## Budapest on the old maps 1686-1896

by Szilvia Andrea Holló

The map collection of the Budapest Historical Museum and the Kiscelli Museum contains incomparable pieces of Budapest-related maps. The core of the collection are old and valuable maps preserved in the Engineering Office of Budapest through to the end of the nineteenth century. Roman numbers and letter signs appearing on some maps today are reminders of the official registration system. Due to a municipial decree at the turn of the century, the maps were partly moved to the Capital City Museum. Considering the range of collection of the museum itself, maps preserved here originate from the period 1686, the year Buda Castle was regained from the Turks, through to present day. I am mainly specialize in the history of the city and therefore. I have to consider two major viewpoints: follow the development of the city and cartography via pieces of the collection 1686 to the Millennium, the formulation of modern European metropolieses. I will use a set of maps as illustration collected in my book written upon the issue.

The first plan-like maps for special purposes only outlined the city mainly with its defense lines. These maps were completed as attachments to war reports by engineers joining the army (e.g. Marsigli) on the occasion of an unsuccessful attempt to recapture Buda in 1684¹ and then its reoccupation in 1686². A western orientation layout³ by a person using the I.W. initials shows fortifications on the Pest and Buda sides, equipment of besieging and defense, the trench (circumvallatio) and the external defense line (contravallatio). It is easy to notice the number of cannons, troops, the names of commanders, the services and the movement of the army. At the same time, the sketch of cities is only roughly outlined while the map of the castle is more elaborated. This unknown author presumably never visited tha place which is confirmed by the extremely inaccurate location of piers. (This work may have been compiled as summary of maps completed through to 15 August 1686).

In 1686 the victorious troops immediately started to globally rebuild defense lines<sup>4</sup>. Based on the instructions by the War Council in Vienna this work of reconstruction was allowed to be directed by professional engineers only. Emperor Leopold I ordered to start technical operations with survey of land & site. Downtown area of Buda used to integrate the Castle and the Víziváros (Water Quarter) at that time, and its outskirts, similarly to medieval villages nearby the walls that encircled Pest, were destroyed.

In 1703 the Emperor confirmed priviliges of Buda and Pest as free royal cities and permitted independent land registration. As a followup, some new types of maps appeared, closely related to taxing (the amount of tax depended from the size of the site). Presumably the earliest known city map of Pest, based on engineering surveys, has been compiled for the Buda Chamber Management, the official authority responsable for distributing and selling land<sup>5</sup>. This map was probably completed at the end of the seventeenth century. This hypothesis is confirmed by the fact that the City Hall of Pest already existing in 1710 is not indicated here. To supplement land registration, site numbers were registered on this map until 1745<sup>6</sup>. Street names (27) in cartouches, of which many still exist, were given by the first settlers, soldiers of different nationalities garrisoned here, religious orders, city gates and public institutions at the end of the seventeenth century? The map is unfortunately very hard to read and it probably had got drenched in the office during the flood in 1838 since researchers of the nineteenth century described similar conditions. A new and clear version completed in 1758 is preserved in the National Museum of Hungary<sup>8</sup>.

Borderline maps were necessary to help clearify unsettled estate conditions. For instance, former crown lands Old Buda (Óbuda)<sup>9</sup> was acquired by the Zichy family in 1659 but the Royal Treasurer took legal actions against heirs to regain the estate. The Zichys completed maps<sup>10</sup> to justify their rights in a way that they projected data of the charter of the 1355 land survey over an eighteenth-century and partly authentic drawing, thus trying to interpret the map as to their interests. (They failed). Case records were supplemented with several more maps. In addition, we have knowledge about two other differently elaborated maps with minor modifications in its details<sup>11</sup>.

306 Szilvia Andrea Holló

Due to the increasing number of settlers and sites breaking into smaller and smaller pieces, residents of Pest applied for establishing a new outskirts area in 1699. In the middle of the eighteenth century fixed city borderlines accelerated the process of founding new settlements outside the city. The first borderline map of Pest<sup>12</sup> (presently in the National Archives) had beed completed by Matthey, officer of the engineer corps, in 1758. This was copied by Leonard Waczapur<sup>13</sup>, Servite monk in Pest, in 1764. Early researchers of the map, however, misread the expression "pariata" (copied) as "parata" (completed) and therefore the work of Waczapur was taken as original. The map shows the layout of Pest with border signs and the entire borderline. The outskirts, officially formulated in 1777, are only roughly sketched. Studying the 49 point Latin legend, we can identify the major places in the outskirt of the old city; places of execution are shown by map signs. It is worth considering the compass rose in the upper side of the drawing. The editor of the map drew a straight line indicating the ratio the magnetic compass deviates from the direction of geographical north<sup>14</sup>.

In 1752 the War Council ordered to establish a new defense area, thus prohibiting building within the distance of a gunshot from the defense lines of the Castle. Due to the increasing number of wine cultivating farmers in Buda, however, it was unavoiable to distribute lands in the wineyards<sup>15</sup>. On a map completed by an unknown author around 1770 the initiatives of the new Christine Quarter (Krisztinaváros) as result of land distributions is obviously noticeable<sup>16</sup>. This helps us with defining the time of origin of the map, regarding that the map is undated and the person completing it is also unknown<sup>17</sup>. The speciality of the map is that it shows archeological sites (water pipeline of Aquincum, amphitheatres, former Pauline monastery of Budaszentlőrinc).

1784 to 1787 Buda was the second, while Pest was the fifth most populated city in the country. The residents of Pest quickly started to destroy city walls hindering the expansion of growing population. The purpose was to establish a new area around Neugebaude (New Building) built north to the city. Actual classical city planning, directed by Beautification Committee from 1808, started with Joseph, crown prince of the Habsburg House and palatine from 1796<sup>18</sup>.

The war map completed by Ignatius Hayek<sup>13</sup>, ensign of the Esterhazy foot regiment, shows part of Pest based on his own survey around 1810. As to the recommendation, it was a gift for the magistrate of the city. The document is even more valuable since registres of site numbers 1786 to 1820 got lost. However, it is questionable that the Leopold Quarter is still mentioned as New Quarter (Újváros)<sup>20</sup> though it obtained the name of the Emperor as early as 1790. A training map of Egendorfer<sup>21</sup>, trainee officer of the engineer corps, from the same period, 1811, provides important information on the City Park<sup>22</sup>. The drawer of the map located the base line of the survey next to the artillery ammunition magazine. The work of János Lipszky<sup>23</sup>, war cartographer, on Pest/Buda/Old Buda copied in 1810 is essential when researching city structure and the direction of its expansion. However, art historians called my attention that even detailed sketches are sometimes inaccurate!<sup>24</sup>

The gala album<sup>25</sup> by the Spanish born engineer Carlo Pino Vasquez is part of the series that was to present famous European cities. The German language map completed in Vienna by a Geman master for commercial purposes is framed with pictures subtitled in Hungarian and justifying results of city planning. An additional speciality of the map is that it is able to grasp a moment in the growing city's life before the flood in 1838. The flood in the spring ruined 53,6% of the houses; Old Buda and the low outskirts of Pest suffered the most. Donations for the benefit of flood victims<sup>26</sup> was started by the Emperor Ferdinand V. The city of Vienna gave a good example of that. Two maps were printed for the benefit of the victims. The spectacular map edited by the artilery regiment no. 5 garrisoned in Pest shows areas under water with a starred line. Blocks of destroyed and saved buildings are indicated by different colors<sup>27</sup>.

Technical development, special equipment and level lines used are known from the training maps of students of Institutum Geometrico-Hydrotechnicum<sup>28</sup> established in Buda in 1782. Joseph Petzelt, former student of the IG, was appointed director of the school in 1841. He introduced compulsory land surveys in practice<sup>29</sup> next to cities. The survey of Svábhegy<sup>30</sup> was done in four parts and these were edited in one by the assistant József Jancsó. Professional importance of the map lies in that the relief is indicated by stripes

and level lines, thus providing one of the first level lined maps. Numbering used not to start at sea level. The four aquarelles in the framework look downhill<sup>31</sup>; in two of them little puttos play with modern measuring equipment of the era. Down on the left a sitting putto lifts up a mirrored measuring telescope, the invention of Petzelt, while its companion measures with the help of compasses. The picture also shows a theodolit, a measuring chain and Kraft's measuring table <sup>32</sup>.

The edition of litographs replacing old copperplate prints in Hungary started in the 1830s, which made cheap selling of maps possible. Joseph Haeuffler<sup>33</sup>, an Austrian cartographer, acquired vast knowledge of cities as teacher of the palatine Joseph. His work was first published in 1854. The sketch of the city shows how far the flood in 1838 expanded, some city plans and the industrial and residential areas separated.

In the 1860s Pest overcame its limitations and the inner city got too busy. Following the Compromise in 1867 the development of the city regained its strength. Meeting map demands of residents happened to be the responsibility of civil authorities; cartography became institutional; in 1870 Layout Departments of the Ministry of Transport and the Central Statistical Office<sup>34</sup> were established. To prepare union of different quarters of the city and to be able to manage this highly expensive enterprise in one hand, Prime Minister Gyula Andrássy took the lead and found the Capital City Public Works Council. The expected acceleration of the development of transportation was linked to the requirement to create a real European metropolis. Following the models of Paris and Vienna, new city plans forecasted the well-known boulevard & avenue structure. Maps of rearrangement and modifications, sometimes executed differently, were emphasized by the red lines<sup>35</sup>.

Upon the suggestions of Alderman Mór Wahrmann an international invitations was issued 15 March 1871 to complete a general city rearrangement scheme and of plan prior to the union of city quarters. Proposals had to consider four areas: representative downtown area; commercia vindustrial area; industrial area; and garden suburbs. Works of preparation applied the most up-to-date proceedings i.e. triangulation and survey of fall. So did Sándor Halácsy when surveying Pest 7. These eight downtown profiles provide a fully accurate description of site borders and building layouts together with site numbers. Planned arrangements are indicated by yellow lines, e.g. demolition of the New Building in the Leopold Quarter 8.

The union of Buda pest was enacted 23 December 1872. However, the arrangement plans of Buda and Old Buda were only completed by 1876 and 1883. The rearrangement proposal had to focus on representative outlook. The Castle area kept the function of being the traditional center and developments were planned to be realized along major railroads in the south. This set of maps, an extremely important part in the history of Hungarian cartography, may have been compiled by Imre Péchy. Works of leveling were directed by János Marek<sup>39</sup>. The legend of the map additionally shows building materials, types of gardens, quality of roads, signs of modern cartography (triangular point, height, level lines),traditional borderlines and lines of rearrangement<sup>40</sup>. It also shows the process of how the hillside got populated, which owes much to the start of the rack railways established here. Castle walls were destroyed only to extent necessary and therefore the union of different city quarters was not as considerable here as in Pest.

When house numbers replaced site numbers the process initiated a wide scale rearrangement of street names given spontaneiously through centuries — cartographers had to make serious efforts to stand the test but it obviously led to a rapid decrease of administrative errors. In 1882 the capital city got the structure of districts effective through to 1935. The National Exhibition<sup>41</sup> in 1885 saw the opening of The Avenue and the Great Boulevard constructions were launched. Industrial areas developed on the ground of outskirts and many of the largest factories were located north and south to the capital city. Though the Millennium Celebrations had been moved to a later date, the city was able to complete only a part of the tremendous amount of planned constructions. 2 May 1896 the Millennium exhibition was opened and people interested had a chance to have a view of events held in the City Park from a balloon flying above the place of programs. The perspective map<sup>42</sup> of Benedict gives the feeling as if we looked upon the city from a balloon, too. This individual orientation map, however, was not completed during the course of events, though its supplemented version was published in 1896. This map is on the dividing line between

two eras: the New Building is still there and the demolition of the old medieval Downtown is not started either. Buildings erected at the end of the century changed the face of the city: the Vigszínház, the Opera House, the Hall of Arts, several hospitals and universities were built, modern transportation was established and, finally, the Elisabeth Bridge<sup>43</sup> constructions were there to start right after the Celebrations to make a part of the medieval city disappear whithin a few months forever.

## Notes:

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  - 3. Budapest Historical Museum /BTM/15 725
- 4. Weidinger, György Horler, Ferenc: A budai Vár 1687. És 1696. Évi helyszínrajzai in: Tanulmányok Budapest múltjából XI. Budapest, 1956
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  - 8. Gál, Éva: Pest város 1758. evi térképe in: Tanulmányok Budapest múltjából XXII. Budapest, 1988
  - 9. Gál, Éva: Térkép a Zichvek Óbudájáról in: Geodézia és Kartográfia 1978/4
  - 10. BTM 4436
  - 11. Hrenkó, Pal: Gondolatok a Zichyek óbudai térképei kapcsán in: Geodézia és Kartográfia 1978/4
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- 14. Hrenkó, Pál: Térképi díszítőrajzok, szakmatörténeti adalékok in: Geodézia és Kartográfia 1978/6
- 15. Gál, Éva: A Budapesti Történeti Múzeum Várostörténeti osztályának kéziratos térképei in: Monumenta Historica Budapest, 1989
  - 16. BTM 418
- 17. Tóth, Andrásné: A mérnöki szervezet kialakulásának elözményei Budán és Pesten in: Tanulmányok Budapest múltjából XI, Budapest, 1956
- 18. Preisich, Gábor: Budapest városépítésének története Buda visszavételétől a kiegyezésig Budapest, 1960
  - 19. BTM 414
  - 20. Gerő, László: Történelmi városrészek Budapest, 1971
  - 21. BTM 5164
  - 22. Thaly, Tibor: A 200 éves Városliget Budapest, 1958
  - 23. BTM 14755
- 24. Bartha, Lajos: Újabb adatok Lipszky János életéhez és munkásságához in: Hadtörténeti Közlemények 1983/4; Csendes, László: Lipszky János huszártiszt életútja és térképei in: Hadtörténeti Közlemények 1982/3
  - 25. BTM 603
  - 26. BTM 3558
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  - 30. BTM 4227
  - 31. Siklóssy, László: Svábhegy Budapest, 1929
  - 32. Papp-Váry, Árpád Hrenkó, Pál: Magyarország régi térképeken Budapest, 1989
  - 33. BTM Lanfranconi 279

- 34. Siklóssy, László: Hogyan épült Budapest? A Fővárosi Közmunkák Tanácsa története 1870-1930 Budapest, 1931
  - 35. BTM 1578
  - 36. Gerő, László: Pest-Buda építészete az egyesítéskor Budapest, 1973
  - 37. Raum, Frigyes: A magyar kataszteri szervezet kialakulása in: Geodézia és Kartográfia 1986/1
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  - 39. BTM 1671
  - 40. Gál, Éva: A hegyvidéki villanegyed kialakulása, 18-19.század Budapest, 1992
  - 41. Vörös, Károly ed. Budapest története IV, Budapest, 1978
  - 42. BTM 1323
  - 43. Gáll, Imre: A buda pesti Duna-hidak Buda pest, 1984

## List of illustration:

- 1. Unknown: Borderline map of Buda and Obuda, cca. 1760; BTM 4436; 37x52,5
- 2. Unknown: The plan of the flood from 1838; BTM 3558; 58,3x41,6; 1:14.600

## Budapesta în hărți vechi 1686-1896 Rezumat

de Szilvia Andrea Holló

Colecția de hărți și planuri a Muzeului Kiscelli (secție a Muzeului de Istorie a Budapestei) conține piese inestimabile, referitoare la istoria Budapestei, începând cu anul 1686, când cetatea Budei a fost eliberață de sub ocupația turcească, până în zilele noastre. Primul plan, având caracter militar subliniază îndeosebi sistemul liniilor de apărare (1). În anul 1686, Împăratul Leopold I a ordonat începerea operațiunilor tehnice de măsurare a orașului și a Țării. În 1703, împăratul a confirmat privilegiile Budei și Pestei ca orase regale.

Prima hartă cunoscută a orașului Pesta datează de la sfârșitul secolului al XVII-lea, fiind necesară stabilirii impozitelor (2). Hărțile cu linii de hotar au fost necesare clarificării condițiilor de proprietate (inexistentă până la acea dată) (3). Harta limitelor Pestei, copiată de Leonard Waczpaur și ce a limitelor Budei indică procesul de colonizare desfășurat la mijlocul secolului al XVIII-lea. Particularitatea hărții de graniță a Budei constă în indicarea așezărilor arheologice; harta de graniță a Pestei este valoroasă pentru că ține seama de orientare (4, 5).

Pentru secolul al XIX-lea, harta completată de Hayek, prezintă părți din Pesta, bazate pe propriile sale cercetări, cu numerotarea locurilor (6). Harta unui ofițer de instrucție, Joseph Egendorfer (7), ca și hărțile unui cartograf militar, Johann Liszky, sunt esențiale pentru cercetarea structurilor orașului în direcția expansiunii sale (8).

Inundația catastrofală din 1838 a ruinat casele din Obuda și pe cele de la periferiile Pestei. Albumul festiv al lui Vasquez devine astfel un document care prezintă dezvoltarea orașului înainte de inundația din 1838 (9). Vasquez, o persoană foarte misterioasă a realizat și alte hărți ale orașelor: Viena, Praga, Triest și Buda-Pesta; ele se caracterizează printr-o realizare artistică de excepție; hărțile și planurile sunt înconjurate de o mulțime de priveliști și clădiri reprezentative.

Două hărți au fost tipărite în beneficiul victimelor evenimentului din anul 1838 (10).

Dezvoltarea tehnicii cartografice și echipamentul folosit sunt cunoscute din hărțile de instrucție ale studenților Institutului geometrico-hidrotehnic (11).

Folosirea tehnicii litografiei, către anul 1830 a determinat ieftinirea accentuată a producției de hărți și planuri (12).

Pentru a pregăti unirea diferitelor cartiere ale orașului, în anul 1871 a fost publicată o nouă hartă (13).

Formarea în anul 1872 a Budapestei, prin unirea Budei, Pestei și ulterior a Obudei a fost marcată în numeroase planuri (14, 15).

Harta în perspectivă aparținând lui Benedict este bazată pe liniile de demarcație dintre cele două arii, înfățișând și noile clădiri care au schimbat aspectul orașului (16).

310 Szilvia Andrea Holló





