

DREZDEN MAPS OF THE KAMIENIEC PODOLSKI FORTIFICATIONS

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The Saxon State and University Library Dresden was established in 1996 by combining the collections of the Library of the Technical University of Dresden and the Saxon State Library, founded in 1556 by Elector Augustus I, which makes it the oldest library in Germany. Among its most prized possessions is the Dresden Codex, a pre-Columbian Maya book, one of three manuscripts to have survived the period when Maya codices were ordered to be burned.

Both authors of the maps of Kamieniec Podolski were Saxon army officers, and the maps' origin is without doubt connected with the candidacy, and the subsequent election to the Polish throne, of Frederic Augustus I, Elector of Saxony, later known in Poland as Augustus II the Strong, who had pledged to regain the stronghold. For this purpose, appropriate siege gear was assembled.¹ Unfortunately, the expedition of 1698 did not achieve its goal, as the troops did not advance as far as Kamieniec. Nevertheless, the stronghold was recovered a year later under the Treaty of Karlowitz. The event was marked by Augustus II with the issuing of a medal minted in gold and silver (Fig. 1)

After the regaining of Kamieniec, its fortifications were strengthened and extended in five stages², in the years 1710–1715, 1721–1725, 1740–1761, 1768–1785, and 1789–1793. The first of the maps in question was drawn up before Kamieniec was recovered from Turkish hands. Its purpose may have been to acquaint the Saxon commanders with the location of the stronghold to be captured. The second map can be associated with the extension works carried out in the years 1721–1725, its purpose being to document the existing fortifications and propose constructing new ones.

Johann Georg Starcke's map

J. G. Starcke's map of Kamieniec Podolski, presented in the first part of the two-volume album *Theatri Urbi*, consists of the title page (Fig. 2), the table of contents placed at the end of the book, and 154 coloured maps and drawings, 32 of which are J. G. Starcke's hand drawings presenting plans of strongholds. The remaining ones are copperplate prints, with colours added, obtained from other print publications. At the time, the cutting out of pages from books and albums and binding them together to serve one's own purpose was a frequent practice. An example of this is the file, held in the collections of the National Archive in Kraków, compiled in this way by Ambroży Grabowski, who would unscrupulously remove pages from early books and put some of them together according to his whim.

The map of Kamieniec Podolski, 34 by 44 cm in size and bearing the signature SLUB/Geogr.A.230 – Blatt 119 (Fig. 3), is a hand drawing by J. G. Starcke produced in 1695. On its reverse side there is a Latin inscription, reading: *Kamienyeiz Podolski caput Podoliae, regionis; urbs mira ac stupenda ratione in arduo saxo condita; quae in expugnabilis extitit*, meaning: *Kamieniec Podolski capital of Podolia. A town miraculous and astounding, because located on steep rocks, which made it seem impregnable.* The map bears a scale measure marked *1 1/2 uln* (probably a unit like ell³) and has a key in German. Fortifications and defence structures are indicated therein with capital letters from A to Q, while the town's buildings are left unmarked. In the top margin, and on the drawing itself, features the map's title: *Kamieniec Podolski*, and on the right is the key to the map, as below:

¹ E. Raczyński, *Gabinet medalów polskich oraz tych które się dziejów polskich tyczą począwszy od wstąpienia na tron Augusta II aż do zgonu syna jego Augusta III (1697–1763)*, [vol. 3], Poznań 1841, pp. 48–49. Also in: Dr Antoni J., *Zameczki podolskie na kresach multkańskich*, vol. II, Warszawa 1880, p. 14, note 25.

² R. Król-Mazur, *Miasto trzech nacji. Studia z dziejów Kamieńca Podolskiego w XVII wieku*, Kraków 2008, p. 160.

³ E. Stamm, *Miary Powierzchni w dawnej Polsce*, Kraków 1936, p. 9.

- A. *Alte Schloss* – old castle,
 B. *Neue Schloss* – new castle,
 C. *Schlosthör gegen felde* – castle gate facing the fields,
 D. *Brunn in felsen gehaunen* – well sunk in rock,
 E. *Wasser fleust durch die Brücke auf die Mühle* – water flowing under the bridge to the mill,
 F. *Schlossmühle* – castle’s mill,
 G. *Polnisches thör* – the Polish Gate,
 H. *Grosse Bastei* – Great Rondel (Batory’s Gate),
 J. *Fleischer thurn* – Bucher’s (Potter’s) Tower,
 K. *Steinthör* – stone gate,
 L. *Reuschthör* – the Russian Gate,
 M. *Hölzerne vorgebaude* – a wooden lean-to shed,
 N. *Armenische Mühle* – Armenian mill,
 O. *Polnische Mühle* – Polish mill,
 P. *Steinrüsse* – rock out (?),
 Q. *Fluss Smokeritz beym Polnischen thorem und Reschen thör aus* – The Smotrycz River over which the Polish Gate and the Russian Gate were built.
*Longit: 1873 uln; Latit: 975 ulnar*⁴.

All the hand-drawn maps included in both parts of *Theatri Mundi* are dated 1669, i.e. the time when Kamieniec Podolski was under Turkish control. In view of the accurate depiction of the terrain on this map, it can be assumed that J. G. Starcke must have visited Kamieniec. What draws attention here is the drawing of a pier-supported bridge connecting the castle with the town. The bridge had this type of construction until 1687⁵, when it was rebuilt. On the map a sconce was marked on the right bank of the Smotrycz river, between the Polish Gate and the bridge leading to the castle. Such piece of

fortification, albeit small in size, is only shown on Fürstenhoff’s map. It does not feature on any map from the first half of the 18th century. At the same time, J. G. Starcke omitted to mark an important defensive structure, the Town Sconce, located on the town’s side, on the land inside the bend of the river where the castle bridge starts. The sconce was marked on all of the surviving maps of Kamieniec, namely on de Rubeis’ map (1684)⁶, the Danish map (from the second half of the 17th century)⁷, Glover’s map (1706–1707)⁸, Bernard’s map (1713)⁹, Bonnelevay’s map¹⁰, and on the Swedish maps *Plan de la Ville, Chateau et Fort Kamieniek* (circa 1715)¹¹ and *Plan de Camienieck* (before 1721).¹² It cannot be ruled out that J. G. Starcke mixed up the banks of the river and the unidentified fortification placed by him on the left bank of the Smotrycz should have been put on the opposite bank. In the light of scarce biographical data¹³ it is evident that J. G. Starcke did travel around Europe, but there is no actual reference to him visiting Kamieniec Podolski. His not having been there could account for the mistake. It is therefore quite likely that J. G. Starcke’s map was based on somebody else’s map or sketch.

Johann Georg Maximilian von Fürstenhoff’s map

The other map of Kamieniec Podolski of interest to us here, the one by J. G. M. von Fürstenhoff, is included in a two-volume album bearing the title *Sammlung von Festungsplänen*. Both volumes have the dimensions of 64 by 47.5 cm. The first volume is titled *Planes von Portugal, Spanien, Franckreich*

⁴ These data probably refer to the size of the area depicted on the map.

⁵ D. Kołodziejczyk, *Podole pod panowaniem tureckim, Ejalet kamieniecki 1672–1699*, Oficyna Wydawnicza Polczek, Warszawa 1994, pp. 112–114.

⁶ J. Janczykowski, *O potrzebie badań fortyfikacji Kamieńca Podolskiego*, [in:] F. Kiryk, *Kamieniec Podolski, studia z dziejów miasta i regionu*, v. 1, Kraków 2000, Fig. 1 between page 312 and 313.

⁷ Z. Nowak, A. Tomczak, *Rękopiśmienne plany miast dawnej Rzeczypospolitej w zbiorach Biblioteki Królewskiej w Kopenhadze*, “Kwartalnik Architektury i Urbanistyki”, v. 16, z. 2-3, 1971, p. 234, Fig. 4.

⁸ L. Opyrczał, *Rękopiśmienne plany Kamieńca Podolskiego w zbiorach Austriackiej Biblioteki Narodowej w Wiedniu*, “Przegląd Historyczno-Wojskowy”, 2015, p. 132.

⁹ M. Zgórniak, *Nieznaný plan Kamieńca Podolskiego z 1713 r.*, “Studia i materiały do historii wojskowości”, v. 34, 1991, p. 322.

¹⁰ Bonnelevay’s map of 1720: <http://bdh-rd.bne.es/viewer.vm?id=0000070709> [accessed: 22.02.2016] not discussed so far in Polish-language literature. Mentioned only in M. Czubiński, J. Tucholska, *Historyczna kartografia...*, op. cit., p. 54.

¹¹ J. Czubiński, J. Tucholska, *Historyczna kartografia...*, op. cit., p. 52.

¹² Ibidem, p. 55.

¹³ Johann Georg Starcke’s date of birth, as of his death, is not certain. He was baptised on 12th March, 1663, and died in 1692 or 1693, or possibly in 1695. He served in the battalion of engineers in Saxony in the rank of colonel. He is believed to have been the main architect behind one of the most important works of German Baroque – Palais im Grossen Garten in Dresden. He also made a significant contribution to the rebuilding of Dresden in the days of Johann Georg III, Elector of Saxony; <http://www.deutsche-biographie.de/sfz81029.html> [accessed: 18.01.2016].

und denen Niederlanden, and the other, *Planes von Italien, Ungarn, Pohlen und denen Nordischen König Reichen* (Fig. 4). The album was compiled in the years 1711–1732. The language of the album is German and French, used interchangeably.

The maps of towns and strongholds located in the Polish-Lithuanian Commonwealth are part of volume II. Its title page (Fig. 5) is also a table of contents. Below the title comes a list of the regions, with the names of the towns whose maps are included in the album. The following regions are listed: *Kleine Tartarey* – Little Tartary, *Ukraine* – Ukraine, *Roth Reussen* – Red Ruthenia, *Kleine Pohlen* – Little Poland, *Gross Pohlen* – Greater Poland, *Mazovien* – Mazovia, *Preussen* – Prussia, *Hertzogthum Churland* – Duchy of Courland, *Gross Hertzogthum Litthauen* – Grand Duchy of Lithuania, *Liefland* – Livonia. That chapter of the album includes maps of such towns/fortresses of the Polish-Lithuanian Commonwealth as *Caminiac* – Kamieniec Podolski, *Choczim* – Chocim, *Occop* – Okopy Świętej Trójcy (stronghold at the junction of the Zbruch and the Dniester rivers), *Swanicze* – Żwaniec, *Lemberg* – Lwów, *Zamoscie* – Zamość, *Crakau* – Kraków, *Posen* – Poznań, *Warschaw* – Warszawa, *Thoren* – Toruń, *Dantzic* – Gdańsk, *Marienburg* – Malbork, *Elbing* – Elbląg, *Koenigsberg* – Królewiec, *Riega* – Ryga, *Dünamünde* – Dyjament or Dynamunt, *Brzezani* – Brzeżany. Some fortified towns were attributed to a wrong region, for example the Ukrainian stronghold of Brzeżany was placed in the Grand Duchy of Lithuania, and Moscow in Livonia.

The map of Kamieniec Podolski, sized 62.5 by 69.6 cm, bears the signature SLUB/HS Mscr. Dresd.R.30,II (Fig. 6), a scale measure in units called *toises*, and lacks the North orientation. In the bottom left corner is the map's key and its title,

Plan de Kaminiac. Unfortunately, in the key there are evident errors in the descriptions of the fortifications, therefore we cite the original contents with their translations, and offer their correct descriptions in footnotes.

The key contains the following items:

1. *Ouvrage à Corne réparée* – repaired hornwork,
2. *Nouveau Chemin couvert, projeté et comēncé* – new covertways, designed and implemented
3. *Demy Lune projetée* – planned ravelin,
4. *Avant Fossé en Glaçis projetée et commencée* – counterscarps, designed and implemented,
5. *Ouvrages projettes pour decouvrir le fond des Ravines* – a planned structure to guard the bottom of the ravine,
6. *Second Chemin couvert, projeté et comēncé* – second set of covertways, designed and implemented¹⁴,
7. *Vieux Chateau* – old castle¹⁵,
8. *Pont de Masonnierie* – stone bridge (the Turkish Bridge)¹⁶,
9. *Cavalier de la Ville* – the Town Sconce¹⁷,
10. *Porte de Russie* – the Russian Gate¹⁸,
11. *L'Ecluse* – lock/sluice¹⁹,
12. *Grand Tour de Batoris* – Batory's Gate,
13. *Ouvrages projettes, devant les Portes* – planned ravelin over the Polish Gate,
14. *Porte de Pologne* – the Polish Gate,
15. *l'Arsenal* – arsenal,
16. *la Fonderie* – foundry,
17. *Ouvrage nouveau fait, dit Lagnasco* – new fortification²⁰ mentioned by Lagnasco²¹,
18. *Ecluse a Côte du Chateau* – lock next to the castle,
19. *Grand Cavallier projeté, avec des Souterrains* – planned great sconce/cavalier with basement.

¹⁴ Covertways with ravelins overlooking the bottom of the ravine are marked with number 5 and, twice, number 6.

¹⁵ Planned bastion protecting the bottom of the Smotrycz valley, where there was a road leading up to the Polish Gate.

¹⁶ Old castle.

¹⁷ The Turkish Bridge.

¹⁸ The Town Sconce.

¹⁹ Number 11 occurs twice, once indicating the lock further to the left and the second time indicating the Russian Gate further to the right.

²⁰ This must refer to the Battery of Our Lady, which protected Batory's Gate and was built on the site of the Carmelite sconce, built by Turks. It was later rebuilt again, because on D. Corporal's map, *Plan von Kaminiac in Podolien* (Biblioteka Narodowa ZZK 1 323, available at [https://polona.pl/](https://polona.pl/item/34422595/0/)

[item/34422595/0/](https://polona.pl/item/34422595/0/) [accessed: 22.02.2016] there is an entry saying that it was completed in 1751.

²¹ Piotr Lagnasco, the Saxon Lieutenant General who inspected Kamieniec Podolski in 1713, is believed to have applied for funds for improving the stronghold's fortifications; T. Nowak, *Fortyfikacje i artyleria Kamięca Podolskiego w XVIII w.*, „Studia i materiały do historii wojskowości”, vol. 19, 1973, p. 159. In 1710, and then starting from 1712, General Legnasco was commandant of Kamięca Podolskiego; K. Jarochoowski, *Kamieniec i Poznań po Augustowej restauracji*, [in:] *Opowiadania i studia historyczne serya nowa*, Poznań 1884, pp. 361, 370. R. Mazur-Król, on the other hand, writes that Saxon General Robert Taparell Lagnasco arrived in Kamieniec in 1713 and assisted Glover in his task of fortifying the stronghold; R. Mazur-Król, op. cit., p. 166.

In the years 1710–1715, two dams were built on the river below the Russian Gate.²² They enhanced the defensive potential of the Russian Gate complex as they made it impossible to dig a hole under the gate for the purpose of blowing it up. The dams were most likely destroyed during by a big flood in 1721²³, as they do not appear on later maps. Probably they were not deemed worth rebuilding. The marking of the dams on von Fürstenhoff's map allowed us to date it for some time between 1710 and 1721. In the key to the map, words like "repaired" or "designed and built" appear, which indicates that one of the reasons for drawing up the map was to document the work that was done. The map also features a number of structures that were planned to be built. It should therefore be assumed that von Fürstenhoff's map was drafted after the completion of the first stage of Kamieniec Podolski's extension of 1710–1715 and prior to the next stage of 1721–1725²⁴, and that it offers his own vision of extending the stronghold's fortification system, produced some time between 1715 and 1721.

Johann Georg Maximilian von Fürstenhoff²⁵ was a sought after Dresden architect, educated at the Royal Saxon Corps of Engineers in the years 1709–1714. Starting from 1716, in the rank of Captain, he was a lecturer at the Dresden Military Academy, and from 1745, as a Lieutenant General, he was head of the Corps of Engineers and was responsible for the fortifications of all the strongholds. After 1746 he was also Commandant of Koenigstein stronghold, whose fortifications he designed and built. His map of Kamieniec Podolski is a valuable source documenting the history of this Eastern borderlands stronghold.

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²² R. Król-Mazur, op. cit., p. 163.

²³ G. Belke, *Rys historii naturalnej Kamieńca Podolskiego poprzedzony krótką wiadomością o pracach uczonych w przedmiotach geologii, paleontologii, botaniki i zoologii w Polsce w XIX wieku*, Warszawa 1859, p. 29.

²⁴ R. Król-Mazur, op. cit., p. 160.

²⁵ Born in 1686, probably in Dresden, where he died on 15 July, 1753; <http://www.deutsche-biographie.de/sfz17962.html> [accessed: 22.02.2016].