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The von Scheda 1:300.000 map tradition as the basis for the official map coverage of Greece and its updating in late 19th century.

Keywords: J. Ritter von Scheda maps; J. Kokkides; H. Kiepert; Greek state cartography.

Summary

In the years from 1873 to 1876, during the Franz-Josephinische Landesaufnahme, J. Ritter von Scheda (1815-1888), prepares initially the 72 sheets and later on the 207 sheets in total of the so called “Handkarte” or “Schedakarte” of Central Europe and the Balkans in scale 1:300.000. The tiling of this map series was the basis of the official state map of Greece, after the annexation of Thessaly (1881), printed in Vienna (1883-1885) in eleven sheets by the “K.u.K. Militär. Geographischen Institute”, under the title *General Karte des königreiches Griechenland*. This map revised by Kokkides and Kiepert played an interesting role in the Greek cartographic heritage in relation with the similar map versions developed by the neighbouring countries at that time. In the paper, this map is presented in relation to its updating by independent cartographic surveys. Digital comparisons offer better insight in the geometry and the map content in relation to relevant maps of the neighbouring countries in the late 19th century.

Introduction

It is well known that the personality of Josef Ritter von Scheda is prominent in the 19th c. Austrian cartography, not only because of his preparation, abilities and skills in map production which covered the first three quarters of the century but also for the technological innovations in map printing he introduced in the Vienna Military Geographic Institute (K.u.K. M.G.I.).

Among his cartographic production, he is particularly cited for a map in twenty sheets published in 1856, the *Generalkarte des österreichischen Kaiserstaates mit einem großen Theile der angränzenden Länder* in scale 1:576.000. A reference to the cartographic representation of Greece is his map of 1869, in thirteen sheets, the *General-Karte der europ. Türkei und des Königreiches Griechenland* in scale 1:864.000, while few years later (1873-1876) he produced a map in forty seven sheets entitled *Generalkarte von Central-Europa* in scale 1:300.000. This map is widely known as the “Schedakarte”¹ in a scale which corresponds to what it is known in military mapping as the “Militär-Marsch-Routenkarte” scale².

The Schedakarte published initially (1871) in forty seven sheets, belongs to the category of maps not based on geodetic surveys (i.e. triangulation)³ but was handy, easy to use in a scale

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¹ E. Hofstätter 1989, *Beiträge zur Geschichte der österreichischen Landesaufnahmen: Ein Überblick der topographischen Aufnahmeverfahren, deren Ursprünge, ihrer Entwicklungen und Organisationsformen der vier österreichischen Landesaufnahmen*, Wien: Bundesamt für Eich- und Vermessungswesen.

² I. Kupčik 1981, *Cartes géographiques anciennes*, Paris: Gründ, 202.

³ Of the so called “semi-topographic” tradition.

adequate for reconnaissance and routing. The series reached from 1873 to 1876 the two hundred and seven map-sheets, derived from the photo-enlargement of the 1:576.000 series as a widely used map of Central and South Europe. It was always considered as a provisional map and for this reason it was often subject of criticism. Nevertheless, being a famous derived cartography product, popular before the advent of the “Generalkarte” series in 1:200.000, this extraordinary mapping survived in many ways in South Europe until the mid 20th c.

The Schedakarte was the model for the production of the first official map of Greece in the second half of the 19th c., after the French map printed in Paris in 1852 as the final result of the French land surveys of the famous Expédition de Morée (1829-1832) extended later to the rest of the country. This Greek map known as the “Kokkidis” (1884) or the “Kokkidis-Kiepert” (1885) map is a product of the decisions of the Berlin Conference on the Oriental Question (1878).

It is a derived map based on the old French mapping, on some in-situ land surveys carried out by the Greek military after a provisional Greek invasion in Thessaly (1876) headed by the senior military engineer Iphicrates Kokkidis (1833-1922), on the extended land surveys by the international delimitation commission appointed to draw the new borders of Greece with the Ottoman Empire according to the decisions of the Berlin Conference, which authorised the annexation of Thessaly to the Greek state⁴ and finally on the relevant material obviously offered by K.u.K. M.G.I. since the map was prepared and printed in Vienna, in association to relevant meticulous cartographic material produced by Heinrich Kiepert depicting the territories under Ottoman rule between the 1840s and 1890s.



Josef Ritter von Sceda (1815-1888); Iphicrates Kokkidis (1833-1922); Heinrich Kiepert (1818-1899)

The Schedakarte and its derivatives

The “Kokkidis” or “Kokkidis-Kiepert” Greek version

The 1:300.000 cartography developed in Vienna concerning the territories which are today within the borders of Greece, but before 1881 and 1912 belonged to Ottoman Empire, was already available by the K.u.K. M.G.I. in the 1870s (Fig. 1, Fig. 2).

⁴ This survey produced a 1:50.000 map in fifteen sheets (1881) known as the “Ardagh map”, see E. Livieratos 2009, *Cartographic adventures of Greece, 1821–1919*, Athens: ELIA (in Greek, *Chartografikes peripeteies tēs Ellados, 1821–1919*).

Only few years after the annexation of Thessaly (1881), as decided by the Berlin Conference in 1798, Kokkidis in cooperation with Kiepert⁵ prepared and published in K.u.K. M.G.I. the eleven sheets of the *Generalkarte des königreiches Griechenland* (1884-1885)⁶ following the 1:300.000 map-sheet tiling of the relevant Austrian map series (Fig. 3).



Figure 1. A part of the Vienna K.u.K. M.G.I. 1:300.000 map coverage before the annexation of Thessaly by Greece in 1881. The map-sheet denoted by (V) belongs to the 1884 “Kokkidis” or the “Kokkidis-Kiepert” map of Greece in the same scale.



Figure 2. The border-line drawn on the two map-sheets of the Vienna K.u.K. M.G.I. 1:300.000 map coverage before the annexation of Thessaly by Greece in 1881 (see Fig. 1).

⁵ He published already in 1880 the second revised edition of his 1:500.000 map in two sheets *Carte de l'Épire et de la Thessalie* printed in Berlin by D. Reimer (first edition in 1871).

⁶ *Chartēs tou Vasileiou tēs Ellados*.



Figure 3. The 1:300.000 map-sheet tiling of the *Generalkarte des Königreiches Griechenland* printed in Vienna in eleven sheets, following the model of the relevant map series developed in K.u.K. M.G.I. as the “Scheda-karte” model.

In Fig. 4, this eleven sheet map is shown in its Greek language version. It is the second official state map of Greece⁷ after the 1852 French map, printed in Paris, in twenty sheets in 1:200.000 scale⁸, as the conclusion of the French military mapping surveys starting in the frame of the “Expédition de Morée” in 1829.

Examples of other versions

The story of the 1:300.000 series and its map-sheet versions is a very interesting part of the Cartographic Heritage, not only of Austria and Greece, according to the lines designed in E. Livieratos⁹, but also of other countries in the region. Concerning the Greek cartographic heritage, the Austrian sheets of the northern parts of the country were used later as Greek versions by just transliterating the toponyms in Greek characters, as it is e.g. shown in the case of the example in the composite Fig. 5 (a, b, c) given in digital transparency¹⁰, concerning the Austrian sheet “[Kastoria (Joannina)]” originally printed in 1879 and corrected in 1894. Apart from the change in the toponyms’ writing, and a strong generalization of the toponymy (many toponyms are not transferred in Greek lettering, see Fig. 5 c) in the Greek version, the longitude counting from the Greenwich meridian was added coupling that from the Paris meridian on the original map-sheet.

⁷ The border line is according to the decisions of the Berlin Conference in 1878.

⁸ The border line is according to the decisions of the London Conference in 1830.

⁹ E. Livieratos 2010, “Panorama of the Austrian cartographic impact in the late 18th, 19th and early 20th century Greece. A strong example of the international character of Cartographic Heritage”, 5th ICA Workshop in *Digital Approaches to Cartographic Heritage*, Vienna 22-24 February.

¹⁰ For the cartographic use of digital transparency see E. Livieratos 2006, “The use of animation in visualizing deformations of a portolan-type map”, *e-Perimtron*, Vol. No. 1, 71-76; M. Daniil 2006, “Comparing by digital transparency the differences between two almost identical 17th century maps of the Aegean Sea”, *e-Perimtron*, Vol. 1, No. 4, 287-296.

Another interesting characteristic of this series is that the same map sheets depicting the same geographic area were produced in different languages, as it can be seen in the example of Fig. 6.

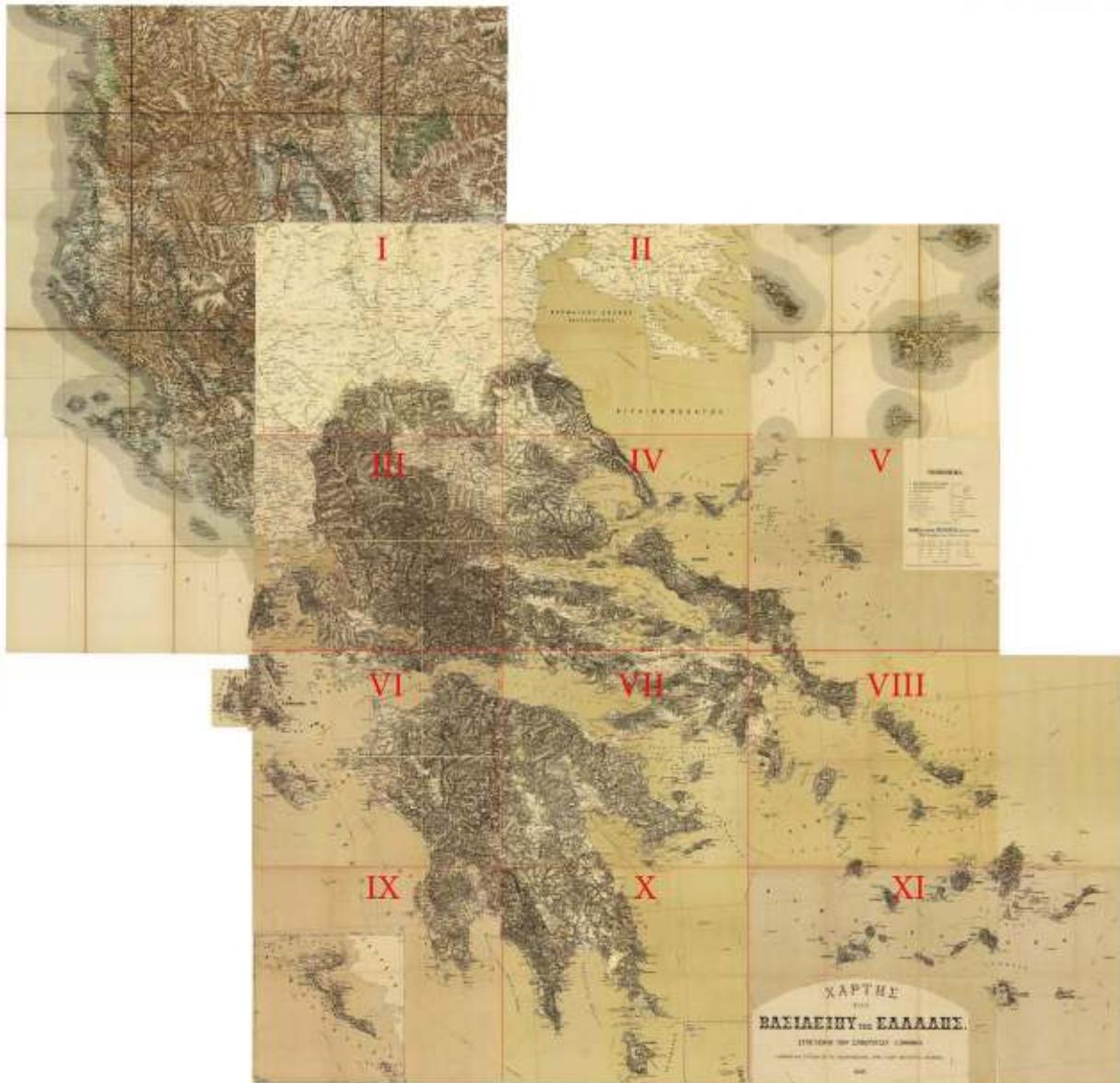


Figure 4. The official state-map of Greece (1884-1885), following the 1:300.000 map-sheet tiling of the “Schedakarte” model, printed in Vienna in eleven sheets. It is known also as the “Kokkidis” or the “Kokkidis-Kiepert” map.



Figure 5 a. Details of the 1879 (Corr. 1894) Austrian sheet in 1:300.000 (light layout) and of the best fitted Greek version (dark layout) in a digital transparency synthetic image.

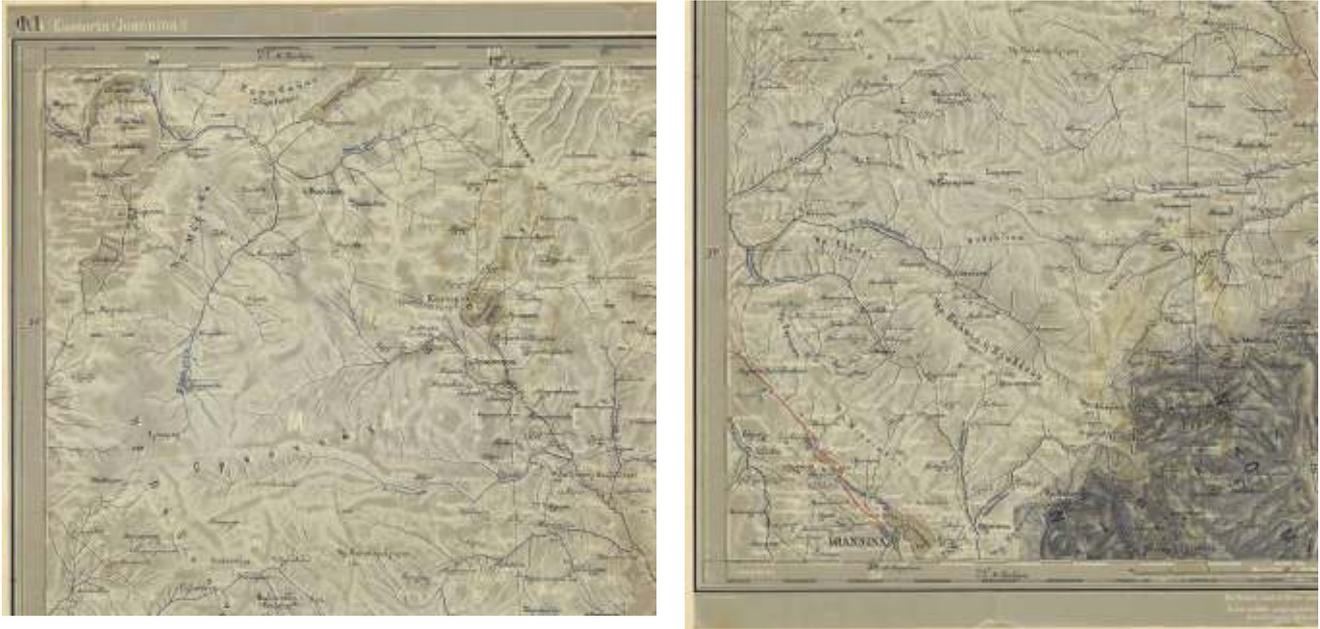


Figure 5 b. Two parts (Left: the NW; Right: the SE) of the 1879 (Corr. 1894) Austrian sheet in 1:300.000 (light layout) and of the best fitted Greek version (dark layout) in digital transparency synthetic images.

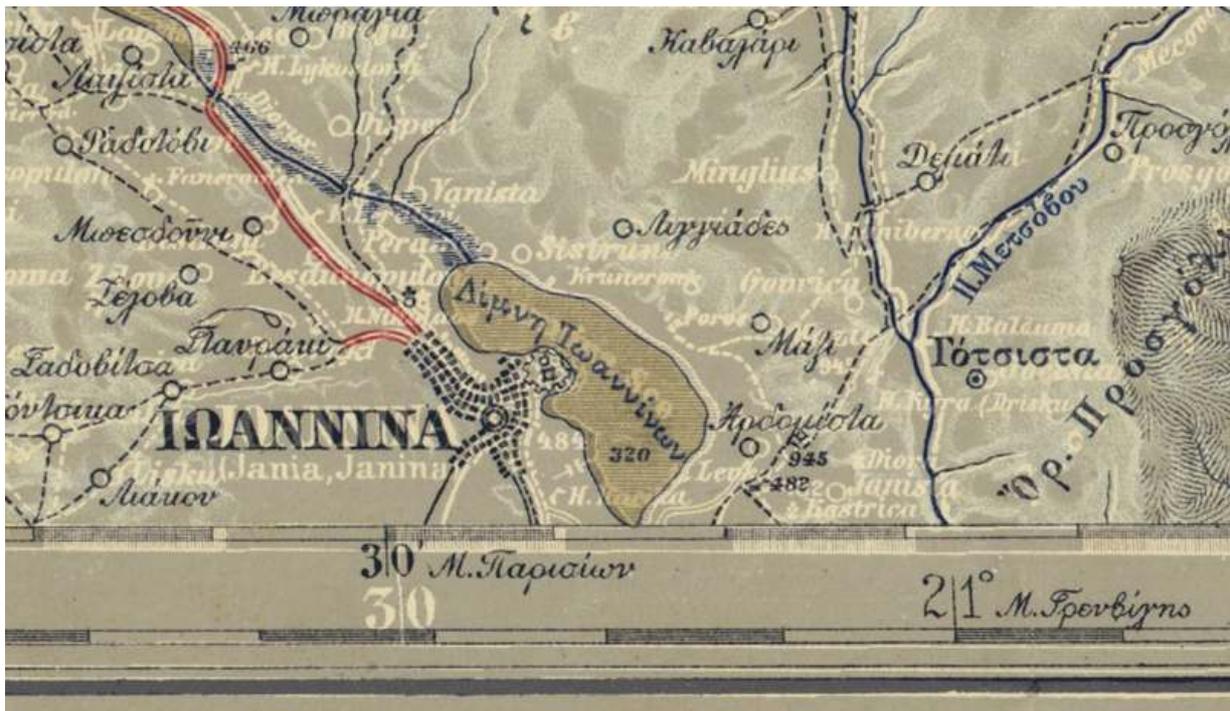


Figure 5 c. Detail of the 1879 (Corr. 1894) Austrian sheet in 1:300.000 (light layout) and of the best fitted Greek version (dark layout) in a digital transparency synthetic image. The generalization of toponymy in the Greek version (dark layout) is clearly visible.

Concluding Remarks

The 1:300.000 “Kokkidis-Kiepert” map series, a derivative of the relevant Austrian “Schedakarte” model is not yet well known and documented in the Greek cartographic literature, as an extraordinary example of the actual intersection of Austrian and Greek Cartographic Heritage in the second

half of the 19th cent. The “Kokkidis” map, which should be seen in the wider context of the evolution of Greek state cartography in the frame of the Oriental Question and the internal land-question due to the annexation of Thessaly¹¹, shows that this particular Austro-Greek cartographic intersection is much earlier and deeper than that on the official inter-state cooperation started with the official invitation of the Austrian military mission in Athens in 1889. The research on this exceptional map series, which constitute the first state map of Greece representing its expanding territories, for the first time after fifty years of free life, could surely provide more insights and results in this direction.

Acknowledgements

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References

- E. Hofstätter 1989, *Beiträge zur Geschichte der österreichischen Landesaufnahmen: Ein Überblick der topographischen Aufnahmeverfahren, deren Ursprünge, ihrer Entwicklungen und Organisationsformen der vier österreichischen Landesaufnahmen*, Wien: Bundesamt für Eich- und Vermessungswesen.
- I. Kupčik 1981, *Cartes géographiques anciennes*, Paris: Gründ.
- E. Livieratos 2006, “The use of animation in visualizing deformations of a portolan-type map”, *e-Perimetron*, Vol 1, No.1, 71-76
- E. Livieratos 2009, *Cartographic adventures of Greece, 1821–1919*, Athens: ELIA (in Greek, *Chartografikes peripeteies tēs Ellados, 1821–1919*).
- E. Livieratos 2010, “Panorama of the Austrian cartographic impact in the late 18th, 19th and early 20th century Greece. A strong example of the international character of Cartographic Heritage”, 5th ICA Workshop in *Digital Approaches to Cartographic Heritage*, Vienna 22-24 February.
- M. Daniil 2006, “Comparing by digital transparency the differences between two almost identical 17th century maps of North Aegean Sea”, *e-Perimetron*, Vol.1, No. 4, 287-296.

¹¹ E. Livieratos 2009, *Cartographic adventures...*