

FOUNDATION FOR RESEARCH & TECHNOLOGY — HELLAS
INSTITUTE FOR MEDITERRANEAN STUDIES

Halcyon Days in Crete VI
A Symposium Held in Rethymno, 13-15 January 2006

THE EASTERN MEDITERRANEAN UNDER OTTOMAN RULE: CRETE, 1645-1840



Edited by
Antonis Anastasopoulos

CRETE UNIVERSITY PRESS

SPHAKIA IN OTTOMAN CENSUS RECORDS: A VAKIF AND ITS AGRICULTURAL PRODUCTION

Simon R.F. PRICE, Oliver RACKHAM,
Machiel KIEL, and Lucia NIXON*

Introduction

THIS PAPER ARISES OUT OF OUR WORK on an archaeological field survey of Sphakia (SW Crete). The survey begins back in the Prehistoric period (c. 4400 BC) and runs through the Graeco-Roman period to around the time that the Ottomans leave Crete (1898), so over 6,000 years.¹ The survey is investigating settlement patterns, land use, and population sizes in all three epochs (Prehistoric, Graeco-Roman, and Byzantine-Venetian-Ottoman). We integrate material evidence (buildings, pottery, etc.) with written evidence (inscriptions, travellers, official reports, and Ottoman survey records, the focus of this paper) (Fig. 1).

Our interest in census data is shared with other field surveys in Greece and Turkey. A number of other archaeological surveys in Greece and Turkey also have a serious interest in the Venetian and Ottoman periods, and use census and other data from those periods.²

* SRFP: Lady Margaret Hall, Oxford; OR: Corpus Christi College, Cambridge; MK: The Netherlands Institute in Turkey, Istanbul; LN: St Hilda's College, Oxford.

1 L. Nixon and S. Price, *The Sphakia Survey (Greece): Methods and Results* (1995) [a 50-minute educational videotape, shown twice on Greek national television in 1996; available with Greek subtitles]; L. Nixon, J. Moody, S. Price and O. Rackham, *The Sphakia Survey: Internet Edition* (2000), <http://sphakia.classics.ox.ac.uk/> [a full bibliography of Survey publications is given here]; L. Nixon and S. Price, 'The Diachronic Analysis of Pastoralism through Comparative Variables', *Annual of the British School at Athens*, 96 (2001), 395-424; L. Nixon, 'Seeing Voices and Changing Relationships: Film, Archaeological Reporting and the Landscape of People in Sphakia', *American Journal of Archaeology*, 105 (2001), 77-97, reprinted with addendum in A. Stroulia and S. Buck Sutton (eds), *Archaeology in Situ* (London 2007); S. Price and L. Nixon, 'Ancient Greek Agricultural Terraces: Evidence from Texts and Archaeological Survey', *American Journal of Archaeology*, 109 (2005), 665-694; L. Nixon, *Making a Landscape Sacred: Outlying Churches and Icon Stands in Sphakia, Crete, A.D. 1000-2000* (Oxford 2006). For more details see the final print publication of the Survey by S. Price, L. Nixon, J. Moody and O. Rackham, to be published by Oxford University Press (2009).

2 *Balboura*: M. Kiel in J. J. Coulton *et alii*, *Balboura: A Highland City and its Territory. Results*



Fig. 1: Map of Sphakia. Map of principal settlements in Sphakia in the Ottoman period. The names in brackets are not separate villages (*karye*) in the censuses: Askaphou is linked with Vouvas; Imbros, Asphendou and Kallikrati are summer settlements only; Nomikiana, if it existed in the seventeenth century, must have been counted with Vouvas. The boundary indicates the likely extent of the territory of the eleven villages of the *vakif*; the three eastern villages, Kapsodasos, Skaloti and Argoule, did not form part of the *vakif*, but were included in the province (eparchy) of Sphakia only in the mid-nineteenth century. The contours are at every 400 m, with an extra contour at 200 m. The inset map of Crete shows the location of Sphakia.

of the 1985-1993 Survey Project in Southwest Anatolia, British Institute of Archaeology at Ankara Monograph (2008 or 2009).

Boeotia and Lokris Surveys: M. Kiel, 'The Village of Goriani (Gavriani, Gavryeni, Agoryani etc.) on the Othrys in the Former Kaza of Izdin (Lamia) According to the Ottoman Census and Taxation Records of the Fifteenth-Seventeenth Century', *Pharos*, 7 (1999), 111-122; Idem, 'The Ottoman Imperial Registers: Central Greece and Northern Bulgaria in the Fifteenth-Nineteenth Century: The Demographic Development of Two Areas Compared', in J. Bintliff and K. Sbonias (eds), *Reconstructing Past Population Trends in Mediterranean Europe (3000 B.C.-A.D. 1800)* (Oxford 1999), 195-218. Cf. also Idem, 'The Smaller Aegean Islands in the 16th-18th Centuries according to Ottoman Administrative Documents', in S. Davies and J. L. Davis (eds), *Between Venice and Istanbul: Colonial Landscapes in Early Modern Greece* (Princeton 2007), 35-54.

Kythera: C. Broodbank and E. Kyriatzi, <http://www.ucl.ac.uk/kip/> [with list of publications].

Ottomanists have also studied Ottoman census data very intensively,³ but sometimes with only a belated interest in the actual landscape and its resources which are recorded in the censuses. Those working on archaeological field surveys know the terrain, and are committed to bringing together material and textual evidence.

For Sphakia it is sometimes held that the area was never really subject to the Ottomans, which if true would entail that there were no Ottoman census records for Sphakia. This local claim that Sphakia was never really subject to the Ottomans is a piece of myth-making, a part of the claim to contemporary independence for this proud area.⁴ Knowing this, we asked Prof. Machiel Kiel (who has played such an important role for archaeologists in the exploitation of Ottoman census data) to see if he could discover anything for us in the Turkish archives. To our amazement, in 1994 and 1995 he discovered six splendid documents, five in Istanbul and one in Ankara. He generously transcribed the key elements in the texts, furnished us with xeroxes of some of them, and gave us a preliminary analysis of them. This paper would not exist without his work and his enormous scholarly generosity in permitting us to make full use of his work.

In this paper, we discuss just two issues that arise from these records: first the creation of the *vakıf* of Sphakia, and secondly, one aspect of the census data, that for agricultural production.

Documents

1. BOA, Istanbul: Tahrir Defter 820 (*Defter-i Hanya*). This document, which covers all four *sancaks* of Crete, contains 660 pages, of which pages 48 and 97-102 are on Sphakia. It lists both people and agricultural produce. Fig. 2 reproduces the entry for one village, Patsianos.

Prof. Kiel reasons that, of the two early *tahrirs* extant for Sphakia (Tahrir Defter 820 and 822), Tahrir Defter 820 is the earlier of the two. Immediately after the conquest, two

Phaistos: V. Watrous, D. Hadzi-Vallianou and H. Blitzer, *The Plain of Phaistos: Cycles of Social Complexity in the Mesara Region of Crete* (Los Angeles 2004).

Pylos Regional Archaeology Project: S. Davies, 'Pylos Regional Archaeological Project, Part VI: Land and Settlement in Venetian Navarino', *Hesperia*, 73 (2004), 59-120; F. Zarinebaf, J. Bennet and J. L. Davis, *A Historical and Economic Geography of Ottoman Greece: The South-western Morea in the Eighteenth Century* ([Princeton] 2005).

Vrokastro: A. Brumfield, 'Agriculture and Rural Settlement in Ottoman Crete, 1669-1898', in U. Baram and L. Carroll (eds), *A Historical Archaeology of the Ottoman Empire: Breaking New Ground* (New York 2000), 37-78; B. J. Hayden, *Reports on the Vrokastro Area, Eastern Crete*. Vol. I: *Catalogue of Pottery from the Bronze and Early Iron Age Settlement of Vrokastro*; Vol. II: *The Settlement History of the Vrokastro Area and Related Studies*; Vol. III: *The Vrokastro Regional Survey Project Sites and Pottery* (Philadelphia 2003).

3 E. Balta, *L'Eubée à la fin du XV^e siècle: économie et population. Les registres de l'année 1474* (Athens 1989); H. W. Lowry, *Fifteenth Century Ottoman Realities: Christian Peasant Life on the Aegean Island of Limnos* (Istanbul 2002).

4 S. Damer, *Cretan Highlanders: The Making of the Sphakiot Legend* (Glasgow 1989); Nixon, 'Seeing Voices'.

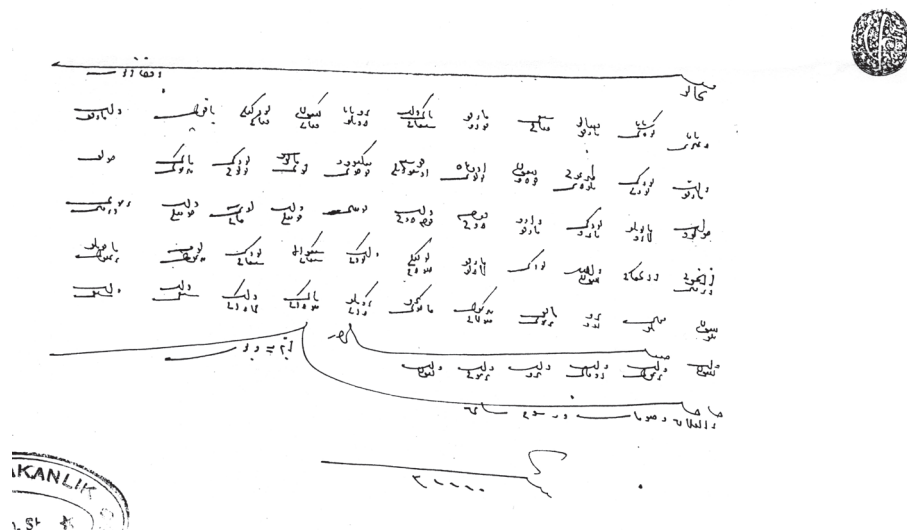


Fig. 3: Entry for Patsianos from Tahrir Defter 822, p. 323

order, grouped by fathers and their married, or unmarried sons; Prof. Kiel has shown this by a close study of two Sphakiote villages, Vraskas and Kolokasia. The spellings of the names are different (which shows that the two documents were independently compiled), and there are fewer unmarried sons in the second document, but the overall number of names for the eleven *vakıf* villages is almost identical (867 and 864). It must have been made between five and ten years after Tahrir Defter 820 (so c. 1655). Gülsoy states that this document dates a generation later, in 1670, but he does not take account of these arguments for an early date, and his own argument for a later date is purely circumstantial.⁷ There are clear parallels both from Crete and from other parts of the Empire for a sequence of *defters* only a few years apart.

The Sphakiote villages, according to Prof. Kiel, seem not to have been included in the poll-tax register (*cizye defter*) of 1077 (1666-1667), now in Istanbul, covering the whole of the western half of the island, presumably because they were not liable to poll tax.

3. BOA, Istanbul: Maliyeden Müdevver 4717, Evkaf Muhasebe Defter (Account Book of the *Vakıfs*) dated 4 Ramazan 1069 (26 May 1659). This document includes the *vakıf* of Sphakia.

4. Tapu ve Kadastro Genel Müdürlüğü, Ankara: Defter 1, Eski 489. A register of 1116-1117 (AD 1704-1705); 20 x 57 cm; old leather binding with golden *şemsiyes* (3) on front and back cover; 330 folia; paper and ink in perfect shape; large gilded and coloured (blue and rose) *tuğra* of Sultan Ahmed bin Mehmed (Ahmed III) on fol. 5^r. It includes the population of the *vakıf* villages of Sphakia (at pages 80^v-82^r).

7 Ibid., xxii-xxiii.

5. BOA, Istanbul: Cevdet Evkaf 27749. Two petitions from Fatma Hanım Sultan in 1185 (AD 1771); Chinese water-based ink on thick, polished paper. The larger petition includes comments and decisions.

6. BOA, Istanbul: Evkaf Nezareti, Haremeyn Muhasebeciliği 8550. A *vakıf* account register of 1817-1818 gives the total number of the population of the *vakıf* villages paying *cizye* as well as their agricultural production; the script is very hard to read and we have not fully exploited this text.

The Organisation of the Vakıf

The Creation of the Vakıf

The Ottoman fleet set sail from Istanbul for Crete at the end of April 1645. Most of the island was conquered quite quickly. Chania fell on 22 August.

The Sphakiotes were defending a key position on the north side of the White Mountains (which lie between Chania and Sphakia), but in early December (according to Camillo Gonzaga, a Venetian spy, reporting at the time) the Sphakiotes, faced with a seemingly invincible force of 30,000 infantry, abandoned their position and “submitted to the Turk”.⁸ The Ottoman forces then pressed on eastwards, and by autumn 1647 held all the island except for Candia (which held out until 1669) and the islet forts of Spinalonga, Souda and Grambousa.

However, in the summer or autumn of 1647 the regions of Rethymno and Sphakia revolted (the revolt is known only through the unpublished report of Mormori).⁹ In 1648 Sphakia was invaded and again subjugated. But Deli Hüseyin Paşa treated Sphakia mildly; he declared an amnesty, and “applied a systematic policy of protection of the rural population, their cattle and their crops”.¹⁰ Sphakia for a period was problematic for the Ottomans, because of Sphakiote support for the Venetians besieged in Candia.¹¹ However, by the time that the Ottoman traveller Evliya Çelebi passed through in 1668, he notes that a fort (either Chora Sphakion or Frangokastello) had been ruined by the Ottoman capture of it, and that it was not garrisoned.¹² He also claims that the Ottomans had captured a ring

8 A. Papadhia[-Lala], ‘Ekthese tou Camillo Gonzaga gia ta prota chronia (1645-1647) tou Kretikou Polemou’ [Report of Camillo Gonzaga on the Early Years (1645-1647) of the Cretan War], *Thesavrismata*, 13 (1976), lines 246, 874; G. Grintakis, *He kataktese tes dytikēs Kretēs apo tous Tourkous* [The Conquest of West Crete by the Turks] (Rethymno 1998), 129.

9 Biblioteca Marciana di Venezia, MS Ital. VII. 1563 (7596), cited by E. Eickhoff, *Venedig, Wien und die Osmanen. Umbruch in Südosteuropa 1645-1700* (Munich 1970), 48. Cf. also N. S. Stavrinidis, ‘Symvole eis ten historian ton Sphakion (1645-1770)’ [Contribution to the History of Sphakia (1645-1770)], *Kretika Chronika*, 9 (1955), 226-227, 231 n. 7.

10 Eickhoff, *Venedig, Wien und die Osmanen*, 48.

11 A. E. Karathanasis, ‘Anekdotē allelographia tou Fr. Morozini kai allon Veneton me Kretikous sta chronia tou Polemou (1659-1660)’ [Unpublished Correspondence of Fr. Morozini and Other Venetians with Cretans during the War (1659-1660)], *Kretika Chronika*, 25 (1973), 21-124.

12 *Evliya Çelebi Seyahatnâmesi*. 8. *Kitap*, eds S. A. Kahraman, Y. Dağlı and R. Dankoff (Istanbul 2003), 240; Greek translation: Evlia Tselebi, *Hodoiporiko sten Hellada (1668-1671): Pelopon-*

of four forts round Sphakia, commanding the only routes into the area, which had made possible the final conquest of Sphakia, but this account is very confused.¹³

In the meantime, an Ottoman census of the whole island (excluding the area still held by the Venetians) was commenced.¹⁴ Deli Hüseyin Paşa, straight after the conquest of Chania, started to organise a census of people and revenues, village by village, including Sphakia; in this respect the Ottomans followed the precedent of the Venetians, who had long compiled lists of individual towns (*ville*).¹⁵ But Venetian censuses were incomplete for the area of Sphakia, which lay on the margins of Venetian control. In drawing up a complete census for Sphakia within a few years of conquest, the Ottoman Empire thus had a more microscopic knowledge of Sphakia than Venice had ever acquired. The level of detailed knowledge and control was considerable. We know from a later document, of 1671, that around 1650 (“twenty years ago”) escheated land (*mahlûl*) in the Anopolis Plain was deemed to belong to the Ottomans. Three Ottoman officials, Kasım Ağa, Mehmed Ağa and Turak Bey, were responsible for selling such land, presumably to ensure the maximum tax base for the *vakıf*. The document of 1671 was an appeal to the Ottoman authorities over the ownership of a piece of land in the Anopolis Plain that had been so sold.¹⁶

The original census document was called by its classical name – it is a *tahrir defteri* – but a close examination shows that its main purpose was no longer to establish the *timar* system, at least not in Sphakia. Indeed, as Molly Greene has shown, the system instituted elsewhere on Crete bore little resemblance to the original *timar* system; this system became redundant in the seventeenth century as a result of military changes (cavalry, paid for by the *timar* system, ceased to be the key element in Ottoman forces).¹⁷ We wonder whether in the case of Sphakia it should be seen as a continuation of what was left of the Venetian system of manorial lordships.

The circumstances of Crete’s incorporation in the Empire, therefore, are unusual. Crete was the main territory won for the Ottoman Empire long after the golden age of expansion had come to a halt. The other conquests were Neuhäusel/Nové Zámky in Slovakia in 1663, and Podolia (in the Ukraine) in 1672 (whose *defter* has been splendidly published

nesos-Nesia Ioniou-Krete-Nesia Aigaïou [Travels in Greece (1668-1671): Peloponnese-Ionian Islands-Crete-Aegean Islands], ed. and trans. D. Loupis (Athens 2005 [3rd ed.]), 278-279.

13 *Evliyâ Çelebi Seyahatnâmesi*. 8. *Kitap*, 246; Evlia Tselebi, *Hodoiporiko*, 292-293.

14 The official label of the survey is “Girid kanunnamesiyle Girid’in nüfus ve hasılâtını ve Girid evkafını havi mufassal tahrir defteri”.

15 See, for instance, F. Barozzi, *Descrittione dell’ isola di Creta*, ed. S. Kaklamanis (Heraklion 2004), 282, 285; cf. digests of Venetian documentation in P. Faure, ‘Villes et villages du nome de Rhéthymnon. Listes inédites (1577-1629)’, *Kretologia*, 12-13 (1981), 221-244 (reprinted in Idem, *Recherches de toponymie crétoise. Opera selecta* [Amsterdam 1989], 403-426); Idem, ‘Villes et villages de la Crète occidentale. Listes inédites (1577-1644)’, *Kretologia*, 14-15 (1982), 77-104 (reprinted in Idem, *Recherches*, 427-454).

16 Stavriniadis, ‘Symvole’, 239-240 = Idem, *Metaphraseis*, No. 493 = Karantzikou and Photeinou, *Tritos kodikas*, No. 176.

17 Greene, *A Shared World*, 33-35.

by Kołodziejczyk);¹⁸ the Morea was retaken in 1715; and as late as 1727-1728 a new series of poll-tax registers was drawn up in both the eastern and northern borderlands of the Empire. Crete and these other areas were organised as Ottoman provinces well after the *tapu tahrirs* had fallen into disuse at the end of the sixteenth century.¹⁹ However, the conquerors would have recognised the remains of the parallel Venetian system, still in theory organising the administration of the island.

The Ottomans, moreover, took over, or introduced, a complex system of taxes, rents, and dues, including the *mukataa* (any tax whose revenues were collected through state agents or farmed out to private individuals), some owed to the beneficiaries of the *timar* system and some to the state. As in the rest of the Empire, they introduced the *cizye* tax on Christians, a tax paid by non-Muslim adult males, in exchange for retaining their religion under Islamic rule.

None of the revenue recorded for Sphakia is earmarked for the provincial cavalry, which was the theoretical purpose of the *timar* system. The three eastern villages of modern Sphakia – Kapsodasos, Skaloti and Argoule – in Venetian and early Ottoman times belonged to the district of Agios Vasileios; they sent their taxes along to the central treasury as part of the income of the *hass-ı hümayun* rather than to a *timar* lord, in accordance with the seventeenth-century policy of assigning revenue away from those serving in the provinces, and towards Istanbul.

The revenues of the eleven villages included in the Ottoman district of Sphakia (*nahiye-i Esfakya*) were assigned to the religious endowment of Mecca and Medina. That is, these eleven villages had a special status, as forming a religious endowment (*vakıf*). The endowment was founded in the earliest years of Ottoman rule. Evliya Çelebi writes that Deli Hüseyin Paşa conquered Sphakia on the order of Melek Ahmed Paşa, Grand Vizier 1650-1651.²⁰ The nature of Ottoman rule in Sphakia during these war years is somewhat murky, but the eleven villages of Sphakia have a special status already in the first two surviving *tahrir defters* (820, 1650, and 822, c. 1655). The first *tahrir defter* (820) contains the notation “Vakıf-ı Medine-i Münevvere” next to the data for each of the eleven villages. The second *tahrir defter* (822: 321) includes the following set of statements about Sphakia (Fig. 4):

The eleven villages (*karye*) and the arable, but uninhabited, piece of land called Guta [the island of Gavdos?], situated in the aforesaid *nahiye* [district, of Sphakia] have been entered into the New Imperial Register (*tahrir-i cedit defterlerine*) as being free and outside the normal administrative procedure.

The yearly occurring revenue of 5,000 *guruş*, including the Poll Tax (*cizye*), shall be taken by the Treasurer (*defterdar*) of the aforesaid island and shall be sent to the

18 D. Kołodziejczyk, *The Ottoman Survey Register of Podolia (ca. 1681) = Defter-i Mufasssal-i Eyalet-i Kamaniçe*, 2 vols (Cambridge, Mass. 2004).

19 *Tapu tahrirs* for the *timar* system are not found after 1600 (L. T. Darling, *Revenue-raising and Legitimacy: Tax Collection and Finance Administration in the Ottoman Empire, 1560-1660* [Leiden 1996], 15; cf. Kiel, ‘Ottoman Imperial Registers’, 195).

20 Evliya Çelebi *Seyahatnâmesi*. 8. *Kitap*, 240; Evlia Tselebi, *Hodoiporiko*, 278.

Threshold of Felicity [in Istanbul] and shall from there be the Yearly Gift (*sürre*), of which 3,000 *guruş* shall be sent to the poor of Medina the Radiant and 2,000 *guruş* to the pious of Mecca the Brilliant.

And from the summer pastures on mountains and hills (*tilal ve cibal yaylakları*) of the aforementioned district and from the sown but uninhabited land (*mezraa*) from the subjects, and from their *metochia*, which from old have been connected with these villages, tithes shall be taken (for the *vakıf*).

And the public and special revenues (*beytülmal*) and the custom duties of the ports and altogether all other revenues shall be taken for the *vakıf*.

Because the subjects [of Sphakia] are free and outside the normal administrative procedure, they shall, when one of them commits a weighty crime, for which the death penalty or cutting off of limbs is due, he should not be taken out of the district but shall be taken (directly) by the Defterdar. [followed by golden *kuyruklu imza* and seal]²¹

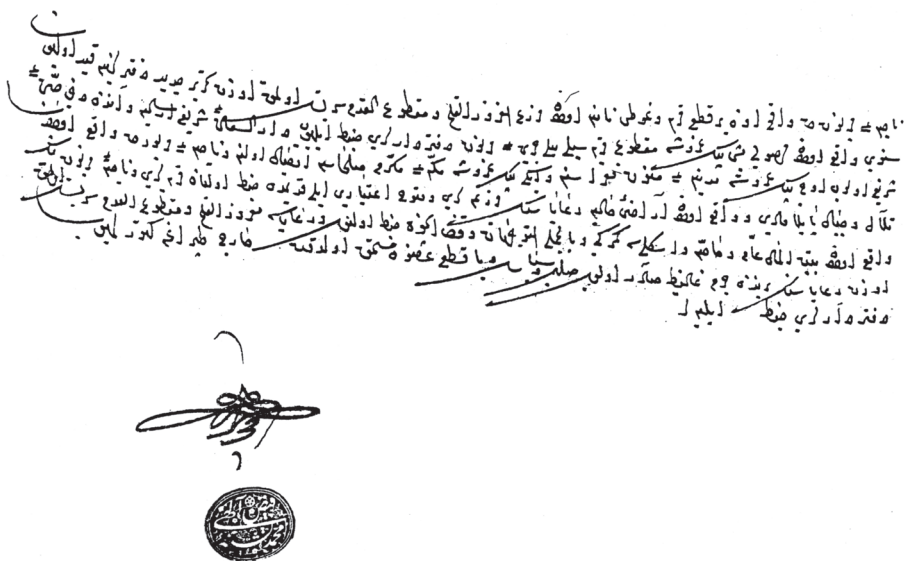


Fig. 4: General rules for Sphakia from Tahrir Defter 822, p. 321

Sphakia, formally registered as being “free and outside the normal administrative procedure”, paid a global sum of 5,000 *gurus* (to include the usual poll tax); tithes for the *vakıf* were to be derived from the whole territory of the villages; indirect taxes were to be raised for the *vakıf*; and Sphakiotes were to have special judicial privileges in the most serious offences.

21 We are most grateful to Prof. Kiel for the translation of this passage.

Guruş and Akçe

At this point a small excursus is needed, on the relationship between the 5,000 *guruş*, the global sum to be paid, and the 207,000 *akçes* specified later in the actual census. The *akçe* was the basic Ottoman coin and unit of account, but the *guruş*, a non-Ottoman coin, is harder to pin down. One might think that it is the Venetian gold ducat, which was the leading foreign currency in the Ottoman Empire in the sixteenth century. But from the later sixteenth century large silver coins were imported into the Ottoman Empire by Western merchants, and in the seventeenth century they became the leading foreign currencies in most parts of the Empire.²² By the 1640s many of the provincial *defterdars*, from Cyprus to Syria, kept their accounts in terms of these foreign silver coins.²³

Two main sorts of coins were in circulation, Spanish *riyal guruş* (also known as *piasters*), and Dutch thalers or lion dollars (*esedi guruş* or *aslanlı guruş*); in addition there were French coins, known as *sülye guruş*. These coins posed accounting problems for the Ottoman state, because they varied in size and silver content, and therefore had varying *akçe* values. The conversion rates varied considerably over time, partly because of the ongoing debasement of the *akçe* (whose silver content fell from 0.682 grams in 1572 to 0.256 grams in 1685).²⁴ To complicate things further, local conversion rates sometimes varied from those used in Istanbul.

In the state budget for 1582-1583 the most common type of *guruş*, the *esedi guruş*, was valued at 39 *akçes* (with other types valued at 55, 48 and 40 *akçes*).²⁵ From 1588 until 1659 the Istanbul conversion rate for the *esedi guruş* went from 70 to around 80 *akçes*. It subsequently moved further upwards, from 100 *akçes* in 1668 to 144 *akçes* in 1725.²⁶

The earliest attested local Cretan exchange rate for the *esedi guruş* (the coin in which Cretan taxes were assessed) is 88 *akçes* in 1671;²⁷ from the following year, 1672, it had increased to 120 *akçes*.²⁸

The rate for c. 1655, the date of TD 822, will have been slightly less than the 88 *akçes* attested in 1671. We assume a rate of 80 *akçes* for this year (which falls within the range of rates attested for Istanbul). From this it follows that the 5,000 *guruş* of TD 822 was the equivalent of 400,000 *akçes*. This is almost exactly double the 207,000 *akçes* specified in the census. The difference must have been made up by other, indirect, taxes specified in

22 Ş. Pamuk, *A Monetary History of the Ottoman Empire* (Cambridge 2000), 92-111, 134; cf. also Idem, 'Money in the Ottoman Empire, 1326-1914' in H. İnalcık with D. Quataert (eds), *An Economic and Social History of the Ottoman Empire, 1300-1914* (Cambridge 1994), 961-966.

23 H. Sahillioğlu, *Studies on Ottoman Economic and Social History* (Istanbul 1999), 46.

24 TDVİA, s.v. 'Akçe' (H. Sahillioğlu).

25 Sahillioğlu, *Studies*, 41 and Table 5 at pp. 58-59.

26 Pamuk, *Monetary History*, 144.

27 Karantzikou and Photeinou, *Tritos kodikas*, No. 694; mistranslated by Stavrinidis, *Metaphra-seis*, No. 415 as 88 *paras*.

28 Ibid., No. 506 = Karantzikou and Photeinou, *Tritos kodikas*, No. 318. Cf. table in Karantzikou and Photeinou, *Tritos kodikas*, xxvi.

the same document – “public and special revenues and the custom duties of the ports and altogether all other revenues” – which were destined for the *vakıf*.

The Preservation of *Vakıf* Status

The formal arrangements for the endowment of the *vakıf* were recorded a few years later, just before the death of Deli Hüseyin Paşa in late 1658. Two deeds recording Deli Hüseyin Paşa's endowments in Crete, including Sphakia, are dated 1658.²⁹ The one concerning Sphakia, known to us only from an obscure Greek translation, has a good story. In 1909, a decade after the Ottomans had left and Crete formed an autonomous state, there was local dissension as to whether or not Sphakia had ever been subject to the Ottomans. The Secretary General of the Cretan State therefore wrote to the Sublime Porte asking for a ruling. The reply consisted of a copy of Deli Hüseyin Paşa's endowment document, then held in Istanbul by the Directorate of *Vakıfs*, and now probably in the Archives of the General Directorate of the *Vakıfs* in Ankara. In order to end the local dissension, the Secretary General, Kalaisakis, published a Greek translation of this document. It reads as follows:

The conqueror of Crete, Gazi Hüseyin Paşa, has declared before the Islamic Court, which was convened in the Cretan camp, that those villages, which by virtue of the imperial rule were under his possession and were situated in the eparchy of Sphakia, that is, Anopolis, Agia Roumeli, Ovtzikas, Komitades, Samaria, Agios Ioannis, Semalo, Vouvas, Askyprou, Kolokasia, Mitraska, the Castle of Mesochori (i.e., Chora Sphakion) and the territory of Gavdi (i.e., the islands of Gavdos and Gavdopoula), along with all the inhabitants subject to them, with their offspring, with the hills, the mountains, their pasturages, with the fields of those subjects who live in free territories, with the little villages (the so-called ‘metochia’), with the tithe and all the rights, with the capitation tax of those villages and with all the rest, all this he dedicates, together with the public and private property in this eparchy, to the sacred cities of Mecca and Medina and appoints İbrahim Ağa, the son of Ahmed, as *Mouteveli* (i.e., *mütevelli*, Administrator) of the dedication (i.e., *vakıf*) on the following conditions:

1. that there should be sent each year 3,000 *guruş* to the poor of Medina and 2,000 *guruş* to the poor of Mecca out of the revenues from those villages and the capitation tax;
2. that whoever is Imperial High Eunuch at the time shall oversee the dedication (i.e., *vakıf*);

29 G. I. Kalaisakis, ‘Aphieroterion tes eparchias Sphakion’ [Endowment Document of the Province of Sphakia], *Kretike Stoa*, 2 (1909), 173-175, gives a Greek translation of the Sphakiote document (then held in Istanbul by the Administration of *Vakıfs*; we translate from his Greek); K. Schwarz, ‘Die Stiftungen Deli Hüseyin Paschas auf Kreta’, *SF*, 41 (1982), 117-129, reports a different document, now in Berlin, of exactly the same date in 1658, on his other Cretan endowments. Cf. Stavrinidis, ‘Symvole’, 214, 231-234. Cf. document of 1674 in *ibid.*, 241-243 = *Idem*, *Metaphraseis*, No. 733.

3. that for as long as the dedicator lives, the 5,000 *guruş* offered for the poor of the two cities should be divided as stated, out of the incomes of the dedication (i.e., *vakıf*); that the dedicator should keep and have at his free disposal all the remaining income;
4. that after the death of the dedicator, the supervision, the dedication (i.e., *vakıf*) and the remainder of the incomes of all the aforesaid villages should pass on to his offspring, and to his descendants, according to the rights of succession, to the senior child of the family; and
5. that if ever the family of the dedicator vanishes, the aforesaid Imperial High Eunuchs shall see to the appointment of a loyal and pious warden and the annual assignment of the appointed 5,000 *guruş* to the poor of the holy cities.

Following the above declaration of the dedicator and after the aforesaid İbrahim had accepted the appointment of the supervision of the dedication (i.e., *vakıf*), all the necessary religious formulations took place and the Islamic Court acknowledged the validity of this dedication (i.e., *vakıf*). 10 Rabi Al-Akhar 1068 (i.e., 14 January 1658).

This document formalised the special status of the eleven villages of Sphakia – but three of the names are not certainly identifiable with the canonical names – making clearer the tax arrangements mentioned in the earlier *tahrir defter* of c. 1655, and arranging for their long term administration. In the following year, 1659, the eleven *vakıf* villages of Sphakia are included in a general account book of the *vakıfs* of Deli Hüseyin Paşa dated June 1659 (the third of Prof. Kiel's documents); it mentions the villages as part of the *vakıf* of Medina and gives the same amounts of taxes to be paid as in both *tahrir defters*.³⁰ In the same year, 1659, "one of the inhabitants of Askopolis [i.e., Anopolis] in the province of Sphakia, whose revenue from taxation is released to the outstanding conqueror Kaptan Paşa", appeared before the court in Rethymno; the seemingly irrelevant point about the revenues of Anopolis was made no doubt because the man concerned was appearing voluntarily before the court to report on Venetian piracy.³¹

These documents make it clear that Sphakia became part of a pious endowment very soon after the Ottomans arrived in Crete and that it was Sphakia's conqueror, Deli Hüseyin Paşa, who founded the *vakıf* as a means of ensuring long-term profit for himself and his family from the conquest.

The reason for the separate treatment of the eleven villages of western Sphakia lies in the Venetian past. In the early fourteenth century the island was divided into four large units or provinces ('territorii'), each subdivided into regions ('castelli' or 'castellanie');

30 BOA, Evkaf Muhasebe Defter, Maliyeden Müdevver 4717.

31 Y. Z. Papiomytoglou (ed.), *Eggrapha hierodikeiou Rethymnes 17^{os}-18^{os} ai.: hoi metaphraseis tou 'Vematos' Rethymnes* [Documents of the Kadi Court of Rethymno, Seventeenth-Eighteenth Centuries: Translations of the 'Vima' Newspaper of Rethymno] (Rethymno 1995), No. 81; cf. also No. 218 (AD 1723) for trials outside Sphakia.

this system lasted with minor alterations until the twentieth century. The area of Sphakia fell into two different provinces: the eastern part, known as ‘Castel Franco’ or ‘San-to Nichita’, fell within Rethymno province; the western part, Castel di Sfachià, which formed the bulk of Sphakia, fell within Chania province.³² The boundary between these two provinces was drawn right through the middle of the Frangokastello Plain: on a drawing of 1615 by Basilicata a line (labelled as “Linea del confin”) runs between the adjacent villages of Patsianos and Kapsodasos down to the west side of the fort of Frangokastello on the shore.³³

The Castel di Sfachià had a special status under the Venetians. In a charter seemingly of 1191 the Byzantine Emperor Isaac II Angelos confirms the governance and revenues of a territory dependent on Anopolis to the Skordylis family.³⁴ This land grant, allegedly of the late Byzantine period, but current in early Venetian times, defined as a single unit the whole area from the coast below Vouvas in the east, round via the southern part of the Askyphou Plain and the north side of the White Mountains, down the Samaria Gorge to Agia Roumeli in the west. The Skordylis family, one of the Twelve Noble Families (*archontopouloi*) of Crete, continued in the early Venetian period to lay claim to their allegedly ancestral rights, and membership of this family remained a legal privilege throughout the Venetian period.³⁵ Within their region lay all the eleven villages of the Ottoman *vakıf*.

The separate treatment by the Ottomans of the three eastern villages of modern Sphakia (Kapsodasos, Skaloti and Argoule) conforms to Venetian precedent. These three villages, not part of the Skordylis grant, fell within a different province from the rest of Sphakia. Though Tahrir Defter 820 places them in “*nahiye-i Esfakya*”, it records them fifty pages apart from the other Sphakiote villages, and places them, as we have seen, in the Imperial Domain. Their tax position was therefore quite different.

The revenues of the eleven villages, 5,000 *guruş* per year, were assigned to the religious endowment of Mecca and Medina. Religious endowments (*vakıf*) were an important aspect of the Ottoman system, especially in its later centuries. Any private source of revenue – a rural or urban property, such as a bathhouse, even the interest generated by cash loans – could be designated *vakıf*. Such a designation meant that the income was permanently assigned to some charitable or religious purpose. Sphakia was part of the endowment of Mecca the Radiant and Medina the Brilliant, and is so described in court documents from Crete.

32 S. Xanthoudidis, *He Enetokratia en Krete kai hoi kata ton Eneton agones ton Kreton* [Venetian Rule on Crete and the Struggles of the Cretans against the Venetians] (Athens 1939), 15-16.

33 Illustrated in M. Andrianakis, *The Frangokastello at Sfakia* (Athens 1998), 11.

34 S. Xanthoudidis, ‘To diploma (provelegion) ton Skordylon Kretes’ [The Diploma (Privilege) of the Skordylis Family of Crete], *Epeteris Hetaireias Kretikon Spoudon*, 2 (1939), 299-312.

35 Ch. A. Maltezou, ‘Byzantine “Consuetudines” in Venetian Crete’, *Dumbarton Oaks Papers*, 49 (1995), 269-280; Eadem, ‘Byzantine Legends in Venetian Crete’, in I. Ševčenko and I. Hutter (eds), *Aetos: Studies in Honour of Cyril Mango* (Stuttgart and Leipzig 1998), 233-242.

Not that all the region's revenue ended up in Mecca and Medina. Typically, a *vakıf*'s income paid for items such as the salaries of the endowment's employees and the up-keep of its buildings. The founder's family was very often also the beneficiary of these funds; this was one of the main attractions in establishing a *vakıf*. The poor of Mecca and Medina might benefit only once the family line had died out.³⁶ As to where and to whom Sphakiot revenues were dispensed, this can only be ascertained by a thorough examination of the endowment's documents. It cannot be determined from the *tahrir defter*, which is concerned to identify sources of revenue, rather than their disbursement.

After Deli Hüseyin Paşa's death, his son, Mehmed Ağa b. Hüseyin, became the *mütevelli*, despite the fact that his father had been executed for alleged treason, and he was still in place at the very end of the century.³⁷ A granddaughter of Deli Hüseyin Paşa, Fatma Hanım Sultan, is attested as *mütevelli* in 1762,³⁸ but as she was also a member of the imperial family, the relationship to the Sultan himself became closer. By the 1720s the Sultan gave rulings on matters of Sphakiot taxation, and in turn was petitioned by the inhabitants of the province of Sphakia: "From the *vakıf* of the province of Sphakia belonging to the Sultan's family ...".³⁹ The special status of Sphakia was maintained even after the major revolts of 1770 and 1821. In the first instance this was because the Sultana, Fatma Hanım Sultan, who had already in 1765 upheld the liberties of the province,⁴⁰ petitioned twice in 1771 that Sphakia retain its *vakıf* status (the fifth of the documents which we know thanks to Prof. Kiel).⁴¹ After the Egyptian takeover of Crete (1830-1840), the new government tried to impose standard levies and practices on the Sphakiotas (as on the rest of Crete). To the credit of the new rulers, they responded favourably to Sphakiot representations of their traditional immunity from special levies.⁴² After the restoration of the rule of Istanbul, the *vakıf* status of Sphakia continued until the end of the nineteenth century; it was terminated finally only in 1901, after the ending of Ottoman control of Crete.⁴³

36 See M. Hoexter, *Endowments, Rulers and Community: Waqf al-Haramayn in Ottoman Algiers* (Leiden 1998), for an admirably clear discussion of the complicated matter of *vakıf* finances. Her study focuses on Algiers where "the poor of the two holy cities of Islam were hardly ever designated as the primary beneficiary ... In the vast majority of cases they figured as the ultimate beneficiary, preceded by a line of private ones ... Only when the entire family died out, would the poor of Mecca and Medina come into the picture as the ultimate beneficiary" (ibid., 9).

37 Stavrinidis, 'Symvole', 252-254 = Idem, *Metaphraseis*, Nos 1287 and 1338 (AD 1695).

38 Ibid., No. 2776 = Karantzikou and Photeinou, *Tritos kodikas*, No. 849.

39 Papiomytoglou, *Eggrapha*, Nos 172 (AD 1721), 175 (AD 1722).

40 Stavrinidis, *Metaphraseis*, No. 2834.

41 BOA, Cevdet Evkaf 27749 (H. 1185).

42 N. V. Tomadakis, 'Tourkograikika' [Turkish-Greek Matters], *Epeteris Hetaireias Kretikon Spoudon*, 1 (1938), 133-134, No. 2 (AD 1833).

43 Stavrinidis, 'Symvole', 233.

Sphakia and Changing Provincial Administration

The *vakıf* status of Sphakia fits in with seventeenth-century trends in provincial administration.⁴⁴ The decline of the *timar* system meant that, more and more, the Sultan relied on high-ranking officials, such as Deli Hüseyin Paşa, to provide troops for campaigns as the need arose. Some way had to be found of helping these pashas maintain their large households; one option was to grant state lands in private ownership. This is almost certainly how Deli Hüseyin Paşa came into possession of Sphakia, since it was very common to create pious endowments from such grants. The granting of land as private property meant that a permanent relationship was established between a specific group of villages and an elite household. In this case Sphakia should have had such a relationship to the household of Deli Hüseyin Paşa, but in practice the *vakıf* seems merely to have allowed the Sphakiotes to pay up and then enjoy quite a degree of freedom (according to the Ottoman state, as we have seen, the Sphakiotes were “free and outside the normal administrative procedure”).

The recording of *vakıf* revenues in a *tahrir* might seem to be an indication of the peculiar nature of the *tahrirs* generated by the conquest of Crete. One might think that a region whose revenue was earmarked for a religious endowment would not appear in a *tahrir*, since *vakıfs* were unconnected to the military system that *tahrirs* were intended to support; freedom from central government control and taxation was an important, indeed an essential aspect, of a religious endowment, whereas the *tahrir* lay at the heart of the state's claims over the revenue of the Empire. In fact, most sixteenth-century *tahrirs* give a survey of all *vakıf* property and revenue at the end of the register, following the *hass*, *zeamet*, and *timar* sections. In addition to recording revenue available for *timar* grants, *tahrirs* thus provided a full register of newly conquered territory. A completed survey, kept by the central administration in Istanbul, would give the new overlords essential information on the area's population, its settlement patterns and the types of crops it produced (as did Domesday Book for England in 1086). Therefore, the central administration would want to include the entire area, *vakıf* and all. In an earlier age there was no conflict, since newly conquered areas were wholly subsumed into the *timar* system. Only later on might some revenues pass out of the control of the central government (at which point those lands would disappear from the *tahrir*). By the time Crete was conquered, however, the *timar* system had sufficiently deteriorated that Sphakia had already passed into the control of a private individual even before the area had been surveyed. Nevertheless, it was important to have a complete record of what had been conquered, regardless of who controlled the revenues. The *tahrir*, in other words, still had a cadastral function, and therefore included Deli Hüseyin Paşa's endowment.

Court records from Crete strongly suggest an additional reason for the inclusion of the *vakıf* in the *tahrir*. The *vakıf*'s founder might well have thought that this was the best way to secure his property rights, now and in the future, and to secure the land to his fam-

44 Hoexter, *Endowments, Rulers and Community*, 1, notes that *vakıf* laws need much more study. D. Ze'evi, *An Ottoman Century: The District of Jerusalem in the 1600s* (Albany 1996), 114-139, studies landownership and taxation around Jerusalem in this period.

ily should his own head ever be forfeit. A close parallel is the awarding of villages to the Grand Vizier who conquered Podolia in 1672. He immediately converted the gift into a *vakıf*, and specified all the details in a separate deed (*vakfiye*); in this case the supporting documentation, including a perambulation, survives.⁴⁵ For Sphakia, Cretan records show that, when disputes occurred over what the villagers owed, state officials backed up the claims of the *vakıf*, sometimes with explicit reference to what was written in the survey document.⁴⁶ The question remains as to how to square this reality with the common view of *vakıf* land as land that had “escaped state control”.⁴⁷

Cretans as a whole were better off under the Ottomans in that they no longer had to do the hated Venetian labour services in the galleys or on public works (*angarie*). This freedom was offset by a new and complex system of taxation, and a much more efficient administration than the Venetians had imposed.

For Sphakiotes, the conquest would have brought a change for the worse, since they had already been exempt from the services but still had to pay the new dues. But they still enjoyed a privileged status and were better off than most Cretans. *Vakıf* status relieved the people from some of the taxes and from having to support an often tyrannous and rapacious local lord. In practice they still kept something of their privileged status in the late Venetian period. The province’s dues to the *vakıf*, 5,000 *guruş* a year,⁴⁸ equivalent to something like £1,000 in the money of the time or 150,000 euros today, seem not particularly onerous by modern standards.

Much of Sphakia’s income seems to have come from seafaring activities out of reach of the *mukataa*. If Sphakiotes chose not to pay the dues, their distant, institutional overlord would have found it difficult to collect. The *cizye*, too, seems to have turned into a nominal payment, divorced from the actual number of menfolk, who would have been particularly difficult to count in a land of mountaineers and seafarers. For the first forty years the Sphakiotes, or some of them, seem to have been content; occasionally they expressly said so.⁴⁹

Sphakia had, as under the Venetians, something of a reputation for lawlessness. In 1659 the *hayduds*, brigands, were said to be based there. In 1671-1672 a Cretan was murdered in the very rooms of the provincial governor, probably in Chora Sphakion castle.⁵⁰

45 Kołodziejczyk, *Ottoman Survey Register of Podolia*, I: 51-57, 469-478. The editor writes (*ibid.*, I: 20): “Judging by the way the Podolian *defters* were used, the Ottomans still regarded the provincial *defters* as an authoritative legal document, according to which all territorial claims could be checked and resolved. It was no accident that even the grand vizir, Kara Mustafa, was concerned to include and confirm his *vakıf* documents in the provincial register. He must have believed that this was the best way to secure his and his descendants’ future claims”.

46 See Stavrinidis, ‘Symvole’, 243-244, No. 5 = *Idem*, *Metaphraseis*, No. 1110.

47 H. İnalcık, ‘The Ottoman State: Economy and Society, 1300-1600’, in *Idem* with Quataert (eds), *An Economic and Social History*, 124.

48 Stavrinidis, ‘Symvole’, 252-254 = *Idem*, *Metaphraseis*, No. 1287.

49 *Idem*, ‘Symvole’, 241-243 = *Idem*, *Metaphraseis*, No. 733.

50 *Idem*, *Metaphraseis*, Nos 139, 630.

However, Ottoman census officials and taxgatherers seem to have penetrated the remotest parts of Sphakia with impunity. The *tahrir defter* includes the names of all heads of households and unmarried adult males, and a census of crops, mills, and other taxable activities, which they could hardly have done without the people's co-operation.

Trouble enters the record in 1689, when the system of assessing *cizye* was reorganised throughout Crete (as it was to be in the rest of the Empire from 1690 onwards): instead of a flat-rate payment per head, those liable were organised into three categories. This reorganisation of the tax system was very unpopular in Sphakia, because the inhabitants of the *vakıf* had not previously been liable to poll tax. In 1704-1705 a great register of the western half of Crete was made, listing the male heads of households in every village in every castellate and assessing them for tax (this is the fourth of Prof. Kiel's documents listed above). "Nahiye-i Esfakya" again appears divided into eleven *karyes*, or villages. Whereas as a rule the *defter* does not give the names of the heads of households, but only all their immovable property, in the case of Sphakia the recording is reversed. Property is not recorded, but instead the names of all the heads of households are listed, village by village. The tax per village was then specified, but any connection with the actual number of people seems to have been abandoned: Vraskas with 32 households paid the same tax (20,000 *akçes*) as Patsianos with 61 households, and not much less than Chora Sphakion, whose 228 households paid only 30,000 *akçes*. The new arrangement seems to have worked to the Sphakiotes' disadvantage, especially since the dues to Mecca and Medina were treated as a supplementary *cizye* rather than being assessed separately. Apparently other *vakıf* estates were entitled to exemption from *cizye*, but not Sphakia. This gave rise to a long string of disputes and lawsuits, involving teams of *kapetanoi* representing the various villages in Sphakia.

In 1817-1818 (after the 1770 Revolt of Daskaloyannis, but before the major revolt of 1821) a *vakıf* account register includes the *vakıf* of Sphakia (the sixth of Prof. Kiel's documents listed above). It gives the total number of the population of the *vakıf* villages as well as their agricultural production. This is the same type of data as in *Tahrir Defter* 820, but the unit of measure is specified as *muzur* (which is the old Venetian term, to which we will return below). Unfortunately, we have not been able to make full use of this text (though it should cast unique light on the state of Sphakia before the disasters of the 1821 revolt).

Fig. 5: Household and agricultural taxes (from Tahrir Defter 820)

Tabulated are the values in *akçes* of the various taxable commodities, by village. The last three villages are in modern, but not Ottoman, Sphakia, and are included in the total.

+++ >5 times the average tax per inhabitant --- <1/5 the average per inhabitant
 ++ 3-5 times -- 1/5-1/3
 + 2-3 times - 1/3-1/2
 1 1/2-2 times - 1/2-2/3

Village name (and Sphakia Survey number)	Sa-ma-ria (1.22)	Ag. Rou-meli (1.29)	Ag. Ioan-nis (3.08)	Ara-daina (3.20)	Ano-polis (4.20)	Chora Spha-kion (6.12)	Komi-tades (8.02)	Vra-skas (8.04)	Vouvas (8.05) / Ask-y-phou (7.14)	Kolo-kasia (8.26)	Patsia-nos (8.42)	Kapso-dasos (8.51)	Skaloti (8.70)	Argou-le (8.77)	Total	Amount per inha-bitant
Household (<i>ispence</i>)	1240	2040	1820	1200	6160	8000	2000	800	2640	680	1240	920	760	440	29940	8.4
Wheat (<i>lunta</i>)	3000	4000	6000	2000	8000	14000	6000	8000	4000	3000	6000	6000	2000	2000	74000	20.8
Barley (<i>şair</i>)	2000	3000	2000	1800	3000	6000	2000	4000	2000	2000	4000	4000	100	400	36300	10.2
Oats (<i>ulař</i>)	200	600	200	400	1000	1000	400	400	400	200	800	400	100	400	6500	1.8
Broad beans (<i>bakla</i>)	400	0	800	600	800	4000	1600	2000	800	600	600	400	2200	600	15400	4.3
Chickpeas (<i>nohud</i>)	200	800	200	400	600	400	400	400	200	200	200	400	0	400	4800	1.4
Lentils (<i>mercimek</i>)	400	400	400	200	400	600	600	400	200	400	400	400	0	200	5000	1.4
Vetch (<i>burcak</i>)	300	400	400	300	300	200	400	300	200	300	300	100	0	200	3700	1.1

Common vetch (<i>fiğ</i>)	200	200	200	200	400	100	100	+	200	200	300	0	100	2700	0.8
Grazing tax (<i>resm-i griyah</i>)	150	250	150	250	150	250	250	++	650	250	250	0	1200	4100	1.2
Beehive tax (<i>resm-i küyvare</i>)	250	350	250	250	250	250	250	+++	350	350	150	200	200	3600	1.0
Water mill tax (<i>resm-i asiyah</i>)	120	120	120	120	120	120	120		120	120	120	0	120	1560	0.4
Marriage tax (<i>resm-i arusané</i>)	60	60	60	60	60	60	60	60	60	60	60	60	60	840	0.3
Pig tax (<i>resm-i bid'at</i>)	120	320	280	220	220	320	220	+	220	220	150	540	250	3720	1.0
Kitchen garden tithe (<i>öşr-i bostan</i>)	160	200	220	100	200	200	200		260	260	250	0	150	2500	0.7
Cotton tithe (<i>öşr-i penbe</i>)	100	200	200	100	200	200	200	+++	200	200	250	0	200	2450	0.7
Grape must tithe (<i>öşr-i şire-i hamr</i>)	400	800	800	1600	800	1600	1600	+	800	1600	1600	800	400	14960	4.2

cont. →

Village name (and Sphakia Survey number)	Sa-ma-ria (1.22)	Ag-Rou-meli (1.29)	Ag-Ioanis (3.08)	Ara-daina (3.20)	Ano-polis (4.20)	Chora Sphakion (6.12)	Komitades (8.02)	Vrasakas (8.04)	Vouvas (8.05) / Askaphou (7.14)	Kolokasia (8.26)	Patsianos (8.42)	Kapsodasos (8.51)	Skaloti (8.70)	Argoule (8.77)	Total	Amount per inhabitant
Olive oil tithe (<i>ôÿr-i revgan-i zeyfi</i>)	400	800	400	1000	4000 (+)	2000 --	1000	400	800 -	400	600	2000	600 ++	400 +	14800	4.2
Misc.*	200	500	400	200	1000	800 -	400	220 +	200 ---	220 +	200 -	250	540 +++++	200 ++	5330	1.5
Actual total	9900 (+)	15040	14900	10000	30220 (-)	40000 (-)	18000 (+)	19320 +++)	13000 -	10000 ++	18000	18000	7900 ++	7920 ++	232200	63.1
Official total	10000 (+)	15000	15000	10000	30000 (-)	40000 (-)	20000 (+)	20000 +++)	12000 -	10000 ++	20000	18000	7000 +	3000	230000	64.5

* Miscellaneous levies and leges for title deeds and contribution to guard the fields (*bad-ı hava ve tapu-yı zemin ve deştbanı ma ...*); cf. J. C. Alexander, *Toward a History of Post-Byzantine Greece: The Ottoman Kanunnames for the Greek Lands, circa 1500 – circa 1600* (Athens 1985), 449-454.

Agricultural Production

These documents shed light on two other topics: the demography of Sphakia; and agricultural production. Here we will explore only the implications for agriculture.

Cretans were supposed to render, among other taxes, one-seventh of their agricultural produce. The tax registers give the valuation of the produce and the amount payable. The key register is Tahrir Defter 820, the first of Prof. Kiel's four documents, which alone lists agricultural production village by village.

None of the mountain plains is recorded separately, except Anopolis; Askypheou is explicitly listed with Vouvas. We conjecture that (as in the nineteenth century) Imbros belongs to Vraskas, Asphendou to Kolokasia, and Kallikrati to Patsianos and Kapsodasos, though this is not stated. That is, the settlements on the minor mountain plains are the *metochia*, "which from old have been connected with these villages" (in the words of Tahrir Defter 822; above, p. 77), and are therefore not listed separately.

It has been argued that actual production figures cannot be calculated from *tahrir defters*, because these documents record expected revenues, based on arbitrary ratios between different crops imposed by the tax assessors.⁵¹ There is some truth in this case. It would never have been practicable to collect an actual proportion of the product of each and every terrace in Sphakia, which would have varied enormously from year to year. But the taxes on agricultural products do seem to reflect average yields.

The crops subjected to tax were ones specific to Crete. As the rather different list of taxes imposed on Podolia at around the same time shows,⁵² the tax assessors did not seek to tax the same set of crops across the whole Empire. The taxes also seem to be based on real estimates of crop production. In two cases only was the tax set at a uniform level for each village. The tax on mills was assessed at a flat rate of 120 *akçes* per village, except for Skaloti. And the tax on marriages was assessed at 60 *akçes* per village, regardless of the size of the village; it simply assumes an average of one marriage per village per year. But the other taxes do vary from village to village: the variation is not simply in proportion to the number of households of those villages, and it is also notable that the figures for wheat and barley do not neatly co-vary. The taxes were therefore assessed on estimates of actual production. The figures are of course rounded, but are not implausible. We surmise that the Ottomans, recognising that it would be impracticable to inspect and measure every terrace in Sphakia year by year, or to count the marriages or even the mills, came to terms with the inhabitants and negotiated a composition fee in money.

In the cases of crops (wheat, barley, oats, beans etc.) and also grape must and olive oil the document records not only the monetary tax, but also the units of assessment. As the regulations (*kanunname*) at the beginning of the document state that one-seventh of the harvest was to be taken as tax (slightly more than in mainland Greece), it is possi-

51 J. C. Alexander, 'Counting the Grains: Conceptual and Methodological Issues in Reading the Ottoman *Mufasssal Tahrir Defters*', in A. Temimi (ed.), *Mélanges Prof. Machiel Kiel [Arab Historical Review for Ottoman Studies, 19-20]* (Zaghouan 1999), 55-70.

52 Kołodziejczyk, *Ottoman Survey Register of Podolia*, I: 64-68.

ble to calculate the assumed annual production of each crop by each village. For the dry measures, the calculation is a little complex. The unit of measurement is not stated in this document, but in the account book of the *vakıf* of 1817-1818 the local measure is called the *muzur*. This Veneto-Cretan unit of volume (*misura* in Venetian, *mouzouri* in Greek) is 18.44 litres, roughly equal to 15 (or sometimes 16) *okkas* (or c. 19.2 kg) of wheat or 13 *okkas* (or c. 16.6 kg) of barley (the amount varies because these grains differ in density) (Fig. 6).⁵³ For liquids (grape must and olive oil) the Venetian unit of volume, the *mistaton*, remained in use in Ottoman Crete. The *defter* uses the term *medre*, usually a translation of the Greek *metron*, but here probably the equivalent of *mistaton*. The *mistaton* at this period corresponded to 10 *okkas* (12.8 kg) of oil and 9-12 *okkas* (11.5-15.4 kg) of wine, depending on the region.⁵⁴ These weights are the equivalent in litres (bearing in mind the different specific gravities of oil and wine) of 12 litres for oil and 12-15 litres for wine (Fig. 7).⁵⁵

The global production figures implied by the *tahrir defter* for Sphakia (Fig. 8) can be compared to other production figures for this area. There are no Venetian figures, because Sphakia did not receive the precise censuses found in the rest of Crete, but we do have credible data for the mid-nineteenth century. The French consul in Chania, M. Hittier, made a special study of the agriculture of the island, on the basis of systematic local enquiries, and established production figures for each region for a typical year, c. 1847. He did not publish his statistics, but made them available to the French geographer Raulin (Fig. 9).⁵⁶ For dry goods, the balance of production between wheat and barley, and the total production of both, is very different. In the Ottoman document, the eleven *vakıf* villages of Sphakia produced 215 metric tons of wheat and 185 tons of barley per year,

53 Stavrinidis, *Metaphraseis*, No. 861 (AD 1685), No. 1077 (AD 1692), No. 1220 (AD 1694), No. 1374 (AD 1694); Y. Triantaphyllidou-Baladié, 'Dominations étrangères et transformations de l'agriculture crétoise entre le XVI^e et le XIX^e siècle', *The Greek Review of Social Research*. Special Number: *Aspects du changement social dans la campagne grecque* (1981), 180-190; K. I. Geronymakis, *Laographiko sphakiano lexilogio hermeneutiko* [Ethnographic Sphakiotite Interpretative Word-List] (Chania 1999), 60; Karantzikou and Photeinou, *Tritos kodikas*, xxvii. D. A. Petropoulos, 'Symvole eis ten ereunan ton laikon metron kai stathmon' [Contribution to the Study of Popular Weights and Measures], *Epeteris tou Laographikou Archeiou*, 7 (1953), 68, gives slightly different figures. Cf. M. Papadogiannis, 'To mouzouri kai to mistaton sten Krete: symvole ste mechri semera parousia tous' [The Mouzouri and Mistaton in Crete: Contribution to their Existence to the Present Day], *Amaltheia*, 18 (1987), 71-111.

54 Petropoulos, 'Symvole', 81; Stavrinidis, *Metaphraseis*, I: 5 n. 3; cf. also Papadogiannis, 'To mouzouri'.

55 We will use 13.5 litres for wine as the basis for calculations below. The *medre* was in fact of a similar size. It varied regionally, but the editor of the Limnos *defter* has calculated a median figure for the Aegean, of 15.023 litres: Lowry, *Fifteenth Century Ottoman Realities*, 100-101.

56 V. Raulin, *Description physique de l'île de Crète*, Vol. 1 (Paris 1869), 249. Raulin expressed the data in 'quint. m.', i.e., the French metric quintal of 100 kg. Because of the systematic nature of Hittier's work, we do not think that he was misled by the Levantine *kantar*, pronounced identically in Cretan French, of 44 *okkas*, 56.2 kg. Nor was he using the pre-1800 measurement of the quintal (= 100 livres, or c. 49 kg), because he refers explicitly to "cent kilogrammes".

while according to Hitier, Sphakia produced almost three times as much wheat, 600 tons, but very little barley, only 90 tons.⁵⁷

As the overall population of Sphakia in 1650 and 1847 was roughly the same, indeed if anything slightly larger in 1847, the differences in the overall production figures are worth exploring. At a very rough estimate, we would expect a hectare of land to produce 2.5 metric tons of grain per year. The total production of 467 tons in 1650 implies a cultivated area of around 190 ha (for grain and beans). To take one village, Anopolis, which produced 52 metric tons of grain and beans, will have needed 21 ha of level ground. There will have been ample space in the mountain plain of Anopolis to grow this amount of crops without resorting to terracing, even if the land was cropped only in alternate years and if some of the space was taken up with vines and the other crops specified in the *defter*. However, production would have varied greatly from year to year, and later in the Ottoman period Sphakia often failed to grow enough grain to support itself. Thus, in 1724 the Sultan Ahmed III noted that Sphakia, “being situated in high and mountainous regions”, was “unsuitable for growing and harvesting cereals” and hitherto had bought grain from other parts of Crete, and by a *ferman* commanded the police not to interfere with that trade. His successor twice repeated the order.⁵⁸

The production of about 700 tons of grain in 1847 implies nearly twice this cultivated area. This may correspond to the huge extent of now abandoned terraces all over the less rocky and less steep slopes up to some 1,200 m. altitude. How and when the Sphakiotes in the preceding 200 years found the time and energy to construct these terraces remains to be investigated. Why they developed a taste for wheat, instead of the barley which ought to have grown better in this harsh environment, also remains unknown.

It is also worth relating the grain production figures to the size of the population. In 1650 the 727 households in the eleven *vakıf* villages of Sphakia produced 432 metric tons of grain. This gives an average annual grain production per household of around 600 kg. This is a very poor rate of production by comparison with the rich land of Boeotia, where in the mid-sixteenth century annual production was around 2,500-2,700 kg per household,⁵⁹ which implies either very large households or people specialising in producing grain, but is plausible as a production level at or below subsistence. If the 1650 census data is converted into population figures, we get a population of 3,357, and on the assumption of average annual consumption/head of 128 kg, there was demand for 430 tons.⁶⁰ To this must be added 20% for seed corn for the following year, which leads to a

57 We have considered the possibility that the 90 tons of barley should be 900 tons. This would give a more normal ratio between wheat and barley. But the figure of 90 tons is embedded in the calculations of the table (i.e., it is not a simple typographical error), and so we have not emended the figure.

58 Stavriniadis, *Metaphraseis*, No. 2146 (AD 1724), No. 2197 (AD 1732), No. 2241B (AD 1735).

59 M. Kiel, Appendix 2, in S. E. J. Gerstel, M. Munn *et alii*, ‘A Late Medieval Settlement at Panakton’, *Hesperia*, 72 (2003), 229-231.

60 Our population calculation assumes a family multiplier of 4.42, plus the specified unmarried adult males. The figure of 128 kg is taken from J. L. Davis, ‘Contributions to a Mediterranean

total annual need for 516 tons. The demand is thus about 20% above production, which fits with the eighteenth-century claims of Sphakiote insufficiency in grain production. The 1847 production figure of 690 tons of grain production marks a move towards self-sufficiency. A population for the same eleven villages of 4,084 people had an estimated demand for 627 tons (including seed corn), which is slightly less than the amount produced.⁶¹ Overall, these calculations serve to confirm the overall plausibility of the production data: they form what has been termed a “wigwam argument”, in which a number of independent elements, each on their own somewhat fragile, produce a mutually reinforcing structure.⁶² They also suggest an improvement in local self-sufficiency by the mid-nineteenth century, maybe because seafaring and woodcutting have declined.

For liquid goods, the Ottoman census implies c. 72,000 litres of grape must and 25,000 litres of olive oil for the eleven *vakıf* villages of Sphakia. By comparison, Hitier claims for the same area ca. 125,000 litres of wine, 3,500 litres of spirits (*raki*) and just 80 quintals (8,000 kg, or c. 7,360 litres) of olive oil production. From this it looks as though wine production had increased greatly, but olive oil production had decreased dramatically. The figure for olive oil production is indeed extremely small, in comparison both with 1650 and with the other provinces of Crete in 1847. A possible reason is that in 1824 the Ottoman army, which camped in the Anopolis Plain for 17 days, devastated the more than 2,000 olive trees; according to Pashley, it consumed “the greater part of the olive-trees” as firewood. Pashley also says somewhat mysteriously that “the olives were all cut so low that none of them recovered”.⁶³ Pashley’s claim about the large number of olive trees before 1824 confirms in a general way the Ottoman census document, in which Anopolis produced about a third of all the olive oil in Sphakia. In other words, taking into account later events, the implied Ottoman production figures for grape must and olive oil are highly plausible.

Rural Archaeology: Historical Case Studies from the Ottoman Cyclades’, *Journal of Mediterranean Archaeology*, 4 (1991), 166.

61 The population for ‘1847’ is taken as the mid-point between the data for 1834 (3,749) and 1881 (4,419).

62 K. Hopkins, *Conquerors and Slaves* (Cambridge 1978), 19-20.

63 R. Pashley, *Travels in Crete*, Vol. 2 (Cambridge and London 1839; reprinted: Amsterdam 1970), 243.

Fig. 6: Production figures in kilograms: *muzur* x 7 (the tithe for Crete) x 19.2 kg for wheat or 16.6 kg for barley and other products

Village name (and Sphakia Survey number)	Samaría (1.22)	Ag. Roumeli (1.29)	Ag. Ioannis (3.08)	Aradaina (3.20)	Anopolis (4.20)	Choraspheion (6.12)	Komitades (8.02)	Vrasakas (8.04)	Vouvas (8.05) / Askaphou (7.14)	Kolokasia (8.26)	Patsianos (8.42)	Kapsodasos (8.51)	Skaltiti (8.70)	Argoule (8.77)	Total
Wheat (<i>muzur</i>)	75	100	150	50	200	350	150	200	100	75	150	150	50	50	1850 <i>muzurs</i>
Wheat (kg)	10080	13440	20160	6720	26880	47040	20160	26880	13440	10080	20160	20160	6720	6720	248640 kg
Barley (<i>muzur</i>)	100	150	100	90	150	300	100	200	100	100	200	200	50	10	1850 <i>muzurs</i>
Barley (kg)	11620	17430	11620	10458	17430	34860	11620	23240	11620	11620	23240	23240	23240	1162	214970 kg
Oats (<i>muzur</i>)	10	30	10	10	50	50	25	20	20	10	40	20	5	20	320 <i>muzurs</i>
Oats (kg)	1162	3486	1162	1162	5810	5810	2905	2324	2324	1162	4648	2324	581	2324	37184 kg
Broad beans (<i>muzur</i>)	10	0	20	15	20	100	40	50	20	15	15	10	55	15	385 <i>muzurs</i>
Broad beans (kg)	1162	0	2324	1743	2324	11620	4648	5810	2324	1743	1743	1162	6391	1743	44737 kg
Chickpeas (<i>muzur</i>)	5	20	5	10	15	10	10	5	5	5	5	10	0	10	115 <i>muzurs</i>
Chickpeas (kg)	581	2324	581	1162	1743	1162	1162	581	581	581	581	1162	0	1162	13363 kg
Lentils (<i>muzur</i>)	10	10	10	5	10	15	15	10	5	10	10	10	0	5	125 <i>muzurs</i>
Lentils (kg)	1162	1162	1162	581	1162	1743	1743	1162	581	1162	1162	1162	0	581	14525 kg

cont. →

Village name (and Sphakia Survey number)	Samaria (1.22)	Ag. Roumeli (1.29)	Ag. Ioannis (3.08)	Aradaina (3.20)	Anopolis (4.20)	Chorasphakion (6.12)	Komitades (8.02)	Vrasikas (8.04)	Vouvass (8.05) / Askaphou (7.14)	Kolokasia (8.26)	Patsianos (8.42)	Kapsodasos (8.51)	Skalti (8.70)	Argoule (8.77)	Total
Vetch (<i>muzur</i>)	15	20	20	15	15	10	20	15	10	15	15	5	0	10	185 <i>muzurs</i>
Vetch (kg)	1743	2324	2324	1743	1743	1162	1162	2324	1743	1743	1743	581	0	1162	21497 kg
Vik (<i>muzur</i>)	10	5	10	5	10	20	10	20	5	5	10	15	0	5	130 <i>muzurs</i>
Vik (kg)	1162	581	1162	581	1162	2324	1162	2324	581	581	1162	1743	0	581	15106 kg
Grape must (<i>medre</i>)	25	50	50	50	200	100	100	50	10	25	100	100	50	25	935 <i>medres</i>
Grape must (litres)	2363	4725	4725	4725	18900	9450	9450	4725	945	2363	9450	9450	4725	2363	88358 litres [71820 litres for <i>vakif</i> villages]
Oil (<i>medre</i>)	10	20	10	25	100	50	25	10	20	10	15	50	15	10	370 <i>medres</i>
Oil (litres)	840	1680	840	2100	8400	4200	2100	840	1680	840	1260	4200	1260	840	31080 litres [24780 litres for <i>vakif</i> villages]

Fig. 7: Production figures in litres: *medre* x 7 (the tithe for Crete) x 13.5 litres (for wine) and 12 litres (for oil)

	Wheat	Barley	Oats	Beans	Total
Taxable seventh in <i>muzurs</i> (for 11 villages)	1600	1590	320	385	3895
Total weight (metric tons)	215	185	37	35	467
Amount in kg for each of 3357 inhabitants	64.0	55.1	11.0	10.4	139.1
Kg per day per head	0.175	0.150	0.030	0.029	0.381
Hectares of land needed at 2.5 ton/ha	86	74	15	14	187

Fig. 8: 1650 production figures in kilograms: *muzur* x 7 (the tithe for Crete) x 19.2 kg for wheat or 16.6 kg for barley and other products

	Wheat	Barley	Oats	Beans	Total
Production in quint. m.	6000	900	0	1200	8100
Total weight (metric tons)	600	90	0	120	810
Amount in kg for each of 4084 inhabitants	146.9	22.0	0	29.4	198.3
Kg per day per head	0.403	0.060	0	0.081	0.543
Hectares of land needed at 2.5 ton/ha	240	36	0	48	324

Fig. 9: 1847 production figures (from Raulin, *Description physique de l'île de Crète*, I: 249)

Sheep and goats, which will have been important in Sphakia then (as now), are not directly attested in this type of document, since they were taxed and recorded separately. However, the grazing tax can be used as an index of the importance of pastoralism (which we have other grounds for thinking important in Sphakia).⁶⁴

The statistics seem to show that every village in Sphakia grew at least some of almost every crop. It might be possible to read some significance into, for example, the great preponderance of wheat over barley in Anopolis and Komitades compared to Samaria or Patsianos. Argoule was rated particularly high on grazing, and Anopolis and Chora Sphakion particularly low, which is most unexpected. Vraskas and Kolokasia were highly rated on most types of produce, but we dare not say whether that was because they were good farmers or poor negotiators.

Although the details of the statistics are inextricably complicated by bureaucratic fiction, some general conclusions can be drawn. Everywhere had some cropland. Legumes of five kinds were a crop comparable in importance to the major cereals, not least because they provided a protein source. Wine and oil were minor to middling crops in comparison to other produce. To grow these crops in most of Sphakia required terracing, which is a

64 Cf. Nixon and Price, 'Diachronic Analysis of Pastoralism'.

very prominent feature of the landscape today. Dating terraces is difficult, but we have shown that terracing was extensive in the Venetian-Ottoman periods.⁶⁵ For example, in the centre of the Samaria Gorge, there are terraces on the east side of the gorge above the hamlet of Ano Samaria, up to a height of 480 m, and 540 m on the Pyrgos ridge. The terraces predate the building of the Ottoman fort on the Pyrgos ridge in 1867 (because they were damaged by the new mule track built up to the fort), and must have been used by the village of Samaria in the Venetian and earlier Ottoman periods. In some of the places which were taxed on their olive oil production we have found olive trees which date back to this period. For example, below the village of Komitades are olive trees around 500 years old, growing on their own terraces.

Cotton, although only a minor crop, is of great interest in that it was apparently grown in many places. Such a water-demanding crop should have been difficult to grow in Sphakia at all, let alone in Anopolis or Aradaina with no water source other than rain. According to the sixteenth-century *tahrirs* of the *sancaks* of Thessaly, Boeotia and Attica, a bale (*teker*) of cotton cost 6 *akçes*. Assuming that prices remained stable a century later, the tax on Sphakia would be the equivalent of 408 bales; as the tax was assessed at one-seventh of production, total production was 2,856 bales. As a *teker* weighed 4 *okkas* or 5.08 kg,⁶⁶ 2,856 bales weighed 14.5 tons. This is not a trivial amount. Cotton was certainly an important crop on Crete in the Venetian and Ottoman periods, and there is evidence from the nineteenth century for its growth in Sphakia. We know that according to Hitier in c. 1847 18 tons of cotton were grown annually in Sphakia (2% of the total Cretan production).⁶⁷ The two production figures are of the same order of magnitude. Was this production an effect of the Little Ice Age, a period between the fourteenth and nineteenth centuries of climatic instability, with an increased frequency of extreme events: frost, heat-waves, drought, and floods?⁶⁸

Cotton-growing may be related to the tax on water mills (*asiyab*).⁶⁹ Such a tax also seems rather implausible, as Sphakia today is extremely dry, and water mills have operated in living memory only in the Samaria Gorge (which has a strong river). We have

65 Price and Nixon, 'Ancient Greek Agricultural Terraces', 674-675.

66 BOA, Tahrir Defter 367, 137 (*kanunname* of the *sancak* of Eğriboz/Euboea from 1521): "Teker veznide dört vukiyedir" ("The *teker* is four *okkas* in weight"); text and translation in J. C. Alexander, *Toward a History of Post-Byzantine Greece: The Ottoman Kanunnames for the Greek Lands, circa 1500 – circa 1600* (Athens 1985), 138, 305.

67 Raulin, *Description physique de l'île de Crète*, I: 249. Cf. Watrous *et alii*, *The Plain of Phaiastos*, 408, with evidence for Cretan cotton production from the early Venetian period onwards.

68 J. M. Grove and A. Conterio, 'The Climate of Crete in the Sixteenth and Seventeenth Centuries', *Climatic Change*, 30 (1995), 223-247; Grove, *Little Ice Ages: Ancient and Modern*, 2 vols (London and New York 2004), I: 376-380, II: 631-633.

69 *Asiyab* comes from the Persian, where the suffix '-ab' is indicative of water. But the word is used in the Limnos *deFTER*, with different suffixes, for both windmills (*asiyab-i yelleri*) and water mills (*asiyab-i abî*), which are taxed at different rates (because in use for different lengths of time) (Lowry, *Fifteenth Century Ottoman Realities*, 118). It can also be used, with another suffix (*revgan*) to mean 'olive-press' (Zarinebaf *et alii*, *Historical and Economic Geography of Ottoman Greece*, 56 n. 17).

noted remains of water mills in two other locations (at the mouth of the Aradaina Gorge and east of Argoule). We found only two windmills, at Loutro and Frangokastello, both of them probably later than the *defter*. In villages with no evidence for windmills or water mills the tax could have been on olive-presses, which are known from six villages.⁷⁰ However, from 1625, just 25 years before the census, there is a list of 28 Cretan rivers “abounding in good water” – important to Venetian galleys, which needed to fill up their drinking water every few days and operated in late summer, when streams were at their lowest.⁷¹ Out of these 28 rivers, only four abound in good water today (and only five when Raulin studied Crete in 1847). The most plausible explanation is that rain and snow were more evenly spread round the year than now. So water mills, even in Sphakia, were more possible in the seventeenth century than they are today.

In short, the agricultural data employed in the first census is obviously the result of local negotiations, but it is worth emphasising the overall match with the data collected two hundred years later by Hitier. Though the Ottoman census does not include much related to sheep and goats, which were probably an important part of the local economy, it does seem a reliable source of data. But the data has to be read in the light of the changing environment and with knowledge of the physical topography.

Conclusions

The value of collecting environmental and archaeological data for literate periods has often been discussed and sometimes neglected in Mediterranean survey projects. “Why bother to collect pottery fragments when there are documents which can give us such minuscule detail?” is a common refrain. But the Sphakia Survey has tried to adhere to the principle of ‘enforced consistency’ – if something is important for one epoch, then it is important for all of them. Collecting environmental, vegetational and archaeological data is important for all epochs.

There are three reasons for this. The first is epistemological: why ignore a source of evidence if you have got it? There is no point in deliberately ignoring a whole data set that might prove useful. Secondly, one type of evidence can act as a yardstick for a completely different kind of evidence. It can act as a means of checking the accuracy and nature of that second type of evidence. Thirdly, using more than one kind of evidence can suggest further questions. For example, what is the reason for the different assessments of the resources of Argoule in the Ottoman census and in our own knowledge of the area, or how could there be a common tax on water mills in Ottoman Sphakia?

In addition to these general comments, the Survey has added some specific points that the documentary evidence alone could not:

70 We recorded olive-presses at Samaria (1.22); Anopolis: Kambos (4.19); Livaniana (5.08); and Dichalomata (6.09), and others are mentioned in the nineteenth century at Kolokasia (8.26; 2 presses), and Patsianos (8.42; 3 presses).

71 F. Basilicata, Archivio di Stato di Venezia: MS Ital. 340 (5750).

1. A check on accuracy – our detailed knowledge of the micro-landscapes of the different villages permits us to check, and largely confirm the plausibility of the individual taxes. Autopsy can provide a check on just how accurate the imperialists were in selecting things to be taxed, and in setting the rates of individual taxes.
2. How Ottomanised was an area? Sphakia, though it made much of its special status within, even independence from, the Ottoman Empire, shared many aspects of a widespread Ottoman culture. Sphakia was relatively poor and unurbanised, had no resident Muslims except a few officials and (at times) soldiers, and suffered very significant losses as a result of the failed revolts from 1770 onwards. It thus has no large-scale Ottoman architecture, no *hamams*, no fountains, and no mosques. The architectural exception was the chain of Ottoman forts built in 1867 as a final attempt to prevent future revolts. There was also practically no permanent use of Ottoman writing (the only exception is an Ottoman inscription preserved as the threshold to the sanctuary of the church of Agioi Apostoloi at Tholos, Chora Sphakion). On the other hand, Sphakia borrowed deeply from Ottoman culture. The region's involvement in a market exchange system wider than its own area was intensified. This change can be seen in increased prosperity measured through ownership of imported luxury ceramics.⁷² Contact with northern Italy, established under the Venetians, seems to have stopped, but products of southern Italy and western Greece were reaching Sphakia in significant quantities. In even larger quantities a wide range of wares from the ceramic factories of the northern Aegean was reaching Sphakia. And trade in ceramics within Crete itself, beyond Chania, developed significantly under Ottoman rule. The Greek of Sphakia was no more or less influenced by the Turkish language than the language on other parts of Crete. Houses had corner hearths, called by the Turkish name (*tzaki*). Embroidery patterns were adapted from Turkish motifs. Another major change could be the method of building mule tracks, now called by a term, *kaldirimia*, derived from the Turkish *kaldırım*; Crete had these before the Ottomans (when they were called by the Venetian name *strade commune*), but perhaps there was a new way of doing it that brought the new name (as for hearths). As these routes were fundamental to trade and other connections, their building and maintenance is a matter of some importance.

Crete was ruled by an Ottoman authority with all the usual imperialist bureaucratic mechanisms. Our examination of the material culture of the time shows a widespread penetration of Ottoman material culture. But this penetration was limited in comparison to cities like Chania, with its minarets, *hamams*, fountains, and inscriptions.

There are aspects of Ottoman Crete and Sphakia which are not at all discussed in the Ottoman taxation documents. If we had not done a survey which collected archaeological

⁷² We owe this point to Dr P. Armstrong, who is publishing the Venetian and Ottoman period pottery from Sphakia.

evidence for all periods, we would not be able to say anything about cheese production, trade, church-building, or vernacular architecture.

In setting up mechanisms for determining and collecting taxes in Sphakia, the Ottomans built on their Venetian predecessors. The Venetians had compiled lists of towns, villages and hamlets, to which the Ottomans added the detail necessary for the direct taxation of a region which had largely escaped the normally eagle-eyed Venetian officials. The Ottomans did not seek to change or improve on the boundaries that had existed under the Venetians. To take the diachronic perspective that underpins the whole enterprise of the Sphakia Survey, we can point out that these two aspects of Ottoman administration in Sphakia – the conservative tendency to incorporate previous systems, and the omission of all topics not directly relevant to assessment – can be seen in other examples of new administrations. For example, the Mycenaean administrators of Crete, whose work can be seen in the Linear B tablets, built heavily on previous systems, and the Linear B texts are notorious for saying practically nothing about important connections between Crete and other areas in the Mediterranean and further afield.⁷³

Thus examination of documentary and material evidence permits us to situate Sphakia in terms of Ottoman administrative procedures and in terms of the penetration of Ottoman material culture in a specific region of the Ottoman Empire. As people have shown elsewhere, it is crucial to collect all available kinds of evidence, to check one type of information against another, and then to construct a synthetic analysis.

73 For an exemplary analysis of the Linear B tablets from Pylos in the Peloponnese, see J. Bennet, 'The Linear B Archives and the Kingdom of Nestor', in J. L. Davis (ed.), *Sandy Pylos: An Archaeological History from Nestor to Navarino* (Austin, TX 1998), 111-133.