

Hans Weigel,  
[Karte der Umgebung von  
Nürnberg, ohne Titel],  
[Nürnberg] 1559



Paul D. A. Harvey, Durham

## Medieval local maps from German-speaking lands and central Europe

Maps were not a normal part of everyday life in medieval Europe, and nothing demonstrates this better than the rarity of local maps from before 1500, of maps, that is, of areas known personally to the mapmaker and drawn from local knowledge. In circumstances where we would draw a simple map – to give directions for a journey, to show the boundaries of a property, and so on – people in the Middle Ages would compose a written description, often long and cumbersome, to convey information that might far more easily be presented graphically. From about 1500, a clear dividing line, there was a steady increase in the number of local maps that were drawn, indeed of maps of every kind, so that by the end of the sixteenth century they were understood and used much as we understand and use maps today.<sup>1</sup>

<sup>1</sup> This can be illustrated from three catalogues of maps published as *Bayerische Archivinventare* 37, 48, 49: E. Krausen, *Die handgezeichneten Karten im Bayerischen Hauptstaatsarchiv sowie in den Staatsarchiven Amberg und Neuburg a. d. Donau bis 1650, Neustadt a. d. Aisch 1973*; R. Winkler, *Die handgezeichneten Karten des Staatsarchivs Bamberg bis 1780*, München 2005; P. Fleischmann, *Die handgezeichneten Karten des Staatsarchivs Nürnberg bis 1806*, München 1998. No map there is older than the sixteenth century, and the earliest in each catalogue is dated, respectively, 1510, 1521,

Where a local map was drawn before 1500 it must often – perhaps mostly – have been the entirely new idea of some particularly imaginative individual who saw how much more efficient it was to set out topographical information graphically instead of in writing. However, this seldom happened. In two areas of Europe medieval local maps have been systematically recorded, so that we have a reasonably comprehensive picture of what exists. From the Low Countries we have some seventeen maps or closely related groups of maps, the earliest dating from 1307<sup>2</sup>, and from England at least thirty-seven have been recorded, four from between 1153 and 1249 and the rest from the mid-fourteenth century onwards.<sup>3</sup>

From two other parts of Europe reports of medieval local maps cannot lay claim to definitive, comprehensive listing; certainly there are more, significantly more, to be discovered. To the ‘first harvest’ of some ten maps from France that François de Dainville described

---

and 1516; the number of entries from 1500 to 1550 is 29, 8, and 20, and from 1550 to 1600 over 242, 38 and 125.

- <sup>2</sup> Fifteen are listed in P. D. A. Harvey, *Local and regional cartography in medieval Europe*, in: J. B. Harley – D. Woodward (Ed.), *The History of Cartography 1: Cartography in Prehistoric, Ancient and Medieval Europe and the Mediterranean*, Chicago 1987, 464-501, here 499-500; P. van der Krogt, *Lokale kaarten van Nederland uit de late Middeleeuwen*, in: *Caert-Thresoor* 27 (2008), 29-42, discusses each with superb colour illustrations (except one that proved untraceable), adding two further groups of maps and pointing out that the dates of several included as before 1500 or excluded as later are by no means certain.
- <sup>3</sup> Thirty, all those discovered by 1976, are illustrated and discussed in R. A. Skelton – P. D. A. Harvey (Ed.), *Local Maps and Plans from Medieval England*, Oxford 1986, a further five are included in the list in Harvey, *Local and regional cartography*, 498-499, and to these should be added a diagram of Cistercian abbeys near Chester, c. 1195 (M.V. Taylor [Ed.], *Liber Luciani de laude Cestrie* [Lancashire and Cheshire Record Society 64], 1912, frontispiece, p. 59), a map of Pinchbeck Fen, Lincolnshire, mid-15th century (R. Mitchell – D. Crook, *The Pinchbeck Fen Map – A Fifteenth-Century Map of the Lincolnshire Fenland*, in: *Imago Mundi* 51 [1999], 40-50, plates 3, 4), and two further maps that may date from before 1500, of part of Romney Marsh, Kent (Canterbury Cathedral Archives DCc/DE 176), and of lands in Stanlow, Cheshire (Kew, The National Archives, E 315/427, ff.29v-30r). I am grateful to Dr A.S. Bendall, Miss Elizabeth Danbury, Dr Maureen Jurkowski, and Dr M.M.N. Stansfield for information on these further items. In addition a date before 1500 seems likely for two building plans that have come to light; see note 16 below.

in 1970 we can now add several others that have been published, most recently an extraordinarily precocious plan of some 200 parcels of land at Fleury-sur-Orne in Normandy in 1477.<sup>4</sup> Systematic search for these maps in French repositories would probably add greatly to our understanding of medieval local maps in general. The same might be said of Italy, where there are almost certainly more medieval local maps than in any other area of Europe; those so far published can do no more than scratch the surface.<sup>5</sup> In contrast, not a single one has been recorded from Wales or Scotland or from the whole of Scandinavia nor, until the very end of the fifteenth century, from Spain or Portugal.<sup>6</sup> In 1991-1993 extensive enquiries of archivists and curators in Spain and Portugal and of historians who worked on medieval records there produced an interesting document showing that King Alfonso X of Castile had a map drawn in settling a dispute between the towns of Toledo and Talavera in 1262.<sup>7</sup> They produced, however, no reference at all to any surviving map; many of those who replied to these enquiries were sure such local maps must exist, but had never actually seen one.

Given our own familiarity with maps it is wholly reasonable for anyone today to suppose that many local maps were in fact drawn in the Middle Ages; it is just that they have failed to survive. This is not the case, as we see clearly when we look at the evidence from England. The private records that were most likely to be kept in the Middle Ages, and to have survived to the present, are those that define or confirm individual rights, in particular rights to landed

<sup>4</sup> F. de Dainville, *Cartes et contestations au XV<sup>e</sup> siècle*, in: *Imago Mundi* 24 (1970), 99-121; T. Jarry, *Autour d'un plan médiéval normand – le plan parcellaire d'Allemagne (Fleury-sur-Orne) de 1477*, in: *Histoire et Société Rurales* 23 (2005), 169-204.

<sup>5</sup> As in Harvey: *Local and regional cartography*, 476-482, 488, 498.

<sup>6</sup> M. T. López Fernández – M. J. Sánchez Carrasco, *Archivo de la Real Chancillería de Valladolid – Catalogo de planos y dibujos del Pais Vasco*, Madrid 1990, pp. 81-82, describes a map of 1487-97 covering an area of about 100 km. in each direction between Haro (Rioja) and the sea (*Planos y dibujos*, Carpeta: 30, no. 448). At the 23rd International Conference on the History of Cartography, Copenhagen, 2009, Professor Pilar Chias displayed copies of local maps of 1487 and 1493 from the same archive (*Planos y dibujos desglosados*, 448, 264).

<sup>7</sup> *Memorial Histórico Español*, 1 (1851), 196. – I am most grateful to Professor Francisco J. Hernández for telling me of this document.

property – and what can do this better than a map? More English medieval maps than we yet know will undoubtedly come to light, but the total number that exists is unlikely to be more than fifty. In contrast, we have well over 1200 cartularies, registers containing copies of documents that mostly concern title to lands;<sup>8</sup> in only twelve of these is there a map. We have many thousands of the original documents – charters and deeds – by which property was conveyed, documents authenticated by wax seals. These seals are fragile and vulnerable, and far more have been lost from existing documents than survive attached to them. Yet there are in England something like 400,000 private seals from before 1500. The figure is a guess, but it is an informed guess and the order of magnitude is certainly correct. Household accounts, the records of what was received, what was consumed or paid out in a noble's household, had no value as evidence of title and can have been preserved only by chance; even so, some 500 survive from medieval England.<sup>9</sup> When we look at these figures and others that could be brought to bear, it is clear that the reason we have only fifty local maps at most is not their failure to survive: they were never drawn. And if this was the case in England, it was true also of other parts of medieval Europe: local maps and plans were drawn only very occasionally and then as an innovative expedient.

Nevertheless, although there was hardly any contact between the individual mapmakers and although most of their productions can have been seen by very few, all these maps conform to the same pattern. Many consist of no more than names with lines that set out boundaries, roads, or rivers. But if a map includes any features above ground level it appears not in ground-plan but as a picture, showing it from the side or obliquely from above. When any more detailed picture of town or landscape is drawn as though from a height unattainable on the ground, we may see this as a map, for the beginnings of cartographic conventions are being brought into play – the artist is not simply copying exactly what he sees before him. These styles correspond to a well-defined stage in the development of topog-

---

<sup>8</sup> G. R. C. Davis, *Medieval Cartularies of Great Britain*, London 1958.

<sup>9</sup> C. M. Woolgar (Ed.), *Household Accounts from Medieval England (Records of Social and Economic History, new series, 17, 18)*, 2 vols, Oxford 1992-1993, 1. 5-6; 2. 691-726.

raphical mapping. They allow room for great variety; local maps from medieval Europe differ enormously one from another. They may or may not be coloured, they may be the merest sketches or drawn with great care and elaboration, they may comprise no more than a few lines and names or they may be immensely detailed, the pictorial element may be no more than a roughly sketched church steeple, as at Clenchwarton (Norfolk) in about 1400, or it may be a picture of an entire tract of country, as on the 1468 map of the Lower Scheldt.<sup>10</sup> All, however, belong to this broad class of topographical map. Above all, none makes any attempt at consistent scale; the concept of exact scale, of representing distances on the ground by strictly proportionate lengths on the map, had yet to be introduced to post-Roman topographical mapping in Europe.

It is against this background that we should see the local maps of this kind that were drawn in German-speaking lands and neighbouring parts of central Europe in the Middle Ages. Very few are known. Setting aside for a moment the plan of Vienna with Bratislava that was copied in the mid-fifteenth century from an original of 1421-1422 and the 1492 printed map of the area around Nuremberg, the following are a complete list:

1. 1429-1430. Geneva, a plan in black ink of streets, walls, and some buildings, by Guillaume Bolomier. Turin, Archivio di Stato, Corte, Paesi, Geneva, categoria 1, mazzo 7, titolo 21. Reproduced and discussed by Matthieu de la Corbière: *Le 'Rideau de fer' de Genève ou du bon usage du plan Bolomier*, in: *Patrimoine et Architecture 14-15* (December 2005), 8-17.<sup>11</sup>
2. ca 1430. Rottweil (Baden-Württemberg) with surrounds, a fully detailed coloured bird's-eye view showing the town besieged by the Emperor Lothar III, possibly copied from a late-fourteenth-century exemplar. Stuttgart, Württembergische Landesbibliothek, Hs. HB VI 110, front flyleaf verso and f.1 r. Manuscript fully described by Johanne Autenrieth: *Die Handschriften der ehemaligen Hofbibliothek Stuttgart*, 3: *Codices iuridici et politici*, Wiesbaden 1963, 108; reproduced in colour and discussed by Wolfgang Irtenkauf: *Die Rottweiler Hofgerichtsordnung* (um

<sup>10</sup> Harvey, *Local and regional cartography*, 485, 488-499.

<sup>11</sup> I am much indebted to Herr Ralph Ruch for knowledge of this map and for a copy of this article.

- 1430) (*Göppinger Beiträge zur Textgeschichte* 74), Göppingen 1981, [vi], [vii], 8-9.<sup>12</sup>
3. 1441. Honau (Baden-Württemberg) and Wantzenau (Bas-Rhin), a diagrammatic plan in black and red ink of estates of Honau Abbey. Strasbourg, Archives départementales du Bas-Rhin, G 4227(8). Reproduced, uncoloured, and briefly described by Franz Grenacher: Current knowledge of Alsatian cartography, in: *Imago Mundi* 18 (1964), 60-61.
  4. 1464. Pomerania, two sketch maps in black ink of coastline, rivers, and settlements showing estates of the Teutonic Order. Krakow, Biblioteka Czartoryskich, MS. 1310, pp. 636, 637. Reproduced and discussed by Bolesław Olszewicz: Dwie szkicowe mapy Pomorza z Połowy XV wieku (*Biblioteka 'Strażnicy Zachodniej' 1*), Warsaw 1937.
  5. 1473. Rattenberg (Tirol), two sketch maps in black ink of parts of neighbouring tributaries of the river Inn with a mountain range, bridges, and a gallows. Munich, Bayerisches Hauptstaatsarchiv, Plansammlung 20865 r and v. Reproduced and discussed by Gerhard Leidel: Die Anfänge der archivischen Kartographie im deutschsprachigen Raum, in: *Archivalische Zeitschrift* 85 (2003), 90-93, 103-109, 138, 139.
  6. 1481. South-west Bavaria, five sketch maps in black ink of rivers, roads, and settlements in the area between Ulm, Günzburg, Mindelheim, Ottobeuren, and Memmingen. Munich, Bayerisches Hauptstaatsarchiv, Plansammlung 3907, 20783, 20784r,v, 20785. Reproduced and discussed by Leidel: Die Anfänge der archivischen Kartographie, 93-100, 103-109, 140-144.
  7. 1488(?). 'Mihaloviz' (former Križevci county, northern Croatia), sketch map in black ink naming points along the boundary of this now lost village. Budapest, Magyar Országos Levéltár (National Archives of Hungary), DL 101050 (formerly Batthyány archives, Acta Ant. 4.8.290). Reproduced and discussed by Árpád Papp-Váry and Pál Hrenkó: Magyarország régi térképeken, Budapest 1989, 52 f.; discussed by Andrea Kiss: A contribution to research on the historical geography of the first extant 'reambulation' sketch from the Carpathian Basin, in:

<sup>12</sup> I am grateful to Frau Popp-Grilli of the Württembergische Landesbibliothek Stuttgart who has kindly provided me with references to relevant work.

Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti Hrvatske akademije znanosti i umjetnosti 19 (2001), 127-141.<sup>13</sup>

8. 1492. South-west Bavaria, two sketch maps in black ink of rivers, roads, settlements, and some structures in the area between Ulm, Lauingen, Mindelheim, and Memmingen. Munich, Bayerisches Hauptstaatsarchiv, Plansammlung 3764, 10713. Reproduced and discussed by Leidel: *Die Anfänge der archivischen Kartographie*, 100-109, 145, 146.
9. 1496. Pfuhl (Bavaria), a fully detailed bird's-eye view of river with wooded island, fields, village, and other buildings. Stuttgart, Hauptstaatsarchiv, C 3 Bü 1336, ohne Q. Reproduced in colour and discussed by Thomas Horst: *Die älteren Manuskriptkarten Altbayerns (Schriftenreihe zur Bayerischen Landesgeschichte 161)*, vol. 1, Munich 2009, 33 and 215.<sup>14</sup>
10. 1497-1502. Zurich, a fully detailed coloured bird's-eye view of the city on five panels, attributed to Hans Leu the elder. Zurich, Schweizerisches Landesmuseum, AG 7.1-3, AG 8.1-2. Reproduced, uncoloured, and discussed by Lucas Wüthrich and Mylène Ruoss: *Katalog der Gemälde – Schweizerisches Landesmuseum Zürich*, Zurich 1996, 40-43; reproduced in colour at [http://commons.wikimedia.org/wiki/File:Hans\\_Leu\\_Altartafeln\\_links.jpg](http://commons.wikimedia.org/wiki/File:Hans_Leu_Altartafeln_links.jpg) and [http://commons.wikimedia.org/wiki/File:Hans\\_Leu\\_Altartafeln\\_rechts.jpg](http://commons.wikimedia.org/wiki/File:Hans_Leu_Altartafeln_rechts.jpg).<sup>15</sup>

Others will almost certainly come to light, as well as references to maps that have failed to survive. The map of the northern provinces of Poland that was given to Pope Martin V in 1421 can hardly have been a local map in our definition, but the plan of a watercourse in Tolna county in southern Hungary, mentioned in a charter of 1415,

---

<sup>13</sup> Unfortunately the accompanying illustration, said to be this map (p. 139), is in fact a 15th-century map of Staines (Middlesex) in England.

<sup>14</sup> I am grateful to Dr Thomas Horst for telling me of this map and its publication.

<sup>15</sup> I am grateful to Dr Mylène Ruoss of the Schweizerisches Landesmuseum at Zurich who has kindly provided me with catalogue entries and references.

certainly was.<sup>16</sup> The surviving eighteenth-century copy of a 1316 report on the bounds of Reszege (Szabolcs-Szatmár) in north-east Hungary includes semi-cartographic marginal sketches that we may suppose were copied from the original document.<sup>17</sup> Some maps that might once have been added to our list must now be omitted. The report of a plan of Ulm from about 1480 can only refer to a later map and two maps of Böhringsweiler (Baden-Württemberg) said to date from about 1500 have now been redated to the early seventeenth century on both palaeographical and historical grounds.<sup>18</sup>

In a valuable article in 2005, Gerhard Leidel published for the first time the nine maps in the Bayerisches Hauptstaatsarchiv at Munich that form a substantial part of our entire corpus (nos 5, 6, and 8). He sets them firmly in their administrative and political context, relating them to other records of the boundary problems that brought them into being. Beyond this, he discusses at length – but in the abstract, without reference to other comparable maps – what these maps show of the way landscape was perceived, how it was represented graphically and how this was affected by the thought of the Renaissance. Important as they are, these maps might seem a slender peg from which to hang what amounts to a general discursus on the concepts underlying the early development of topographical mapping, but Leidel makes some helpful and thought-provoking points: the significance of the distinction between perspective and

<sup>16</sup> K. Buczec, *The History of Polish Cartography from the 15th to the 18th Century*, trans. Andrzej Potocki, Amsterdam <sup>2</sup>1982, 22-24; Á. Papp-Váry – P. Hrenkó, *Magyarország régi térképeken*, Budapest 1989, 53; A. Kiss, A contribution to research on the historical geography of the first extant 'reambulation' sketch from the Carpathian Basin, in: *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti Hrvatske akademije znanosti i umjetnosti* 19 (2001), 127-141, here 128.

<sup>17</sup> Z. G. Török, Renaissance cartography in East-Central Europe, ca. 1450-1650, in: D. Woodward (Ed.), *The History of Cartography 3: Cartography in the European Renaissance*, Chicago 2007, 1806-1851, here 1814-1815.

<sup>18</sup> R. Oehme, *Die Geschichte der Kartographie des deutschen Südwestens*, Konstanz 1961, 97; K. Schumm, *Inventar der handschriftlichen Karten im Hohenlohe-Zentralarchiv Neuenstein*, Karlsruhe 1961, 5. For the revision of these dates I am grateful for the kind assistance and advice of Dr Moegle-Hofacker of Hohenlohe-Zentralarchiv Neuenstein, Dr Schiffer of Hauptstaatsarchiv Stuttgart, and Dr Weig of Stadt Ulm Stadtarchiv; the maps are mentioned, with dates unrevised, in Harvey: *Local and regional cartography*, 488.



isometric drawing, how towers and mountains enabled landscape to be viewed in near-cartographic form, how, while demonstrably not drawn to scale, the maps show a sense of proportion that one might call an intuitive scale. Consisting, as they do, simply of the lines of rivers and roads with little wording beyond place-names and with only a few features shown pictorially, the maps anticipated neither the artistic nor the scientific approach to representing landscape (*vorkünstlerisch, vorwissenschaftlich*), and might be described as protocartography.<sup>19</sup>

Leidel is right to emphasise that what he is putting before us is the early development of 'archival cartography', the functional use of maps in the practical work of government, jurisdiction, and private administration. This was a crucially important aspect of the steadily growing acceptance of maps in the course of the sixteenth century, of their use for every possible purpose. We should, however, make a careful distinction. Because they played such an important part in this process it is helpful to distinguish these archival maps from the rest when we look at the way awareness of maps spread in this period. However, when we look at the way the maps themselves developed there is no reason to separate the archival maps from any others. We best understand the development of local maps and plans, their perception of landscape, their techniques of presentation, when we look at them all together, archival and non-archival; there is no obvious difference in their form or style, or in the concepts that underlay their creation.

One might reasonably question this in looking at our list of maps from German-speaking and neighbouring lands. Taking our first two items, there is the world of difference between the 1429-1430 map of Geneva, with its scratchy ink lines and rough sketches of the town wall and a few buildings, and the view of Rottweil of about 1430, carefully drawn and elaborately painted with full details of buildings inside the wall and of the castle, villages, and landscape outside. We might well suppose that from Geneva we have the sort of plan that was produced for functional administrative use, and from Rottweil a style of presentation used for other purposes. However, this distinc-

---

<sup>19</sup> G. Leidel, Die Anfänge der archivischen Kartographie im deutschsprachigen Raum, in: *Archivalische Zeitschrift* 85 (2003), 85-146, especially 105-106, 110, 129-131.

tion breaks down when we look at the 1496 map of Pfuhl, made to be shown to a court of justice and it breaks down too when we look at early local maps from other parts of Europe. For instance, a 1460 map of villages on the boundary between France and Burgundy gives us a finely drawn and coloured view of a stretch of landscape, and so too does a fifteenth-century map of Inclesmoor in England.<sup>20</sup> Yet both were drawn for practical administrative purposes; in both origin and context they are unquestionably archival maps. It is worth remembering that while the view of Rottweil may well have been copied from an earlier work of unknown purpose, it is in a functional context that it has come down to us, in a copy of the ordinances of Rottweil's imperial court of justice (*Hofgericht*).<sup>21</sup>

With only these ten maps and plans (or closely related groups) our list may seem meagre compared with those from the Low Countries and England, or with those that surely survive in Italy and France. This, however, is because we have so far been looking only at the manuscript diagrams or picture-maps typical of medieval local maps in other parts of Europe. If we look at three other types of map or plan, rare or non-existent elsewhere, we find that our area makes a particularly important contribution to our European corpus of medieval local maps. These three other types of map partly, and significantly, overlap; they are not three isolated groups, though we shall look at each in turn. They are building plans, maps drawn to consistent scale, and printed maps.

Building plans are almost unknown elsewhere in medieval Europe. From France we have the sketches in the thirteenth-century notebook of Villard de Honnecourt; some may be of vaultings, but it makes little difference conceptually whether what we have is an isometric roof plan viewed from below or a ground plan viewed from above.<sup>22</sup> From England only one building plan can be firmly dated before the sixteenth century, part of Winchester College (Hampshire) from about 1390, but to this we can probably add two others that

<sup>20</sup> The French map is reproduced in Harvey, *Local and regional cartography*, plate 36, the map of Inclesmoor in Skelton – Harvey (Ed.), *Local Maps and Plans*, plate 12 (ii).

<sup>21</sup> Edited, with facsimile, by W. Irtenkauf, *Die Rottweiler Hofgerichtsordnung* (um 1430) (*Göppinger Beiträge zur Textgeschichte* 74), Göppingen 1981.

<sup>22</sup> H. R. Hahnloser (Ed.), *Villard de Honnecourt - kritische Gesamtausgabe des Bauhüttenbuches*, Graz, 1972.

consist solely of lines without wording.<sup>23</sup> We know, however, that in late-medieval England it was not unusual to draw building plans which the architect would show his client, for they are occasionally mentioned in building contracts from 1380 onwards.<sup>24</sup> The Winchester building plan is drawn not to scale but roughly to shape, and measurements are written in. Surviving English building plans of the early sixteenth century are drawn in the same way and this was probably the normal form of the plans drawn in England until the 1540s.<sup>25</sup>

The contrast with central Europe is striking. From Vienna we have an extraordinary collection of nearly 500 elevations, ground plans, and plans of vaulting, for entire churches, for parts of buildings, and for architectural details. They are beautifully drawn, with great precision, and nearly all are to exact (though undefined) scale. Most come from the archives of St Stephen's Cathedral, but the buildings they show are not only in Vienna, for the masons centred on St Stephen's worked in many other places as well and the collection anyway includes plans from other centres, presumably brought by masons who moved from one site to another. Places represented among the drawings thus include Steyr, Bratislava, Prague, Regensburg, Munich, Nuremberg, Constance, Strasbourg, Mainz, and Cologne. Besides this outstandingly important collection, other smaller collections and individual building plans have survived. They are unparalleled in medieval Europe and are of great significance for the history of cartography.<sup>26</sup>

Three points about them are of particular interest. One is that they were drawn by or for the masons themselves and were kept and presumably used by them as a practical tool of their craft. There is no reason to suppose that they were shown to the masons' clients or

<sup>23</sup> The Winchester plan is identified and discussed by J. H. Harvey in Skelton – Harvey (Ed.), *Local Maps and Plans*, 141–146. Of the other two, one (London, Society of Antiquaries, MS. 252\*) has been identified by J. A. A. Goodall, *The earliest English architectural drawing?* in: *Country Life* (15 Nov. 2001), 70–71, as part of Eton College (Buckinghamshire) in about 1449, the other (Kew, The National Archives, E 101/509/19) remains unidentified. I am grateful to Miss Margaret M. Condon for showing me the latter.

<sup>24</sup> L. F. Salzman, *Building in England down to 1540*, Oxford 1952, 17–20, 459–460.

<sup>25</sup> P. D. A. Harvey, *Maps in Tudor England*, London 1993, 95–101.

<sup>26</sup> H. Koepf, *Die gotische Planrisse der Wiener Sammlungen*, Wien 1969.

other members of the public – indeed, they may well have been closely guarded as a secret technique. They are thus quite unlike the plans that English masons made to show their clients. The second point is that the central European building plans, like the English, appear quite late on the scene: the earliest seem to date from the early fifteenth century. We might of course suppose that what we have are merely the first survivors of a much older tradition, that the architects of the Romanesque and early Gothic periods had plans, now lost, of the great churches they built. This is possible, but we should be wary of any historical argument that says ‘there must have been’. We know very little of early-medieval building techniques and in default of firm evidence we may reasonably be sceptical of the supposed universal necessity for the drawn building plan; even the masterpieces of early-medieval architecture may well have been built without. The third point is that the earliest elevations in the Vienna collections, dating from the second half of the fourteenth century, are perhaps half a century older than the earliest ground plans. This is interesting but may or may not be significant. The elevations, like the plans, are isometric, drawn to a consistent scale; this, the concept of reproducing in miniature in a constant proportion, is what is really important and it scarcely matters whether the technique is applied to one plane or to another, to the horizontal or to the vertical.

But the building plans were not the only local maps or plans to be drawn to scale in our area. A mid-fifteenth-century plan of Vienna, with a plan of Bratislava in one corner, has a scale-bar of 100 paces or 200 feet, though neither plan actually accords with it. It has been argued on one hand that what we have is a copy of an early-fifteenth-century map to which the scale-bar was added by way of false refinement; and on the other, most ingeniously, that the scale-bar applies only to the distances between suburban churches on what was primarily a route-map for pilgrims coming from Bratislava or beyond.<sup>27</sup> Either way, the map is a quite extraordinary production; it is the concept of consistent scale rather than its achievement that is

---

<sup>27</sup> S. Wellisch, *Der älteste Plan von Wien*, in: *Zeitschrift des Oesterreichischen Ingenieur- und Architekten-Vereines* 50 (1898), 757-761; M. Kratochwill, *Zur Frage der Echtheit des „Albertinischen Planes“ von Wien*, in: *Jahrbuch des Vereins für Geschichte der Stadt Wien* 29 (1973), 7-36; R. Härtel, *Inhalt und Bedeutung des „Albertinischen Planes“ von Wien*, in: *Mitteilungen des Instituts für Österreichische Geschichtsforschung* 87 (1979), 337-362.

so remarkable. It is the first known land map to have a scale-bar, and local maps were first drawn to a consistent scale in the Low Countries only in the 1530s and in England not until about 1541.<sup>28</sup> From Italy the earliest city plan clearly drawn to scale is Leonardo da Vinci's plan of Imola in 1502-1503, but we have some hints of an older Italian tradition of scale-plans of cities: a fourteenth-century plan of Venice that arguably derives from a twelfth-century original drawn to scale, a letter of 1377-1381 that mentions measurements shown on a plan of Florence, fifteenth-century regional maps from northern Italy that are not themselves drawn to scale but include what are, again arguably, tiny scale-plans of cities (one of Verona is particularly striking). In view of this we may well look to Italy for the origins of the map of Vienna, just as much later, in the 1490s, there was probably Italian influence on Konrad Tüerst's map of Switzerland.<sup>29</sup>

But for the plan of Vienna, just as for Tüerst's map, we can also look for influences closer at hand, within the German-speaking area. It has been questioned whether the geographical calculations by the early-fifteenth-century monks of Klosterneuburg were made in order to produce maps, but there can be no doubt that by the middle of the century German scholars were studying the geographical positions of places with a view to making small-scale maps of large areas. We have tangible evidence in the Koblenz and Trier fragments of manuscript maps of Germany and, probably, in the maps of Germany, one manuscript and one printed, that are attributed to Nicholas de Cusa; the plan of Vienna may well owe its origin to scholars' interest in calculation and measurement.<sup>30</sup> Certainly we find

<sup>28</sup> P. S. Teeling, *Oud-Nederlandse landmeters*, IV, in: *Orgaan der Vereniging van Technische Ambtenaren van het Kadaster* 7 (1949), 158-170, here 160-161; Harvey, *Maps in Tudor England*, 31-32.

<sup>29</sup> Harvey, *Local and regional cartography*, 478-479, 498.

<sup>30</sup> A. Wolkenhauer, *Über die ältesten Reisekarten von Deutschland aus dem Ende des 15. und dem Anfange des 16. Jahrhunderts*, in: *Deutsche Geographische Blätter* 26 (1903), 120-138, here 124-128; D. B. Durand, *The Vienna-Klosterneuburg map corpus of the fifteenth century*, Leiden 1952; E. Bernleithner, *Die Klosterneuburger Fridericuskarte von etwa 1421*, in: K.-H. Meine (Ed.), *Kartengeschichte und Kartenbearbeitung*, Bad Godesberg 1968, 41-44; F. Bönisch, *Bemerkungen zu den Wien-Klosterneuburg-Karten des 15. Jahrhunderts*, in: K.-H. Meine (Ed.), *Kartengeschichte und Kartenbearbeitung*, 45-48; P. H. Meurer, *Cartography in the German lands, 1450-1650*,

the connection between local maps and maps of large areas in the work of Erhard Etzlaub at the end of the century.<sup>31</sup>

Etzlaub produced two printed versions of a map – measured and drawn to scale – of the whole of central Europe as far south as Rome; one version is entitled ‘Das ist der Rom Weg’. But in 1492 he also produced a local map, printed by Georg Glockenden, a circle of 16 German miles around Nuremberg, where he lived and worked. This was drawn to scale: it has a scale-bar and below it are instructions explaining how to use this to measure distances on the map with a pair of dividers. The principle of scale and how to use it needed to be explained – but in England the same sort of explanation was needed nearly a hundred years later, in the 1580s. Here we have a clear connection between the general map and the local map; they were constructed by the same man using the same principles, the same concepts and even the same methods, a point made by the verse above the local map:

*Ob yemant sprech oder Im selbs trachtet,  
Aus wem oder wie man das machet,  
Die kunst Geometrey ist genant,  
Thut vns des ertreichs leng vnd brait bekant.*

Etzlaub was a man of learning, an instrument-maker and a physician. But he was also a sworn surveyor, who undertook various surveys of property for the city authorities of Nuremberg; a map of the imperial forests in the area in 1516 may or may not have been his, but he certainly surveyed a newly bought estate in 1507 and drew official maps of the Nuremberg area in 1516 and 1519. In Etzlaub Germany achieved the union of surveyor and mapmaker that lies behind the whole of the later history of topographical mapping, a union achieved in the Low Countries only in the 1530s and in England not until the 1570s, when surveyors began to produce maps

---

in: D. Woodward (Ed.), *History of Cartography* 3, 1172-1245, here 1177-1180, 1183-1188.

<sup>31</sup> Etzlaub's debt to Klosterneuburg is clearly brought out by A. Höhn, *Franken in der Nürnberg-Karte Etzlaubs und die Daten des Codex Latinus Monacensis 14583*, in: *Speculum Orbis* 3 (1987), 2-8.

instead of just written descriptions of the estates they had surveyed and measured<sup>32</sup>.

Etzlaub's map inspired one other local map drawn to scale probably before 1500: a manuscript map, again of the Nuremberg area but without roads, that is in the Landesbibliothek at Coburg.<sup>33</sup> However, it is not only in being drawn to scale that Etzlaub's 1492 map is so interesting: it is no less distinctive in being printed and indeed, apart from the little group of bird's-eye city views that Francesco Rosselli produced at Florence about 1480, it is the earliest printed local map from anywhere in Europe.<sup>34</sup> The earliest printed local map from the Low Countries was published in 1533, the earliest from England in 1559, and these occur in treatises on geography, geometry, and map-making; they are not separately printed maps.<sup>35</sup> Nor was Etzlaub's map an isolated production, a flash in the pan; it soon had successors. One was a printed picture-map, made up from six wood blocks, of the area around Lake Constance; it bears the monogram of the unidentified PW or PPW and has been dated 1505. It may be earlier, but not much as it includes scenes from the Swabian War in 1499.<sup>36</sup> By the time Martin Waldseemüller's map of the upper Rhine was published in 1513, let alone Sebastian Münster's map of the area around Basel in 1538, there was ample precedent in Germany for printing local maps – but a precedent that could be found nowhere else in Europe.

In other parts of Europe that produced local maps in the Middle Ages we find that their geographical distribution was not always even. All the maps from the Low Countries come from a relatively narrow strip along the coast, from Hilversum to Bruges. In England about a quarter of the maps – a quite disproportionate number –

<sup>32</sup> F. Schnellbögl, Life and work of the Nuremberg cartographer Erhard Etzlaub († 1532), in: *Imago Mundi* 20 (1966), 11-26; F. Schnellbögl, Dokumente zur Nürnberger Kartographie mit Katalog der Ausstellung anlässlich des 15. Kartographentages der Deutschen Gesellschaft für Kartographie (Beiträge zur Geschichte und Kultur der Stadt Nürnberg 10), Nürnberg 1966, 48, 56, 58; Meurer, Cartography in the German lands, 1194-1195.

<sup>33</sup> Schnellbögl, Life and work, 23.

<sup>34</sup> Harvey, Local and regional cartography, 477.

<sup>35</sup> G. Frisius, *Libellus de locorum describendorum ratione*, Antwerpen 1533; W. Cuningham, *The cosmographical glasse*, London 1559.

<sup>36</sup> W. Bonacker, Die sogenannte Bodenseekarte des Meisters PW bzw. PPW vom Jahre 1505, in: *Die Erde* 6 (1954), 1-29.

come from a small area in eastern England. There is no clear reason for this, and in neither case can we speak of a local tradition or style of cartography, for the individual maps vary greatly in form, size, and elaboration. All we can say is that in these limited regions the advantages of maps seem to have been better appreciated than elsewhere. Can we see any similar concentration in German-speaking lands and central Europe? It seems that we can. From central Germany and the Baltic we have nothing but the Teutonic Order's sketch maps of 1464 and apart from a few of the building plans from places as far north as Cologne all the other maps and plans come from the southern part of our area.

However, we should be cautious in concluding that it was only here that people began to see landscape in a cartographic or near-cartographic way and that the Teutonic Order's maps of Pomerania must have been the work of a member of the Order from much further south. At two points the world map that was drawn at Ebstorf (Niedersachsen) in about 1300 clearly draws on immediate local knowledge; in effect it incorporates two local maps within a world picture drawn from many different sources. One is of Reichenau on Lake Constance with its three monastic cells, but the other is of the area around Ebstorf itself, with its representations of Lüneburg, Braunschweig, and Ebstorf and its three martyrs' graves.<sup>37</sup> Here at least, the mapmaker saw the map as showing what was actually on the ground; it was not a remote exercise in learned scholarship. And there is a further source of medieval local maps that historians of cartography have scarcely touched on: the designs of medieval seals.<sup>38</sup> A town's seal might bear a picture of its lord, or some symbol that represented the town, or a simple picture of town walls with or without a distinctive feature of the actual place. But sometimes it presents an oblique view, looking across the walls to a recognisable building within the town; it is in our terms a local map, drawing on near-cartographic conventions. In Toni Diederich's magisterial account of town seals from the Rhineland those of Boppard and Deutz, both from about 1230, and of Siegburg from about 1285

---

<sup>37</sup> H. Kugler (Ed.), *Die Ebstorfer Welkarte*, 2 vols, Berlin 2007, 1. 118-119, 128-131; 2. 61-63, 69, 251, 253, 279-280, 284.

<sup>38</sup> I know of only the view of Rome on the golden bull of Ludwig IV that has been considered in this context (P. D. A. Harvey, *The History of Topographical Maps*, London 1980, 74).



could all be called local maps.<sup>39</sup> Nor is this the only way we see the development of cartography on medieval seals. The thirteenth-century seal of Innsbruck shows a plank bridge on three piers across, presumably, the River Inn, and shows it in plan from above; conceptually it is pure cartography.<sup>40</sup> There is probably much to be learned of early cartography from medieval seal designs, not only in our area but in other parts of Europe too.<sup>41</sup>

Indeed, all that can be offered here is a provisional picture to show the main outlines of development. All work on local maps is best done by scholars living and working in the particular country, even the particular region. Access to local and private archives, to the research of local historians, to journals and other works produced primarily for local circulation, is all most efficiently achieved by those who are on the spot. This article will have fully succeeded if it leads others to carry its work forward to new discoveries, new interpretations.

#### Bibliography

- Autenrieth J., *Die Handschriften der ehemaligen Hofbibliothek Stuttgart*, 3: *Codices iuridici et politici*, Wiesbaden 1963.
- Bernleithner E., *Die Klosterneuburger Fridericuskarte von etwa 1421*, in: K.-H. Meine (Ed.), *Kartengeschichte und Kartenbearbeitung*, Bad Godesberg 1968, 41-44.
- Bonacker W., *Die sogenannte Bodenseekarte des Meisters PW bzw. PPW vom Jahre 1505*, in: *Die Erde* 6 (1954), 1-29.
- Bönisch F., *Bemerkungen zu den Wien-Klosterneuburg-Karten des 15. Jahrhunderts*, in: K.-H. Meine (Ed.), *Kartengeschichte und Kartenbearbeitung*, Bad Godesberg 1968, 45-48.
- Buczek K., *The History of Polish Cartography from the 15th to the 18th Century*, trans. Andrzej Potocki, Amsterdam 1982.

<sup>39</sup> T. Diederich, *Rheinische Städtiesiegel* (Rheinischer Verein für Denkmalpflege und Landschaftsschutz Jahrbuch 1984/5), Neuss 1984, 100-107, 198-203, 208-210, 325-328, colour plates 2, 7, black-and-white plates 20, 31, 86.

<sup>40</sup> K. Rickelt – C. F. Rickelt, *Wappenbuch der Städte und Märkte von Tirol*, Innsbruck 1894, 53 and 90.

<sup>41</sup> It is interesting, for instance, to compare the ways towns are shown on seals and on maps of large areas. The seal engraver and the mapmaker had the same problem: how to represent a town in a very small space.

- Corbière M. de la, *Le 'Rideau de fer' de Genève ou du bon usage du plan Bolomier*, in: *Patrimoine et Architecture* 14-15 (December 2005), 8-17.
- Cuningham W., *The Cosmographical Glasse*, London 1559.
- Dainville F. de, *Cartes et contestations au XV<sup>e</sup> siècle*, in: *Imago Mundi* 24 (1970), 99-121.
- Davis G. R. C., *Medieval Cartularies of Great Britain*, London 1958.
- Diederich T., *Rheinische Städtieselgel (Rheinischer Verein für Denkmalpflege und Landschaftsschutz Jahrbuch 1984/1985)*, Neuss 1984.
- Durand D. B., *The Vienna-Klosterneuburg map corpus of the fifteenth century*, Leiden 1952.
- Fleischmann P., *Die handgezeichneten Karten des Staatsarchivs Nürnberg bis 1806 (Bayerische Archivinventare 49)*, München 1998.
- Frisius G., *Libellus de locorum describendorum ratione*, Antwerpen 1533.
- Goodall J. A. A., *The earliest English architectural drawing?* in: *Country Life* 15 (Nov. 2001), 70-71.
- Grenacher F., *Current knowledge of Alsatian cartography*, in: *Imago Mundi* 18 (1964), 60-77.
- Hahnloser H. R. (Ed.), *Villard de Honnecourt – kritische Gesamtausgabe des Bauhüttenbuches*, Graz 21972.
- Härtel R., *Inhalt und Bedeutung des „Albertinischen Planes“ von Wien*, in: *Mitteilungen des Instituts für Österreichische Geschichtsforschung* 87 (1979), 337-362.
- Harvey P. D. A., *The History of Topographical Maps*, London 1980.
- Harvey P. D. A., *Local and regional cartography in medieval Europe*, in: Harley J. B. – Woodward D. (Ed.), *The History of Cartography 1: Cartography in Prehistoric, Ancient and Medieval Europe and the Mediterranean*, Chicago 1987, 464-501.
- Harvey P. D. A., *Maps in Tudor England*, London 1993.
- Höhn A., *Franken in der Nürnberg-Karte Etzlaubs und die Daten des Codex Latinus Monacensis 14583*, in: *Speculum Orbis* 3 (1987), 2-8.
- Horst T., *Die älteren Manuskriptkarten Altbayerns. Eine kartographiehistorische Studie zum Augenscheinplan unter besonderer Berücksichtigung der Kultur- und Klimageschichte (Schriftenreihe zur bayerischen Landesgeschichte 161)*, Bd. 1-2, München 2009.
- Irtenkauf W. (Ed.), *Die Rottweiler Hofgerichtsordnung (um 1430) (Göppinger Beiträge zur Textgeschichte 74)*, Göppingen 1981.
- Jarry T., *Autour d'un plan médiéval normand – le plan parcellaire d'Allemagne (Fleury-sur-Orne) de 1477*, in: *Histoire et Société Rurales* 23 (2005), 169-204.
- Kiss A., *A contribution to research on the historical geography of the first extant 'reambulation' sketch from the Carpathian Basin*, in: *Zbornik*

- Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti Hrvatske akademije znanosti i umjetnosti 19 (2001), 127-141.
- Koepf H., *Die gotische Planrisse der Wiener Sammlungen*, Wien 1969.
- Kratochwill M., *Zur Frage der Echtheit des „Albertinischen Planes“ von Wien*, in: *Jahrbuch des Vereins für Geschichte der Stadt Wien* 29 (1973), 7-36.
- Krausen E., *Die handgezeichneten Karten im Bayerischen Hauptstaatsarchiv sowie in den Staatsarchiven Amberg und Neuburg a. d. Donau bis 1650 (Bayerische Archivinventare 37)*, Neustadt a. d. Aisch 1973.
- Krogt P. van der, *Lokale kaarten van Nederland uit de late Middeleeuwen*, in: *Caert-Thresoor* 27 (2008), 29-42.
- Kugler H. (Ed.), *Die Ebstorfer Weltkarte*, 2 vols, Berlin 2007.
- Leidel G., *Die Anfänge der archivischen Kartographie im deutschsprachigen Raum*, in: *Archivalische Zeitschrift* 85 (2003), 85-146.
- López Fernández M. T. – Sánchez Carrasco M. J., *Archivo de la Real Chancillería de Valladolid – Catalogo de planos y dibujos del Pais Vasco*, Madrid 1990.
- Memorial Histórico Español*, 1 (1851).
- Meurer P. H., *Cartography in the German lands, 1450-1650*, in: Woodward D. (Ed.), *The History of Cartography*, 3: *Cartography in the European Renaissance*, Chicago 2007, 1172-1245.
- Mitchell R. – Crook D., *The Pinchbeck Fen Map – A Fifteenth-Century Map of the Lincolnshire Fenland*, in: *Imago Mundi* 51 (1999), 40-50, plates 3, 4.
- Oehme R., *Die Geschichte der Kartographie des deutschen Südwestens*, Konstanz 1961.
- Olszewicz B., *Dwie szkicowe mapy Pomorza z Połowy XV wieku (Biblioteka 'Strażnicy Zachodniej' 1)*, Warszawa 1937.
- Papp-Váry A. – Hrenkó P., *Magyarország régi térképeken*, Budapest 1989.
- Rickelt K. – Rickelt C. F., *Wappenbuch der Städte und Märkte von Tirol*, Innsbruck 1894.
- Salzman L. F., *Building in England down to 1540*, Oxford 1952.
- Schnelbögl F., *Life and work of the Nuremberg cartographer Erhard Etzlaub († 1532)*, in: *Imago Mundi* 20 (1966), 11-26.
- Schnelbögl F., *Dokumente zur Nürnberger Kartographie mit Katalog der Ausstellung anlässlich des 15. Kartographentages der Deutschen Gesellschaft für Kartographie (Beiträge zur Geschichte und Kultur der Stadt Nürnberg 10)*, Nürnberg 1966.
- Schumm K., *Inventar der handschriftlichen Karten im Hohenlohe-Zentralarchiv Neuenstein, Karlsruhe* 1961.
- Skelton R. A. – Harvey P. D. A. (Ed.), *Local Maps and Plans from Medieval England*, Oxford 1986.

- Taylor M. V. (Ed.), *Liber Luciani de laude Cestrie* (Lancashire and Cheshire Record Society 64), 1912.
- Teeling P. S., *Oud-Nederlandse landmeters*, IV, in: *Orgaan der Vereniging van Technische Ambtenaren van het Kadaster* 7 (1949), 158-170.
- Török Z. G., *Renaissance cartography in East-Central Europe, ca. 1450-1650*, in: Woodward D. (Ed.), *The History of Cartography*, 3: *Cartography in the European Renaissance*, Chicago 2007, 1806-1851.
- Wellisch S., *Der älteste Plan von Wien*, in: *Zeitschrift des Oesterreichischen Ingenieur- und Architekten-Vereines* 50 (1898), 757-761.
- Winkler R., *Die handgezeichneten Karten des Staatsarchivs Bamberg bis 1780* (Bayerische Archivinventare 48), München 2005.
- Wolkenhauer A., *Über die ältesten Reisekarten von Deutschland aus dem Ende des 15. und dem Anfange des 16. Jahrhunderts*, in: *Deutsche Geographische Blätter* 26 (1903), 120-138.
- Woolgar C. M. (Ed.), *Household Accounts from Medieval England* (Records of Social and Economic History, new series, 17, 18), 2 vols, Oxford 1992-1993.
- Wüthrich L. – Ruoss M., *Katalog der Gemälde – Schweizerisches Landesmuseum Zürich*, Zürich 1996.

#### About the author

Paul D. A. Harvey, born 1930, is Professor Emeritus of Medieval History in the University of Durham, England. His career has been divided between work as a curator of archives and manuscripts and university appointments in medieval social and economic history, but alongside each he has maintained a continuing interest in the history of maps. His first book was a catalogue of the printed county maps of Warwickshire, but later publications have been on the early history of topographical maps, in England and in general, and on the cartography of the Middle Ages. Most recently he has been working on the medieval maps of Palestine, few in number but of great interest.

Contact: [pda.y.harvey@btopenworld.com](mailto:pda.y.harvey@btopenworld.com)