MAP PORTALS AND DATABASES OF TOWNS IN CENTRAL EUROPE AN APPENDIX OR SUBSTITUTE FOR PRINTED HISTORICAL TOWN ATLASES?*

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Abstract: In the past, historians offered their readers a depiction of urban history through cityscapes, maps and plans (initially as illustrations to texts), followed by specialised historical town atlases. The modern world then began to digitise printed works (first on CD/DVD and then online). Gradually, online portals have emerged with two philosophies – a database ("encyclopaedia": i.e. the text comes first, supplemented with visual sources – including a cartographical representation) and a topography (a modern map as the underlying source overlaid with geo-referenced historical maps, in certain cases with GIS-localised non-cartographic informational images). The idea is to link both approaches through a comprehensive memory portal where the user selects one of the two approaches using a filter (e.g. time, location and topic) or locates them on a map (the relevant GIS-localised units will be displayed based on the selected historical or modern-type map). Memory portals will offer more information than "just" atlases or "just" databases; they are open, collaborative and more attractive for the generation of "digital natives".

Keywords: Historical Town Atlases; Historical Topography; Data and Topographic Portals; Digitisation.

The reconstruction and modernisation of war-torn centres of large historic cities in Europe, accompanied by extensive archaeological excavations in the western and eastern parts of central Europe (Germany, Austria, Poland, Czechoslovakia, Hungary and Romania), was the catalyst for the development of urban historiography after the Second World War. The post-war departure of society from rightist and elitist values to leftist ones (especially in the eastern part of the region in question), together with the continuing urbanisation and influx of people to towns connected with the post-war reconstruction of destroyed industry, boosted public interest in the activities of urban historians. In the "socialist" part of central Europe, the research of cities became one of the few less ideologically problematic broader topics for historians of the more distant past since the history of the church and nobility had been ostracised as reactionary.

* The term "central Europe" has yet to be defined, but in general, one can say it is the region including Germany, Austria, Poland, the Czech Republic, Slovakia, Hungary, Romania, and historically the western part of Ukraine. In terms of available funds for urban research, there was a visible difference between the western and the eastern part of central Europe.

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The institutional basis of urban research in central Europe

It is not the purpose of this paper to summarise all of the central European institutions which primarily deal with developments in urban history; therefore, the following lines are just a broad outline¹. The post-war boom of urban historiography was not only displayed at a national level. In 1955 the International Commission for the History of Towns (ICHT)² was established, with the aim of creating an academic network of urban historians and coordinating bibliographies, editions of resources and historical town atlases³. Approximately a decade later, specialised institutions focusing on urban history were established in Germany. Due to strong regional scientific traditions and the splitting up of the country, several scientific centres were immediately established there. The Research Centre for Communal Sciences can perhaps be considered the oldest (Kommunalwissenschaftliches Forschungszentrum, KWFZ - since 1973, renamed as the Deutsches Institut für Urbanistik, or Difu). It was established in 1966 and is headquartered in Berlin, having published the Informationen zur modernen Stadtgeschichte (focusing on the 19th and 20th centuries) since 1970⁴. Approximately at the same time, a group called *Die Alte Stadt*, headquartered in Stuttgart (today in Esslingen), was formed around Otto Borst, who started publishing a journal of the same name in 1974 (renamed as Forum Stadt in 2010)⁵. In 1969 the Institute for Comparative Urban History (Institut für vergleichende Städtegeschichte), led by Heinz Stoob, was established at Westfälische Wilhelms-Universität in Münster, concentrating on the medieval and early modern periods. Under the longlasting baton of Peter Johanek, it has become the most important urban historical centre in Germany, having published three various types (monographs, guides and editions of historical sources) of scientific output since 1976, entitled

¹ One of the latest works on the development of urban historiography in central Europe are the proceedings of a conference Documenta Pragensia, XXXII, (=Města ve středověku a raném novověku jako badatelské téma posledních dvou desetiletí / Städte im Mittelalter und in der frühen Neuzeit als Forschungsthema in den letzten zwanzig Jahren), Praha, Archiv hl. města Prahy, 2013.

² Alternative titles: Commission internationale pour l'histoire des villes / Internationale Kommission für Städtegeschichte. See http://www.historiaurbium.org/english/home_en.html (2015-05-05).

³ It informs about its activities and its members in a newsletter available at http://www.historiaurbium.org/english/bollett_en.html (2015-05-05). The European Association for Urban History (http://www.eauh.eu) is a similar international organisation. However, it was only founded in 1989. It organises conferences every two years and has four committee members from central Europe out of a total of eighteen. Compared to ICHT, EAUH focuses more on urban history in the modern age.

⁴ See http://www.difu.de/geschichte (2015-05-05).

⁵ Die Alte Stadt. Vierteljahreszeitschrift für Stadtgeschichte, Stadtsoziologie, Denkmalpflege und Stadtentwicklung. For more on this, see: http://www.steiner-verlag.de/Stadt/ (2015-05-05). This continues under Forum Stadt: http://www.forum-stadt.eu/start (2015-05-05).

Städteforschung. Veröffentlichungen des Instituts für Vergleichende Städtegeschichte in Münster, as well as two types of urban historical atlases (Germany and the Rhineland)⁶. The initially modest number of such centres has increased over the last 25 years primarily thanks to support from scientific grant agencies⁷.

In Austria the Austrian Circle for Urban History Research (Österreichischer Arbeitskreis für Stadtgeschichtsforschung) in the Upper Austrian city of Linz, founded by Wilhelm Rausch became the true urban historic institution in a broader geographic context. The Ludwig Boltzmann Institute for Urban Research (Ludwig-Boltzmann-Institut für Stadtgeschichtsforschung) established in 1975, also in Linz, was personally linked to the circle and Rausch himself. The institute and the circle were at the helm of Austrian urban historiography for several decades and coordinated the bibliography of urban history in Austria (nearly 80,000 recorded individual items), editions of historical sources (*Elenchus fontium historiae urbanae*), and two projects of urban atlases (of Austria and Vienna); they have informed the public about their activities in the Pro Civitate Austriae journal since 1985 and have been organising scientific activities, including studies in an academic almanac entitled "Contributions to the Urban History of Central Europe" (Beiträge zur Geschichte der Städte Mitteleuropas), which has 25 volumes to date. Since 1995 the institute has been based in Vienna, and the scientific circle was relocated there in 2012 as well. The troika of the most significant urban historical institutions also includes the Viennese Urban and Country Archive, where Felix Czeike, Ferdinand Opll and Peter Csendes have become important personalities⁸.

Historians in the Eastern Bloc tried to establish an organisational base similar to the western part of central Europe. The Commission for Urban History was established in 1978 in Czechoslovakia at the Academy of Sciences (Jiří Kejř, Josef Žemlička, and others), which primarily coordinated the publication of historical atlases. Even before the split of the republic, it focused on the region of today's Czech Republic. Among the Czech scientific institutions, the Archive of the Capital of Prague (V. Ledvinka, J. Pešek, O. Fejtová, and others) extensively supports scientific conferences on urban history and their outputs by publishing three different kinds of scientific publications: *Documenta Pragensia* (studies on

⁶ For more on this, see: http://www.uni-muenster.de/Staedtegeschichte/portal/einfuehrung/ Forschungstraditionen.html (2015-05-05).

⁷ For more on German urban history, see: P. Johanek, *Die deutsche Forschung über die Städte im Mittelalter und in der frühen Neuzeit in den letzten zwanzig Jahren.* «Documenta Pragensia», XXXII/1, ed. Olga Fejtová et al. Praha : Scriptorium 2013, pp. 301-340.

⁸ For the newest summary of Austrian research: F. Opll, Österreichische Städte im Mittelalter und in der Frühen Neuzeit als Forschungsthema der letzten zwanzig Jahre, «Documenta Pragensia», XXXII/1, Praha 2013, pp. 341-373.

urban history in central Europe), *Documenta Pragensia Monographia* (editions of historical sources and analytical monographs), and the *Prague Historical Almanac* (a yearly compendium of studies on Prague's history)⁹. The second most important urban archive – the Brno Archive, focuses mostly on Moravian towns and on Brno itself¹⁰. Among the universities, the most prominent are Charles University in Prague (which publishes the magazine *Lidé města*), and the University of J. E. Purkyně in Ústí nad Labem, which publishes editions of historical sources. A significant synthesis of the history of medieval Czech, Moravian and Silesian towns has been published by František Hoffmann; an early modern history has been published by Karel Kuča and many others¹¹.

In Slovakia, the Section for Urban History of the Slovak Historical Society at the Slovak Academy of Sciences was established in 1971, where Richard Marsina and Vladimír Segeš were significant personalities. However, its activities were limited to bi-annual conferences with a subsequent almanac of studies. Smaller regionally-oriented centres are currently attached to universities in Bratislava (the History of Bratislava 1-5 and the PamMap web portal), Trnava (editions of city registers), and Košice (a specialised magazine called City and History [*Mesto a dejiny*], which has been in publication since 2012)¹².

Research into the history of towns in Poland is coordinated by the Commission for the History of Towns at the Polish Academy of Sciences (*Komisja Historii Miast Komitetu Nauk Historycznych PAN*). It has been organising conferences and publishing conference almanacs since the 1970s. Nicolaus Copernicus University in Torun (Roman Czaja, Krzysztof Mikulski and Jacek Wijczka), the Pedagogical University of Cracow (Zdzisław Noga), the University of Wroclaw (Marta Mlynarska-Kaletynowa, Rafał Eysymontt and Mateusz Goliński), and the University of Warsaw (Henryk Samsonowicz¹³) are all centres of urban history research.

⁹ Publication activities: http://www.ahmp.cz/index.html?mid=27&wstyle=0&page=%27%27 (2015-05-05).
¹⁰ Specific publications: http://www.archiv.brno.cz/index.php?nav01=1734&nav02=1739 (2015-05-05).

¹¹ For an overview of Czech urban historiography, see: O. Fejtová et al. (eds). *Städte im Mittelalter und in der frühen Neuzeit als Forschungsthema in den letzten zwanzig Jahren*, «Documenta Pragensia», XXXII/1, Praha 2013.

¹² The most recent overview of relevant Slovak research can be found in: J. Lukačka, M. Štefánik, *Die Forschung zur Geschichte der mittelalterlichen Städte in der Slowakei während der letzten zwanzig Jahre*, «Documenta Pragensia», XXXII/1, pp. 411-428; E. Kowalská, *Frühneuzeitliche Städte als Forschungsthema in der slowakischen Historiographie der letzten zwei Jahrzehnte*, Ibidem, pp. 429-437.

¹³ This core figure of Polish urban historiography is still active. Just as the work of František Hoffmann (*Středověké město* v Č*echách* a *na Morav*ě, Praha, Lidové noviny, 1992) is essential reading for the Czech lands, 2009² is a similar classic synthesis on the history of Polish towns:

There are also city archives in Warsaw and Cracow¹⁴. Since 2004, the Centre for the Urban History of East-Central Europe exists in west Ukraine, and has functioned as an academic institution, organising conferences and publishing works on urban history; it has published its first atlas, and has mostly been researching the Polish and Ukrainian region from a historical and geographical perspective¹⁵.

In Hungary, urban history has been mapped by researchers for a long period. Erik Fügedi and András Kubínyi were two of the big names in the second half of the 20th century. Currently, research is centred around key personalities at universities e.g. (Katalin Szende at CEU Budapest, Vera Bácskai at ELTE Budapest, István Poetrovics at the University of Szeged, Judit Majorossy at the University of Vienna, and Károly Goda at the University of Münster). The Committee for Urban History at the Hungarian Academy of Sciences is a coordinating body. Similar to such institutions in other countries, the Municipal Archive of Budapest is a leading authority and publishes the Urbs - Hungarian Yearbook of Urban History journal. Editions of historical sources are published in Hungary, as are atlases of urban history. However, individual projects are not under the umbrella of a central committee¹⁶. In Romania, the Commission of Town History was established in 1992 under the guidance of the Romanian Academy of Sciences (Comisia de Istorie a Oraselor din România)¹⁷. It publishes the Historia urbana journal (V. Ciobanu and D. Iacob), editions of historical sources, and historical atlases of Romanian towns (D. Iacob). Since 1992 it has been organising one or two colloquia every year on various topics of urban history.

Historical Town Atlases

Along with textual works (analytical studies, syntheses and editions), the abovementioned institutions and researchers have been interested in another significant tool of urban historiography over the past fifty years – historical town atlases, which are supposed to cover towns and their surroundings and visually present cultural phenomena in a location and the surrounding countryside. These first historical

H. Samsonowicz, M. Bogucka, *Dzieje miast* i *mieszczaństwa w Polsce przedrozbiorowej*, Wrocław-Warszawa-Krakow, Ossolineum, 1986.

¹⁴ For Polish research, see the historic and graphic overview by Urszula Sowina, Zdzisław Noga and Andzej Klonder in «Documenta Pragensia XXXII/1», Praha 2013, pp. 495-511, 513-527, 529-555.

¹⁵ For basic information, go to: http://www.lvivcenter.org/en/ (2015-05-05).

¹⁶ For a recent overview, see: I. H. Németh, K. Szende, *Research on the Town of Medieval and Early Modern Hungary since 1989*, «Vana Talinn», XXV(XXIX), 2014, pp. 266-294.

¹⁷ P. Niedermaier, *Comisia de istorie* a *orașelor din România la 20 ani*, «Historia Urbana», XXI, 2013, pp. 5-14 (also available at www.ceeol.com).

and topographic depictions of the past had their roots in the 16th to 18th centuries (e.g. maps of historic Jerusalem and Rome)¹⁸. It is rather significant that the oldest urban atlases included works from German regions, which have subsequently played an important role in the publishing of atlases. The abrupt boom of atlases in the last two decades of the 20th century perhaps echoed the "iconic turn" of Western civilisation some one to two generations ago. The onset of historical atlases in the 1970s and 1980s was much easier in the western part of the continent; academics in the socialist part of central Europe ran into difficulties, as many maps and aerial photographs were kept from them by the authorities. As a result, they only caught up with their counterparts in Germany and Austria in the last two decades of the 20th century. In the evolution of historical atlases, one can detect several phases: classical printing methods and outputs were used approximately until the mid-1990s; afterwards, the maps were processed using digital graphics, and still published in printed format. In the last decade, one can gradually see entire atlases being made accessible electronically via the Internet, leading to current web portals offering more than the classical atlases¹⁹.

Under the influence of ICHT, a relatively standard format of atlases has crystallised since the end of the 1960s (these standards were set at meetings in Oxford in 1968 and in Münster in 1995). The format is composed of two parts: introductory textual studies outlining urban development and then the principal cartographic element. This is created from a redrawn city plan including information taken from land registries from the pre-industrial period marking out plots (the scheme is usually from the mid-19th century and to a scale of 1:2500), a map of the vicinity of the town, if possible, from the same period (1:25,000/1:50,000), and a current urban plan with lots (1:5000) as well as reconstruction maps of urban and borough development (1:5000)²⁰. The collection is complemented with other thematic maps capturing selected social and economic phenomena, providing there are sufficient resources and research (e.g. the size of medieval parishes, taxes paid on individual buildings, the jobs of individual taxpayers, and

¹⁸ M. Conzen, Retrieving the Pre-industrial Built Environments of Europe: the Historic Towns Atlas Program and Comparative Morphological Study, «Urban Morphology», XII, 2008, 2, pp. 143-156: 144.

¹⁹ E. Chodějovská, E. Semotanová, Dějiny měst, ikonografické a kartografické prameny, metody a výstupy **v** posledním dvacetiletí (Urban history, iconographic and cartographic sources, methods and results from the past two decades), Documenta Pragensia XXXII/2, 2013, pp. 293-311.

²⁰ In his paper *Should the Historic Towns Atlas Continue Beyond 1900?* (http://www.historiaurbium.org/english/Opll_Atlases%20beyond%201900_ENGLISH_SIMMS_24112012. pdf), F. OPLL pointed out the need to complement the maps and include further periods: the reproduction of the plan at the turn of the 20th century, from the 1920s, and from the 1950s (at 1:5/10/25,000 – depending on the size of the city).

paths and path management). Facsimiles of historical maps, plans and drawings of the town are part of the atlases as well. Individual national editions slightly differ in format and content. However, thanks to internationally enforced basic standards, their structure is similar and, at least within national projects, the atlases capture towns in maps and plans from the same period (e.g. in the Czech project, towns are depicted in Müller's 1720 map of Bohemia, his 1716 map of Moravia, the map of the first military survey from the 1760s to the 1780s, the map of the second military survey in the first two thirds of the 19th century, and the stable land registry from the 1820s to the 1840s as well as in modern orthophoto maps). Similar to large syntheses, atlases usually have an institutional background as they are produced by teams based at academies and universities. Thanks to this commitment, a creditworthy set of atlases has been compiled since the 1970s²¹. In central Europe, Germany (256) and Austria (63+17) play a major role in terms of town atlases. Roughly twenty have been published in Poland and in the Czech Republic; Romania and Hungary have added their own initial sets recently, while Slovakia is still working on its own project²².

German historians were among the first to publish historical atlases of towns in central Europe. In addition to the national set (*Deutscher Städteatlas*, published since 1973; *Deutscher Historischer Städteatlas*, published since 2006), there are three regional town atlases – the Westphalian Series (*Westfälischer Städteatlas*), the Rhineland Series (*Rheinischer Städteatlas*), and the Hessian Series (*Hessischer Städteatlas*). The first two projects have been handled by the *Institut für vergleichende Städtegeschichte* at the University of Münster (initiated by Heinz Stoob and later headed by Peter Johanek). The Rhineland Series project is equally old, initiated by Edith Ennen (*Amt für rheinische Landeskunde*, Bonn). The Hessian Series is the youngest regional project (published by the *Hessisches Landesamt für geschichtliche Landeskunde*, Marburg – Ursula Braasch-Schwersmann). The total number of published atlases in Germany is close to 300, with a preference for larger and mid-sized towns²³. The Münster centre offers interactive on-line digital urban atlases on its web page, in addition to printed atlases (for example, Braunschweig, more of which you can find in Daniel Stracke's work).

In Austria, there have been two projects of historical atlases in existence since 1981 – the Austrian Town Atlas (*Österreichischer Städteatlas*) and, due to its size

²¹ For a general information on the development, see: E. Chodějovská, S. GeaRty, D. Stracke in the introduction to this issue.

²² A set of atlases was compiled by Ferdinand Opll as early as 1995; the initial author is currently followed by Sarah Gearty and Jennifer Moor. See http://www.ria.ie/research/ihta/europeanproject.aspx (2015-05-05).

²³ Ibidem.

and significance, a separate atlas of the capital Vienna (Historischer Atlas von Wien). Even though there is a smaller number of towns covered in Austrian atlases when compared to Germany, their nationwide distribution is more even; in Germany such atlases are concentrated in only two out of its thirteen states. The project covers the development of larger cities with over 100 thousand inhabitants (such as Graz, Linz and Innsbruck), mid-sized towns with tens of thousands of inhabitants (such as Wiener Neustadt and Eisenstadt), and smaller towns such as Marchegg, Rust and Freistadt. The Austrian Circle for Urban History Research, the Ludwig Boltzmann Institute for Urban Research and the Viennese City and Regional Archive, as well as several dozen individual authors, have been involved in their publication. Initially, atlases by Ferdinand Opll appeared frequently, whereas Susanne C. Pils has been the most active author in the past decade. A compendium of all the atlases published until 2008 was published in 2009 on DVD²⁴. All the published volumes are userfriendly available online²⁵. Austrian urban historians, assisted by the Hungarian company Arcanum, have made the extensive third military surveys of the entire Habsburg Monarchy available online (www.mapire.eu).

In the Czech part of what was Czechoslovakia, the concept of the first atlas (Litoměřice) was designed by J. Macek, J. Tomas and J. Smetana as early as 1980. However, the project was only put into action a decade later²⁶. In 1995, the first volume of the Historical Town Atlas of the Czech Republic (Historický atlas měst České republiky: in Czech, along with an extensive German and English summary) was published, and some 25 more had been added by 2014 (Pardubice, České Budějovice, Hradec Králové, Jihlava, Český Krumlov, Kutná Hora, and Mikulov are among the better known ones). Josef Žemlička, Robert Šimůnek and Eva Semotanová can be considered the moving forces behind this project, and Eva Chodějovská remains a prominent figure; all of them are from the Institute of History at the Czech Academy of Sciences. Similarly to Vienna, Prague is dominant over other Czech municipalities in terms of its significance. However, in contrast to their Austrian counterparts, the Czech authors listed it in the national register; so far, printed atlases of three Prague boroughs have been published: Libeň, Královské Vinohrady and Smíchov. The atlas of Plzeň is available online as an e-book²⁷. Just like Münster, the Czech centre offers an interactive atlas of

²⁴ Österreichischer Städteatlas Lieferungen 1-10 (1982-2008). In collaboration with Arcanum, Budapest (2009). See http://www.arcanum.hu/.

²⁵ See http://www.wien.gv.at/kultur/archiv/kooperationen/lbi/staedteatlas/mappe.html (2015-05-05).

²⁶ E. Semotanová, J. Šmetana, J. Žemlička, *Úvodem k první pětici svazků Historického atlasu měst České republiky*, http://www.hiu.cas.cz/cs/download/mapova-sbirka/uvod-1_5.pdf (2015-05-05).

²⁷ However, not all copyrights to all maps have been secured: https://www.plzen.eu/obcan/omeste/multimedia/ebook/knihy/ebook-historicky-atlas.aspx (2015-05-05). Prague and its city boroughs on the map portal of the Historical Town Atlas of the Czech Republic²⁸.

In Poland, eighteen volumes of a project entitled *Atlas Historyczny Miast Polskich* have been published since 1993 (in two languages, also known as *Historischer Atlas Polnischer Städte*)²⁹. Nicolaus Copernicus University has edited part of the project (Roman Czaja and Antoni Czacharowski). The analysed cities are concentrated in the western part of Poland (the former Prussia: Toruń, Braniewo, Bydgoszcz, and others), Kujawy and Masuria. As part of the project, the first volume of the Cracow atlas was published, edited by Z. Noga. The atlases of Silesian towns (featuring Wrocław and four smaller cities) were published by the University of Wroclaw and were edited by Marta Mlynarska-Kaletynowa and Rafal Eysymontt. Our Polish colleagues are also planning the publication of traditional atlases in electronic format³⁰. In 2014, the Ukrainian Academy of Sciences published their first historical atlas of Lviv (edited by Myron Kapral)³¹. This atlas includes 11 map reconstructions, 25 facsimiles, 6 historical townscapes and an extensive text.

Since 2000, seven volumes of *Atlasului Istoric al Orașelor din România* (in German known as *Städtegeschichteatlas Rumänien*) have been published in Romania, divided according to historic regions into Series A: Moldova (2), Series B: Tara Romanesca (3), and Series C: Transylvania (2)³². Sibiu can be considered the most active centre, and Paul Niedermaier and Dan Dumitru Iacob are the main moving forces behind the project there. The Romanian atlases include introductory texts concerning the landscape, a chronology of the most important events in a town's history, demographic development, urban planning, architecture, descriptions of the town in historical sources, archaeological discoveries, street names, and a bibliography as well as historical maps (first, second and third military surveys, as well as other local maps and plans, mostly from the 18th to the 20th centuries and excluding current maps).

Hungarian urban historians joined their counterparts in 2010 by publishing two catalogues of the Hungarian Atlas of Historic Towns (*Magyar Várostörténeti Atlasz*), which was edited by the Committee for the History of Towns at the

²⁸ See footnote 25. In addition, the City Archive has published the Prague Plan from 1840-1842 and 1856 based on indicative sketches and surveys of the stable land registry.

²⁹ See http://rcin.org.pl/dlibra/publication?id=70534&tab=3 (2015-05-05).

³⁰ Courtesy of Prof. Z. Noga (Cracow).

³¹ Basic information can be found at: http://www.lvivcenter.org/en/ (2015-05-05).

³² 2000: Sighişoara, 2004: Sebeş, 2005: Suceava, 2006: Târgovişte, 2008: Câmpulung, 2010: Siret, and 2013: Brăila. More information can be found at: http://www.icsusib.ro/main/index.ph p?s=25ad0cce93e8a0a2dbd3bd80cb647c67&f=change&idroot=8 (2015-05-05).

Hungarian Academy of Sciences. András Kubínyi was the leading figure in this project. He was succeeded after his death by Katalin Szende and István Tringli. The first volume (2010: Sopron) already indicated a highly ambitious project. After an extensive introductory text, a classical set follows (a 1:2500 redrawn land registry map from 1856, a 1:50,000 city vicinity in the first and the second military surveys, a 1:5000 topographic development from medieval times until the 18th century, and a 1:5000 modern city plan), followed by 21 thematic maps (starting with medieval altar prebends to real estate prices in the 18th century and a modern map of protected monuments and objects). Axonometric projections are shown in the accompanying material (dealing with the Roman and early Hungarian periods) and the cityscapes³³. After having completed Sopron and Sátoraljaújhely, the authors are now working on atlases of Buda and Kecskemét³⁴.

Overall, when talking about central European town atlases, one can state that as a rule they are based on modern state boundaries, even though towns once belonged to various other units. The projects are mostly under the umbrella of national academies of sciences in collaboration with universities and the archives of (mainly) capital cities. In terms of structure, they apply international standards and feature a user-friendly bonus: they are published in two languages (firstly the national language and then a second language, with German prevailing here over English), or they at least feature an extensive second-language summary. Similarly to elsewhere in Europe, the authors of the atlases are currently at a crossroads known as the "transition from the printed to the digital town atlas".

Changes in historiographical discourses

Due to the changed post-war paradigms of historiography, extensive syntheses published in the 1950s covering the issues of the origins of medieval towns, their definitions and nature, as well as the continuity of ancient and medieval urban forms, caught the attention of experts in the field as well as the wider public (Edith Ennen in 1953; Hans Planitz in 1954 and several others). The next breakthrough in the development of European urban historiography came in the 1970s. Since then more quantitative methods have been used by urban historians: e.g. evaluations of register sources focusing on the management of cities and townspeople, the social topography of towns, and historical town atlases. At the same time, in addition to medieval urban history, more recent periods have also attracted the attention of urban historians. The third most significant change in the approach

³³ J. Ferenc, J. Kűskan, K. Szende (eds.), *Sopron* (=*Magyar Várostörténeti Atlasz 1)*, Sopron, Archives and Museum, 2010.

³⁴ I. Tringli (ed.), Sátoraljaújhely (=Magyar Várostörténeti Atlasz 2), Budapest, MTA, 2011.

of urban historians was caused by the massive onslaught of computer technology towards the end of the 20th century. The wish to access information fast and the current visible shift in the perception of the younger generation (Marc Prensky has characterised them as "digital natives")³⁵ poses a legitimate question, namely whether the "monologue" format of classical historical work (be it text-based and built on the rational and Enlightenment tradition, or image-based and appearing as a finished and mostly printed work) will remain attractive and intelligible for future generations of the urban history readers, or whether new approaches to the explanation of urban history will have to be sought. What impact will interactive and visually attractive databases, topography and general historical portals have upon the historiography of towns?

The change seems to be fundamental: whereas today's fortysomethings have been accustomed to using verified information (e.g. scientific encyclopaedias and academic dictionaries) and studying a large amount of baseline material (e.g. research reports) before formulating a hypothesis, the "digital generation of the 21st century" (today's teenagers up to thirtysomethings) is willing to reach out to semi-professional and even amateur sources of information for the sake of speed, thus making conclusions based on little information ("Wikipedisation"). The digital generation prefers shorter multi-source information (hypertext and multitasking) to a gradually constructed single story (a linear text from one source). Readers and e-books (as well as the Internet itself) are all proof that the printed word lost its battle with digital text a long time ago. Print can only be kept if it is attached to an image - either static (graphics and photography) or dynamic (video) – which is a consequence of the decline of slow reading in favour of the fast perception of images (the so-called "iconic turn"). As opposed to solitary scientists working in the silence of their studies, "digital natives" have become used to working through a network (informally via Skype, or scientifically via Academia.edu or other such portals). The past need for private space (in the scholarly field as well: publication of long-term research only after its completion) has been replaced with the public space, with "sharing", the presentation of "work in progress", abstracts, and presentations available online. In this "complementary" sense, competent web portals are clearly winning over completed (printed or online) works as far as one's "eyeballs" are concerned. Naturally, this

³⁵ Prensky was one of the first to do research into the different perceptions of the world held by digital immigrants (an analogy with people who have had to learn how to operate IT) and digital natives (those born into the IT world). See Prensky, Marc: *Digital Natives, Digital Immigrants.* In: «On the Horizon», IX, 2001, Nos. 5 and 6, pp. 1-6. Available at http://www.emeraldinsight.com/ doi/abs/10.1108/10748120110424816 (28. 2. 2015).

is not an insurmountable gap between the old and the young generation; rather, it is about the "new" and the "old" approach – two different discussions that have been influencing each other all the time.

The digital environment and historic map portals

Digital access to information has been a serious challenge for long-term edition projects for at least the past two decades. In the first decade of this century, it seemed sufficient to make the original printed work digitally available in a oneoff medium (CD/DVD). The Austrian Town Atlas (a DVD with atlases from 1982 to 2008) and the Hungarian project (a DVD appendix to a printed atlas, 2010f.)36 took this path. However, only online solutions have been considered recently. The easiest of these to make the original printed and published work into a digital version, and then make it available on the Internet; another approach is through smaller or larger adjustments using the features of the digital environment. In the case of the Czech Plzeň atlas, a simple "switchover" was chosen; Plzeň became the European Capital of Culture in 2015, and one can leaf through the e-book of the historical atlas of the town³⁷. The Hessischer Städteatlas opted for a similar solution by offering all atlases published until 2012 as part of the project in a user-friendly PDF format³⁸. The benefits of these solutions for users include quick access to information (compared with the printed version, the electronic versions allow browsing) and a saving on purchasing costs. Such a simple approach could be a temporary and particularly cheap solution for the online publishing of older atlases that were published before digital technology was used for the processing of the underlying material.

The advantage of using newer atlases from the 1980s and 1990s is the use of vectorised images that can be switched on and off. This feature is being used by the interactively designed atlas of the German town of Braunschweig, edited by Daniel Stracke (Münster). In three underlying maps on a small, medium and large scale, the user can click on information that would have been included in separate thematic map sheets in the printed format (evolution maps and thematic maps of waterways, historic roads, and fortifications). Compared to the simple PDF format or e-books, this solution already uses the advantage of the digital environment (the interactive overlaying of an individual layers option)³⁹. The

³⁷ The e-book is not comprehensive because there are not copyrights to all of the maps: https:// www.plzen.eu/obcan/o-meste/multimedia/ebook/knihy/ebook-historicky-atlas.aspx (2015-05-05).

³⁸ See http://www.lagis-hessen.de/de/subjects/browse/sn/statl (2015-05-05).

³⁹ See http://www.uni-muenster.de/Staedtegeschichte/Forschung/interaktive_Kartographie_Braunschweig. html (2015-05-05).

³⁶ See footnote 32.

map portal of the Historical Town Atlas of the Czech Republic, managed by Eva Chodějovská and technically supported by Jiří Krejčí, has an analogical concept.

An interesting solution is delivered by a simple connection of geo-referenced historical maps with the current cartographic underlying document using opacity. The number of map portals with such solutions that are not actually historical atlases in the standard sense is growing, especially in Bohemia. Outside of the framework of the Historical Town Atlas of the Czech Republic, historical atlases for Plzeň, Kladno, Kutná Hora and Most started popping up on the Internet, and probably independently, as they differ from each other in terms of methodology. Towns have made geo-referenced plans, historical maps and aerial views available in digital format⁴⁰. As far as the size of the covered area is concerned, the joint project of the Austrian State Archive in Vienna and Arcanum is at the forefront. The project partners are offering three military surveys (1763-1887) of the entire Habsburg Monarchy (today's territories of Austria, the Czech Republic, Hungary and Slovakia as well as parts of Poland, Ukraine, Romania, Serbia, Croatia, Slovenia and Italy as well as Austrian Netherlands) and specifically the territory of the Hungarian Kingdom (1869-1887). The maps can be browsed and used naturally to track the historic country as well as towns and their surroundings. A user-friendly feature is that a location can be entered in various languages (e.g. "Bratislava" in Slovak, "Pressburg" in German, and "Pozsony" in Hungarian), and the icing on the cake is that the authors also offer 3D imagery using Google Earth⁴¹. The Czech project StareMapy.cz (OldMaps) and its Slovak analogy (Staré mapy.sk) are analogical, although less elaborate projects⁴².

As opposed to the relatively simple overlapping of historical and current maps, some portals offer other improvements. For instance, the Historical Town Atlas of the Czech Republic (as well as some smaller projects, such as the one for the city of Most) employ the possibility of inserting historical or modern-day imagery of significant topographic units into the cartographic image (e.g. important buildings or streets in vintage postcards and photographs).

The creators of the *Historisch-topographischer Atlas schlesischer Städte*⁴³ have gone a step further. The authors offer online access to two processed locations out of 34 potential towns in the territory of today's Poland and the Czech Republic (parts of the historic Silesian region), namely Zgorzelec and Opole. One

⁴⁰ Plzeň: http://gis.plzen.eu/staremapy/; Kladno offers only the second and third military surveys and an orthophoto map dating from 1951. See: http://kladno.gepro.cz/OUT/HTML/ MISYS3; Kutná Hora: http://www.kutnahora.cz/mapserv/history/; (2015-05-05).

⁴¹ See http://mapire.eu/de/ (2015-05-05).

⁴² See http://www.staremapy.sk (2015-05-05).

⁴³ See https://www.herder-institut.de/staedteatlas_schlesien/atlas.html (2015-05-05).



Fig. 1 - http://gis.mesto-most.cz/mostdominulosti/index.html. On this orthophoto map of Most, there are icons which allow access to imagery from other periods (the image above show an orthophoto map from 1938 and the photograph of a shopping centre from the 1970s).

can immediately appreciate that the menu is – as is common in central Europe – provided in several languages. In both towns, the atlas offers a textual section (geographical position, population, and history) and a cartographic section (historical maps without overlaying modern maps, text commentary, the development of inhabitation, and vignettes). In Zgorzelec, the authors even offer a short video trailer with 3D visualisations depicting the topographic evolution of the town. This extraordinary didactic teaching aid is turning into something that is somehow a shortcoming in classical town atlases, whose sophistication is not attractive to interested intellectuals who are not historians and those who are not urban experts. Despite their shortcomings, the Prague portal and the presentation of Zgorzelec offer multimediality as an important tool to make historical town atlases more attractive. Contrary to the printed format, the digital environment can apply static as well as accompanying dynamic imagery (including video footage and interactive 3D models).



Fig. 2 - Picture: https://www.herder-institut.de/staedteatlas_schlesien/atlas.html. A 3D reconstruction of Zgorzelec planted into a military map.

On a different note, a discussion allegedly took place in London at the end of the 19th century which suggested that the intense growth of horses pulling carts would mean that in one to two decades the city would no longer be able to remove the resulting excrement. Then cars came along, and the issue was resolved. It is possible that the philosophy of historical atlases could be reconsidered in a new way: a way that will link previously independent ways of explaining history – both in text and images (books with illustrations or documentary and period film footage) – along with the cartographic material.

Having discussed cartographic projects, let us now detour to databases of urban history which work with text and (mainly) imagery. The online Encyclopaedia of the History of Brno (*Encyklopedie dějin města Brna*), established in 2004, is one of the oldest of its type in central Europe⁴⁴. It offers a "Wikipedian"

⁴⁴ See http://encyklopedie.brna.cz/home-mmb/_(2015-05-05).

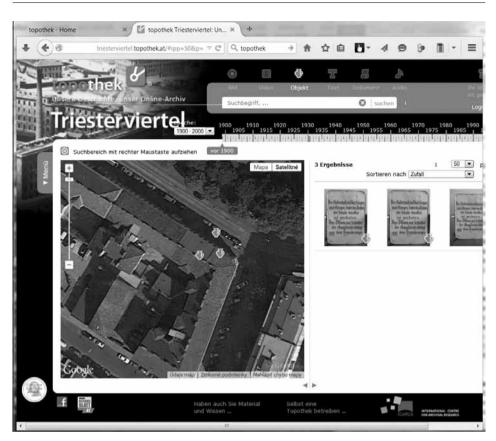


Fig. 3 - Results for a search in the Topothek.at.

view of Brno's history from two main focal points: events and locations (!) It is the advantage of databases like this that they offer a meta-archive (digitised items with metadata of historic sources drawn from a great number of relevant memory institutions, such as the city museum, archives, gallery, and library) whose entries are commented upon by academic experts as well as volunteers (personal observers and owners of sources who provide them for digitisation) who can take part in the project in a collaborative effort. The recipient is then a user, not just a reader.

A similar database has been available at *Wien Geschichte Wiki*⁴⁵ since 2014. In the case of Vienna, this is essentially a purposefully fragmented version of *Historisches Lexikon Wien* by Felix Cseike which has been adapted for the purposes of the Internet. New formats of memory entities (non-text-based source types,

⁴⁵ See https://www.wien.gv.at/wiki/index.php/Wien_Geschichte_Wiki_(2015-05-05).

such as images and maps) are added to the core text of the project. In a certain way, such databases can be an inspiration for the new generation of digital town atlases. Just as these databases are shifting towards topography, map portals are being complemented and new database elements are being added.

The most advanced town databases available to date that have made the first tiny steps towards becoming a town atlas could be the Austrian Topothek and the Slovak PamMap⁴⁶. The Topothek is a dynamic and a fast growing project that creates sub-databases for individual locations (mostly villages as well as smaller cities) and which features an identical structure. Users can select miscellaneous historical sources according to their own interests (objects, images, video and audio material, and documents) and text commentary from a relevant time period: e.g. a user wants video sources from the Second World War for Wien-Triesterviertel. The results are then shown on a modern Google-style map.

It is only a small step from the Topothek to then hyperlinking databases and topography, and creating a comprehensive memory portal. A beta-version of such a project for the Slovak capital Bratislava has been available since the summer of 2015 at www.pammap.sk (PamMap - Pamäť mesta Bratislavy - Memory of the City of Bratislava). PamMap is an acronym composed of Slovak words (PAM = *pamäť* [memory] for the database elements, and MAP = mapa [map] for the cartographic approach). It expresses the main philosophy of the project; namely, the option for the user to make either a database or cartographic enquiry on one portal. The structure of the database section is near completion, and the user can search relevant results (memory entities) in urban history through a requested source type (object / writing / graphics / photographs / postcards / 3D visualisation / audio / video) while also specifying the time (e.g. 1914-1918), location (e.g. street name), historical event, personality, topics (e.g. Germanicum, Judaicum, transportation or the Catholic Church), and the source of memory institutions (e.g. the Municipal Archive of Bratislava or the Private Collection of XY). This all means that the user can select, for example, photographs of the Main Square in Bratislava taken by Joseph Hofer which are stored in the municipal archive and are dated between 1930 and 1945.

The memory items are localised using a GIS, and thus a similar selection can be achieved through map access as well: users can overlay a historical map onto a modern-day Google Map and choose the opacity. Similarly to Prague, "pinned" icons with memory items related to the location in question will be displayed. By clicking on icons localised on the Main Square, users can access specific digitised items with the respective metadata. The objective is to display only the relevant items for a particular period.

⁴⁶ See http://www.topothek.at/ or www.PamMap.sk (2015-05-05).



Fig. 4 - The PamMap comprehensive memory portal. Results of a map search for individually chosen criteria (material – photo; theme – water transport; period – 1919–1939). The results are shown on a selected historic map (in this case from 1931) on the background of a modern Google Map with the possibility to adjust the opacity.

A selection using the map will be more suitable for topographically oriented enquiries. For example, if an archaeologist is looking for all discoveries from the Bronze Age found in water sources as potential sacrificial gifts, he can overlay the modern map with the first or second military surveys that captured the country in the pre-industrial period, and then he can follow all the discoveries localised near springs and wells on the territory of the modern city. This philosophy could bring a practically unlimited number of requests for atlases from users. For example, after medieval tax registers are processed, historians will be able to detect where in a city taxpayers with the name "Hungarus" or "Wiener" lived. Once census records from the 19th century including information on inhabitants' employment have been added, users will be able to find out where tailors and blacksmiths were located. Similarly, an ethnologist will be able to select some Judaica images (photos, postcards or graphic art) from the first half of the 20th century, which will certainly be concentrated around a Jewish ghetto. While printed atlases offer maps with selected topics, and interactive atlases (e.g. Braunschweig) offer limited or pre-selected interactivity, the new philosophy of comprehensive memory portals should allow for (nearly) any combination of various enquiries.

There are several pitfalls in this development, which ends with the historical and geographical "Aleph"⁴⁷. One such problem is how financially demanding and laborious such projects can be. The PamMap project has overcome both issues through donations and the collaboration of volunteers. However, collaboration with the general public is both an aid and a concern. "Post-modern" history (including portals such as PamMap) is, to a certain extent, an open work, not just according to Umberto Eco's definition, but also literally. They are open to sources which are brought in by volunteers; other people digitise it, and then other people furnish it with metadata, including GIS-positioning, on moderntype maps. Others contribute financially to maintaining the server, and so on. Therefore, where there is a lack of funding to achieve the professionalism of collaborators, there is a real threat of amateurism (i.e. "Wikipedisation"). However, the advantage of such comprehensive memory portals, along with their interactivity, multimedia and openness, is their emotional side, which is in contrast to "big history", for example, in the phases of a city siege, a stage in the growth of the city, or the regulation of the embankments of the town. "Small history" of-

⁴⁷ In a novelette by Jorge Luis Borges, a writer of magical realism, "Aleph" is something that contains all the other points in the universe, and anyone who gazes into it can see everything. For the English translation, see: http://www.phinnweb.org/links/literature/borges/aleph.html (2015-05-05).

fers more statements and pictures made by specific people along with their stories and their emotional audio and video memories.

Comprehensive memory portals can be extremely attractive, especially if you think of how much time generations of digital natives are able to spend on social networks and in the virtual world of computer games. The creation of similar memory portals will happen more often, and not only in central Europe. In addition to this, one can already see networking taking place in the creation of sister databases with an identical formal structure of the digital platform: e.g. the 48 sub-databases of local municipalities in Lower Austria, 15 in Upper Austria, 2 in Burgenland, 5 of boroughs in Vienna, 1 of a location in Croatia, and 2 in Bavaria which are all associated with Topothek.at. An application for a European grant for the partial connection of entities up to 1945 in memory portals in Slovakia (PamMap) and Austria (Topothek) with databases in the Czech Republic (The Encyclopaedia of Brno) and Hungary (The Hungarian National Archive) has been submitted. If this comes to fruition, we would get to the point that the ICHT wanted to achieve thanks to the comparison of atlases. We would be able to compare the development of individual cities in central Europe. However, it is important to professionally follow data topography and to initiate and assess it. Just like when standards were created for the metadata description of digitised charters (TEI – Text Encoding Initiative) or manuscripts (TEI-MASTER DTD), one needs to think about the standards applicable for the structuring of comprehensive memory portals, and, if possible, provide geo-references for modern maps and make old maps which lack the possibility of being linked to modern cartographic systems at least available in an image format, and then place all types of sources for underlying maps using geo-referencing and other methods. Given the fast development of the digital environment, we shall see whether comprehensive memory portals are a saviour or a dead-end for historical towns atlases as well.