumptions are laid down:

¹³⁸ Dürrbach- Radet, *Ibid.* 248-52; Bresson, *Ibid.*, s. 139-44.

¹³⁹ Bresson, *Ibid.*, s. 148.

¹⁴⁰ Bresson (Bresson, *Ibid.*, s. 144-8) gives the number of donators as being ca. 70 (regardless of the recurring names (whether they could also be pertinent to kinship) and makes a mark to the names of some priests which also appeared in Kamiros). To be on the safe side, we refer to the given figure of 70.

Assumption (1.1): 1000 kg/ha cereal of annual production as per good year rates

Data: 131 ha Alluvial Plain, Manuring %: ? (assumed 0))

Production potential: 131.000 kg cereal

Assumption (1.2): 500 kg/ha cereal of annual production as per bad or moderate year rates

Data: 131 ha Alluvial Plain, Manuring %: ? (assumed 0))

Production potential: 65.500 kg cereal

Taking the mean value of the figures obtained from Assumption (1.1) and Assumption (1.2), we get the average annual figure of 98.250 kg cereal production.

Assumption (2.1): 400 kg/ha olive oil of annual production as per good year rates Data: 209 ha Terraced Area, Manuring %: ? (assumed 0))

Production potential: 83.600 kg olive oil

Assumption (2.2): 150 kg/ha olive oil of annual production as per bad year rates Data: 209 ha Terraced Area, Manuring %: ? (assumed 0))

Production potential: 31.350 kg olive oil

Taking the mean value of the figures obtained from Assumption (2.1) and Assumption (2.2), we get the average annual figure of 57.475 kg (ca. 63.223 lt.) olive oil production.

From what has been assumed and attained up to this point, it is possible to estimate further about the consumption values. Assuming that 200 kg cereal was consumed by a person, then 98.250 kg annual production of cereal would suffice for ca. 491 people. When the hypothetical population of 708 inhabitants in Hellenistic Phoinix is taken into account, a number of 217 people (the rest) would not indicate self-sufficiency in terms of cereal production or the equivalents. Phoinix could have been dependent on import grain as e.g. Classical Attica¹⁴¹, Hellenistic Rhodes¹⁴² experienced the same. Additionally, the ability of Rhodes to regulate the vast majority of markets for grain and the circulation of currencies all over the Mediterranean helps to

¹⁴¹ Garnsey, *Ibid.*, s. 184-92.

¹⁴² Neville Morley, *Trade in Classical Antiquity*, Cambridge University Press, Cambridge 2007, s. 25.

fathom the scale of economies in a particular place on the mainland and elsewhere.¹⁴³

For the olive oil, the figures suggest a surplus production when the comparative data is referred. That is; when the theoretical figure of 20 liters of olive oil production recorded *per capita* in the Roman Libya¹⁴⁴ is put into process, the annual production of 63.223 lt. of olive oil meets the consumption needs of 3161 people. Even if half of the terraced areas ($209/2=105$ ha) was reserved to olive plantation, we get an average annual figure of about 31.763 lt. of olive oil production, which would suffice to 1588 people. This is high above the estimated population of Phoinix. Even if the worst assumption- Assumption (2.2) is applicable, figures seem to exceed the consumption needs and correspond to large operations, e.g. post-Hellenistic Cilicia¹⁴⁵, 2nd century Libya.¹⁴⁶ Still, we need to keep in mind that the results of such sample surveys have pitfalls such that they might have disregarded the areal parameters, environmental constraints, etc. A similar case on the issue of olive oil potential might be valid for this research.

On the production of wine, the use of land might have differed dramatically. Assuming that at least half of the terraced land was cultivated for wine production, then the automatic decrease in the olive oil rates would not be against the desired levels, either. A neighbouring community- Cnidus had a production capacity of 1.603.411 litres of wine *per annum*.¹⁴⁷ It might be that Phoinix substituted the deficiencies arising from cereal production with viniculture. When the terraced land reserved to wine production is assumed as 105 ha (209 ha Terraced Area/ 2= ~ 105 ha), then a rough number of annual production potential can be attained through the following calculations:

Assumption (3.1): 1 *iugerum* (1/4 ha) yields 20 amphorae¹⁴⁸ of wine; a standard Rhodian amphora with a capacity of 25 lt.¹⁴⁹

¹⁴³ Berthold, *Ibid.*, s. 50-1.

¹⁴⁴ Blanton, *Ibid.*, s. 70-1.

¹⁴⁵ Hamdi Şahin, "Dağlık Kilikia 2007: Yerleşim Tarihi ve Epigrafiya Araştırmaları", *Araştırma Sonuçları Toplantısı*, Sayı 26 (1), 2008, s. 447.

¹⁴⁶ Blanton, *Ibid.*

¹⁴⁷ Tuna, "Datça Yarımadası", s. 350.

¹⁴⁸ Tuna, "Batı Anadolu-Knidos", s. 61.

¹⁴⁹ Philippa M.W. Mattheson and Malcolm B. Wallace, "Some Rhodian Amphora Capacities", *Hesperia*, Sayı 51 (3), 1982, s. 294-301. Statistical research has shown that the capacity of a Rhodian amphora was 25.5 lt. around 300 B.C (excluding some other 100 years of change which may not denote a notable turnover) and over 24.5 lt. in around 200 B.C. The Rhodian amphorae were not larger than the Chian amphorae but were smaller than those of the Coan.

Production potential: $105 \times 4 \times 20 = 8400$ amphorae $8400 \times 25 = 210.000$ lt. of wine

Taking into account the average production potential of cereal per ha based on good and bad years stated in Assumption (1.1) and (1.2) and; wine per ha, we may then calculate the exchange rates:

Assumption (3.2): 750 kg/ha cereal of annual production; 2000 lt./ha wine of annual production ($20 \times 4 \times 25$)

Market value of cereal in comparison to wine: $2,6 = \sim 3$

Exchange rate: $1/3$

With the exchange rate stated above, we can proceed with the estimations (in the light of the method applied for the Cnidian Peninsula by Tuna¹⁵⁰) for the amount of wine produced for exportation to meet the deficiency in cereal as explained hereunder:

Assumption (3.3): 105 ha terraced land reserved to vine plantation

The amount of necessary land reserved to export wine which is equivalent to cereal production: $105 \times 3 = 315$ ha

Amount of cereal which may be imported in return: 315×750 kg/ha = 236.250 kg

Finally, we calculate the surplus value which may be expressed in terms of the number of cultivating people, in order to access cereal:

Assumption (3.4): 200 kg of cereal consumed *per capita*

Surplus producers to be fed with cereal: $236.250 / 200$ kg = 1181 *capita*

Surplus value: The value equivalent to the work force of about 1181 people

Considering the average surplus value so put forward, the consumption needs of the rest of the population (which was 217 people, see above) in favour of cereal must have already been met and that this makes Phoinix a self-sufficient economy. Obviously, even more than that- the production pattern to meet the demands of a greater mass is discussable. There seem good reasons why the Rhodians were so eager to control the mainland and create a monopoly for more than two hundred years. The export-oriented economy of Phoinix, where specialisation in wine production must have

¹⁵⁰ Tuna, *Ibid.*, 61-2.

been the driving force (as in the case of Cnidus¹⁵¹), is the basic conclusion from what has been discussed above. Yet, a pretty high production potential was possible if the whole land was run for wine plantation.

Regarding the Peraea, future studies are expected to yield supplementary results for comprehending the potential of the region. However, if the Peraea had the burden of producing surplus in wine, then Phoinix must have been an indispensable piece of land. Suffice it to say here, the population of Hellenistic Phoinix could have outnumbered that of the Classical *deme*. This must have been a reflection of the changing conditions within the socio-economic and political context. But the primary motive needs to be owed to its surplus production in the economic background.

Concluding Remarks

The expansionist movements in the late Classical world and the upcoming era give a partial insight into the financial status of *poleis* in Asia Minor. The heydays of Hellenism caused a boom in the agricultural production in the Peraea, finally reflected in the administrative and socio-economic life and population. ATL highlighting the relationship between territorial size and payment capacity of the *poleis*, socio-cultural habitat of the Peraea and its relation to Rhodes; late statistics (essentially of the Ottoman Empire); approximate values acquired through experimental archaeology, which is often indexed to production rates, and the data collected during field work offer some hints and a semi-quantitative access to the population projections of Phoinix. The combination of different methods has put forward that the Classical population of Phoinix could have experienced ca. 255 % (two hundred- fifty percent) growth as it developed into the Hellenistic era, where the ultimate figure could have reached 708 inhabitants, almost half of whom are supposed to make up the labour force. The social changes, with the Rhodian involvement, could have accelerated the demographic expansion. The immunity against the disadvantages of a fragmented environment and successful management of the land made her a self-sufficient economy, however the indicators for a surplus production (created by wine production to replace the possible deficiency of cereals and equivalent to a labour force of about 1181 people, which is attained through the calculation of the market values of cereal and wine (an exchange rate of 1/3), based on the average annual production rates per ha) and its dispatch to abroad comes to the foreground as it relates to a well-established market.

¹⁵¹ Tuna, "Datça Yarımadası", s. 348-53; Numan Tuna, *Knidos Teritoryumu'nda Arkeolojik Araştırmalar (Archaeological Investigations at the Knidian Territorium)*, TAÇDAM, Ankara 2012, s. 34.

Likewise, the *demes* in the Peraea could have been amongst the significant players, even could have held the chief arteries of regional development in the periphery of Rhodes. In any case, the socio-economic organisation and transformation of the Peraea may be explained with “assimilation” in the modern terms.

Acknowledgements

The author would like to thank the General Directorate of Antiquities and Museums of the Ministry of Culture and Tourism of the Turkish Republic for having granted permission for the survey in 2009-2012, for the fulfillment of the doctoral thesis, titled “The Rural Settlement Pattern of Bozburun Peninsula During Classical and Hellenistic Periods.” Her sincere thanks are offered to Prof. Dr. Numan TUNA for his support and guidance during the surveys and, the methods suggested for the population estimate in such a rural landscape. She also thanks Peter A.J. KELLY for his proof reading. This paper particularly owes to the sixth chapter of the mentioned study.

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Figures

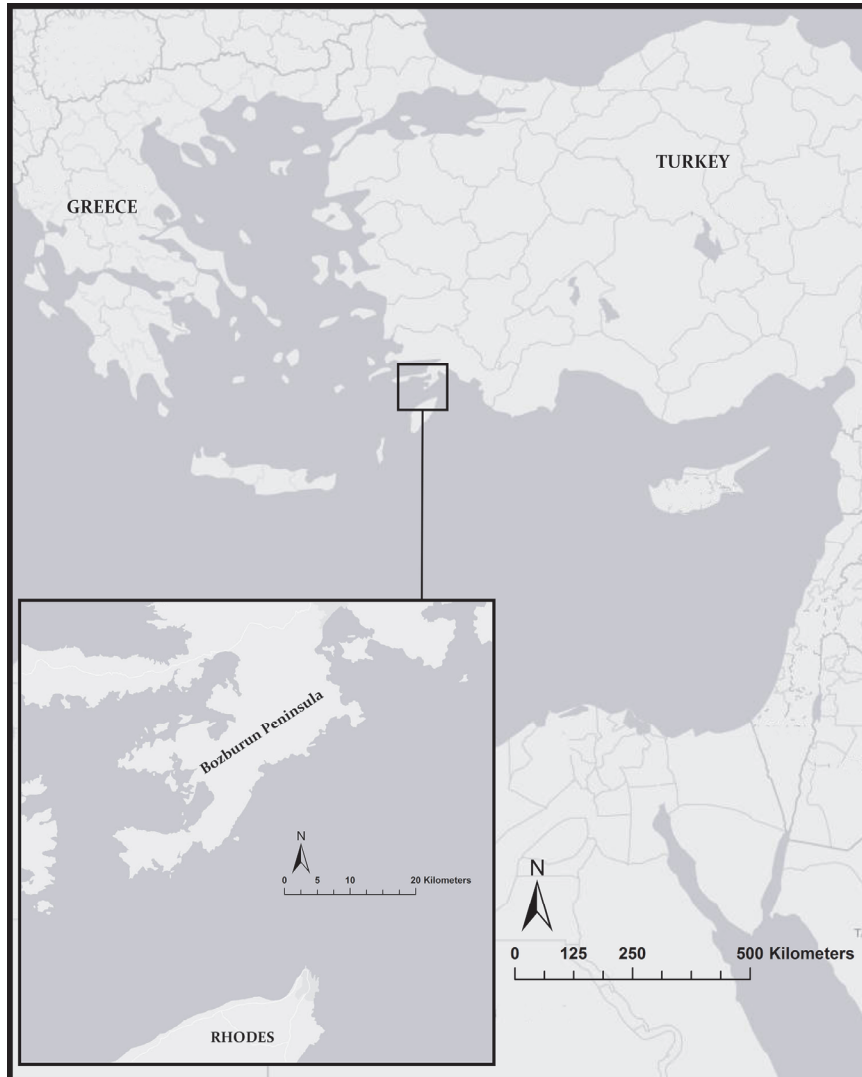


Figure 1. Map of Bozburun Peninsula

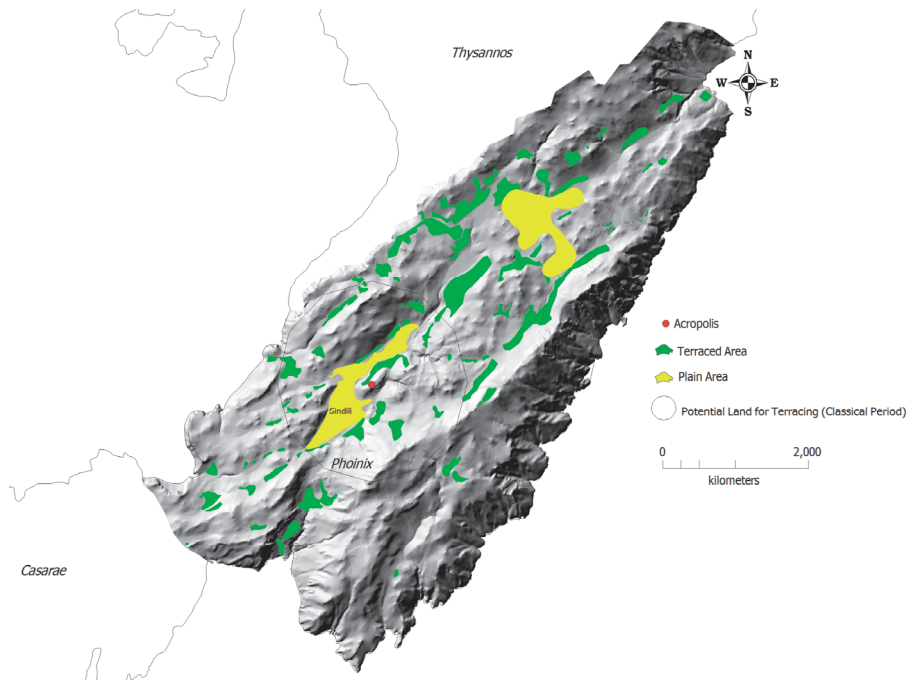


Figure 2. The Terraced and Plain Areas in the *Territorium* of Phoini