

Addressing the Houses: The Introduction of House Numbering in Europe

Identifier les maisons. L'introduction du numérotage des maisons en Europe

Anton Tantner



Electronic version

URL: <http://journals.openedition.org/histoiremesure/3942>

DOI: 10.4000/histoiremesure.3942

ISSN: 1957-7745

Publisher

Éditions de l'EHESS

Printed version

Date of publication: 31 December 2009

Number of pages: 7-30

ISBN: 978-2-7132-2214-6

ISSN: 0982-1783

Electronic reference

Anton Tantner, « Addressing the Houses: The Introduction of House Numbering in Europe », *Histoire & mesure* [Online], XXIV-2 | 2009, Online since 31 December 2009, connection on 10 December 2020.

URL : <http://journals.openedition.org/histoiremesure/3942> ; DOI : <https://doi.org/10.4000/histoiremesure.3942>

Anton Tantner*

Addressing the Houses. The Introduction of House Numbering in Europe

Abstract. The article deals with a technology of house identification that was characteristic of the classifying spirit of the eighteenth century: house numbering. This technology was not introduced to facilitate orientation for the cities' inhabitants or to be helpful to foreigners; its origin can be located in the border areas of early modern police, military and tax administration. It aimed to give the state access to the riches and resources of every house, and to make it easier to control, tax or recruit their inhabitants, or to lodge soldiers. After an overview of the house numbering development in 18th-century Europe, this article treats the different systems of house numbering (consecutive numbering of all the houses in the city or in a district, block numbering, the 'clockwise schemes', the even/odd system etc), arguing that it was difficult to make people accept the difference between the address and the physical data (the house).

Résumé. Identifier les maisons. L'introduction du numérotage des maisons en Europe. L'article traite d'une technologie d'identification caractéristique de l'esprit classificateur du XVIII^e siècle : le numérotage des maisons. Cette technologie n'a pas été introduite dans le but de simplifier l'orientation des habitants des villes ou d'être utile aux étrangers. Elle trouve son origine dans une zone frontrière où se côtoient l'armée, le fisc et la police. Les numéros de maison devait permettre à l'État l'accès aux richesses et aux ressources des maisons, pour contrôler, imposer et recruter les habitants ou pour loger des soldats. Après un tour d'horizon sur l'introduction du numérotage de maisons en Europe, l'article traite des différents systèmes utilisés pour le numérotage (numérotage dans l'ordre des localités entières ou par district, numérotage des pâtés de maisons, numérotage des rues selon le système du « fer à cheval » ou le système pair/impair). Il ne fut pas facile de faire accepter l'idée d'une différence entre le numéro (celui de la maison) et l'adresse.


* Institut für Geschichte, Universität Wien Dr. Karl Luegerring 1, 1010 Wien – Autriche. E-Mail: anton.tantner@univie.ac.at, site : <http://tantner.net>

This article is about a detail of history that has become so familiar in our everyday life that we do not even think it could have a history. The house (or street) number. But like so many things we take for granted, the house number had to be invented and implemented in our day-to-day life; a process that did not take a straight course, but went with many resistances and difficulties.

After a short introduction to recent works published on this topic, I will give an overview of the spreading of house numbering throughout Europe. In the following part I want to examine the different systems of house numbering being used, bearing in mind that the early systems had problems with considering changes and keeping the numbers up-to-date.

1. Studies of house numbering

In the last years the history of house numbering was given attention by both academic scholars and practitioners. Beside my own work focussing on the introduction of house numbering in the Habsburg Monarchy¹, Vincent Denis and Vincent Milliot – following the pioneering work of Jeanne Pronteau² – were working on the history of house numbering³ in France; in the USA, the historical geographer Reuben S. Rose-Redwood has dealt with the different systems, sharing with me – a foucauldian perspective⁴; in Switzerland, Marco Cicchini worked on the history of the police in Geneva mentioning the resistances against house numbering⁵ and Heike Blumreiter has published a book about the house numbers of the German city of Düsseldorf⁶. Furthermore some practitioners, dealing with house numbers in the city administrations, conduct research out of their professional interest. One of the first researchers in this tradition in the nineteenth century was Ch. Merruau publishing around 1860 a « Report about the Nomenclature of Streets and House Numbering in Paris »⁷; he was followed recently by Wilfried Matzke, working for the surveyor's office of the city of Augsburg⁸, did especially by Bernhard Wittstock (Land Registry of the city of Berlin);

1. TANTNER, A., 2007a; TANTNER, A., 2007b. See also the  corresponding postings in my weblog: <http://adresscomptoir.twoday.net/topics/Hausnummerierung/>

2. PRONTEAU, J., 1966.

3. DENIS, V. & MILLIOT, V., 2004; DENIS, V., 2008, (esp. p. 285, 390).

4. ROSE-REDWOOD, R., 2008.

5. CICCHINI, M., 2008.

6. BLUMREITER, H., 2005.

7. MERRUAU, C., [ca. 1860].

8. MATZKE, W., 2007.

Wittstock has published in 2008 a five volume work about the « Berlin House Number in German and European Context » with about 2.500 pages, mainly a compilation of sources concerning the history of house numbering from the beginning to the present, a very useful anthology⁹.

2. House numbers and Absolutism

The age of so called « Absolutism » and of Enlightenment is the age of the triumphant progress of house numbering throughout Europe. It was not introduced to make people's orientation easier or to help foreign visitors. On the contrary, its origin can be traced in the border areas of military, treasury and early modern police, in the « dust of events » (Foucault)¹⁰, that was not treated in history books until recently.

Provision of numbers served the purpose of assigning a unique address to each house, thus ensuring that the state could get hold of the subjects living therein. At a time when the modern state was taking shape, authorities were bothered with houses being cut off from the public world; their walls – so permeable for the lodgers¹¹ – appeared an impenetrable barrier to the state's pursuits of power. A house would remain a monolithic bloc barring tax and military authorities from systematic appropriation of the riches and resources held inside unless there was a central addressing system.

Even so, houses were not at all unaddressable before house numbers were introduced. As a matter of fact, houses did have addresses – the house names. However, these were not always evident since not every house had a plaque attached indicating its name. Knowledge of a certain address therefore remained at the local level, confined to the seigneurie. State authorities laying claim to the resources harboured in individual houses depended on locally limited information being made available with the support of seigneurial officials whose interests, however, often ran counter to those of the former. Moreover, even if house names had been visible, and even if there had been a register of house names, a name-based addressing system would nonetheless have posed problems. There were many identical house names, i.e. an object targeted by state authorities might have been missed owing to the confusion of houses because of homonymy. For example, at the end of the eighteenth century, there were six buildings downtown Vienna and other twenty three located in the suburbs named « *Zum Goldenen Adler* » (At

9. WITTSTOCK, B., 2008.

10. FOUCAULT, M. 1991, p. 274.

11. CASTAN, Y., 1994, p. 54; DÜLMEN, R., 1990, p. 14, 58.

the Golden Eagle's); thus, all together there were twenty nine houses that could be mixed up under a name-based addressing system¹². Compared to this, numbers would constitute discrete entities clearly distinguishable from each other. Once painted onto the wall and inseparably attached to the house as soon as the paint had dried a number would render walls permeable, permitting access to recruiting officers, tax collectors and the *Policey*¹³.

3. The quest for origins

This great enterprise of numbering the houses is characteristic of the eighteenth century; without irony, it is possible to call the house number one of the most important innovations of the era of Enlightenment, a century that was virtually possessed by order and classification. A chronology of house numbering could open with the numbering of the houses of Prague Jewry in 1727, when during a so called « conscription of the Jews » not only the houses, but every flat in the houses were numbered by floor¹⁴; just as good this chronology could start with the numbering of the houses of Paris suburbia between 1727 to 1728, carried out on the occasion of a census of houses. In this latter case, numbers were cut into the door frames; these numbers were later used for the purpose of addressing, but the aim was not to identify the houses, but to count a certain number of houses not to be exceeded by new buildings. House numbering in this case was used to fight against city growth; tracking down a house by means of its number was considered of secondary importance¹⁵. One could also mention that according to Edward Hatton's « A New View of London » in 1708 in London the houses of Prescott Street were numbered, though these numbers were not used in the following decades¹⁶. There is also evidence that the buildings of the Augsburg « Fuggerei » – a building providing low rent flats for the poor – were numbered with Gothic numerals by 1519, a very early example of the technology but it is not clear if the numbers were used to identify the houses¹⁷. Who ever wants to step earlier in history to find beginnings and origins can

12. [Anonymous], [1780?].

13. An alternative perspective on that is provided, among others, by the following expeditions into the interior of houses led by both historians and ethnologists: BRAUDEL, F., 1990, p. 302-332; COLLOMP, A., 1994, p. 497-533. (as an overview of modern history); LE ROY LADURIE, E., 1993, p. 55-83 (on the « *domus* » of the late Mediaeval inhabited by heretics); FARGE, A., 1989, p. 17-19 (on the urban apartment house of the late *Ancien Régime*); the expedition through the house in the Kabylei is led by P. BOURDIEU, 1979, p. 48-65, 397-405.

14. PROKEŠ, J. & BLASCHKA, A., 1929, p. 259, note 16.

15. PRONTEAU, J., 1966, p. 71-79; cf. BENJAMIN, W., 1991, vol. V.1, p. 644, 648.

16. HEAL, A., 1942, p. 100.

17. NÜBEL, O., 2000, p. 16.

mention the 68 houses situated on the Paris Pont Notre-Dame. They were continuously numbered since the fifteenth century; in the sixteenth century they bore golden numerals on a red background. Anyway Jeanne Pronteau, house numbers historian, denies that this kind of numbering can be regarded as a precursor of later house numbering, although the numbers were used for identification purposes by the administration. According to Pronteau, the reason of the numbering was not providing the houses with an address but the counting of property owned by the city of Paris¹⁸.

Finally there are myths and fairy tales. How do you find the house of an enemy, above all when it is situated in a lane where all houses resemble one another? In «Ali Baba and the Forty Thieves»¹⁹, this is a crucial problem. How can the thieves find the house now inhabited by Ali Baba and formerly belonging to his murdered brother Kâsim, when you can hardly tell the difference from the other houses? The thief sent as spy finds a solution. He paints a small white sign on the house door using chalk. Ali Baba's clever slave Marjaneh discovers the sign and becomes suspicious. It had to be fixed on to the door by an enemy, who is up to no good. Her reaction. So she paints the same sign on all other doors of the lane and indeed, she succeeds. When all the thieves arrive to slaughter Ali Baba they are confused and cannot track down Ali Baba's house. Once again a scout is sent to spy out the house and hits upon the same idea as his predecessor, with the small difference that he writes the sign in red colour on a hidden place of the house. Yet he does so in vain, because Marjaneh will find it again and she will paint the sign again on the same places of the other houses in the street. So once more the thieves do not achieve their aim. Now the thieves' captain himself explores the situation of Ali Baba's house. Incognito he is lead to this house:

« Then he regarded the house very carefully, and he did not need to make a sign on it but he counted the doors of the street until the door of the wanted house and he remembered the number. He also counted all corners and windows of the house and memorized all characteristic features, so he surely would recognize the house ».²⁰

The number therefore has a differentiating power and indeed will lead the thieves to Ali Baba's house. However the number is not painted on the house but rests hidden in the captain's memory. Being painted on the house, the number would arouse massive suspicion; he who numbers houses will come with malicious intent. But does the story of Ali Baba

18. PRONTEAU, J., 1966, p. 61-69.

19. « Die Geschichte von Ali Baba », 1976, vol.4, p. 826-834, 845-846; on the used manuscript see vol. 12, p. 650.

20. « Die Geschichte von Ali Baba », 1976, vol. 4, p. 834. (own translation).

really date from the times of « One Thousand and One Nights »? Not at all, recent studies come to the result that it was written down at the beginning of the eighteenth century by the orientalist Antoine Galland, relying on the account of a maronite monk, an account he embroidered. The fact, that the thieves' captain *counts* the doors to *identify* the house is only to be found in a manuscript that was written at the beginning of the nineteenth century, when house numbers were already well known²¹.

4. House numbers' triumph in the eighteenth century. A European tour d'horizon

May be it is an idle venture to hunt for the house number's inventor; it is possible that this innovation was a collective invention that was developed at the same time in different countries. There is a case for it, Marx stated in one of it *The Capital's* footnotes, namely that « [a] critical history of technology would show how little any of the inventions of the eighteenth century are the work of a single individual »²².

Perhaps the wave of house numbering starts in Prussia, where it was ordered in 1737 *to fix numbers on the houses (...) in little villages* on the day before the troops march in; in this case house numbers served for making the billeting of soldiers more easy²³. In 1743, after the annexation of Silesia and the county of Glatz numbering is extended to these territories²⁴; the introduction of plates is ordered in 1752: « *In every town little tin plates with numbers have to be produced by the city council and nailed to the houses, as has happened so already in Silesia* »²⁵. There is evidence that this numbering is made to last. The recruitment regulations of 1792 mention the house numbers and order their introduction in those cities where it has

21. CHRAIBI, A., 2004; MAHDI, M., 1995, p. 72-86.

22. MARX, K., 1993, p. 392, note 89.

23. Corporis Constitutionum Marchicarum continuatio prima, (...) von 1737. bis 1740. (...) colligiret und ans Licht gegeben von Christian Otto Mylius. Berlin & Halle, Buchladen des Waysenhauses, 1744, col. 37-38. Thanks to Bernhard Wittstock for this hint.

24. March-Reglement Vor Das Herzogthum Schlesien Und Die Grafschafft Glatz. De Dato Potsdam den 1. Martii 1743. Breßlau, Johann Jacob Korn, 1743. Staatsbibliothek zu Berlin, Preußischer Kulturbesitz. Signatur, 2^o Gu 12102. Nr. 5.

25. Königlich Preußisches neu revidiertes March-Reglement vor Seiner Königlichen Majestät sämtliche Provintzien und Lande, De dato Berlin den 5ten Januarii 1752. Berlin, Gäbert, 1752. Staatsbibliothek zu Berlin, Preußischer Kulturbesitz. Signatur, 2^o Gu 12102. Nr. 70.

not yet happened²⁶. Only the city of Berlin remains without numbers until the beginning of the nineteenth century.

The spreading of house numbers throughout Europe starts in the middle of the eighteenth century. In 1750 (or 1751) Madrid's houses are numbered, using a block system. Every block of houses – called *Manzana* – receives a number, the block's houses are numbered consecutively. To find an address one has to know the street name, the number of the block and the number of the house in the block²⁷. The numbers seem to have been accepted in Madrid. After a visit to Madrid in 1772, the British traveller Richard Twiss stated « *that the houses were all numbered* »²⁸. A few years after Madrid, Trieste's 1.754 houses are numbered on the occasion of a census²⁹. In the same year introduction of house numbering is discussed in Vienna, but finally not carried out; the officials wanted to sell the new technology of control to the sceptic population by arguing « *that dissolute and dangerous people* » could be traced more easily. Anyway the authorities hesitated, perhaps because they feared too much resistance³⁰. Regulations introducing house numbering in London date from 1762 and 1765; in the 1768 published street directory, the « Complete Guide », three quarters of all listed houses bear number³¹. In 1766, the houses in the county of Lippe are numbered with the aim to address the real estate without being dependent on using the changeable house name³².

Starting in 1767, numbering is introduced in Tyrolia, the numbers being painted on the houses using red colour³³. In the same year house numbers

26. FRAUENHOLZ, E., p. 310, 327. (Canton-Reglement, 12.2.1792). See also Moravský Zemský Archiv, Brno (MZA), B1 Gubernium, H 193, Kt. 602, Znaimer Kreisamt an mährisches Gubernium, 8.4.1767.

27. KANY, C., 1932, p. 44.

28. TWISS, R., 1775, p. 140.

29. Minuta di rapporto, 6.4.1754, quoted in P. MONTANELLI, 1905, p. 105.

30. Österreichisches Staatsarchiv, Wien (ÖStA), Allgemeines Verwaltungsarchiv (AVA), Hofkanzlei, III A 4 Niederösterreich, Kt. 375, 56 ex Mai 1753: Instruktion für die niederösterreichische Repräsentation und Kammer, 10.5.1753; IV M 1 Niederösterreich, Kt. 1326, 23 ex März 1754: Hofdekret an niederösterreichische Repräsentation und Kammer, 2.3.1754, f. 30v (insertion: *ohne jedoch dabey einig weitere numerirung vorzunehmen [but without executing any further numbering]*; cf. BIBL, V., 1927, p. 203-205, who doesn't mention the withdrawal of house numbering.

31. HEAL, A., 1942, p. 100.

32. BEHRISCH, L., 2004, p. 566.

33. HOCHEDLINGER, M., 2003, p. 235.

are ordered in Further Austria³⁴; one year later, in 1768 the billeting of soldiers is the reason why house numbering is introduced in French cities; Paris is not affected as there exist barracks; houses are numbered only in the new streets around the covered grain market erected in 1762³⁵.

In 1770, house numbering is ordered in the Bohemian and Austrian countries of the Habsburg monarchy to prepare a new recruitment system³⁶; in the same year the Munich painter Franz Gaulrapp is commissioned to number the four quarters of his home town, a police measure directed against beggars and vagabonds; the number is painted on the houses' doors using white colour³⁷. One year later follows Mainz. The letters *A–F* are assigned to the six quarters of the city, the houses of every quarter are numbered consecutively; the letter of every section and the house number (e.g. « Lit A 3 ») are fixed above or beside every entrance. The electoral palace, office buildings, barracks and back buildings without exit to the street are not numbered; new buildings can be numbered by using fractions (e.g. « D. 183 1/4 »). In 1779, in Paris, houses (or, more exactly, the main doors) are numbered for the first time; this happens on the initiative of Marin Kreenfelt de Storcks, editor of the *Almanach de Paris*. To make his street directory more efficient, Kreenfelt needs a system of homes addressing; at first he uses the numbers of the street lamps, but finally he has the idea to introduce numbering by himself. Kreenfelt and his assistants paint the numbers above or beside every door, beginning on one side of the street, continuing until the end of the street and finally numbering the doors of the other side of the street, so that the lowest and the highest number of every street are to be found *vis-à-vis*. The Paris police tolerates Kreenfelt's work in the night that is peered at suspiciously by the Parisians; Kreenfelt will continue it until the end of the *Ancien Régime* using the numbers in his almanac³⁸.

In Augsburg, the introduction of house numbering is motivated by the fund raising collection for the new poor house in 1781, to assign clear districts to every collector. An engineer named Voch is commissioned which this work. The letters *A–H* are assigned to each of the eight quarters within the houses

34. ÖStA, Haus- Hof und Staatsarchiv (HHStA), Kabinettsarchiv: Staatsratsprotokolle (StRP), Bd. 32 (1769/III), Nr. 2477: Ah. Resolution zu Vortrag der Hofkanzlei vom 30.6.1769, 20.7.1769; this resolution also in KA, HKR 1769/89/398; 1770/74/161 N° 4 and AVA, Hofkanzlei, VII A 4 Böhmen, Kt. 1964, 211 ex Oktober 1769, f. 70r-72r.

35. PRONTEAU, J., 1966, p. 81-82; MORIN, A., 1983, p. 10-11.

36. TANTNER, A., 2007a.

37. SCHATTENHOFER, M., 1984, p. 173.

38. PRONTEAU, J., 1966, p. 82-86.

are numbered consecutively; the 52 houses of the « Fuggerei » in district *G* are numbered separately³⁹. In Geneva, houses are numbered in 1782⁴⁰, in Austrian dominated Milano⁴¹ and in Hungary in 1786. Emperor Joseph II at first is quite confident that the Hungarian nobility will not offer resistance.

« It goes without saying that all dignitaries, nobility and magnates do not need to be shy that their families are recorded and their castles are numbered, because even the imperial castle is numbered ».⁴²

The last argument is also used in the decree issued by the royal government in Preßburg (today's Bratislava). The nobility and magnates cannot have any objections to numbering, because « *the royal-imperial castle of his majesty is numbered in the same way* »⁴³. Worse the less, the Estates openly oppose the census and its commissars. Some of the officials will be beaten up, in the district of Vezprim one officer is murdered, another is splashed with water and has to promise not to set foot on this district ever again⁴⁴. In Transylvania the situation is completely different. The Wallachians – the Rumanian peasants – revolt, because they expect the end of manorial oppression thanks to the conscription; they believe that conscription means immediate incorporation in military service and therefore the end of the detested service for their lords. The rebels are convinced to act in agreement with Joseph II, but are put down⁴⁵. The Hungarian conscription is enforced by troops and lasts much longer than intended. 1.200 officials need more than one year to record 8,5 million souls. They start on November 1st 1784; the final results are presented on April 4th 1786, one year after Joseph II originally expected the end of the census⁴⁶. Like in the hereditary lands, the Hungarian houses are numbered with black colour; the number should be high around three inch, being painted beside or above the house door⁴⁷. The proposition of the district of Komárom to number the nobility's houses using green colour is not

39. HAUSSLER, F., 2000, p. 29; STETTEN, P., 1788, p. 8-9, 13, 91-92.

40. GARRIOCH, D., 1994, p. 37.

41. FARON, O. & PILLEPICH, A., 1993, p. 338-341.

42. THIRRING, G., 1938, p. 145. (ah. Handbillet Joseph II. to Ferenz Esterhazy, 1.5.1784).

43. [DOHM, C.], 1785, p. 74. (Verordnung der k. Statthaltereie in Preßburg, 16.8.1784).

44. MITROFANOV, P., 1910, vol. 1, p. 385. About the estates' resistance but without mentioning conscription and house numbering: HASELSTEINER, H., 1983.

45. MITROFANOV, P., 1910, vol.1, p. 382-383; KOTASEK, E., 1956, p. 134.

46. THIRRING, G., 1931, p. 207-214.

47. [DOHM, C.], 1785, p. 73-74. (Verordnung der k. Statthaltereie in Preßburg, 16.8.1784).

executed⁴⁸. At first the introduction of the conscription system seems to be a success, but finally the estates win, especially because there is much resistance on the rising recruitments for Joseph II's war against the *Osmanic* Empire. In January 1790, the Emperor has to revoke the new recruiting system, which also affects the house numbers. During playing military music and firing artillery, in a sort of ceremony they are removed from the houses⁴⁹.

In the meantime – in 1787 – the author of *Les Liaisons dangereuses*, Choderlos de Laclos submits to the *Journal de Paris* a proposal to number the houses of Paris⁵⁰, yet he does not succeed. Anyway, after the Revolution a new system of house numbering is introduced in Paris and other French cities to facilitate the collection of a land tax in 1790; this new system assigns the numbers to the houses not per streets but by districts, considering the stage of addressing technology a step back compared to Kreenfelt's method. The just established 48 city districts – called sections – are numbered consecutively, so the numbers pass through the city without plan and there are streets where houses have the same number, because the streets cross several districts⁵¹. The French Revolution is of Europe-wide importance also concerning house numbering; the revolutionary wars will introduce this technology in many German, Swiss⁵² and Dutch⁵³ cities, e.g. in Aachen 1794⁵⁴ or Nuremberg 1796, where numbering is executed under pressure of the French occupying power to facilitate the billeting of soldiers. The two districts Sebalder Stadtseite and Lorenzer Stadtseite are numbered consecutively and the house numbers S1 to S1706 and L1 to L1578 are painted on the façades⁵⁵. Quite famous is the often quoted anecdote of Cologne to explain how the brand name 4711 was created for *Eau de Cologne*. According to this anecdote the house of the scent-producer Mühlens became the house number 4.711 on the occasion of the

48. THIRRING, G. 1931, p. 215.

49. MITROFANOV, P., 1910, vol. 1, p. 386-389.

50. CHODERLOS DE LACLOS, P., 1979, p. 597-600.

51. PRONTEAU, J., 1966, p. 87-92, 229-231.

52. Basle e.g. in 1798. SCHATTENHOFER, M., 1984, p. 174.

53. Some villages were numbered here as early as in 1794, house numbering was finally introduced in 1807: WARTENA, R. & VELTHORST, G., 1981.

54. GANSER, C., 1922, p. 27.

55. FISCHER-PACHE, [Wiltrud], Hausnumerierung, in *Stadtlexikon Nürnberg* (Deutschland), <<http://online-service.nuernberg.de/stadtlexikon/rech.FAU?sid=B555109411&dm=1&rpos=1&auf=0>> (29.5.2009).

French occupation⁵⁶. At the Prussian capital of Berlin house numbering is proposed later. Johann Philipp Eisenberg, president of police, proposes the consecutive numbering of the whole city⁵⁷. The Prussian king rejects this method; in 1799 he orders that the numbering has to be executed by streets. Finally this method is chosen, numbering starts on the right side of the more busy or important part of the street, proceeds on this side until the end of the road and then passes on the left side of the street⁵⁸. Finally, in Venice houses are numbered by quarters or « sestiere » in the first Habsburg occupation (1797-1805). The corresponding order, dated with September 24th 1801, requires the numbers attached with black colour made out of bone coal and oil on a white rectangle painted on the houses. Simultaneously street names are written on the houses and a new cadastre of the Venice *Sestieres* is executed⁵⁹.

5. A state-building technology still to be studied in its details

This enumeration doesn't claim to be complete; the details of the transfer of this technology of address still have to be studied more intensively. Especially it would be intriguing to investigate when house numbering appears in colonial cities as for example in Latin America, because it is possible that numbering – as the fingerprint, another technology of control – first was used in the colonies and later was transferred from periphery to centre⁶⁰. It would also be of interest to know more about medieval or even ancient methods of finding one's way⁶¹.

Anyway, the alleged reasons to legitimate the introduction of house numbering are numerous. It can be the billeting of soldiers, recruiting, the administration of tributes and taxes, the fight against beggars or fire

56. GOEBEL, B., 2004, p. 198; FRÜHBEIS, Xaver, 08.10.1792: Hochzeit als Startimpuls zu Kölnisch Wasser 4711, in BR Online, Kalenderblatt 8.10.2002, <<http://www.br-online.de/wissen-bildung/kalenderblatt/druckversion/2002/prkb20021008.html>>; <<http://www.eau-de-cologne.com>>; <http://www.eau-de-cologne.de/edc-literatur.html>>; for an account based on archival material, see <http://www.archive.nrw.de/Kommunalarchive/KommunalarchiveI-L/K/Koeln/InformationenUndService/AllgemeineInformationen/ZurKoelnerStadtgeschichte_Teil3.html> (29.5.2009).

57. [Anonymous], 1798.

58. GOEBEL, B., 2004, p. 198.

59. ZORZANELLO, G., 1991, p. 307-310.

60. On fingerprinting, cf. C. GINZBURG, 1988, p. 108-115; COLE, S., 2001.

61. LING, R., 1990; HILLNER, J., 2001; SMAIL, D., 2000.

insurance⁶². But one argument seems not to be used by officials. That the numbers are convenient for both the villages' inhabitants and foreigners to find one's way. So what nowadays has become a technology of orientation nobody would call into question is in its beginning intended to be a manifest technology of policing people; the officials do not hide this and therefore sometimes are confronted with resistance.

Who are the actors of house numbering? It seems that most often government authorities initiate numbering, although there are exceptions – the 1779 case of Paris and some cities in the USA, where private editors of town directories start house numbering⁶³; in the nineteenth century the task of house numbering usually shifts to the town councils. Provisionally it can be said that house numbering was one instrument – among others as for example the census, ordnance surveyance and land registers – to create the modern state. Following James C. Scott, it can be regarded as a project of making the houses « legible » to officials such as tax administrators or recruitment officers⁶⁴. On the other side it is important to stress that this new technology once introduced could be used by the « numbered » subjects themselves for their own purposes. In the case of Vienna there are examples that soon after their introduction people used the house numbers to address letters or to publish their address in newspaper ads⁶⁵. So may be that this opportunity to « appropriate » the imposed innovation contributed to the fact that after some decades house numbering was widely accepted⁶⁶.

6. Methods of numbering

There are at least six systems of house numbering to be distinguished:

- The numbering of whole villages, as applied for example in the Habsburg Monarchy.
- The numbering of quarters, with a letter being used to symbolize the corresponding city quarter (Mainz, Augsburg, Nuremberg).
- The numbering by block of houses (Madrid, Mannheim).
- The numbering by street using the so called clockwise (or horseshoe)

62. In Lübbrechtsen (Lower Saxony) houses are numbered in 1765 on the occasion of the introduction of fire insurance <<http://www.luebbrechtsen.de/geschichte.htm>> (22.7.2003, inactive 29.5.2009).

63. ROSE-REDWOOD, R., 2008, p. 292.

64. SCOTT, J., 1998, p. 11-83; as a recent critique of Scott, see J. CAPLAN, 2009.

65. TANTNER, A., 2007b, p. 35-37. See also the « coda » of this article.

66. The notion of « appropriation » was proposed by Alf Lüdtkke, see A. LÜDTKE, 1989, p. 12-13; 1992, p. 109.

scheme. The numbers follow one side of the street and then back on the other side, until the house with the highest house number stands opposite the house with number 1.

- The numbering by street using the system pair/impair or odd/even. The houses on one side of the street are numbered with odd numbers, the houses on the other side with even numbers. In Vienna this system is called « orientation numbering »; usually it is introduced in European cities not until the nineteenth century – starting in Paris in 1805 –, when due to city growth the other methods did not seem practicable any longer⁶⁷.
- The block decimal system mainly used in the USA, where 100 numbers are reserved for the houses of every block of houses; this system is also called Philadelphia system because it was first used 1856 in Philadelphia⁶⁸.

7. The Habsburg case. Problems with keeping the numbers up-to-date

One of the most common method being used in the eighteenth century was the consecutive numbering of the houses of a whole village, as for example in the Habsburg Monarchy. Here, with the effective date of 10 March 1770, a population census, a so-called « conscription of souls », was decreed to be under taken in both the Bohemian and Austrian domains of the Habsburg Monarchy. Its primary aim was to prepare the introduction of a new military recruitment system, covering, above all, Christian men fit for service in the army. But since the survey was also to serve the purposes of demographic policies, both female and Jewish souls were accounted for, as well, albeit in lesser detail. Thus, commissions comprised of both civilian and military staff toured villages and towns, proceeding from house to house and listing the individuals into preprinted sheets⁶⁹.

In tandem with the « conscription of souls », houses were to be provided with numbers. The modalities of the procedure were established on 8 March 1770 by Supreme Resolution, signed by Maria Theresia herself. According to the resolution, the numbers were « to be painted visibly in consecutive order above doorways with black paint without mounting any special plaques »⁷⁰.

67. PRONTEAU, J., 1966, p. 99-133.

68. ROSE-REDWOOD, R., 2008, p. 300.

69. On the conscription of souls and numbering of houses, see A. TANTNER, 2007a and 2007b; also cf. the « Gallery of House Numbers »: <http://hausnummern.tantner.net>.

70. Österreichisches Staatsarchiv, Vienna, HHStA, StRP, Bd. 35 (1770/II), Nr. 800: Ah. Resolution zum Vortrag des Hofkriegsrats vom 5.3.1770, 8.3.1770; also in Österreichisches Staatsarchiv, Vienna, Allgemeines Verwaltungsarchiv, (AVA), Hofkanzlei, IV A 8 Böhmen, Karton 497, 211 ex März 1770; Österreichisches Staatsarchiv, Vienna, Kriegsarchiv, (KA), Hofkriegsrat Akten (HKR), 1770/74/161 N°11.

The numbers were to be represented by German, i.e. Arabic, figures preceded by the abbreviation for the word *Numero* – for example, an ‘*N*’ followed by an elevated ‘°’. The number was denoted as a house number also by containing letters – figures alone were not considered to be sufficient as they might have been mistaken for a year-date.

Special regulations were applied for the so-called Jew houses, i.e. houses owned by Jews, which was, essentially, applicable only in the Bohemian territories. Those houses had to be numbered separately and marked with *Roman*, or Latin, instead of *German* (indo-arabic) figures. This once again brought to the fore the sharp dividing line that was drawn between the so-called Christian and the Jewish souls – the mark Jews living in Prague were obliged to wear (this dress code was abolished only in 1781) was attached to their houses, as well⁷¹.

The numbering was to be done in turn with number one, as a rule, being assigned to the house the commissioners hit first upon entering a place. Thus, the order of numbers reflected the route the commissioners took passing through a certain place. There were, however, places where a different procedure was adopted, and number one, instead of being attached to the first house next to the town gate, was assigned to some representative building, such as the Emperor’s castle, or the landlord’s residence from which the commissioners proceeded with their business. Thus, rather than street by street, the numbering, starting at ‘1’, was done across all buildings of a place – great the high, for example, four digit house numbers occasionally to be encountered in large cities.

The disadvantages of this system came to light in the following decades in a very disturbing way because one dimension was not paid attention to, the dimension of time. The system was only insufficiently prepared to cover changes. When a new house is built in a village, it gets the figure that follows the number of the last house being numbered, even when it stands not near to it. If two houses are merged, one number disappears. The numbers that should guarantee order are messed up. The order that should guarantee orientation in space slightly becomes an order of time, that means: the smaller the house number, the older the house, what even today is the case in some tiny Austrian villages.

Michel Foucault stated in *Les Mots et les Choses* that at the end of the eighteenth century « a deep mass of time » named « history » falls into

71. JAKOBOVITS, T., 1931, p. 170-175.

the world of animals and plants⁷². This statement seems to be valid also for the world of houses. One apparent sign for this is the often executed renumbering – up to five times in some Viennese suburbs –, a problem many local historians are confronted with, who have to consult complicated concordance tables to trace a certain house.

The house numbers are especially messed up in Vienna, where the numbering introduced in 1770 is valid only one quarter of a century. In 1795, a first renumbering has to be executed and again in 1821⁷³.

To demonstrate the winding ways of these renumbering, I will refer to the numbering history of one certain Viennese house, today addressed as « Köllnerhofgasse 3 ». When the « conscription of souls » took place in 1770-1771 on this site stood the Cologne court, a very large building. It was numbered with conscription number 759. In 1792-1793, it was demolished; on its place architect Peter Mollner erected four new houses. One of them kept the old number – 759 –, the three others got the until then not used numbers 1379, 1380 and 1381. During the renumbering of 1795, the houses were numbered consecutively from 783 to 786; since 1821, they bear the numbers 737 to 786, and consecutively to the introduction of the new street clockwise house numbering system in 1862 the four houses can be addressed as Köllnerhofgasse 1, 2, 3 and 4. Finally, these houses got after 1874 new conscription (or land register) numbers, 645 to 648. So the house Köllnerhofgasse 3 bore the following numbers in the course of time: 759 (from 1770-1771), 1379 (in 1792-1793), 784 (in 1795), 738 (in 1821) and 647 (in 1874)⁷⁴! In this way finding an address in a big city could become a difficult, time-consuming task, even if one knew the name of the street, because two houses standing side by side not necessarily were numbered with figures following each other. The incorporation of the suburbs in 1850 and the demolition of the city walls in 1858 made this problem even more critical; the solution was announced by the census law of 1857: « In expanded cities there can be also introduced a street clockwise numbering »⁷⁵.

72. FOUCAULT, M., 1994, p. 180.

73. For a concordance table see A. BEHSEL, 1829.

74. BEHSEL, A., 1829, p. 22; LENOBEL, J., 1911, p. 13. About the Cologne court: Lemma Kölner Hof, in CZEIKE, F., 1992-1997, vol. 3, p. 558; WAGNER-RIEGER, R., 1957, p. 62-63.

75. FICKER, A., 1870, p. 21.

8. Odd and even

The house numbering system used in most cities of today's Europe is the *odd/even* system with odd numbers proceeding on one street side and even numbers on the other side; sometimes it is called French system because it was introduced in Paris in 1805 and during the nineteenth century in many other cities⁷⁶. In Vienna for example, it was decreed by resolution of the city council on May 2nd 1862. The entrepreneur Michael Winkler who was playing a crucial role in this decision described the initial situation as follows:

« If it is often difficult enough to find an address in a village, a market town, a town on the country side or a capital in the province, so easy and correct orientation is indeed a extremely difficult problem in the metropolis of the Empire, a royal seat with more than 500.000 inhabitants and more than 12.000 house number running around without rules and many streets or lanes of the same name crossing each other. On solving this very involved task we difficult the principle: 'Time is money' ».⁷⁷

It is worth mentioning that the house number and street sign plates made out of zinc were produced in Michael Winkler's factory who therefore could earn enough money with his function for the city of Vienna; as these plates were quite valuable, they were sometimes stolen, which was the reason why in some districts of low reputation a cheaper material was used.⁷⁸

Three years after Vienna, the so called orientation numbering system is introduced in Zurich. Here the new house numbers are called *police numbers* to distinguish them from the *fire cadastre* or *assurance numbers* that were introduced in connection with the fire assurance. The *Regulation concerning the police numbering of the houses* is dated February 11th 1865 and settles the shape of the new numbers. Blue plates with white letters have to be used and fixed on the houses' walls in *appropriate size*. The plates are financed by the city; in the future, when new numbers are to fix or damaged numbers are to be replaced, the house owners have to pay 1 ½ *francs*. The assurance numbers are kept, but can be transferred in the entrance of the house; until today they can be found being fixed on the inside of the doors⁷⁹.

76. MERRUAU, C., [ca. 1860], p. 48.

77. WINKLER, M., 1863, preface (no pagination).

78. WOHLRAB, H. & CZEIKE, F., 1972, p. 343–350; Lemma Häusernumerierung, in CZEIKE, F., 1992-1997, vol. 3, p. 89-90.

79. « Verordnung betreffend polizeiliche Nummerierung der Häuser, 11.2.1865 », in *Amtliche Sammlung der seit Annahme der Gemeindeordnung vom Jahr 1859 erlassenen Verordnungen und wichtigeren Gemeindebeschlüsse der Stadt Zürich*, Zürich, J. J. ULRICH, 1869, vol. 3, p. 40-42.

But was this kind of numbering really invented in France? A statement published in a travelogue by USA geographer John Pinkerton suggests a different land of origin. Pinkerton travelled to Napoleonic Paris at the beginning of the nineteenth century, when the revolutionary, section wise numbering was still used and made orientation very difficult. Pinkerton knew an alternative:

« The best plan is doubtless that pursued in American cities, which is to give all the odd numbers on one side of the street, and the even on the other, which lends every possible expedition to the research ». ⁸⁰

And indeed, new results of research prove that the « French » system comes from the USA. The clockwise numbering system introduced in Philadelphia in 1785 by John Macpherson – editor of the first town directory of Philadelphia – imitating the British example soon proved to be inadequate, which was the reason why in 1790 the US Marshal Clement Biddle introduced the odd/even system during a census. In the following years this system was used in many other US cities, and then was introduced in Paris⁸¹.

9. House numbers and nominal number assignment. The separation of data and address

Which kind of number is the house number? The terminological work of the linguist Heike Wiese gives an answer to this question. Wiese distinguishes three kinds of number assignments. First the « cardinal number assignments », where numbers identify cardinality, i.e. the number of elements of a set, for example the number of pens – 4 pens – or a number of measuring units, e.g.: three litres of wine. Second there are the « ordinal number assignments », where numbers identify the rank of an element in a certain sequence, as for example in the case of the third place of a Marathon runner, with the number three indicating that the runner was the third to cross the finishing line. Finally, Wiese mentions the « nominal number assignments » where numbers identify objects in a set. In this case numbers are used as proper names, as is the case for example with bus or tramway numbers, house numbers or telephone numbers. So numbers can be assigned to objects for three purposes. First to determine the cardinality of sets, second to determine the ranks of objects in a sequence and third to determine the identity of objects in a set; there are cardinal, ordinal and nominal number assignments⁸².

80. PINKERTON, J., 1806, vol. 1, p. 47.

81. ROSE-REDWOOD, R., 2008, p. 292.

82. WIESE, H., 2004, p. 127-128; WIESE, H., 2009, p 9-42.

According to which house numbering system is applied the nominal number assignment being used in the case of house numbers can mix with the other number assignments. In the case of the house numbering per village or the clockwise street numbering system it is possible to mix the nominal number assignment with the cardinal number assignments. Here the number being assigned to the last numbered house equals the cardinality of all houses in the village or the street, as was for example the case in the Habsburg Monarchy. Here the census takers could compile lists in that the names of the villages and next to it the last house number of the corresponding village were registered. By doing so it was possible to state that during the census of 1770-1772 for example in Bohemia there were 389.148 houses numbered⁸³.

In some cases ordinal number assignment plays a certain role when houses are numbered, because it is not at all irrelevant which house receives the number one; in the Habsburg Monarchy most often, it was the Imperial castle or the seat of the landlord that was assigned the number one. Even when using the clockwise street numbering system as in Paris in 1779 it was discussed which house to assign with number one, as Louis-Sébastien Mercier reports. According to his *Tableau de Paris* everyone wanted to have the number one in his or her street, all wanted to resemble Caesar, nobody wanted to be number two in Rome; if a noble entrance gate would be numbered after a common workshop this would imply a pinch of equality to be watched out for⁸⁴.

According to Heike Wiese the nominal number assignment by house numbers most often imply another « secondary ordinal aspect », because « the number that is assigned to a house does not only identify it, but can often tell us something about its position among other houses »⁸⁵. The last quote is especially true in the case of the odd/even system, with the help of that a pedestrian can determine on which side of a street to find the sought-after house.

The shift from the village wise or clockwise system to the odd/even-system can be interpreted as the (at least partial) accomplishment of a modern european concept of place. According to Bernhard Siegert

83. KA, HKR 1772/74/859/1: Böhmisches Generalkommando an Hofkriegsrat, 24.11.1772; HHSStA, StRP, Bd. 45 (1772/IV), Nr. 2888. In the whole Habsburg Monarchy there were numbered 1,100.399 houses. See A. TANTNER, 2007a, p. 165-166.

84. MERCIER, L., 1994, vol. 1, chapter 170, p. 403.

85. WIESE, H., 2009, p. 39.

« from a media theoretical point of view » this concept « is based on the differentiation of data and addresses, or to put it in another way, on the possibility to determine the empty place, the absence, the not being on the place. This concept of place is linked to the notion of order and – the other way round – the modern notion of order cannot be thought without this concept of place »⁸⁶.

There is evidence that even in the older systems this separation of data (the house) and its address could be thought as shows the following example taking place in Lower Austria in 1771. In the dominion of Arbesbach, near the village Altmallon a small house numbered with « N° 22 » was situated. Being built by a certain Franz Träxler, it attracted the attention of the authorities because of the *dissolute rabble* living there being suspected of theft. The owner was arrested and the house completely demolished. The house number was taken away and fixed on a stake being hammered into the position of the former house. The authorities finally decided that when a new house was built one should be cautious about fixing the number on the house instead of the stake⁸⁷. So the house number is more resistant than the house which the number is fixed. It survives the demolition of the house having been populated with dissolute people and waits for the new house to be erected and to be addressed by the number. Once the address – in this case Altmallon « N° 22 » – is established, it remains even if the material substratum it refers to – the data – vanishes. The emptied space the address refers to seem to require a new building.

So the difference of data and address could be thought in the village wise system of numbering although it was difficult to maintain it. In comparison with the former systems the odd/even system had the advantage to differentiate clearly the nominal number assignment from the cardinal number assignment. Using this system the houses were not counted any longer but were only addressed, being given the fact that the highest house number of a street numbered in this manner did not need to equal the number of houses of this street. This system will also make it easier to assign numbers to an empty space destined to new buildings – analogous to the indo-arabic place value system based on the Zero⁸⁸. So the history and the succession of the different types of house numbering can be regarded as a process of rejecting the cardinal number assignment and of strengthening the nominal number assignment aspect while maintaining the secondary ordinal aspect.

86. SIEGERT, B., 2003, p. 93; cf. SIEGERT, B., 2006, p. 142-149.

87. KA, HKR 1771/74/1227: Protokoll der niederösterreichischen Konskriptionskommission, 11.9.1771.

88. SIEGERT, B., 2003, p. 96; on the Zero see B. ROTMAN, 2000.

Coda: The right of being addressable

It is a characteristic feature of social movements, to fight against technologies of control and surveillance, and house numbering is one of these technologies. But sometimes it can be the other way round, which was true for the more recent history of Austria. During the protests against the coalition government between the conservative ÖVP and the right extremist FPÖ opponents opened a so called « Embassy of Concerned Citizens » on February 9th 2000 at Ballhausplatz, where are also situated the Federal Chancellery and the office of the Austrian president. This embassy was first accommodated in a tent, then in a container, and became a meeting place of the resistance against the unwanted government; the weekly demonstrations – taking place every Thursday – started here. This unusual embassy took the right of being addressable by giving itself a house number, Ballhausplatz 1A, in March 2000⁸⁹. This address was also used by *Radio Widerhall* (« Radio Reverberations ») – a programme broadcasted by the alternative radio station *Radio Orange* – as contact address; on the home page one could find the remark:

« *Being sent as registered mail it will surely arrive* ». ⁹⁰

Being addressable therefore does not only mean the possible duty to be recruited to the military or to pay taxes. Sometimes it can be a desired good. So technologies of control and surveillance have a chance to gain acceptance, when the concerned citizens can appropriate them for their own purposes.

Bibliography

- [Anonymous], *Wiener Schildregister, oder Anweisung, wie man sich auf der Stelle helfen kann, wenn man in Wien den Schild eines Hauses oder eines Kaufmannsgewölbes in und vor der Stadt suchen, und ihn finden will*, Wien, Verlag der Expedition des Wienerjournals, n.d. [1780?].
- [Anonymous], « Die Bezeichnung der Häuser in Berlin mit Numern », *Berlinische Monatschrift*, 1798, p. 143-152.
- BEHRISCH, Lars, « 'Politische Zahlen'. Statistik und Rationalisierung der Herrschaft im späten Ancien Régime », *Zeitschrift für historische Forschung*, 31, 2004, p. 551-577.
- BEHSEL, Anton, *Verzeichniß aller in der kaiserl. königl. Haupt- und Residenzstadt Wien mit ihren Vorstädten befindlichen Häuser, mit genauer Angabe der älteren, mittleren und neuesten Nummerirungen, der dermaligen Eigenthümer und Schilder, der*

89. widerst@nd!-MUND (Medienunabhängiger Nachrichtendienst), Samstag 11.3.2000 (newsletter sent per E-Mail, first mentioning of the house number in the schedule not saved on the web).

90. <<http://radiowiderhall.cjb.net>> (22.1.2002; Website inactive 2006); cf. <http://o94.at/programs/radio_widerhall/>

- Straßen und Plätze, der Grund-Obrigkeiten, dann der Polizey- und Pfarr-Bezirke*, Wien, Carl Gerold, 1829.
- BENJAMIN, Walter, *Das Passagen-Werk*. (=Gesammelte Schriften; vol. V), Frankfurt am Main, Suhrkamp stw 935, 1991.
- BIBL., Viktor, *Die Wiener Polizei. Eine kulturhistorische Studie*, Leipzig et al., Stein-Verlag, 1927.
- BLUMREITER, Heike, *Die Düsseldorfer Polizeiverordnung von 1858: die alten und neuen Hausnummern; mit einer Einführung in die Entstehung der Hausnumerierung im ausgehenden 18. und beginnenden 19. Jahrhundert* (=Veröffentlichungen aus dem Stadtarchiv Düsseldorf; 12), Düsseldorf, Stadtarchiv, 2005.
- BOURDIEU, Pierre, « Das Haus oder die verkehrte Welt », in Pierre BOURDIEU, *Entwurf einer Theorie der Praxis auf der ethnologischen Grundlage der kabyllischen Gesellschaft*, Frankfurt am Main, Suhrkamp stw 291, 1979, p. 48-65, 397-405.
- BRAUDEL, Fernand, *Sozialgeschichte des 15. – 18. Jahrhunderts. vol. 1, Der Alltag*, München, Kindler, 1990.
- CAPLAN, Jane, « Illegibility: Reading and Insecurity in History, Law and Government », *History Workshop Journal*, 68, 2009, p. 99-121.
- CASTAN, Yves, « Politik und privates Leben », in Philippe Ariès & Roger Chartier (ed.), *Geschichte des privaten Lebens. vol. 3, Von der Renaissance zur Aufklärung*, Frankfurt am Main, S. Fischer, 1994, p. 29-73.
- CHODERLOS DE LACLOS, Pierre-Ambroise-François, « Projet de numérotage des rues de Paris », in Pierre-Ambroise-François CHODERLOS DE LACLOS, *Oeuvres complètes*. (=Bibliothèque de la Pléiade; 6; éd. by Laurent Versini), Paris, Gallimard, 1979, p. 597-600.
- CHRAIBI, Aboubakt, « Galland's 'Ali Baba' and Other Arabic Versions », *Marvels & Tales* 18, 2004, p. 159-169.
- CICCHINI, Marco, « La mode du numérotage des maisons au XVIII^e siècle. L'exemple de Genève ». Paper presented at the 4^e Journées d'études Circulation et construction des savoirs policiers européens, 1650-1850. Construction et circulation des savoirs policiers en Europe centrale et septentrionale, XVIII^e-XIX^e siècle, 4-6.12.2008, <<http://irhis.recherche.univ-lille3.fr/dossierPDF/CIRSAP-Textes/Cicchini.pdf> (19.5.2009)>
- COLE, Simon, *Suspect Identities. A History of Fingerprinting and Criminal Identification*, Cambridge (Mass.), Harvard University Press, 2001.
- COLLOMP, Alain, « Wohnverhältnisse und Zusammenleben », in Philippe ARIÈS & Roger CHARTIER, (ed.), *Geschichte des privaten Lebens. vol. 3, Von der Renaissance zur Aufklärung*, Frankfurt am Main, S. Fischer, 1994, p. 497-533.
- CZEIKE, Felix (ed.), *Historisches Lexikon Wien in fünf Bänden*, Wien, Kremayr & Scheriau, 1992-1997.
- DENIS, Vincent & MILLIOT, Vincent, « Police et identification dans la France des Lumières », *Genèses*, 54, 2004, p. 4-27.
- DENIS, Vincent, *Une histoire de l'identité : France, 1715-1815*, Seyssel, Champ Vallon, 2008.
- [Dohm, Christian Wilhelm von], « Schreiben aus Ungarn », *Deutsches Museum* 1, 1785, p. 58-84.
- DÜLMEN, Richard van, *Kultur und Alltag in der frühen Neuzeit. vol. 1, Das Haus und seine Menschen 16. – 18. Jahrhundert*, München, Beck, 1990.

- FARGE, Arlette, *Das brüchige Leben. Verführung und Aufruhr im Paris des 18. Jahrhunderts*, Berlin (BRD), Wagenbach, 1989.
- FARON, Olivier & PILLEPICH, Alain, « Rue, îlot, quartier. Sur l'identification des espaces citadins à Milan au début du XIX^e siècle », *Mélanges de l'École Française de Rome. Italie et Méditerranée*, 105, 1993, p. 333-348.
- FICKER, Adolf, « Vorträge über die Vornahme der Volkszählung in Österreich. Gehalten in dem vierten und sechsten Turnus der statistisch-administrativen Vorlesungen », *Mittheilungen aus dem Gebiete der Statistik*, 17, 1870-1872, p. 1-142.
- FISCHER-PACHE, [Wiltrud], « Hausnumerierung », in *Stadtlexikon Nürnberg (Deutschland)*, <<http://online-service.nuernberg.de/stadtlexikon/rech.FAU?sid=B555109411&dm=1&rpos=1&auf=0> (29.5.2009)>.
- FOUCAULT, Michel, *Die Ordnung der Dinge. Eine Archäologie der Humanwissenschaften*, Frankfurt am Main, Suhrkamp stw 96, 1994.
- , *Überwachen und Strafen. Die Geburt des Gefängnisses*, Frankfurt am Main, Suhrkamp stw 184, 1991.
- FRAUENHOLZ, Eugen von, *Das Heerwesen in der Zeit des Absolutismus*. (=Entwicklungsgeschichte des deutschen Heerwesens; vol. 4), München, Beck, 1940.
- FRÜHBEIS, Xaver, « 08.10.1792: Hochzeit als Startimpuls zu Kölnisch Wasser 4711 », in *BR Online, Kalenderblatt*, 8.10.2002, <<http://www.br-online.de/wissen-bildung/kalenderblatt/druckversion/2002/prkb20021008.html> (29.5.2009)>
- GANSER, Carl, *Die Wirkungen der französischen Herrschaft, Gesetzgebung und Verwaltung auf das Aachener Wirtschaftsleben*. Inaugural-Dissertation zur Erlangung der Doktorwürde der hohen staatswissenschaftlichen Fakultät der Württembergischen Eberhard-Carls-Universität zu Tübingen, Tübingen, 1922, <http://sylvester.bth.rwth-aachen.de/dokumente/2002/002/02_002.pdf (29.5.2009)>.
- GARRIOCH, David, « House names, shop signs and social organization in Western European cities, 1500-1900 », *Urban History*, 21, 1994, p. 20-48.
- « Die Geschichte von Ali Baba und den vierzig Räubern », in *Die Erzählungen aus den tausendundein Nächten*, Übersetzt von Enno Littmann. 12 vol. Frankfurt am Main, Insel it 224, 1976, vol. 4, p. 791-859.
- GINZBURG, Carlo, *Spurensicherungen. Über verborgene Geschichte, Kunst und soziales Gedächtnis*. München, dtv 10974, 1988.
- GOEBEL, Benedikt, « 4711. Kurze Geschichte der Hausnumerierung », in Daniel TYRADELLIS & Michal S. FRIEDLANDER (ed.), *10+5=Gott. Die Macht der Zeichen*, Köln, DuMont, 2004, p. 198.
- HASELSTEINER, Horst, *Joseph II und die Komitate Ungarns. Herrscherrecht und ständischer Konstitutionalismus*. (=Veröffentlichungen des österreichischen Ost- und Südosteuropa-Instituts; 11), Wien et al., Böhlau, 1983.
- HÄUSSLER, Franz, « Acht Stadtviertel durchnummeriert. Litera-Zahlen galten bis 1938, Straßennamen zweitrangig », in *Augsburger Allgemeine Zeitung*, 12.9.2000, p. 29.
- HEAL, Ambrose, « The Numbering of Houses in London Streets », *Notes and Queries*, 183, 1942, p. 100-101.
- HILLNER, Julia, « Die Berufsangaben und Adressen auf den stadtrömischen Sklavenshalsbändern », *Historia*, 50, 2001, p. 193-216.
- HOCHEDLINGER, Michael, « Ein militärischer Bericht über die soziale und wirtschaftliche

- Lage Tirols im Jahr 1786. Zum Versuch der 'militärischen Gleichschaltung' Tirols unter Joseph II (1784-1790) », *Tiroler Heimat*, 67, 2003, p. 221-259.
- JAKOBOVITS, Tobias, « Die Judenabzeichen in Böhmen », *Jahrbuch der Gesellschaft für Geschichte der Juden in der Čechoslovakischen Republik*, 3.1931, p. 145-184.
- KANY, Charles E., *Life and Manners in Madrid 1750-1800*, Berkeley, University of California Press, 1932.
- KOTASEK, Edith, *Feldmarschall Graf Lacy. Ein Leben für Österreichs Heer*, Horn, Berger, 1956.
- LE ROY LADURIE, Emmanuel, *Montaillou. Ein Dorf vor dem Inquisitor 1294 bis 1324*, Frankfurt am Main & Berlin, Ullstein 35344, 1993.
- LENOBEL, Josef (ed.), *Häuser-Kataster der k.k. Reichshaupt- und Residenzstadt Wien*, Wien & Leipzig, Lenobel, 1911.
- LING, Roger, « A Stranger in Town: Finding the Way in an Ancient City », *Greece & Rome*, 37, 1990, p. 204-214.
- LÜDTKE, Alf, « Einleitung. Was ist und wer treibt Alltagsgeschichte? » in Alf LÜDTKE (ed.), *Alltagsgeschichte. Zur Rekonstruktion historischer Erfahrungen und Lebensweisen*, Frankfurt & New York, Campus, 1989, p. 9-47.
- « Alltagsgeschichte. Zur Aneignung der Verhältnisse » (interview conducted by Reinhard Sieder), *Österreichische Zeitschrift für Geschichtswissenschaften*, 3, 1992, p. 104-113.
- MAHDI, Muhsin, *The Thousand and One Nights*, Leiden & al., Brill, 1995.
- MARX, Karl, *Das Kapital. Kritik der politischen Ökonomie. Erster Band*, Berlin, Dietz Verlag, 1993.
- MATZKE, Wilfried, « Das Geheimnis der Hausnummern », *Augsburg direkt*, Oktober/November 2007, p. 3.
- MERCIER, Louis-Sébastien, *Tableau de Paris*, 2 vol, Paris, Mercure de France, 1994.
- MERRUAU, Ch., *Rapport sur la nomenclature des rues et le numérotage des maisons de Paris*, Paris, Mourgues Frères, [ca. 1860].
- MITROFANOV, Paul von, *Joseph II. Seine politische und kulturelle Tätigkeit*, 2 vol, Wien & Leipzig, Stern, 1910.
- MONTANELLI, Pietro, *Il movimento storico della popolazione di Trieste*, Trieste, Balestra, 1905.
- MORIN, Alfred, *Le numérotage des maisons de Troyes (intra-muros), de 1769 à nos jours*, Troyes, Société Académique de l'Aube, 1983.
- NÜBEL, Otto, *Die Függerei*, Augsburg, Pröll-Druck und Verlag, 2000.
- PINKERTON, John, *Recollections of Paris, in the years 1802-3-4-5*, London, Longman, Hurst Reese and Orme, 1806, 2 vol.
- PROKEŠ, Jaroslav & BLASCHKA, Anton, « Der Antisemitismus der Behörden und das Prager Ghetto in nachweißenbergischer Zeit », *Jahrbuch der Gesellschaft für Geschichte der Juden in der Čechoslovakischen Republik*, 1, 1929, p. 42-262.
- PRONTEAU, Jeanne, *Les numérotages des maisons de Paris du xv^e siècle à nos jours*, Publications de la sous-commission de recherches d'histoire municipale contemporaine, VIII, Paris, 1966.
- ROSE-REDWOOD, Reuben S., « Indexing the great ledger of the community: urban house numbering, city directories, and the production of spatial legibility », *Journal of*

- Historical Geography*, 34, 2008, p. 286-310.
- ROTMAN, Brian, *Die Null und das Nichts. Eine Semiotik des Nullpunkts*, Berlin, Kadmos, 2000.
- SCHATTENHOFER, Michael, « Bettler, Vaganten und Hausnummern », *Oberbayerisches Archiv*, 109, 1984-1941, p. 173-175.
- SCOTT, James C., *Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed*, New Haven (Conn.), Yale University Press, 1998.
- SIEGERT, Bernhard, « (Nicht) Am Ort. Zum Raster als Kulturtechnik », Theses, *Wissenschaftliche Zeitschrift der Bauhaus-Universität Weimar*, 49, 2003, p. 92-104.
- , *Passagiere und Papiere. Schreibakte auf der Schwelle zwischen Spanien und Amerika*, München, Fink, 2006.
- SMAIL, Daniel Lord, *Imaginary Cartographies. Possession and Identity in Late Medieval Marseille*, Ithaca & London, Cornell University Press, 2000.
- STETTEN, Paul von, *Beschreibung der Reichs-Stadt Augsburg, nach ihrer Lage jetzigen Verfassung, Handlung und den zu solcher gehörenden Künsten und Gewerben auch ihren anderen Merkwürdigkeiten*, Augsburg, Conrad Heinrich Stage, 1788.
- TANTNER, Anton, *Ordnung der Häuser, Beschreibung der Seelen. Hausnummerierung und Seelenkonskription in der Habsburgermonarchie*. Wiener Schriften zur Geschichte der Neuzeit, 4, Innsbruck & al., Studienverlag, 2007a.
- , *Die Hausnummer. Eine Geschichte von Ordnung und Unordnung*, Marburg, Jonas Verlag, 2007b.
- THIRRING, Gustave, « Les recensements de la population en Hongrie sous Joseph II (1784-1787) », *Journal de la Société Hongroise de Statistique*, 9, 1931, p. 201-247.
- , *Magyarország Népeisége II József korában*, Budapest, Magyar Tudományos Akadémia K., 1938.
- TWISS, Richard, *Travels through Portugal and Spain, in 1772 and 1773*, London, Robinson & al., 1775.
- WAGNER-RIEGER, Renate, *Das Wiener Bürgerhaus des Barock und Klassizismus*, Österreichische Heimat, 20, Wien, Brüder Hollinek, 1957.
- WARTENA, R. & VELTHORST, G., « Die huisnummering in de gemeente Wisch 1794-1952 », *Nederlands Archievenblad*, 85, 1981, p. 333-348.
- WIESE, Heike, *Numbers, Language, and the Human Mind*, Cambridge, CUP, 2009.
- , « Sprachvermögen und Zahlbegriff. Zur Rolle der Sprache für die Entwicklung numerischer Kognition », in Pablo SCHNEIDER & Moritz WEDELL, (ed.), *Grenzfälle. Transformationen von Bild, Schrift und Zahl*, Visual intelligence. Kulturtechniken der Sichtbarkeit, 6, Weimar, Verlag und Datenbank für Geisteswissenschaften, 2004, p. 123-145.
- WINKLER, Michael, *Winkler's Orientierungs-Plan der k.k. Reichshaupt- und Residenzstadt Wien mit ihren acht umliegenden Vorstadt-Bezirken*, Wien, Selbstverlag, 1863.
- WITTSTOCK, Bernhard, *Die Berliner Hausnummer. Von den Anfängen Ende des 18. Jahrhunderts bis zur Gegenwart im deutschen und europäischen Kontext*. 5 vol, Berlin, Pro BUSINESS Verlag, 2008.
- WOHLRAB, Hertha & CZEIKE, Felix, « Die Wiener Häusernnummern und Straßentafeln », *Wiener Geschichtsblätter*, 27, 1972, p. 333-352.
- ZORZANELLO, Giulio, « Il centocinquantesimo anniversario della numerazione delle case di Venezia. Note sulla toponomastica veneziana », *Ateneo Veneto*, 29, 1991, p. 307-337.