

THE EXPLORATION OF ASIA MINOR: KIEPERT MAPS UNMENTIONED BY RONALD SYME AND LOUIS ROBERT

— RICHARD J. A. TALBERT —

ABSTRACT

The starting point is a tribute to Anthony Birley's studies of Ronald Syme, with attention to his map consciousness; Asia Minor becomes the focus, and comparison is made with Louis Robert. There emerges the puzzling outcome that neither Syme nor Robert shows awareness of several map series derived from Heinrich and Richard Kiepert's Karte von Kleinasien. Hence investigation of this neglected cartography follows: its accuracy is probed, as well as its prolonged impact through the half-century 1890–1940, with particular reference to World War I and the subsequent Greco-Turkish War. All this activity (primarily by British, Greek, Italian and Ottoman military agencies), together with the successive obstacles to completing a triangulated map of Turkey, gives reason to question the long-held consensus that after Heinrich Kiepert's death (1899) his work quickly lost its significance.

KEYWORDS

Asia Minor, maps; cartography, military; Greco-Turkish War (1919–1922); Karte von Kleinasien (KvK); Kiepert, Heinrich (1818–1899); Kiepert, Richard (1846–1915); Robert, Louis (1904–1985); Syme, Ronald (1903–1989)

in memoriam Anthony R. Birley

This paper was drafted initially for inclusion in the forthcoming Gedenkschrift to honor Professor Anthony R. Birley (1937–2020), but an online journal is a better fit for its length and color images. Publication here in *HCS* is all the more appropriate, because one impetus for the choice of topic was *HCS Supplementary Volume 1, Select Correspondence of Ronald Syme, 1927–1939* (2020). Edited by Birley, it stands as the culmination of his tireless efforts over many years to document Syme's life (1903–1989) and career, and to understand the development of his scholarship.

My first concern is to probe a seemingly neglected dimension never addressed by Birley: map consciousness in Syme's writings, both in general and with specific reference to Asia Minor, a region which greatly preoccupied him. No-one with an interest in Syme's scholarship will be

surprised to learn that he proves as unforthcoming in print about his use of maps as about much else.¹ However, some findings can be assembled, and there is instructive comparison to be made with the map consciousness of Syme's contemporary Louis Robert (1904–1985). He not only shared a preoccupation with Asia Minor, but was also noted for amply disclosing and assessing the scholarly materials he drew upon, maps among them. An unanticipated, and puzzling, outcome of this comparison is that neither Syme nor Robert appears to have become aware of certain maps of Asia Minor by Heinrich and Richard Kiepert sure to interest them, even though such awareness might fairly be expected. These maps and their remarkably prolonged impact are in any case overdue for fresh recognition and re-evaluation, which the paper then proceeds to offer.

The keen sense of geography manifest throughout Syme's work is duly singled out for praise by Fergus Millar (in 1981) and by Stephen Mitchell.² For central and eastern Europe this sense must have been honed by Syme's extensive travels there between 1931 and 1935.³ In consequence it was timely for the *Journal of Roman Studies* to approach him for reviews of Walter Hyde's *Roman Alpine Routes* and of two *Archäologische Karte von Jugoslawien* fascicles, published in its 1936 and 1938 issues respectively.⁴ Both reviews reflect firsthand knowledge of the relevant landscapes, as well as informed appreciation of features essential for rendering a map useful.

For Syme's own use and making of maps before World War II, the Preface to *Cambridge Ancient History* vol. X (1934, p. xi) records that he supplied material for its Map 11 ("Spain"), and that he and George Stevenson were responsible for Map 13. In compliance with economical CAH policy no doubt, both maps are only overviews which allow for little detail. Despite its title, "Central Europe", Map 13 stretches further, from the Pyrenees to the Danube delta and Byzantium west–east, Hamburg to Rome north–south. Although "Spain" is grayscale with only sketchy

¹ His 1981 conference paper "The Subjugation of Mountain Zones", for instance, makes no specific reference to maps (*Roman Papers* V. 648–60).

² Millar (2004) 402; Mitchell (1989).

³ Cf. Birley (2020) 15. By contrast, Syme did not visit Spain until 1955 (*Roman Papers* VI. xi).

⁴ For the first review, see *JRS* 26 (1936) 113–14 (= *Roman Papers* VI. 5–8); the second, *JRS* 28 (1938) 258–59.

representation of physical elevation, “Central Europe” at least renders lower-elevation landscape in green, and higher elevation in two shades of brown. Together, these maps illustrate Syme’s chap. XII “The Northern Frontiers under Augustus” (also Spain and Africa), as well as his three sections of chap. XXIII “The Northern Frontiers from Tiberius to Nero” (Roman frontier policy, Rhine, Danube). In Syme’s bibliography for chap. XII (p. 936), Heinrich Kiepert’s *Formae Orbis Antiqui* (1894–1914) is the one atlas among the few works listed for general reference; it was an appropriate recommendation, although lacking coverage of Africa.⁵ For Map 4 in *CAH* vol. XI (1936) the base of vol. X’s Map 13 was reused, with material again supplied by Syme (Preface, p. viii), including sites in Dacia, for example, not needed for vol. X. This Map 4 serves to illustrate, among others, Syme’s own chap. IV “Flavian Wars and Frontiers”.

According to notes Syme made later, his work for *CAH* vol. XI was finished by 1934; to the best of my knowledge, thereafter he never again assembled materials for the compilation of a map, nor included one in any other work he published.⁶ To be sure, this does not mean that he ignored maps, or failed to recognize their potential value. Far from it. Once in Turkey (Asia Minor) from 1941 onwards,⁷ and at work on the *Anatolica* chapters published posthumously by Birley (1995), he cites maps in works by Sir William Ramsay, for example (157 n. 33),⁸ René Dussaud (98 n. 27), and Heinrich Swoboda, Josef Keil and Fritz Knoll (211 n. 37). He also cites one sheet — CII *Afiun-Karahisar*, ed. 2, 1912 — of Richard Kiepert’s uniquely comprehensive *Karte von Kleinasien* issued (and then revised) in 24 sheets at 1:400,000 scale by Dietrich Reimer, Berlin, between 1901 and 1916.⁹ [Fig. 1]

KuK incorporates findings made, as well as routes taken, since the early 19th century by around 200 travelers, both named individuals — with interests ranging from antiquities and botany to missionary work and mining — and a few anonymous groups such as railroad engineers

⁵ See Talbert (2019) 61–68, 96–97.

⁶ 1934: Birley (2020) 201. The unattributed sketch-map of the Balkans prefacing papers by Syme from the mid-1940s first published by Birley would seem to be his editorial addition: see Syme (1999) xiv, 128.

⁷ Ibid. 183. Initially (1941–1942), Syme was assistant press attaché at the British Embassy, Ankara. In August 1941, when the Foreign Office proposed him as “sufficiently efficient and energetic” to become director of a relaunched Information Bureau in Istanbul, Ambassador Sir Hughe Knatchbull-Hugessen countered that he should head a new Press Department there (with staff of three). The Ministry of Information, however, installed its nominee: Berridge (2009) 195–96.

⁸ Also in Syme (1934) 136 n. 6.

⁹ Syme (1995) 201–202 nn. 60, 61, 65; 214 n. 55.

and English officers.¹⁰ This mass of data (modern and ancient) was synthesized first by Heinrich Kiepert until his death in 1899; he had already fulfilled commissions to map the routes taken by at least a dozen of the travelers named.¹¹ His son Richard (d. 1915) thereafter expanded and updated the data, while also striving to take account of several contemporary travelers' routes.¹² John Anderson — later Oxford's Camden Professor of Ancient History 1927–1936,¹³ whose scholarship and guidance Syme greatly valued — is among the travelers: he is named on as many as five sheets of *KvK*'s first edition, and on three more of the second. In *Anatolica* Syme's repeated, respectful attention to Anderson's opinions is unmistakable, although he may still differ.¹⁴ Once aware of Syme's interest in Asia Minor, Anderson would surely have checked that he knew of *KvK*.

Syme might equally have been informed about *KvK* by Anderson's former pupil William Calder.¹⁵ Anderson and Calder had much in common: both were born in Edinkillie, Morayshire (in 1870 and 1881 respectively), and both were inspired by Ramsay at the University of Aberdeen before proceeding to Oxford. As well as editing *Classical Review* from 1923 to 1935, Calder was active in Turkey almost every year between 1924 and 1936, and — as Birley demonstrates¹⁶ — kept in frequent touch with Syme during the 1930s. Calder published five reviews by him in *CR*, and sought his help in dealing with an unsatisfactory contribution that Ramsay had submitted for a Festschrift in honor of William Buckler (Calder's collaborator in Turkey).

Before World War I, Calder had been active in Turkey from 1908 onwards. During the War he was among the scholars recruited to produce

¹⁰ I am completing a study of *KvK* which includes identifications of the individuals named, many on just a single sheet.

¹¹ In addition, during the early 1840s he had gathered the published itineraries of around 100 European travelers in Asia Minor: see Débarre (2021) 2. However, the only pre-1800 traveler that *KvK* names is Alexander Drummond (mid 18th century) on sheets DIV and DV. As early as the 1850s Heinrich Kiepert no longer trusted distance figures reported in the 17th and 18th centuries: see Débarre (2016) 111.

¹² For the working relationship between father (1818–1899) and son (1846–1915), and their respective roles in Reimer's service, see Espenhorst (2008) 772–78.

¹³ See Gill (2004); (2011), especially 149, 300–301. For the value that Syme attached to Anderson's lectures, see the jotting in Birley (2020) 199. Notes apparently taken at Anderson's lectures on the Principate and the Flavians in 1935–1936 (in all likelihood the last time they were delivered before his retirement) are preserved among John G. Griffith's papers at Jesus College, Oxford (JC:F5/MS3/1; *non vidi*).

¹⁴ For example, 138 n. 15; 298 n. 52.

¹⁵ Gill (2011) 310.

¹⁶ Birley (2020) 20–21.

maps of Turkey for the British War Office's General Staff, Geographical Section, as well as to compile (anonymously) the Naval Staff Intelligence Department's Admiralty Handbook *Asia Minor*.¹⁷ Calder kept an astonishing quantity of materials (including unfinished drafts) from this stage of his career. After his death in 1960 these were donated by his family — along with extensive epigraphic materials — to the University of Aberdeen, where they are held in the library's Special Collections (GB 0231: MS 3286).¹⁸ Included with them — although not always identified as such in the catalog entries — are map materials that had belonged to Anderson (d. 1952) and at some stage were passed to Calder.¹⁹ Anderson evidently did not return to Asia Minor after World War I, nor was his war-work related to it; instead he was employed in the Ministries of Munitions and Labour.

Louis Robert — whose successive explorations in Turkey in 1932 and 1934, and from 1946 to 1964, are painstakingly mapped by Fabrice Delrieux²⁰ — often stressed the unique, outstanding value of *KvK*: “un monument scientifique admirable le compagnon de travail des historiens et des archéologues”,²¹ the culmination of travelers' work, “très souvent ignoré et méconnu”.²² Indeed,

L'expérience de ces voyages²³ comme des précédents a montré combien il serait faux de croire que la carte au 1:400.000 de Kiepert est périmée et n'est plus qu'un glorieux ancêtre à conserver dans la salle des

¹⁷ Heffernan (1996) 517 n. 103. The Handbook was to appear in four volumes, with III in three parts, and IV in two. In the event, III.1 (for north of the Bosphorus to the Halys) and IV.2 (for the area between the Black Sea and Kaisari) never appeared. The rest were issued in 1918–1919.

¹⁸ See further Roueché (2013).

¹⁹ For example, the first of the MS 3286/8/2 items, where Anderson wrote his name at the head of the index. Also the three items MS 3286/8/16, the first two annotated, not for *MAMA*, but by Anderson for his *Asia Minor* map (1903a); for the third, see Fig. 18a, b below.

²⁰ Delrieux (2011). In addition, Robert served as director of the Institut Français d'Archéologie in Istanbul from 1956 to 1964 (since 1975 Institut Français d'Etudes Anatoliennes).

²¹ Robert and Robert (1954) 448; cf. (1962) 435 n. 1, “l'oeuvre grandiose et admirable”.

²² Id. (1980) 32.

²³ By Robert in 1962: Delrieux (2011) map 24.

momies. Quand elle avait pu être dressée — c'est-à-dire en dehors des morceaux de pays inexplorés et laissés en blanc, — elle rend encore les plus précieux services, à la fois pour l'antique et pour le moderne, et elle n'a proprement été remplacée pour ces parties par aucune des cartes qui ne sont pas secrètes.²⁴

Again in 1962 Robert concludes: “Quant aux cartes de géographie historique, depuis les Kiepert, on reste très dépourvu”.²⁵ He recognizes the availability since 1957 of the partial revision (1:2,000,000) by Calder and George Bean of Anderson's 1903 Handy Classical Map *Asia Minor* (1:2,500,000),²⁶ but he finds multiple shortcomings in the content, and is justifiably disappointed by the omission of physical elevation.²⁷ At the same time, he acknowledges with regret that he himself had hardly helped by declining an invitation from Calder to compile the western part, because he had already agreed to assist a more ambitious mapping project commissioned by the Turkish Antiquities Service — one which unfortunately was never to achieve publication. With alternatives lacking, the readily accessible (albeit inadequate) map by Calder and Bean continued to be much used by scholars, Syme among them.²⁸

The surprise is that neither Syme nor Robert shows awareness of maps of Asia Minor produced by military agencies during the World War I period that were more or less copies of *KvK*. Robert in particular, if he had come to know of these, would surely have wished to cite them as further

²⁴ Robert (1974) 248. Note that even in 2000 Didier Marcotte in his *Budé Géographes Grecs* I. 99 can describe *KvK* as “toujours un instrument indispensable” for Turkey. It is still recommended (ed. 1 only!) in *Guide de l'Epigraphiste*, ed. 4 (2011) 253.

²⁵ Robert (1962) 434.

²⁶ For Anderson's map, itself in fact envisaged as a revision of Carl Müller's map 29 in Smith and Grove (1872–1874), see Talbert (2019) 16–18, 72–73, 93–94. Calder and Bean's map appeared first as a supplement to *AnatSt* 7 (1957), and was then issued separately in 1958 (with text and notes).

²⁷ This omission is curious insofar as the map was printed by Bartholomew's in Edinburgh, where Calder had been professor till 1951, and Mary Gough (who drew it) resided during the 1950s. Bartholomew's was ideally qualified to advise about the rendering of landscape. Later, Calder is acknowledged (p. ix) among the experts consulted for *The Times Atlas of the World*, vol. II (Bartholomew, 1959), which includes two handsome maps (36, 37) covering Turkey at 1:2,000,000, Calder's choice of scale for his own map.

²⁸ See his “Isauria in Pliny” (1986) in *Roman Papers* V. 664 n. 14, 666 n. 28.

demonstration of *KvK*'s continuing value during the Inter-War period. Quite possibly, Syme was never made aware of British military map-makers' use of *KvK*. If he had been, the most likely informant is Calder, whose work during World War I (above) exploited it extensively.²⁹ As early as 1906 the north-west of Asia Minor was included in a British War Office series at 1:250,000 *Balkan States* (General Staff, Geographical Section 2097). The relevant three sheets — *Gallipoli*, *Constantinople*, *Ismid* — had been produced by 1909 (none based on surveys). But only after the outbreak of war in 1914 was the decision taken to extend the series across Turkey to longitude 36 00. Not until 1915 and early 1916 were 14 sheets covering the west and south coasts issued; the final 18 for the entire center and north only appeared in 1919. [Fig. 2] Needless to stress, this work became a matter of urgency because Britain — like most states entering the War — lacked adequate maps of where its forces might be sent. Moreover, surveys in enemy territory were out of the question, and few had been made by the Ottoman authorities, let alone published (see below). The sole practical recourse therefore was to rely mainly on the best of whatever maps were available. German though it was, *KvK* not only stood out as an attractive choice, but also had no rival, and so was adapted for the purpose.

Around the same time Germany's own extensive (Ireland to Persia) new 1:800,000 *Operationskarte* series compiled by the Kartographische Abteilung des stellvertretenden Generalstabes der Armee also gives the impression of reliance on *KvK* for its ten sheets covering Asia Minor, some issued as early as 1914. [Fig. 3] Yet in view of the Ottomans' alliance with Germany (thus making campaigns within Asia Minor a remote prospect), no further German series for the region was developed until 1917–1918, when five of the northernmost sheets for a new 1:400,000 scale *Karte von Mesopotamien und Syrien* (extending to Lake Van and beyond) were produced.³⁰ Finally, in mid-1918, German versions were made of four Ottoman 1:200,000 *tipo nuovo* (see below) sheets for a new *Karte der asiatischen Türkei* at this scale.³¹

For Britain's GSGS 2097 series, however, *KvK*'s scale was enlarged from 1:400,000 to 1:250,000, thus matching that of the *Eastern Turkey in Asia* series (Intelligence Division, War Office 1522), an earlier initiative entrusted to Capt. Francis Maunsell which provided coverage East of

²⁹ On British mapping of the entire Middle East since the 1850s, note Foliard (2017).

³⁰ See Espenhorst (2016) 112–13, 122; Demhardt (2021) 2, 6. Sources are not stated on the sheets.

³¹ For both these German series, *ibid.* 10. The 1:200,000 sheets are *Adana*, *Biredschik*, *Mar'asch*, *Membidsch*.

longitude 36 00.³² For GSGS 2097, Turkish names were re-transliterated into English style rather than German, and the names of travelers dropped from routes — Kiepert’s scholarly apparatus of no military relevance. However, some classical placenames were retained. Unlike IDWO 1522 sheets, GSGS 2097 ones do not state the sources from which the cartography is derived, but its character gives every impression of being largely a reproduction of *KvK*. [**Fig. 4a, b**]

The Asia Minor sheets of the smaller-scale 1:1,000,000 series (GSGS 2555) made at around the same time leave no doubt.³³ [**Fig. 5**] Most name just a single source:

Compiled from: Karte von Kleinasien (Kiepert) 1:400,000, with much additional information from various sources. Note: Turkey in Asia is not topographically surveyed, and the detail is unreliable.³⁴

The 1918–1919 *Asia Minor* Admiralty Handbook volumes are similarly explicit about their reliance on both *KvK* and GSGS 2097. In addition, an Admiralty War Staff Intelligence Division 1:500,000 map series *Asia Minor* — designed, it seems, specifically to accompany the Handbook volumes — was no doubt derived from both, even though none of the three sheets known to me (only from the Calder Collection) carries any statement about sources or accuracy; each is numbered, but not named, and their sizes vary.³⁵ Conceivably, this ambitious series drawn and printed at the Ordnance Survey was never completed, nor any of its sheets actually issued.

Even during World War II the Naval Intelligence Division’s April 1942 Geographical Handbook *Turkey* vol. 1 still lists GSGS 2555 and 2097 among map resources along with IDWO 1522 (pp. 441–42), although with the warning: “The maps are of very little use today.” However, most

³² Issued from 1901, its sheets were substantially revised during World War I and six again afterwards (1920–1923), not least in order to take into account *KvK* (cited on a dozen of the revisions) and captured Turkish maps (below): see Jewitt (1992) xii, xvi, 351, 509, and illustration immediately following 462. Foliard (2017, 204) overrates the merits of the original edition, pathbreaking though it was. For a sounder assessment, note Hamm (2014) 884–86, 899.

³³ Heffernan (1996) 511–22 traces the struggles surrounding the compilation of the series, and considers its impact.

³⁴ Calder kept copies of GSGS 2555 *Izmir (Smyrna)*, *Konia* and *Sinob* issued in 1916, and of *Batum*, *Erzerum* and *Istambul (Constantinople)* revised in 1918: see MS 3286/8/6 and 3286/8/11. *Istambul* was first issued in 1912.

³⁵ MS 3286/8/8/1: VIII, approximate coverage Angora to Kaisarie (November 1919); XIII Konia to Selefke (December 1918); XIV Cilicia and north Syria (June 1918). See further below, n. 57.

of the relevant 2555 sheets (but not K-37 *Batum*) had been revised and reissued in 1932, still citing *KvK*. Thereafter both the 2097 and 2555 series were included in the GSGS 1938 *Catalogue of Maps* (along with IDWO 1522),³⁶ and GSGS 2097's *Boli* and *Sinope* were reprinted in 1938 and 1940 respectively (no doubt other sheets too).³⁷ Syme could well have seen such sheets while based at the British Embassy in Ankara, as noted above.³⁸ Even if by then largely outdated, they would have been appealing to consult for areas into which Kiepert crammed more detail than his scale of 1:400,000 could comfortably accommodate. There is no clue to what maps Syme used on his journeys from Istanbul to Phrygia and Pisidia in September-October 1944, or to eastern Turkey a little earlier when he “had cursory autopsy of Martyropolis”.³⁹

Like Britain five years previously, in 1919 Greece faced a sudden wartime need for maps of Asia Minor. In its case, plenty of the sheets produced were soon put to use on campaigns which during mid-1921 advanced almost as far as Ankara in hopes of fulfilling the ‘Megali Idea’.⁴⁰ In principle, it seems plausible enough that Syme and Robert could have become aware of some of these maps; sooner or later, several reached

³⁶ GSGS 1938 *Catalogue of Maps*, p. 10 and Diagram VII; p. 9 and Diagram V.

³⁷ Copies of both these reprints are held by the British Library. During 1940 there was reprinting of IDWO 1522 sheets too. Early in that year twenty or more were also made available to France's Service Géographique de l'Armée for it to reprint, no doubt in connection with efforts “to rush Turkey on to the Allied side”: Denniston (1997) 37. Humboldt University of Berlin holds copies. Online see, for example, <http://dx.doi.org/10.25673/39821> (*Divrik*, Universitätsbibliothek, Halle; n.b. ed. 1 1902, not the 1921 redrawing!).

³⁸ Its “formidable team of service attachés” struck a new colleague in May 1941: Berridge (2009) 178.

³⁹ Syme (1995) xviii–xix. From the establishment of the British Institute of Archaeology at Ankara in 1947, Syme served on its Council: Mitchell (1989). Mitchell (personal communication) recalls from the 1960s that one Turkish map series in Oxford's Ashmolean Library was marked as the joint gift of Syme and Oliver Gurney, his Assyriologist colleague and fellow Institute Council member. Recent generous efforts by Nick Millea (Map Curator, Bodleian Libraries) to identify this series have proved unsuccessful, however.

⁴⁰ The background is well summarized by Mac Sweeney (2020) 224–32. For an official account in English, see Kakoudakis (2003); note also Prince Andrew's memoir (1930).

Oxford's Sackler Library, where they came to Timothy Mitford's attention.⁴¹ But equally these were materials which Greeks preferred to forget after the catastrophe of 1922. Syme must have witnessed its impact firsthand during his visit to Turkey in 1925.⁴² For certain, the Greek cartographers' reliance on *KuK* would have greatly interested Robert.

Such records as there may have been from which to grasp the initial thinking of the Greek army's Cartographic Service were no doubt lost along with its entire archives during World War II. The only way forward, it seems, is to seek clues in such maps as can be assembled from holdings identified in Europe and North America, all of them seemingly random; I have yet to identify any library with an organized, fairly complete collection.⁴³ Some further light is shed by the Prolegomena and Introduction to the Cartographic Service's detailed and impressively presented report for the year 1921.⁴⁴ This report — *The Year 1921* — must be treated with caution, however, because of strong anti-Venizelist bias on the part of the Royalist staff who took control precipitately in November 1920 after the stunning outcome of that month's elections (which Prime Minister Eleftherios Venizelos had expected to win).⁴⁵ No opportunity is lost to disparage their Venizelist predecessors. Even so, the maps made after October 1920 leave the impression that the approach presented in the Royalist staff's report as their own was not so very different from that already in place.

Both staffs in succession evidently concluded that, because of the urgent need for maps, their best initial recourse would be simply to copy the required sheets of the British GSGS 2097 series (maintaining its 1:250,000 scale).⁴⁶ This step can be documented first by four sheets produced in 1920 as Provisional Editions (ΙΙΡΟΣΩΡΙΝΗ or ΙΙΡΟΧΕΙΡΟΣ ΕΚΔΟΣΙΣ): *Nikomedeia* (lacking any representation of physical elevation), *Dorylaion*, *Aphion Karaisar* and *Sparte*. All carry the statement ΜΕΤΑΦΡΑΣΙΣ ΕΚ ΤΟΥ ΑΓΓΛΙΚΟΥ as well as a warning that the contours

⁴¹ Mitford (2018) 582, and personal communication.

⁴² Remarked upon to him by Calder in 1953: Birley (2020) 20 n. 64.

⁴³ Extensive holdings are to be found in the ELIA/MIET library, Athens, the University of Cincinnati's Burnam library, and (also online) the Bayerische Staatsbibliothek, Munich. Sheets are often torn, stained, and marked up for troop movements on campaign.

⁴⁴ Chartographike Hyperesia (1922); drawn to my attention by George Tolias, who most kindly lent his own copy.

⁴⁵ See McMeekin (2015) 449–51; Gallant (2016) 197.

⁴⁶ For Greek cartographic units' recent (1916–1918) interaction with their counterparts among the Allies based at Thessalonica, see Sabbaidēs and Demertzes (2017) 111–15.

drawn have no hypsometric value. Thereafter the Venizelist staff for the most part continued to copy GSGS 2097 sheets. Similarly in 1921, among the Royalist staff's early sheets are *Nicomidia (Ismid)* (dated January) and *Bilejik* (February). Both render names in English (thus in the Latin alphabet), with coverage that replicates GSGS 2097 *Ismid* and *Bilejik* respectively, thereby differing from both the Venizelist sheet-configuration here and the configuration that the Royalists would soon adopt. [Fig. 6a, b]

The Year 1921 explains (p. 20) that next, because GSGS 2097's representation of physical elevation came to be considered inferior to that on *KvK*, a shift was made to copying direct from the latter (enlarged). Eight sheets *Tsagkri*, *Agkyra*, *Seberek*, *Karaman*, *Merzephouné*, *Ioskate*, *Kaisareia* and *Oulou Kisla-Nigde* demonstrate the start of this step. The first four are dated March 1921, the latter four April, and all use the Latin alphabet: *Agkyra* reproduces bottom left "Winterlager von Kurden", for example, and *Kaisareia* even faithfully retains along routes Kiepert's abbreviated names of travelers (such as "Ainsw. Tsch. St."), which would have been meaningless in this context. Later, *Kastamone* (June 1921) specifically states use of *KvK*.

After such preliminary experiment, both staffs in succession then proceeded to issue sheets often marked First Edition (ΕΚΔΟΣΙΣ Α), rendering physical elevations with contours as best they could. In some instances, when further data became available, an Improved (ΒΕΛΤΙΩΜΕΝΗ) Edition was issued, such as *Sparte* dated May 1921.⁴⁷ Even so, typically the contours drawn had to remain impressionistic. Both staffs shared the goal of gaining sufficient data to provide accurate contours. This the Venizelist staff was somehow able to achieve for five sheets with 100 m contours all issued in July 1920: *Konstantinoupolis*, *Kallipolis*, *Kos*, *Rodos*, *Attaleia*.⁴⁸ According to *The Year 1921*, nine revised sheets with 50 m contours could eventually be issued that year, and five more prepared. The report's locator for 1:250,000 maps duly marks nine sheets as having accurate contours, but to date the only 1921 sheet specifying a 50 m contour interval that I have encountered is *Nikomedeia-Mpiletzik* (June 1921); it also notes the incorporation (top left) of data from Turkish General Staff maps at 1:50,000 scale.⁴⁹ The *Prousa* sheet issued in August 1921 states a 100 m interval.

⁴⁷ Improved editions of *Dorylaion*, *Aphion Karachissar*, *Ak Secher* and *Mpei Secher* also appeared in May.

⁴⁸ Also *Adrianoupolis* (August 1920), but its coverage lies mainly within Europe, not Asia.

⁴⁹ ELIA/MIET MPGYS 053. *Kandra* sheets dated both June and August 1921 likewise note use of these Turkish maps.

Two further findings indicate that the successive staffs adopted much the same approach, despite the Royalists' claim to the contrary. First, the style of the *Smyrne* and *Alikarnassos* sheets (dated January and February 1921 respectively) seems characteristic of the Venizelist staff's work, prompting the likely supposition that these two — doubtless already in progress by November 1920 — were finished and issued by the Royalists rather than discarded in favor of a fresh start.⁵⁰ [Fig. 7] Second, even though the Royalists modified the sheet-configuration, the four tall sheets *Kastamone*, *Agkyra*, *Ikonion* and *Ermenek* in their predecessors' configuration were still issued in March, January, February and April 1921 respectively, thus matching the four tall ones immediately to the west — *Pontoerakleia*, *Sibri-Chissar*, *Ak Secher*, *Korakesion* — all issued in October 1920. Meantime, nonetheless, in order to implement their own sheet-configuration, the Royalists promptly embarked upon making new sheets for the entire region already covered by the eight. As already mentioned, *Tsagkri* and seven other sheets were issued as early as March and April 1921, all using the Latin alphabet. *Tsagkri*, *Agkyra* and *Seberék* were then reissued in July using the Greek alphabet, and *Kastamone* and *Mersina* likewise were added in June and October respectively.⁵¹

A final, striking confirmation of the Greeks' reliance upon *KvK* is to be found in the *Chartes tou Pontou*, eleven maps — also at 1:250,000 — issued between July and October 1921 to show the territory and boundaries of the Republic of Pontos proposed to the Paris Peace Conference in 1919. *The Year 1921* (p. 21) reflects nervousness that the exertions expended on these eleven called for justification in view of the staff's more pressing priorities. By then the Republic was plainly a lost cause, with mass expulsion of Greeks from the region having already begun.⁵² But given that Venizelos had rejected the proposal in Paris,⁵³ production of this *Chartes* naturally appealed to his opponents, and it did at least advance further the coverage already extended by the Royalist staff. *The Year 1921* and the locator appended to it [Fig. 8] explain that captured Turkish General Staff maps at 1:200,000 were used, although taking Greenwich (not Constantinople) as prime meridian, and — to maintain

⁵⁰ Provisional editions of these two had been produced earlier, but neither sheet carries a date.

⁵¹ A composite sheet — with Ankara top right — entitled *Carte des Opérations de Sangarius* and using the Latin alphabet, was produced in October 1921 to accompany a booklet by Deputy Chief of General Staff Xenophon Stratigos (1921). The sheet was subsequently remade using the Greek alphabet in November 1923 (ELIA/MIET MPGYS 039).

⁵² McMeekin (2015) 462; Sjöberg (2017) 38–39.

⁵³ McMeekin (2015) 431.

clarity at the reduced Greek scale — drawing contours at 100 m intervals instead of the Turks' 50 m. However, only the sheets themselves disclose that, for areas where no Turkish map had been secured, *KvK* was again used, namely for the western parts of *Amaseia-Tokat*, *Sampsous* and *Sebasteia*, as well as for *Sinope* and *Merzephoun*e in their entirety.⁵⁴ [Fig. 9]

By the Treaty of London (May 1915) Italy — already in occupation of the Dodecanese islands since 1912 — was promised a “just share in the Mediterranean region adjacent to the province of Adalia [Antalya]”, an area that by the subsequent St-Jean-de-Maurienne agreement (April 1917) was permitted to expand westward to the Aegean even as far as Aydin and Smyrna.⁵⁵ So, when Italy began to seek fulfillment of these promises in March 1919 by landing troops at Antalya, Kaş and Silifke, it comes as no surprise that the Supreme Command made an urgent call for maps.⁵⁶ Evidently it was to Britain's GSGS 2097 series and to *KvK* that it turned, soon deciding that the former was preferable because of these maps' clarity; as it happens, some of those for relevant inland areas (such as *Isbarta* and *Konia*) had only just been issued in March. Requests went to the War Office in London not only for help with map production but also for guidance on further sources of information.⁵⁷ In July, when the line between the Greek and Italian zones of occupation was to be demarcated (along the Menderes river) by the British General George Milne, the Italian proposal was that it should be recorded on *KvK* CI *Smyrna*, ed. 2, 1911.⁵⁸ Ultimately, because the Italian occupiers left Adalia in June 1921,⁵⁹ the six sheets of a *Carta Corografica dell'Asia Minore* (1:500,000) issued by the Istituto Geografico Militare — *Adalia*, *Cónia*, *Costantinopoli*, *Smirne* all in 1921, *Rodi*, *Scárpanto* both in 1922

⁵⁴ Nothing is said about sources for the 100 m contours wherever *KvK* was used.

⁵⁵ McMeekin (2015) 424.

⁵⁶ For an overview of Italy's short-lived interventions in Constantinople and Anatolia, see Cecini (2014) 9–30; fuller account of the latter intervention in id. (2010).

⁵⁷ Cecini (2010) 95–96. I am uncertain whether Italian maps derived directly from GSGS 2097 or *KvK* were in fact produced. There is no knowing whether the War Office offered a copy of sheet XIII (December 1918) in the Admiralty War Staff Intelligence Division 1:500,000 map series *Asia Minor* mentioned above (n. 35); in scale and coverage it is a close match for the *Cónia* sheet which the Istituto Geografico Militare was to produce.

⁵⁸ Cecini (2010) 238.

⁵⁹ Ibid. 407; Mango (2009) 117.

— mostly appeared too late to assist operations. [**Fig. 10a, b**] The sources used are not stated; *KvK* must have been among them (many ancient names are marked), but the presentation is distinct. While comprehensive coverage of Asia Minor was planned in principle, it seems that these six sheets alone were issued.

If neither Syme nor Robert ever became aware of Italy's maps, that is only to be expected. Less so, however, is their evident lack of awareness — on Robert's part especially — of the Ottomans' (later Turks') own efforts to map Asia Minor with heavy reliance on the work of both Heinrich and Richard Kiepert. The springboard was an initiative by Colmar von der Goltz in 1892–1893, about which he informs his friend Heinrich Kiepert in a letter quoted by Ségolène Débarre. Her indispensable study of the mapping of Asia Minor between 1835 and 1895 gives special attention — from a modern historian's perspective — to Heinrich's contribution.⁶⁰ The Ottomans' efforts thereafter are explained by General Mehmet Şevki [Ölçer] in a report delivered to the Ministry of War in 1917, and published in Italian translation by the Istituto Geografico Militare in 1920.⁶¹

Following the publication of Heinrich Kiepert's *Specialkarte vom Westlichen Kleinasien* in 1890–1891 (15 sheets at the unprecedented scale of 1:250,000, extending as far East as longitude 31 00), Goltz as head of the German military mission based in Constantinople arranged for Ottoman officers to produce an enlarged version of the entire map in Turkish, using the 1:210,000 scale favored by Russia and also adopted by the Ottomans in their European territories. From the state's perspective, such creative re-use of the *Specialkarte* can hardly have been controversial in view of its persistent reliance on Kiepert's work at this period for the provision of maps in both civil and military schools empire-wide; pupils' instruction in geography and cartography at all levels became a focus of radical reform.⁶² Goltz tells Heinrich in March 1893 that his

⁶⁰ Débarre (2016), with review in Talbert (2019) 110–12.

⁶¹ Şevki (1920). Note that the conversion of dates on the locator following p. 130 is incorrect: add two years to each Western figure (thus 1909 = Ottoman 1325). See further Débarre (2015); (2021). Şevki's leadership, together with maps and equipment of his time, is featured at the Haritacılık Müzesi, Ankara.

⁶² See the revealing chapter "Maps" in Fortna (2002), especially 174, 179 n. 32, 188 and Fig. 9 for Kiepert. Earlier, at Erzerum in 1876/1877, Fezzee Pacha, an elderly general (Hungarian by origin), impressed the British officer Frederick Burnaby (1996, 229–30) by showing him: "one of Kiepert's maps of Asia Minor, dated 1856, but with numerous corrections, which had been made subsequently by European officers in the

initiative will be completed in a further two months or so⁶³ — thus presumably in as many as 60 small sheets, since the only five known to me are each one quarter the size of a *Specialkarte* sheet.⁶⁴ [Fig. 11] However, there is no mention of who produced them, nor a series name or sheet numbers; to what extent they were put into circulation is also unclear. [Fig. 12a, b]

During the next 15 years or so, little more could be done while the military cartographers were preoccupied with efforts to establish a trigonometric base for Anatolia (although Sultan Abdülhamid II forbade surveys),⁶⁵ and with urgently providing maps for the succession of wars in which the empire became embroiled. Further progress could only be achieved after the 1908 revolution. According to Şevki, a policy of two standard scales (for the entire empire in fact) was then established for the provision of maps: 1:25,000 based on surveys, and 1:200,000. For Anatolia/Asia Minor, urgency made it impossible to base the maps at the latter scale on surveys in the first instance. Thus, this first “tipo vecchio”, explains Şevki:

rappresenta una rabberciatura di carte vecchie per ovviare immediatamente alla assoluta mancanza di carte turche, mentre si stava allestendo il cosiddetto tipo nuovo. Esso non è infatti che il ridisegno, al 200 000 della carta del Kiepert, con tutte le sue lacune e imperfezioni, migliorato poi con aggiornamenti speditivi della rete stradale, con qualche quotazione barometrica di aree montuose di una certa importanza, e con la trascrizione dei nomi con la grafia turca dopo una rapida revisione toponomastica. È una carta turca, ma non è un rilievo.⁶⁶

In a 1910 discussion of cartographic developments in Turkey, Walther von Diest reports that during fall 1909 at the request of the Turkish General Staff he had checked (and also updated from his own findings) 24 1:200,000 sheets based on the *Specialkarte*, thus almost all of it (with

Turkish service. The Pacha had enlarged this map by photography, he had then distributed facsimiles of it to the officers under his command.”

⁶³ Débarre (2016) 301; (2021) 5. Şevki was not involved, because he was in training at the Ecole Militaire, Paris, from 1890 to 1894: see Débarre (2015) 12.

⁶⁴ All five are held by Istanbul Metropolitan Municipality Taksim Atatürk Library and accessible online.

⁶⁵ Note Leonhard’s assertion (1915, 159) that during his travels around 1900 he was constantly watched by spies, as well as being in danger of arrest for photographing landscapes and recording observations.

⁶⁶ Şevki (1920) 133.

the sheet-size now larger than Goltz's); according to Diest, 11 of the 24 were available for purchase by September 1910.⁶⁷ A sheet with series title and key was issued in 1911.⁶⁸ [Fig. 13] In the West, the General Staff did not extend its 1:200,000 coverage further than just short of longitude 31 00, and the *tipo vecchio* sheets with their impressionistic representation of elevation (but some spot heights) continued to be issued (with revisions) into the 1920s. [Fig. 14] For the North-east by contrast — a likely war zone where *KvK* did not extend sufficiently far, but Russian maps could be consulted — *tipo vecchio* sheets were issued initially.⁶⁹ However, surveys by the military cartographers were made a priority here, and these then permitted *tipo vecchio* sheets to be superseded by contoured 1:200,000 *tipo nuovo* ones. It was captured sheets of the latter type that were used subsequently by the Germans for their series *Karte der asiatischen Türkei* (above, n. 31), by the British to revise their series IDWO 1522 (above, n. 32), and by the Greeks (above) to map the proposed Republic of Pontos.

Finally, Şevki explains that for the center and South-east of Anatolia — a vast expanse of territory — from 1915 the military cartographers began to issue a series of 14 maps at 1:400,000 using only three colors. [Fig. 15] Further reliance on the Kiepert is not specifically mentioned, but it can hardly be accident that the scope of each sheet has a *KvK* match.⁷⁰ Comparison of the sample segment provided by Şevki with the corresponding *KvK* sheet only confirms that broadly speaking *KvK* is being copied. [Fig. 16a, b] Like its enlarged British and Greek counterparts, the Ottoman series was produced under intense pressure to meet wartime needs; understandably, the quality of both drafting and printing varies.⁷¹ In addition, although Şevki does not refer to it, from 1914 the

⁶⁷ Diest (1910) 445–46. He is named on seven *KvK* sheets; his own published maps are praised by Robert (1962) 433 n. 7.

⁶⁸ It and many others at 1:25,000 and 1:200,000 in the SALT Research Collection, Istanbul, are accessible online (City, Society, and Economy/City/Maps/Erkan-ı Harbiye). Visit <https://gallica.bnf.fr> for IFEA/BNF holdings; also the Bayerische Staatsbibliothek, Munich.

⁶⁹ To date, I have found seven: *Artvin*, *Erzurum*, *Hasan Qala*, *Ispir*, *Nahcivan*, *Olti*, *Rize*, none dated later than 1912, and several surviving only because a decade or so later their blank reverses were used to print quite different maps. Hence, for example, at BSB Munich *Vaty* 1920 appears on the reverse of *Ispir* 1910.

⁷⁰ Şevki (1920) 134. Three of the westernmost sheets — *Zonguldak*, *Ankara*, *Antalya* — are extended by approximately 10 minutes to ensure satisfactory overlap with the 1:200,000 series.

⁷¹ Over- and under-inking of sheets on press also suggest haste and unreliable equipment; paper is often low-grade. Compare the Greeks' warning on *Dorylaion*

Ottomans produced a 1:1,000,000 series for Turkey: the sheet *Izmir* specifies the 1:200,000 *tipo vecchio* series as its source (as does *Istanbul* for its Anatolian part), and *Ankara* and *Konya* specify *KvK*, “due to there being no other means at this time”.⁷² [Fig. 17a, b, c]

Even if both Syme and Robert happen to be silent on the matter, there can be no mistaking the widespread long-term impact of the Kiepert's maps of Asia Minor during World War I and its aftermath through to the early stages of World War II.⁷³ At least five sheets of the Ottoman 1:1,000,000 series just mentioned were reissued in 1927, with the references to sources on *Izmir* and *Ankara* unchanged.⁷⁴ Reimer, *KvK*'s publisher, enterprisingly relaunched it in March 1929 with a revision of the original 1901 brochure, but without clarifying that no sheet had been updated since 1916 at the latest, and the three oldest (including *Smyrna*) not since 1911. This initiative was perhaps timed in hope of fresh demand following the mandatory shift to use of the Latin alphabet in Turkey from January 1, 1929.⁷⁵ The fact is, however, that by then widespread, often wrenching, change had swept the country.⁷⁶ Robert's generalization even later, in 1962, that *KvK* could still prove useful for journeys invites scepticism.⁷⁷

Indeed Robert's high regard for *KvK* seems curiously uncritical, the more so when he also cites Guillaume de Jerphanion's assessment of its first edition, a magisterial balanced account.⁷⁸ But still Robert, though himself acutely conscious of explorers' many practical difficulties, never addresses Jerphanion's meticulous and authoritative dissection of *KvK*'s shortcomings, ones stemming primarily from reliance upon unverifiable

(June 1921) that atmospheric conditions may prevent stable printing of colors (ELIA/MIET MPGYS 045).

⁷² The *Trabzon*, *Van Halep*, and *Moussoul* sheets do not specify any source.

⁷³ The Turkish General Staff supplied many 1:200,000 *tipo vecchio* sheets (and other maps) to Britain's GSGS in May 1940; these were later donated to the Royal Geographical Society Library, where they remain today.

⁷⁴ *Ankara*, *Halep*, *Izmir*, *Moussoul*, *Trabzon*, all reproduced in Öner (2016) vol. 3. 249–53.

⁷⁵ Mango (1999) 464–67.

⁷⁶ For the dire plight of the population, with focus primarily on civilians, see Akin (2018).

⁷⁷ Robert (1974) 248, quoted above.

⁷⁸ Id. (1962) 434 n. 2; Jerphanion (1909).

reports by passing foreign travelers using inadequate instruments.⁷⁹ Of course, this was a problem all too familiar to Heinrich Kiepert,⁸⁰ and by no means unique to the mapping of Turkey, as Richard Kiepert also knew well from his own initiatives elsewhere (Africa especially).⁸¹ Ramsay points to it with characteristic bluntness in commenting on errors in the first edition of *KvK CIII Konia* (1901):

The country has never been surveyed: Kiepert has only loose and careless notes of travellers to go upon, and often their descriptions are so inaccurate that they seem to be describing different roads when they have really been traversing all the same path. For every mistake in Kiepert's map there is a foundation in the carelessness (or, I should rather say, the deadly fatigue and weariness) of a traveller.⁸²

For certain, by contrast, Robert's praise for Jerphanion's own 1:200,000 *Carte du bassin moyen du Yéhil Irmaç* (1913) is merited, not least because its maker untypically resided year-round in Pontus (at Tokat) from 1903 to 1907. [**Fig. 18a, b**] He served as a teacher, as well as member of 'Jesuit doctor' groups who traversed the mountain country even in winter, offering villagers free medical care.⁸³ Much later, he and Robert evidently struck up a friendship.⁸⁴ Nonetheless Jerphanion could only achieve so much: he too is limited to impressionistic physical elevation, but does identify village populations by ethnicity (six in all). In 1909 he rightly hailed *KvK*, for all its flaws, as an altogether outstanding advance and fit basis for further progress.

⁷⁹ The experiences of Anderson in 1899 and of Goltz in 1889 come to mind: see Anderson (1903b) 5–6; Débarre (2016) 295–96 and (more generally) 55–59. For a portable barometer (from New York) to continue functioning reliably despite 41 days' travel on horseback called for comment by Van Lennep (1870) iii–iv. *KvK*'s initial erroneous placement of Kastamuni on AIV rather than AIII (because of inaccurate co-ordinate data) was an embarrassment.

⁸⁰ He dwells on it in the text accompanying his 1:800,000 wall-map *Asiae Minoris Antiquae Tabula in Usum Scholarum Descripta* (Berlin: Reimer, 1888; text known to me only in the French version held by BNF). Much of this text might be thought better suited to accompany the *Spezialkarte*, for which nothing comparable was provided.

⁸¹ Note his contribution (pp. 161–63) dated 1908 to Richard Leonhard's *Paphlagonia* (1915), elaborating upon the remarkable mosaic drawn from five *KvK* sheets to map both the topography and the geology of the extensive area explored by Leonhard. For Richard Kiepert's mapping of Africa, see Demhardt (2000), 65–73, 148–49 and Register, s.v. Kiepert; Bodenstein (2015).

⁸² Ramsay (1906) 254.

⁸³ Ruggieri (2010) 108–12; and (1997) for Jerphanion's photographic record.

⁸⁴ Id. (2010) 114 n. 30.

Unfortunately, however, Turkey's prolonged vicissitudes were to create serious delay for progress towards a triangulated map with a terrestrial geodetic basis; not until 1941 was the Turkish General Staff able to complete one for the entire country.⁸⁵ Meantime, for want of better resources, some use continued to be found for the Kiepert's maps, or ones extensively derived from them, both in Turkey itself and elsewhere (Britain in particular). To this extent, therefore, Ulrich Freitag (and others before him) have too sweepingly underrated Heinrich Kiepert's posthumous impact: "Trotz der vielen Vorzüge seiner Karten, Atlanten und Globen verloren sie nach dem Tode H. Kiepert's durch die zahlreichen Veränderungen der Welt schnell an Bedeutung."⁸⁶ For Turkey both ancient and modern, this verdict is not valid.⁸⁷ Indeed more generally, through World War I Reimer continued to exploit Heinrich's exceptional reputation as a cartographer by reissuing his maps in order to show war zones.⁸⁸ For example, his 1:1,500,000 *Nouvelle Carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)*, drawn in 1883, appears as late as 1917 with railroads updated to that year, but with the wording of the title unmodified.⁸⁹ [Fig. 19]

Similar observations might be made about Richard Kiepert. It can only have been with Reimer's permission and assistance that in 1921 an arresting 6-sheet 1:500,000 ΓΕΩΓΡΑΦΙΚΟΣ ΧΑΡΤΗΣ ΤΗΣ ΝΕΑΣ ΕΛΛΑΔΟΣ — an initiative by the Athenian publisher Eleutherodakes — was presented as the joint compilation of R. Kiepert and O. Melching. Nothing is done to correct the viewer's natural assumption that Richard is still alive.⁹⁰ [Fig. 20a, b] Equally, at the time of his death in 1915 there was no predicting that the Reimer 1:300,000 *Karte von Deutsch-Ostafrika* (40 sheets, 1895–1911), which he had begun, would continue to be valued there during the Inter-War period by the successor British

⁸⁵ Débarre (2021) 8.

⁸⁶ Freitag (1999) 28.

⁸⁷ To be sure, within Turkey itself the Kiepert's contribution has always been recognized, even while persistently escaping notice elsewhere: see, for example, *Türkiye Diyanet Vakfı İslam Ansiklopedisi* vol. 25 (2002) 563–64 s.v. Kiepert.

⁸⁸ For his reputation, note Débarre (2016) 1. Cf. (with reference to *KvK*) the frustration vented by Ramsay (1906) 254.

⁸⁹ For the genesis of this map, see Débarre (2016) 288.

⁹⁰ Princeton University Library's copy is accessible online. The dates of other Reimer maps credited to Oswald Melching suggest that quite possibly he was still living in 1921. He is named as co-compiler with Richard on many *KvK* sheets issued from 1905 onwards; on the rest, from the outset, this role is credited to K. Werner. It seems that Melching and Werner never collaborated on a sheet.

(primarily) and Belgian administrations.⁹¹ Both this series and *KvK* in one form or other remained in use for the same reason: better resources were lacking. Syme's summation in 1968 of his pragmatic approach to prosopography applies: "One uses what one has, and there is work to be done."⁹²

Richard J. A. Talbert

University of North Carolina, Chapel Hill

talbert@email.unc.edu

⁹¹ Demhardt (2000) 186–89.

⁹² *Roman Papers* II. 711, with Millar (2004) 409–10. My thanks to UNC Chapel Hill and to its Ancient World Mapping Center for research support; also especially to Ségolène Débarre, Michelle Gait, Lindsay Holman, Pascal Lebouteiller, Stephen Mitchell, Mathilde Pyrli, Peter Raleigh, Charlotte Roueché, George Tolia, Ross Twele, and the *HCS* anonymous readers, and to Safiatou Bamba, Till Knobloch and Georgia Tsouvala for translations from Ottoman Turkish, German and Greek respectively.

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FIGURES

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- 18a Title and locator for G. de Jerphanion, *Carte du bassin moyen du Yéhil Irmaç*, 4 sheets at 1:200,000 scale, published in 1913 (Paris: Barrère).
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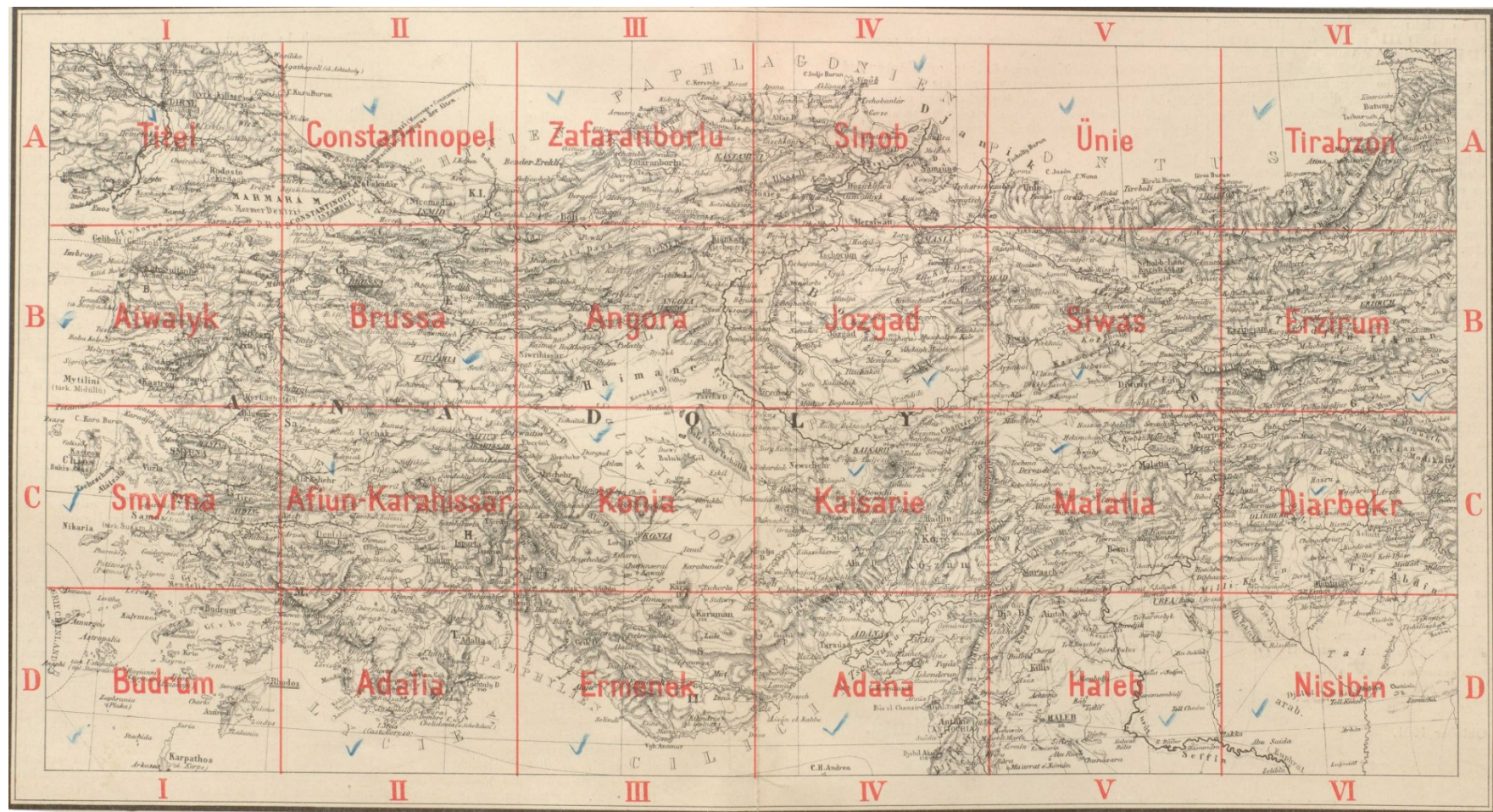


Fig. 1 Richard Kiepert's *Karte von Kleinasien* 1:400,000 series locator attached to the October 1901 launch brochure. Some names are spelled differently on the sheets themselves, issued from 1901 onwards; only from 1904, however, do they carry dates. (Library of Congress, Washington, DC)



Fig. 2 British GSGS 2097 1:250,000 series locator for Asia Minor.
 Calder kept copies of all 35 sheets; see his Collection, University of Aberdeen, Sir Duncan Rice Library,
 MS 3286/8/6/3 and 7/4. (Ancient World Mapping Center)



Fig. 3 German *Operationskarte* 1:800,000 series locator for Asia Minor.

University of Wrocław Library offers online access to these sheets, although not always to the earliest issue. At least *Adrianopel*, *Aidin*, *Angora* and *Erzerum* were first issued in 1914 (and once or more later, with updates).
(Ancient World Mapping Center)



Fig 4a Detail from GSGS 2097 Aidin (June 1915).

Observe the oversight top left: the label “Sandama Halbins” (in German), derived from *KvK DI Budrum*, has not been translated into English.
(Princeton University Library, accessible online)



Fig. 4b Corresponding detail from *KvK DI Budrum* (ed. 1, 1904).
(New York Public Library, accessible online)



Fig. 5 British GSGS 2555 1:1,000,000 series locator for Asia Minor.
Stanford University Library offers online access to these sheets.
(Ancient World Mapping Center)



Fig. 6a Greek 1:250,000 series locator adopted in 1919–1920.
(Ancient World Mapping Center)



Fig. 7 Detail from Greek 1:250,000 Alikarnassos (February 1921) corresponding to Fig. 4a, b above.
(Princeton University Library)

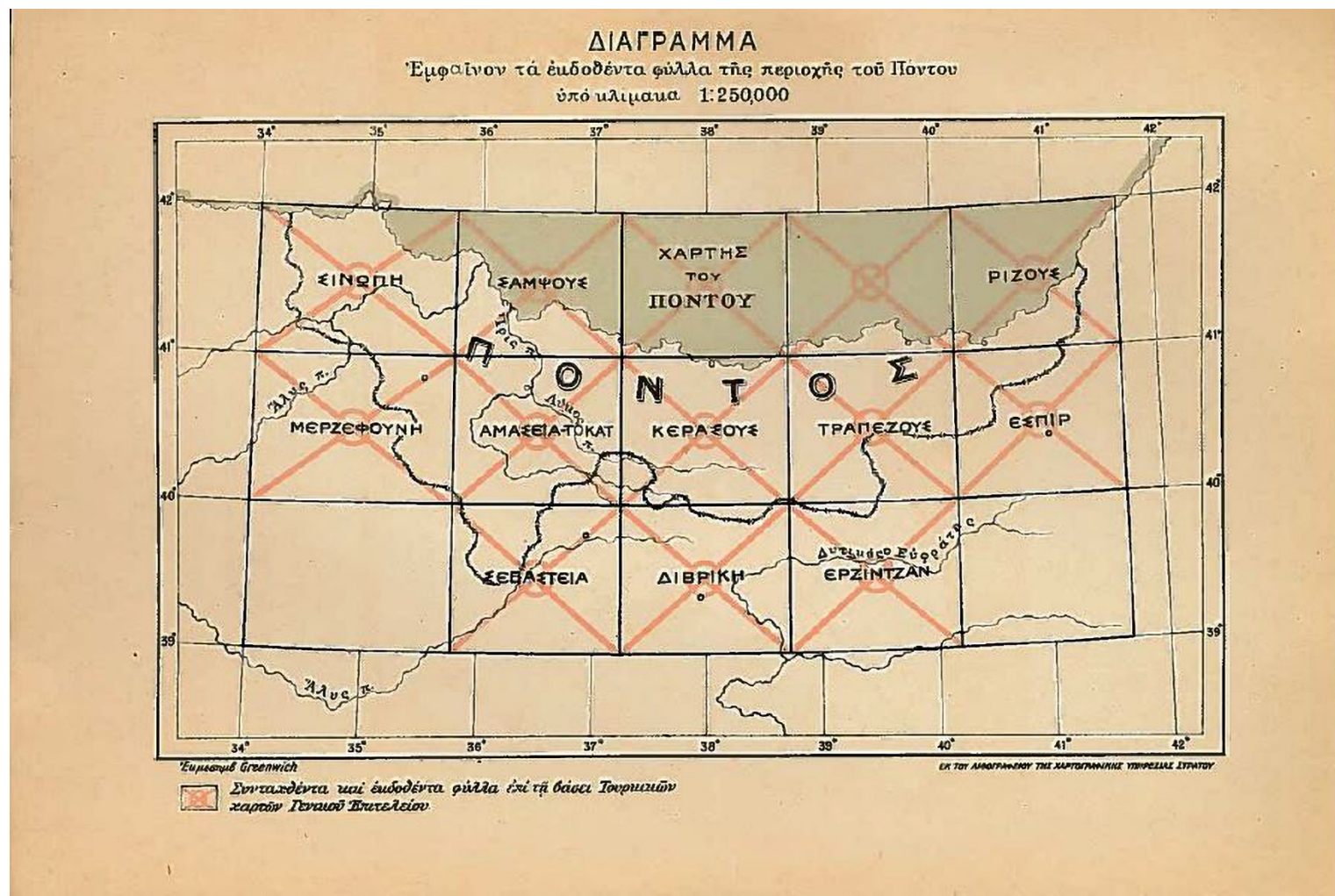


Fig. 8 Greek *Chartes tou Pontou* 1:250,000 series locator.

Although all 11 sheets are marked here as based on Turkish General Staff maps, several in fact specify otherwise: see Fig. 9 below.
 (Chartographike Hyperesia, *The Year 1921*, unnumbered page)

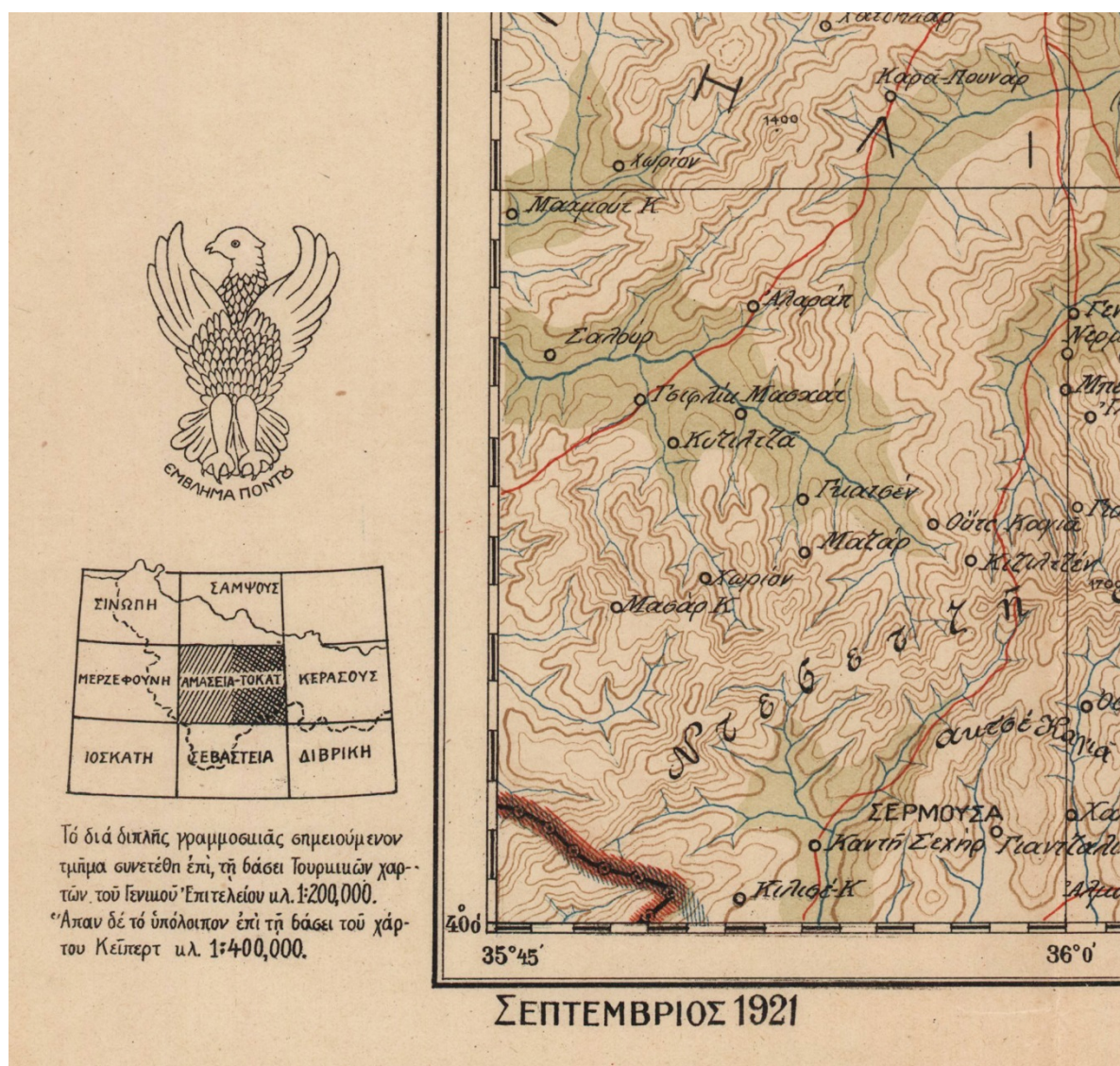


Fig. 9 Thumbnail locator and caption in left margin of Greek 1:250,000 Amaseia-Tokat in *Chartes tou Pontou* series (September 1921). (ELIA/MIET MPGYS 059)



Fig. 10a Italian *Carta corografica dell'Asia Minore* 1:500,000 series locator.
(University of Chicago Library, accessible online)



Fig. 10b Detail from Italian *Carta corografica dell'Asia Minore* 1:500,000 *Smirne* (1921); compare Fig. 12a, b below.
(University of Chicago Library)



Fig. 11 Locator for Heinrich Kiepert's *Specialkarte* 1:250,000 sheets (I–XV), with the 5 known sheets of Goltz's 1:210,000 Turkish version also outlined and named.
(Ancient World Mapping Center)

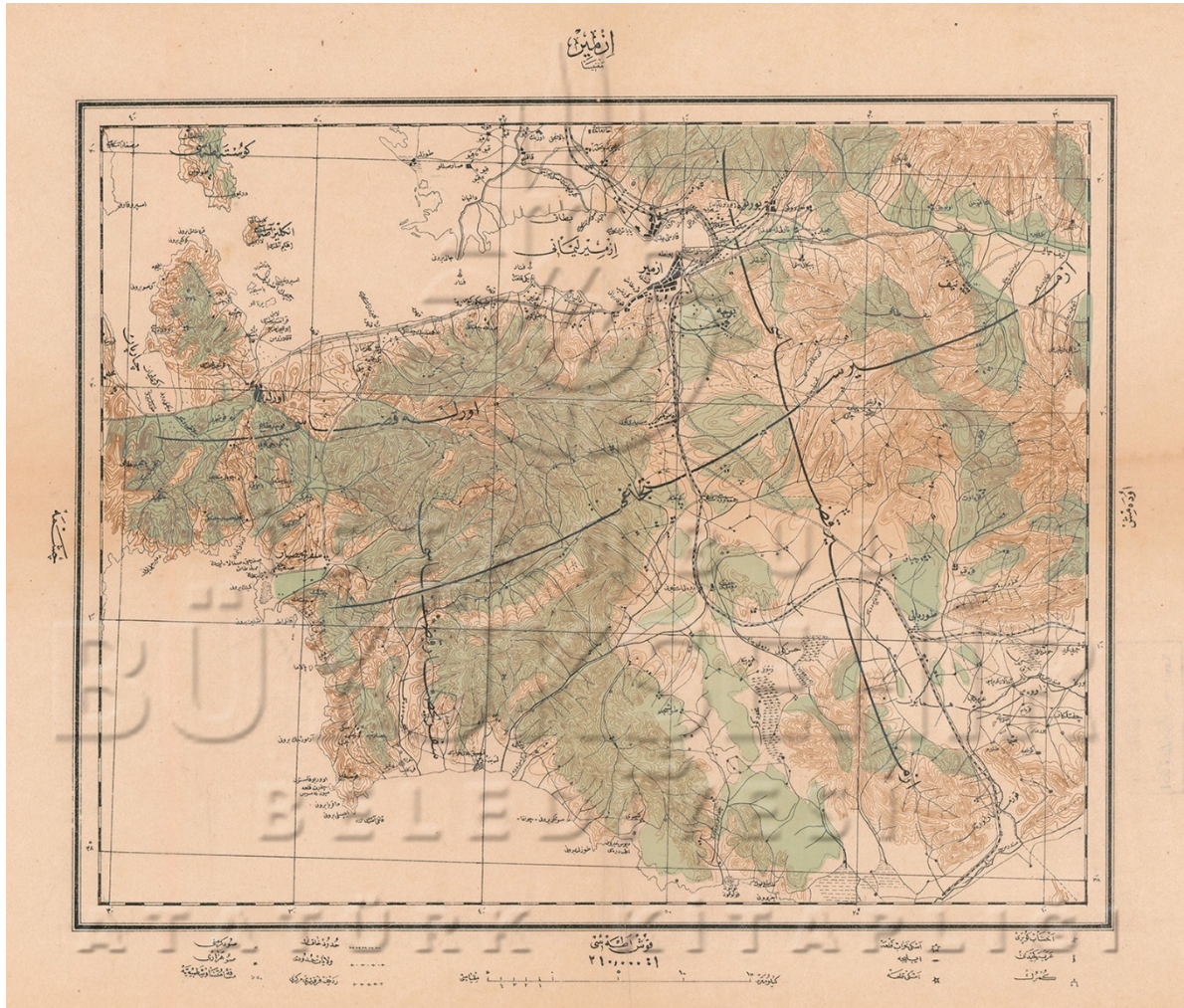


Fig. 12a Goltz's 1:210,000 *Izmir*, based on Heinrich Kiepert's *Specialkarte* sheet VII (1:250,000), with additions such as boundaries of administrative regions and more settlements and spot heights.
(Istanbul Metropolitan Municipality Taksim Atatürk Library)



Fig. 12b Corresponding detail from Heinrich Kiepert's *Specialkarte* sheet VII (1:250,000).
(Princeton University Library)



Fig. 13 Ottoman 1:200,000 *tipo vecchio* locator for western Turkey.
(Ancient World Mapping Center)



AUSTRALIAN WAR MEMORIAL

RC02687

Fig. 14 Mosaic of Ottoman 1:200,000 *tipo vecchio* sheets
Çanakkale and Edremit (see locator, Fig. 13 above).

This map belonged to Otto Liman von Sanders, commander of the Ottoman Turkish Fifth Army, who signed it on the reverse. He added notes marking the positions held on the Gallipoli peninsula around April 1915, before the Allies' landings.

See further Sagona et al. (2016) 68 n. 53 and Plate 4.5.

(Australian War Memorial, Canberra)



Fig. 15 Locator for Ottoman 1:400,000 series to cover Turkey East of longitude 31 00.
 By 1921, however, a *Bursa* sheet was added, providing a westward extension.
 (Ancient World Mapping Center)



Fig. 16b Corresponding detail from *KuK DIII Ermenek* (ed. 2, 1914).
(Stanford University Library)



Fig. 17a Ottoman 1:1,000,000 series for Turkey locator.
(Ancient World Mapping Center)

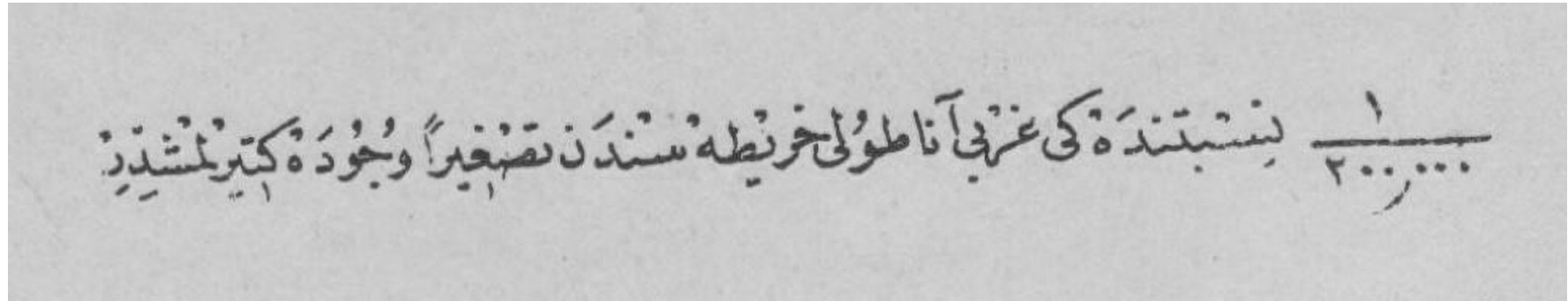


Fig. 17b Ottoman 1:1,000,000 *Izmir* (1916) caption specifying the “western Anatolian” 1:200,000 series as source (*tipo vecchio* in fact).
(IFEA/BNF)

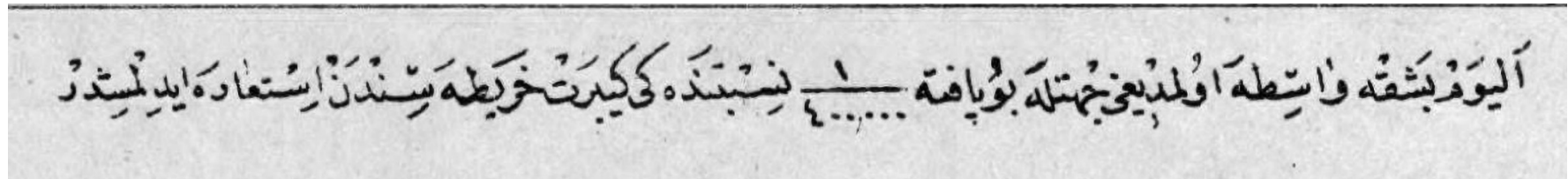


Fig. 17c Ottoman 1:1,000,000 *Ankara* (1916) caption specifying Kiepert 1:400,000 series [KvK] as source,
“due to there being no other means at this time”.
(IFEA/BNF, miscataloged as *Zonguldak*; *Konya* and *Trabzon* are likewise miscataloged as *Muğla* and *Samsun* respectively)

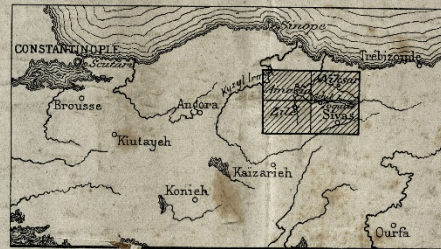
MS 3286/8/16/3

CARTE
DU BASSIN MOYEN DU YÉCHIL IRMAQ

Levée et dessinée par G. DE JERPHANION

Echelle : 1:200 000

TABLEAU D'ASSEMBLAGE



Henry BARRÈRE, Éditeur-Géographe
21, Rue du Bac - PARIS.

Fig. 18a Title and locator for G. de Jerphanion, *Carte du bassin moyen du Yéhil Irmaç*, 4 sheets at 1:200,000 scale, published in 1913 (Paris: Barrère).
(Calder Collection MS 3286/8/16/3; this copy had in all likelihood belonged to John Anderson)



Fig. 18b Detail from G. de Jerphanion, *Carte du bassin moyen du Yéhil Irmağ* (1:200,000) sheet IV Sivas. Tokat (Toqad) is close to the top margin. (ibid.)



Fig. 19 Title on Heinrich Kiepert's 1:1,500,000 scale *Nouvelle Carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)* drawn in 1883, as reissued in 1917. It still retains (box top right, not shown) Kiepert's original acknowledgements to informants. (David Rumsey Map Collection) Compare the title (not shown) on the 1:3,000,000 scale *Generalkarte des Türkischen Kriegsschauplatzes: auf Grund der Carte générale des provinces européennes et asiatiques de l'empire Ottoman von Heinrich Kiepert* as reissued in 1918. This map, drawn in 1886, merges the *Nouvelle Carte* with a corresponding one of south-east Europe, halving the scale of both. (British Library, Cartographic Items Maps X.12855)

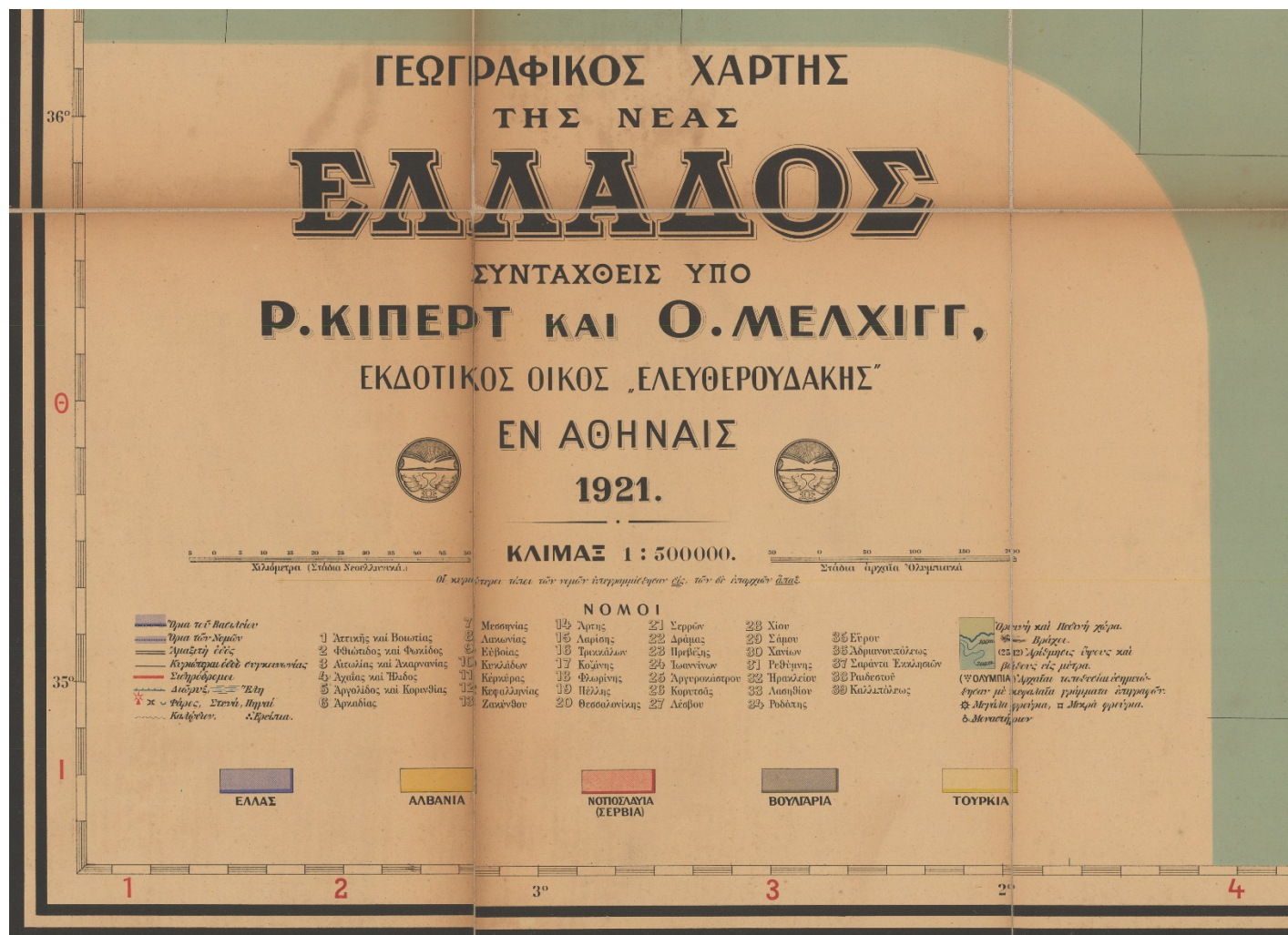


Fig. 20a Title and key on 1:500,000 *ΓΕΩΓΡΑΦΙΚΟΣ ΧΑΡΤΗΣ ΤΗΣ ΝΕΑΣ ΕΛΛΑΔΟΣ*, published by Eleutherodakes, Athens, 1921. The names Kiepert and Melching could hardly be more prominent. (Princeton University Library)



Fig. 20b Note how robustly the map demarcates the area around Smyrna placed under Greek administration by the Treaty of Sèvres (August 1920) — pending a plebiscite to determine its permanent status — within the “*Ορια του Βασιλείου*.” *ΚυΚ* was no doubt followed for compilation of the part of Asia Minor covered by the map. For Greece, the 1:300,000 scale *General-Karte des Königreiches Griechenland* (13 sheets) issued by the K. u. K. Militär-Geographisches Institut, Vienna, incorporating Heinrich Kiepert’s revisions would have been an obvious recourse (1885, reissued in 1916 and again in 1939); see Livieratos (2009) 139. (Princeton University Library)