

‘So one would notice the good navigability’: economic decline and the cartographic conception of urban space in late fifteenth- and sixteenth-century Bruges

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ABSTRACT: During most of the late medieval period, the Flemish city of Bruges acted as the main commercial hub of north-western Europe. In the course of the fifteenth century, however, Bruges lost much of its allure as an economic metropolis. One of the most urgent challenges the urban authorities were facing was the navigability of the waterways in and around the city. While the city government made structural investments to remedy the problems, written sources constantly emphasized how important it was that Bruges remained accessible from the sea. During the same period, the earliest preserved maps of the city and its environment emerged. Drawing on the work of Henri Lefebvre, this article argues that these visual representations were informed by the same commercial ideology. Despite, or exactly because of, the city’s decreasing maritime accessibility, they conceived Bruges as a place that could easily be reached by trading ships and where merchants could trade in the best possible circumstances.

A declining commercial metropolis

Between the late thirteenth and late fifteenth centuries, the Flemish city of Bruges served as the main commercial hub of north-western Europe.

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An urban centre of some 50,000 inhabitants with access to the North Sea, it hosted more foreign merchants than any other city north of the Alps. Organized in 'nations', or foreign merchant guilds, traders from Venice, Genoa, Florence and other Tuscan cities, numerous Hanseatic towns, England, Scotland and the various kingdoms of the Iberian Peninsula supplied commodities from the North Sea area, the Mediterranean and the Orient. At the same time, Bruges functioned as a 'gateway city' for the Low Countries' industrial exports, most notably those of the textile industry. What particularly appealed to the merchant community was the city's numerous open-access institutions, facilities that could be used indiscriminately by all traders. Modern economic theory claims that these institutions kept transaction costs – the expenses incurred while making an economic exchange – low.¹ According to Oscar Gelderblom, the urban authorities developed an institutional regime that made it more attractive to trade in Bruges than in competing cities.² Mostly recruited from the local commercial elites, Bruges' aldermen provided a specialized court system that limited merchants' policing and enforcement costs, or the costs of ensuring contractual compliance. The city also invested in commercial infrastructure, such as halls, weighing houses and cranes, operated by porters and dockworkers, and made them available to traders. Other parties complemented the city government's efforts. The foreign nations and the central authorities organized jurisdiction subsidiary to that of the urban courts. Search and information costs were kept under control by the use of hostels, where the Bruges hostellers accommodated visitors and merchants met to strike business deals. Locals also acted as brokers or intermediaries between foreign traders, allowing them to conclude transactions for reasonable bargaining costs.³

Over the course of the fifteenth century, however, Bruges lost much of its allure. During the 1430s, international merchants were already leaving the city for months in order to visit the yearly fairs in nearby Antwerp and Bergen op Zoom.⁴ Falling revenues from commercial tolls show that the

¹ For the transaction cost approach of the New Institutional Economics, see D.C. North, *Transaction Costs, Institutions and Economic Performance* (San Francisco, 1992); for Bruges as a gateway, see P. Stabel, *Dwarfs among Giants: The Flemish Urban Network in the Late Middle Ages* (Leuven, 1997).

² O. Gelderblom, *Cities of Commerce: The Institutional Foundations of International Trade in the Low Countries, 1250–1650* (Princeton, 2013). For a critical assessment of Gelderblom's arguments, see J. Dumolyn and B. Lambert, 'Cities of commerce, cities of constraints: international trade, government institutions and the law of commerce in later medieval Bruges and the Burgundian state', *Low Countries Journal of Social and Economic History/Tijdschrift voor Sociale en Economische Geschiedenis*, 11 (2014), 89–102.

³ On the role of the hostellers, see J.M. Murray, *Bruges, Cradle of Capitalism, 1280–1390* (Cambridge, 2005); on infrastructure, see M. Ryckaert, *Historische Stedenatlas van België. Brugge* (Brussels, 1991), 104–7; A. Vandewalle, *Een privilege voor iedereen: verzamelde studies over Brugse geschiedenis, archief en heraldiek* (Antwerp, 2008), *passim*.

⁴ J.L. Bolton and F. Guidi-Bruscoli, 'When did Antwerp replace Bruges as the commercial and financial centre of north-western Europe?', *Economic History Review*, 61 (2008), 360–79.

numbers of foreign visitors to Bruges started to dwindle during the 1460s.⁵ Decline had set in, and after banning the sale of English cloth in order to protect the Flemish textile industries, Bruges failed to secure the presence of both the Portuguese with their rapidly expanding Atlantic trade and the South Germans with their booming metal business.⁶ Finally, a succession of popular revolts during the 1480s against Archduke Maximilian of Austria, ruler of the Burgundian-Habsburg Low Countries, and their resultant repression, delivered an even more severe blow to the city's predominance and made increasing numbers of foreign merchants depart for Antwerp.⁷

Bruges' urban authorities did everything they could to make their city more attractive. After protectionist measures proved unsuccessful, they tried to counter the exodus and lure merchants back by lowering transaction costs even further. In 1470, the aldermen agreed to pay an annual sum to the central government to exempt all Scottish merchants, whose wool supply became increasingly important to the Low Countries, from ducal tolls on the waterways that led to the city. In 1479, following a similar decision by Antwerp, they convinced Maximilian of Austria to stop collecting tolls from all foreign visitors in return for a lump sum. Two years later, the city purchased the right to impose the so-called 'great toll', held by the noble Van Luxemburg family, so it could control the tariffs itself.⁸ After the disruptions of the 1480s, Bruges stepped up its efforts. In 1493, new and significantly more extensive commercial privileges were granted to the Italian and Catalan traders, while a small group of Sicilian merchants was given trading rights for the first time. During the last decades of the fifteenth and the first decades of the sixteenth centuries, new nation houses were built for – or at least promised to – the Portuguese, the Castilians, the Catalans, the Biscayans and the Navarrese.⁹ The lower tolls, more extensive privileges and free infrastructure were all geared towards making trading in the city less expensive.

The navigability of the waterways around Bruges was a problem that went back much further in time than the early fifteenth century.¹⁰ The city

⁵ R. Van Uytven, 'Stages of economic decline: late medieval Bruges', in J.-M. Duvosquel and E. Thoen (eds.), *Peasants and Townsmen in Medieval Europe. Studia in honorem Adriaan Verhulst* (Ghent, 1995), 259–69.

⁶ H. Van der Wee, *The Growth of the Antwerp Market and the European Economy (Fourteenth–Sixteenth Centuries)* (Leuven, 1963).

⁷ J. Haemers, *For the Common Good: State Power and Urban Revolts in the Reign of Mary of Burgundy (1477–1482)* (Turnhout, 2009), 137–228; J. Haemers, *De strijd om het regentschap over Filips de Schone. Opstand, facties en geweld in Brugge, Gent en Ieper (1482–1488)* (Ghent, 2014), *passim*.

⁸ Haemers, *For the Common Good*, 210–16.

⁹ J. Maréchal, 'Le départ de Bruges des marchands étrangers (Xve–XVIe siècles)', *Handelingen van het Genootschap voor Geschiedenis 'Société d'Emulation' te Brugge*, 88 (1951), 26–74.

¹⁰ Maintenance of harbour infrastructure was a major concern for all medieval and early modern port cities situated alongside the coasts of the North and Baltic Seas. L. Sicking, *La naissance d'une thalassocratie. Les Pays-Bas et la mer à l'aube du Siècle d'Or* (Paris, 2015), and several case-studies in J. Bill and B.L. Clausen (eds.), *Maritime Topography and the Medieval Town* (Copenhagen, 1999)). For the Mediterranean, see the examples of Modon/Methoni in

owed much of its prosperity to its connection to the sea, but accessibility was difficult to ensure. Bruges sat on the edge of the ever changing landscape of the Flemish coastal plain, which was constantly affected by natural factors such as sea tides, occasional storms and the silting up of existing streams and gullies, as well as by the construction of dykes, land reclamation and other forms of human activity.¹¹ Around the middle of the twelfth century, a series of storm surges created the Zwin, a tidal channel that provided Bruges with a direct connection to the sea. In subsequent centuries, the waterway became the city's main commercial artery, along which most goods from abroad were imported. Yet the Zwin estuary was not sufficiently fed by inland rivers and began to silt up almost immediately.¹²

As a result, the city struggled to maintain its maritime accessibility. Investments in canal maintenance already appear in Bruges' earliest accounts, which date from the end of the thirteenth century. During the fourteenth and fifteenth centuries, several attempts were made to deepen and straighten the course of the Zwin between Bruges' smaller outports of Damme and Sluys. From the 1360s onwards, projects were carried out to increase the canal's flow rate in order to scour it naturally. Pilots employed by the city helped shipmasters avoid sandbanks, beacons and buoys were set up and masts were placed in the dunes. In 1456, a signal system for ships was installed. Yet the problems continued and began to impact merchants' transaction costs. Big ships, which had enabled the fast and cheap transport of large cargoes, avoided the Zwin. Goods arrived late, or were lost in shipwrecks. By 1500, the sandbanks at the entrance of the Zwin had become so large that only small ships could still enter it.¹³

R. Gertwagen, 'Venetian Modon and its port, 1358–1500', in A. Cowan (ed.), *Mediterranean Urban Culture 1400–1700* (Exeter, 2000), 132–8, and Florence in R.D. Masters, *Fortune is a River: Leonardo da Vinci and Niccolò Machiavelli's Magnificent Dream to Change the Course of Florentine History* (New York, 1998).

¹¹ See, among others, C. Baeteman, 'History of research and state of the art of the Holocene depositional history of the Belgian coastal plain', in E. Thoen *et al.* (eds.), *Landscapes or Seascapes? The History of the Coastal Environment in the North Sea Area Reconsidered* (Turnhout, 2013), 11–29. For the latest historiographical overview of the 'Zwin debate' and the first results of landscape-archaeological research in the area, see J. Trachet, S. Delefortrie, K. Dombrecht, J. Dumolyn, W. Leloup, E. Thoen, M. Van Meirvenne and W. De Clercq, 'Turning back the tide: the Zwin debate in perspective. A historiographical review of the medieval port system northeast of Bruges', *Revue du Nord*, 97 (2015), 305–21.

¹² M. Ryckaert and A. Vandewalle, 'De strijd voor het behoud van het Zwin', in V. Vermeersch (ed.), *Brugge en de zee: van Bryggia tot Zeebrugge* (Antwerp, 1982), 53–70.

¹³ R. Degryse, 'Brugge en de organisatie van het loodswezen van het Zwin op het einde van de 15^{de} eeuw', *Handelingen van het Genootschap voor Geschiedenis 'Société d'Emulation' te Brugge*, 112 (1975), 61–130; Ryckaert and Vandewalle, 'De strijd voor het behoud'. For similar examples of Low Countries sea ports taking steps to improve their infrastructure, see J.P. Sigmond, *Nederlandse zeehavens tussen 1500 en 1800* (Amsterdam, 1989); L. Sicking, 'Sleutels tot de zee: havensteden en hun infrastructuur in de Nederlanden in de late middeleeuwen. Een verkenning', *Tijdschrift voor Zee geschiedenis*, 25 (2006), 3–9; Sicking, *Naissance d'une thalassocratie*, 56–7. For examples elsewhere in Europe, see M. Bochaca and J.-L. Sarrazin (eds.), *Ports et littoraux de l'Europe atlantique. Transformations naturelles et aménagements humains (XIV^e–XVII^e siècles)* (Rennes, 2007).

With the support of the prince, the urban authorities made structural investments to remedy the situation. In 1470, Bruges developed a master plan to improve the navigability of its waterways to the sea. The aldermen initiated major hydraulic works, such as the construction of the Zwarte Gat polder dyke, which utterly failed. At the beginning of the sixteenth century, Bruges hoped that the construction of the Oostburg Canal, or Nieuw Gedelf, between Sluys and the Western Scheldt, would solve the problems. Started in 1500 and finished in 1516, its objective was to reduce the silting-up of the Zwin by intensifying the erosion caused by tides. Its effects, however, were minimal. Inside the city, a new lock complex (the so-called Drie Deuren) was constructed between 1519 and 1522 to funnel water from the countryside into the city centre. By deepening the canals, repairing the quaysides and clearing the streets of stoops and cellar stairs, more modest attempts were made to stimulate water traffic. Finally, between 1548 and 1566, yet another canal, the Verse Vaart, was dug between Sluys and Bruges, accompanied by an impressive lock complex. Although initially these hydraulic works met with some limited success, in the long run, the city's efforts were in vain. Bruges' accessibility only declined further. Foreign merchants left for good and even native traders tried their luck elsewhere. By 1560, Antwerp had taken over Bruges' role as the leading centre of trade in north-western Europe.¹⁴

A commercial ideology in texts and images

While recent historiography has downplayed its importance in favour of economic and political factors, contemporaries certainly perceived waterway navigability as the primary cause of Bruges' undoing.¹⁵ The conviction that this maritime connection constituted Bruges' lifeline to the world was part of a normative discourse on what type of economic policies should be carried out. Unlike many other places,¹⁶ this discourse was not one limited to the urban elites but was present throughout the city's occupational groups. Calls for material alterations to the port infrastructure were mostly made by the commercial elites – brokers, hostellers and merchants from the city itself. Yet petitions from the urban middle groups, consisting of small commodity producers and retailers,

¹⁴ Degryse, 'Brugge en de organisatie van het loodswezen', 61–130; M.K.E. Gottschalk, *Stormvloeden en rivieroverstromingen in Nederland*, 3 vols. (Assen, 1971–77), vol. II, 74, 100; M. Coornaert, *Knokke en het Zwin. De geschiedenis, de topografie en de toponymie van Knokke, met een studie over de Zwindelta* (Tielt, 1974), 55–87; A. Verhulst, *Landschap en landbouw in middeleeuws Vlaanderen* (Brussels, 1995), 57–63; W. Brulez, 'Brugge en Antwerpen in de 15^e en 16^e eeuw: een tegenstelling?', *Tijdschrift voor Geschiedenis*, 83 (1970), 15–37.

¹⁵ The last historian to emphasize maritime accessibility as the prime cause of Bruges' decline was M.K.E. Gottschalk, 'Het verval van Brugge als wereldmarkt', *Tijdschrift voor Geschiedenis*, 56 (1953), 1–26.

¹⁶ See, for example, Helen Hills' study of seventeenth-century Palermo, where maps were used to project an urban identity that appealed to the city's leading citizens. H. Hills, 'Mapping the early modern city', *Urban History*, 23 (1996), 145–70.

also emphasized the need for a stable investment climate, physical and legal security for foreign merchants and efforts to keep the Zwin estuary accessible. In 1436, for instance, the deans of the craft guilds, who were in open rebellion against the elites and the Burgundian duke, demanded measures to boost the urban economy, including the improvement of the Zwin's navigability.¹⁷ Whether in princely or urban charters, Flemish chronicles or diplomatic correspondence, Bruges was stereotypically represented as 'the principal port of Christendom', and only reachable via the Zwin. The urban space was thus ideologically conceived as a place of wealth and abundance facilitated by its accessibility from the water and the hospitality and legal security offered to foreign merchants.¹⁸ The debates about the city's economic crisis from the final quarter of the fifteenth century onwards offer an excellent occasion to study such economic concerns and ideological expressions, in both textual and visual source materials.

Indeed, the earliest preserved depictions of the city and its immediate environment date from the same period in which this discourse emerged. 'Maritime and commercial iconography' or 'hydrographic city views' in miniatures and panel paintings have already received much scholarly attention.¹⁹ The famous crane of Bruges, standing in the Kraanplaats or 'Crane Square', for instance, was depicted in four versions: Hans Memling painted it in a detail of the Mystical Marriage of Saint Katherine in 1479; Simon Bening included a miniature of it in a book of prayers with a Flemish Calendar c. 1525; an anonymous Bruges artist painted it as a detail in Filips Dominicle's portrait c. 1550; and Pieter Pourbus painted it in the background of Jan van Eyewerve's portrait in 1551.²⁰ The pendant portrait of van Eyewerve's wife also features elements of portuary, or hydraulic infrastructure, such as the Minnewater, the Sashuis and the Minnewater bridge.²¹ The Seven Miracles of Bruges (c. 1550–60), a painting attributed

¹⁷ J. Dumolyn, "'Rebelheden ende vergaderinghen": twee Brugse documenten uit de grote opstand van 1436–1438', *Bulletin de la Commission Royale d'Histoire*, 162 (1996), 321–3. In seventeenth-century Antwerp, a discourse that linked the city's prosperity to international trade was equally supported by both the commercial elites and the urban middle groups. I. Van Damme, 'Scaldis getekend. Percepties van het economische welvaren van de stad Antwerpen of de genese van een handelsideologie (zestiende-negentiende eeuw)', *Tijdschrift voor Geschiedenis*, 123 (2010), 494.

¹⁸ J. Dumolyn, "'Our land is only founded on trade and industry": economic discourses in fifteenth-century Bruges', *Journal of Medieval History*, 36 (2010), 374–89. Examples of this discourse can be found in, among other sources, a charter of Philip the Good of 3 Aug. 1451, calling Bruges 'un des plus notables ports de Christienneté faisant clef et frontière... de Flandres', see L. Gilliodts-Van Severen, *Inventaire des archives de la ville de Bruges*, 9 vols. (Bruges, 1871–85), vol. V, 352; letters to Scottish towns, see Bruges, City Archives (BCA), 513; Fonds De Limburg-Stirum, 23, fol. 2r; and a Flemish chronicle composed in Bruges, see Douai, Public Library, MS 1110, fols. 200r, 201r, 211r, 361r.

¹⁹ See Sicking, *Naissance d'une thalassocratie*, 219–33, and various contributions in S. Curveiller, L.O. Goedde, M. Sellink, S. Vézillier and C. Laffon (eds.), *Vlaanderen en de zee. Van Pieter Bruegel de Oude tot de Fluwelen Brueghel* (Cassel, 2015).

²⁰ Respectively: Bruges, St John's Hospital Museum, inv. O.SJ175.1; Munich, Bavarian State Library, inv. Clm 23638; and Bruges, Groeninge Museum, inv. O.1424 and O.108.

²¹ V. Vermeersch, 'Het maritieme Brugge en de kunst', in Vermeersch (ed.), *Brugge en de zee*, 172.

to Pieter I Claeissens, depicts an idealized image of the city, its magnificent architecture and state of the art facilities. Pride of place was given to Bruges' commercial infrastructure, including the Water Hall, where merchants unloaded the goods from their ships while protected against the weather.²²

By the end of the fifteenth century, growing numbers of cartographic documents also began to appear. References to public expenses for the production of maps and views multiplied during this period and their ownership is more frequently documented in inventories,²³ suggesting an increasing spatial literacy among the city's inhabitants. Still, Bruges' cartographic representations have thus far received less scholarly attention than the aforementioned iconography of the Northern Renaissance.²⁴ These maps showcase the city's port infrastructure, internal hydrography and sea connections, elements of the same type of 'commercial ideology' expressed in written discourse. At first glance, it might seem ironic that ever more splendid maps and views of the city were produced precisely when Bruges was in decline and its importance as a port was diminishing. Historians have explained this apparent contradiction by highlighting the propagandist purposes of the maps' commissioners. When discussing a 1562 map of Bruges produced by Marcus Gerards, Ryckaert and Vandewalle argued that it was part of a 'propaganda campaign' to revitalize commercial life in the city and attract new merchants.²⁵ Similarly, an anonymous drawing of the waterways inside and outside Bruges' city centre has also been interpreted as 'publicity material'.²⁶

Use of the word 'publicity' could be taken to mean that a clear juxtaposition existed between maps depicting the 'real' urban space, and images with supposedly propagandist objectives. In actuality, *every* map is inevitably an interpretation, a subjective perception of a landscape, an ideological discourse on the space it depicts.²⁷ Every cartographic image displays a field of tension between the real, material landscape or 'physical space' on the one hand, and the ideological frames of reference shared by

²² Bruges, Private collection (Monastery de Wijngaard).

²³ L. Vandamme, 'Huizenonderzoek en materiële cultuur in het zestiende-eeuwse Brugge', in J. D'hondt (ed.), *Huizenonderzoek & stadsgeschiedenis. Handelingen van het colloquium 'Huizenonderzoek & Stadsgeschiedenis' georganiseerd door Levend Archief vzw ism. Bouwhistorie vzw op 28 november 2008 in Brugge* (Bruges, 2009), 90.

²⁴ City maps, sometimes partial, also appear in other places during the same period. For a recent survey, see H. Ballon and D. Friedman, 'Portraying the city in early modern Europe: measurement, representation, and planning', in D. Woodward (ed.), *Cartography in the European Renaissance* (Chicago and London, 2007), 680–704.

²⁵ Ryckaert and Vandewalle, 'De strijd voor het behoud', 63.

²⁶ A. Vandewalle, 'Plan van de loop van de Reie', in M.P.J. Martens (ed.), *Brugge en de Renaissance: Van Memling tot Pourbus. Notities* (Bruges, 1998), 172; A. Vandewalle, "'Aldaer veele schoone schepen vuytter zee quaemen van andere landen, van West ende Oost, tot aan St. Lenaerts poorte": Plan van de loop van de Reie en het Dampoortcomplex derde kwart 16de eeuw', in A. Vandewalle (ed.), *Topstukken uit het stadsarchief Brugge. Een selectie van tien opmerkelijke documenten voor acht eeuwen geschiedenis van Brugge* (Bruges, 2003), 2–4.

²⁷ J.B. Harley, 'Deconstructing the map', *Cartographica*, 26 (1989), 1–20; see also P. Laxton (ed.), *J.B. Harley: The New Nature of Maps. Essays in the History of Cartography* (Baltimore and London, 2001).

its producers and audience on the other. Kain and Oliver stated that, 'much more than mere mirrors in which the physical reality of the past is reflected', maps 'can be read as "texts" in the same sense that paintings, film and theatre can'.²⁸ Naomi Miller even goes so far as to call maps 'fictive creations', inherently marked by selection, bias and distortion.²⁹ They can display memories, pride or identity, as well as power, fear, hope or confidence. The French sociologist Henri Lefebvre considered both textual and visual representations of urban space a 'conceived space', one framed in a 'discursive regime', a specific ideology. Thus, politicians, entrepreneurs and the engineers and architects in their service 'construct' cities materially as well as ideologically.³⁰

This also applies to the visual spatial representations of later medieval and early modern Bruges, as is attested to by the surviving cartographic documents. The growing number of maps produced in late fifteenth- and sixteenth-century Bruges influenced their intended audience. Yet, the dominant and often institutionalized discourses on space were already present in the mind-set of the artists and engineers that drew them and the merchants and politicians who conceived them. They cannot be reduced to acts of conscious 'propaganda', nor did they have purely 'functional' or 'practical' purposes. Instead, we argue that the iconographic language of these documents should be considered as a specific form of Lefebvrian 'represented' or 'conceived space'. Just as the textual sources did, they expressed the city's economic ideology of an open and accessible market. In this discourse, a hegemonic one shared by the city government, merchants and artisans, the creation of favourable conditions for investment and international trade was considered one of the duties of any prince or urban council, an aspect of justice, common profit and good governance itself. In line with Lefebvre's conception of space as both socially produced and socially productive, the maps under consideration here both reflected and further projected this agenda.

Mapping a commercial ideology

Public investments made to map the city, its hydrographical situation or the Zwin estuary are documented in the Bruges city accounts. The oldest traces of expenses for cartographic material date back to the early 1470s, when a certain de Visscher was paid to produce a map of the Zwin.³¹ Then, between 1480 and 1483, the urban authorities paid painter Jan Fabiaen for

²⁸ R.J.P. Kain and R.R. Oliver, *British Town Maps: A History* (London, 2015), 9.

²⁹ N. Miller, *Mapping the City: The Language and Culture of Cartography in the Renaissance* (London and New York, 2003), 4.

³⁰ H. Lefebvre, *La production de l'espace* (Paris, 1974).

³¹ L. Gilliodts-Van Severen, *Bruges, port de mer. Étude historique sur l'état de cette question principalement dans le cours du seizième siècle* (Bruges, 1895), 38–9.

one or several maps that 'had to show the city's hydrography'.³² These included payments for 'two plans made and designed by him of the canals, sewerages, moats and other waterways of this city'.³³ Unfortunately, these fifteenth-century maps have not survived, but it is obvious that the city's earliest investments in cartography were connected to the state of its hydrography. This is rather unusual, as the oldest European city maps are often assumed to have had military purposes.³⁴ In Barcelona and many Italian cities, including Genoa and Pisa, for example, military expeditions lay behind the creation of the first cartographic documents. Harbour facilities and waterway infrastructure only became a central theme during the eighteenth century.³⁵ Venice, where the state of the marshy lagoon was equally crucial to the city's survival, is one of the few places where a similarly close relationship between cartographic and hydrographic projects has been attested to as in Bruges. There, the earliest city maps were produced by officials in charge of regulating the waterways.³⁶ In Bruges, the authorities employed similar officers,³⁷ but none of the extant maps can be attributed to them.³⁸ Instead, the mapmakers were private painters, builders and land surveyors contracted by the city authorities.

Unfortunately, most expenses relating to cartographic material in the city accounts refer to maps that have since vanished. Only a few of the maps preserved in museums and the Bruges city archives can be linked to these financial records. In most cases, the archival context of the extant maps has been lost due to their transfer to separate cartographic collections in the course of the nineteenth and twentieth centuries.³⁹ This makes it difficult either to date them precisely or to make firm hypotheses regarding their original purposes. They are quite different in terms of typology, projection, size, topographic content, scale and style, but, as

³² N. Geirnaert, 'Fabiaen (Fabyaen), Jan (Jehan, Jennin), schilder te Brugge', in *Nationaal Biografisch Woordenboek*, 21 vols. (Brussels, 1964–2014), vol. XVIII, 359–60.

³³ R.A. Parmentier, 'Bronnen voor de geschiedenis van het Brugse schildersmilieu in de XVIe eeuw', *Belgisch Tijdschrift voor Oudheidkunde en Kunstgeschiedenis*, 24 (1955), 89.

³⁴ Kain and Oliver, *British Town Maps*, 181.

³⁵ G. Fournier-Antonini, *Barcelone, Gènes et Marseille. Cartographies et images (XVIe–XIXe siècle)* (Turnhout, 2012), 27–8, 55; Ballon and Friedman, 'Portraying the city', 683–4; L. Tosi (ed.), *Pisa e il suo territorio: tra cartografia e vedutismo dal XV al XIX secolo*, 2 vols. (Pisa, 2004–06), vol. I, 18, 46–8, 89–96; M. Folin, 'Piante di città nell'Italia di antico regime: uno strumento di conoscenza analitico-operativa', in M. Folin (ed.), *Rappresentare la città. Topografie urbane nell'Italia di antico regime* (Reggio Emilia, 2010), 19.

³⁶ J. Kittler and D.W. Holdsworth, 'Digitizing a complex urban panorama in the Renaissance: the 1500 bird's-eye view of Venice by Jacopo de' Barbari', *New Media & Society*, 16 (2014), 774; E. Svalduz, 'Venice 1557: Sabbadino's city plan', in N. Avcioglu and E. Jones (eds.), *Architecture, Art and Identity in Venice and its Territories, 1450–1750* (Burlington, 2013), 71.

³⁷ See, for example, the projects led by Jan van der Meersch, 'director of hydraulic works', and his assistant Joos Gomaer; A. De Smet, 'Histoire du Zwyn', in *Album Antoine De Smet* (Brussels, 1974), 66–7; Gilliodts-Van Severen, *Bruges, port de mer*, 182; BCA, 228, fol. 22r.

³⁸ Some historians have argued that they were still involved in the mapmaking process. See, for example, M. Ryckaert, 'Plan van Brugge', in Martens (ed.), *Brugge en de Renaissance*, 173.

³⁹ A. Schouteet, *Catalogus van kaarten en plannen* (Bruges, 1972), 7. For similar problems elsewhere, see Kain and Oliver, *British Town Maps*, 59.

was the case with the earliest maps, they all strongly emphasize the hydrographic situation of both the city and its immediate surroundings and are informed by a common iconographic and ideological programme. Based on the relationship between the hydrography depicted and other topographic elements, we have categorized the oldest extant maps in a way not fully attempted before. We distinguish three main groups: (1) maps that depict Bruges as part and terminus of a complex water network emphasizing the city's accessibility; (2) technical maps and design plans proposing improvements or alterations to the existing water infrastructure; (3) maps focusing on the city of Bruges, its hydrographic infrastructure and its port facilities.

Bruges as the terminus of a transport network (map type 1)

In the ideally represented urban commercial space, Bruges' attractiveness as a hub for international trade was inextricably linked to the city's accessibility from the sea. That is also the central message of three maps produced in Bruges during the second half of the fifteenth and first half of the sixteenth centuries. The oldest map was inserted into a handwritten Italian translation of the 'Excellent chronicle of Flanders' ('Excellent Cronicke van Vlaenderen'), dated 1452, and is the oldest extant map of Flanders (see [Figure 1](#)).⁴⁰ Elsewhere in Europe, the earliest cartographic depictions of towns and cities were often part of literary works as well.⁴¹ The translation of the 'Excellent Chronicle' seems to have originated in a circle of Italian merchants and bankers operating in Bruges around the middle of the fifteenth century. As indicated in the text's prologue, the map served 'to better understand the history and territory of Flanders'.⁴² As such, it was clearly not intended to provide an accurate depiction of the county's and city's topographical situation, but rather to provide readers with a rough guide to the myriad of places figuring in the chronicle.

The second map was made by the Bruges painter Jan de Hervy in 1501, and was commissioned by the Bruges city council (see [Figure 2](#)).⁴³ The city accounts of 1501–02 record a payment to de Hervy for 'rendering in portraiture in oil colours the new canal and other things'.⁴⁴ His map shows the excavation works for the construction of the Oostburg Canal, or Nieuw

⁴⁰ 'Cronache de Singniori di Fiandra e de Loro Advenimenti', Bruges, Public Library, MS 685, map on fols. 211v–212r.

⁴¹ Fournier-Antonini, *Barcelone, Gênes et Marseille*, 13.

⁴² 'E pe(r)ché meglio si possano comprendere le storie e confini e territorio di fiandra', S. Corbellini, 'Cronache de singniori di Fiandra: een Italiaanse kroniek van Vlaenderen', *Handelingen van het Genootschap voor Geschiedenis 'Société d'Emulation' te Brugge*, 134 (1997), 107.

⁴³ Bruges, Groeninge Museum, inv. O.1382.

⁴⁴ A. Roberts, 'The landscape as legal document: Jan de Hervy's "View of the Zwin"', *Burlington Magazine*, 133 (1991), 82–6; H. Lobelle-Caluwé, 'Kaart van de Zwinstreek', in Martens (ed.), *Brugge en de Renaissance*, 49.



Figure 1: (Colour online) Oldest extant map of Flanders, inserted in the ‘Cronache de Singniori di Fiandra e de Loro Advenimenti’, 1452, Bruges, Public Library, MS 685, fols. 211v–212r.



Figure 2: (Colour online) Map of the Zwin area by Jan de Hery, 1501, Bruges, Groeninge Museum, inv. O.1382.

Gedelf, which, connecting the Zwin mouth to the Honte waterway, was intended to resolve the estuary’s silting by increasing its water supply.

The easy and direct accessibility of Bruges via the sea is the central theme of both maps. As many other late medieval city views,⁴⁵ the rudimentary

⁴⁵ P. Huvenne, ‘L’image de la ville à travers la cartographie’, in J. Van der Stock (ed.), *La ville en Flandre. Culture et société 1477–1787* (Brussels, 1991), 46.

1452 map portrays Bruges in a synoptic way: it focuses disproportionately on those elements that are characteristic to the city and make it unique. Tellingly, its most striking feature is the ubiquity of water. In the painting by de Hervy, the new canal is included as an integral part of the complex water network stretching from the Scheldt River on the right, to the port of Bruges on the left. In order to emphasize the city's maritime accessibility, proportions and relative distances have been modified, and numerous ships are shown navigating the waters. It was not the painter's task to depict the finished Nieuw Gedelf, which was not completed until 1505, but rather to communicate the city's efforts to improve the amenities for deep water vessels. The landscape around the city was not depicted accurately, but what mattered was the ideologically inspired portrayal of an attractive market with a navigable waterway.⁴⁶

Bruges as the terminus of a transport network is also the main theme of a third map, traditionally called the city's 'Oldest Painted Town Plan' (see Figure 3).⁴⁷ On stylistic grounds and architectural details, the anonymous bird's-eye view should be dated to the first half of the sixteenth century, probably around 1540,⁴⁸ but it is clear that some portions were later repainted. The plan is likely to have been part of a larger painting showing the Zwin estuary, the outports of Damme and Sluys and the first stage of the Verse Vaart.⁴⁹ Contrary to the other maps, the 'Oldest Painted Town Plan' provides a detailed depiction of the urban territory *intra muros*, among which the city's hydrography stands out. Particularly striking is the large basin where high tonnage sea ships are moored in the bottom left corner (see Figure 4), situated within the city walls, near the Dampoort gate complex, where the waterway to the sea met Bruges' inner canals. Near the basin, there is a broad canal between the Dampoort complex and the Augustijnenrei, another Bruges waterway. It has seven wooden draw-bridges and an impressive portage that would have allowed ships

⁴⁶ Roberts, 'Landscape as legal document', 86.

⁴⁷ Bruges, Groeninge Museum, inv. O.410.

⁴⁸ The 'Oldest Painted Town Plan' has been variously dated to the 1480s, see J. D'hondt, 'Een fragment van de oudste kaart van Brugge?', *Archiefleven*, 16 (2009), 7; to the end of the fifteenth or the start of the sixteenth century, see D. De Vos, *Stedelijke Musea Brugge. Catalogus schilderijen 15^{de} en 16^{de} eeuw* (Bruges, 1979), 31; Ryckaert, *Historische Stedenatlas*, 10–11; to before 1543, see A. Vandewalle, 'Een plan van het kwartier van de Bogardenschool in 1543', in *125 jaar Stedelijke Nijverheidsschool* (Bruges, 1979), 306–7; to the 1540s, see M. Ryckaert, 'Plan van Brugge', 173; and has even been characterized as an inferior *falsum* from the eighteenth century, see J. De Smet, 'De oude hydrografie van de stad Brugge', *Handelingen van het Genootschap voor Geschiedenis 'Société d'Emulation' te Brugge*, 86 (1949), 19–22. The most recent attempt was made by Alexander Linsingh, who dated the painting around 1540. A. Linsingh, 'Het geschilderde plan van Brugge in perspectief: een historisch-cartografische analyse en contextualisering', Ghent University MA thesis, 2016.

⁴⁹ In 1756, land surveyor Bouvaert produced a double copy of this map, which not only shows Bruges, but also the connection to the sea: BCA, Kaarten en Plannen, no. 234; Bruges, Groeninge Museum, inv. O.1693.II; see also A. Janssens de Bisthoven, *Tentoonstelling Schatten voor Brugge. Stedelijke Musea Brugge, aanwinsten 1966–1972* (Bruges, 1971), 39–40; De Vos, *Stedelijke Musea Brugge*, 30–1; Ryckaert, 'Plan van Brugge', 173.



Figure 3: (Colour online) 'Oldest Painted Town Plan' of Bruges, probably around 1540, Bruges, Groeninge Museum, inv. O.410.

to reach the city centre. The basin and the canal are connected by a large stone quay and plaza.

Remarkably enough, neither the basin for sea vessels nor the canal can be coupled with any project planned or carried out by the city in the late fifteenth or the sixteenth centuries. Moreover, the idealized hydrographical situation depicted by the map sharply contrasts with the actual condition of the waterways at that or any previous time. Even during Bruges' heyday, ships of the size indicated would never have been able to reach the city. As such, the painted plan addressed one of the most serious concerns anyone interested in trading in the city in this period would have had. It hid the miserable state of the hydrography and depicted a place where even the largest ships could sail straight into the city centre, complete with state of the art facilities to service them. In the original painting, this way of conceiving the commercial space of Bruges might have been even more striking because of the unbroken links with Damme and Sluys. The 'Oldest Painted Town Plan' not only represented the city of Bruges as a port, but as



Figure 4: (Colour online) Detail of the ‘Oldest Painted Town Plan’ of Bruges, with the large basin where high tonnage sea ships are moored, probably around 1540, Bruges, Groeninge Museum, inv. O.410.

the terminus of a perfectly organized and functioning system connecting the North Sea and the inner city.

***Turning the tide: designing and mapping hydraulic works
(map type 2)***

Several other maps and drafts of Bruges and its surroundings were produced in order to document hydraulic works. However, this again does not mean that they were merely ‘neutral’ or ‘realistic’ renderings of the physical landscape as it was or as it was to become after the works were completed. Most of them related to particular nodes in the network

of waterways that needed improvement or adjustment,⁵⁰ but a number of maps covered the entire hydrographical infrastructure in order to develop a more comprehensive solution to the accessibility problem. This is the case for two maps by the Bruges painter and engineer Lanceloot Blondeel in 1546. The first, large one represents a complex network of small winding streams, and two broader straight canals between the city and the sea (see [Figure 5](#)).⁵¹ It has the overall look of a preliminary sketch with certain features rendered in detail, such as a portage for ships and the church towers of the villages around Bruges.

The second, smaller map by Blondeel documents a far more ambitious proposal to restore Bruges' connection to the sea (see [Figure 6](#)).⁵² All previous projects had failed, and so Blondeel gave up on improving the existing infrastructure. Instead, the painter-engineer proposed a drastic solution: a new, broad, straight canal between the city of Bruges and the sea terminating near the village of Heist. Unfortunately, we do not know anything about the decision-making process, other than that Blondeel's vision was rejected.⁵³ However, his designs were preserved in the city's archives and eventually inspired the construction of both a sea canal and the new North Sea harbour of Zeebrugge in the nineteenth century.⁵⁴ In 1546, Pieter van Eenoghen, Joost Lems and Nicasen Allaert proposed an equally radical solution. Their map, a pen and ink drawing, shows a detailed design of a new canal between Damme, Sluys and the Zwin, complete with locks near the sea mouth and further inland to control the flow of water and prevent silting by scouring.⁵⁵ But just like Blondeel's proposed project, it was never approved by the urban authorities.

Another image, a large anonymous drawing showing the hydrographical situation between the seaside and Bruges' city centre (see [Figure 7](#)), has characteristics of both map types 1 and 2.⁵⁶ The dating and origin of the drawing remain unclear; it has been variously dated to around the middle or end of the fifteenth century and the first half of the sixteenth century.⁵⁷ Interpretations range from a plan for dredging operations, a

⁵⁰ See, for example, BCA, Kaarten en Plannen, no. 19 (sixteenth century), no. 22 (1505–16) and no. 25 (early sixteenth century); see also M.K.E. Gottschalk, 'Aspecten van de historische geografie van westelijk Zeeuws-Vlaanderen aan de hand van enige kaarten', *Tijdschrift van het Koninklijk Nederlandsch Aardrijkskundig Genootschap*, 73 (1956), 17.

⁵¹ BCA, Kaarten en Plannen, no. 14.

⁵² *Ibid.*, no. 15; see also L. Jansen, 'Hydrografische ontwerpen voor een verbinding tussen Brugge en de zee', in Martens (ed.), *Brugge en de Renaissance*, 115.

⁵³ In 1991, Huvenne deplored the lack of contextualization of Blondeel's cartographic work. Huvenne, 'L'image de la ville', 58.

⁵⁴ M. Ryckaert, 'Brugge als Europese haven', in V. Vermeersch (ed.), *Brugge en Europa* (Antwerp, 1992), 34; R. De Paepe, 'Brugge-Zeebrugge: the new Belgian harbour on the North Sea', *Interdisciplinary Science Reviews*, 13 (1988), 239; R. Van Eenoo, 'Het ontstaan van Brugge-Zeehaven', in Vermeersch (ed.), *Brugge en de zee*, 197–227.

⁵⁵ BCA, Kaarten en Plannen, no. 16.

⁵⁶ *Ibid.*, no. 88bis.

⁵⁷ Vandewalle, 'Plan van de loop', 172; J. De Smet, 'De oude kaarten van de streek van het Zwin en de Brugse haven in de middeleeuwen', *West-Vlaanderen*, 10 (1961), 171; Vandewalle, "'Aldaer veele schoone'", 4; Huvenne, 'L'image de la ville', 58.



Figure 5: (Colour online) Large map of Bruges and the Zwin area by Lanceloot Blondeel, 1546, Bruges, City Archives, Kaarten en Plannen, no. 14. Photo: Dominique Provost Art Photography-Brugge.

preparatory sketch for the reconstruction of the Dampoort complex⁵⁸ or more propaganda,⁵⁹ but it could also have served as a model for a coastal chart, used by master mariners to navigate to Bruges' centre, which is depicted in great detail. In the middle sits a complex of fortifications and adjoining buildings, moats, bridges, a mill and a tackle near the Bruges' Dampoort, the city's primary gateway. Navigation then continues

⁵⁸ Vandewalle, "'Aldaer veele schoone'", 4.

⁵⁹ Vandewalle, 'Plan van de loop', 172; Vandewalle, "'Aldaer veele schoone'", 2–4.



Figure 6: (Colour online) Small map of Bruges and the Zwin area by Lanceloot Blondeel, 1546, Bruges, City Archives, Kaarten en Plannen, no. 15. Photo: Dominique Provost Art Photography-Brugge.



Figure 7: (Colour online) Anonymous drawing of the Reie, second half of the fifteenth century or first half of the sixteenth century, Bruges, City Archives, Maps and Plans, no. 88bis. Photo: Dominique Provost Art Photography-Brugge.

along the inner canal of the Reie up to the so-called ‘Burgher’s Lodge’ or Poortersloge, both the symbol and gathering place of Bruges’ native merchants.⁶⁰ The bridges over the Reie were carefully rendered, clearly distinguishing wooden from stone ones and indicating whether they could be raised or not. The artist also showed where and how particular types of goods could be unloaded on the quays alongside the Reie. In this sense, the drawing thus offers a much more realistic view of the port facilities *intra muros* than the ‘Oldest Painted Town Plan’ did.

All the same, the contrast between the idealized situation visible in the map and the miserable state of Bruges’ actual hydrography during this period is striking. A notable feature of this map is that the waterways between Bruges and the North Sea were depicted as being much shorter and straighter than they actually were. Moreover, all bends and irregularities in the canals were omitted, suggesting that it was a short and easy trip to the city centre. Large, three-master ships, which in reality could never have entered the city, are seen sailing right up to the Koningsbrug bridge at its very heart. These improbable vessels fly the flags of the Hanseatic League and Castile, home to two of the most important foreign merchant groups whose presence Bruges wanted to secure.⁶¹ Again, the ideological concern to represent an ideal commercial city and its access to the sea seems to have been at play throughout the scene.

City maps (map type 3)

In the second half of the sixteenth century, reflecting the renewed Renaissance interest in the city,⁶² a new type of map appeared. Three-dimensional bird’s-eye perspectives focused on the urban territory *intra muros* as a whole, with less attention for the surrounding countryside. They were published on loose sheets or in atlases such as those edited by Lodovico Guicciardini, Georg Braun and Frans Hogenberg, Frederik de Wit and Johannes Blaeu.⁶³ Still, in the maps of this type created in Bruges, the hydrographical situation and the port facilities remained an important theme. Even Jacob van Deventer, a cartographer who spent just a brief time in Bruges and had no relationship to the urban authorities, was aware of their significance. In the middle of the sixteenth century, van Deventer

⁶⁰ F. Buylaert, J. De Rock, J. Dumolyn and I. Geelen, ‘De Poortersloge van Brugge: een sociale en culturele geschiedenis van een uniek laatmiddeleeuws gebouw’, *Handelingen van het Genootschap voor Geschiedenis te Brugge*, 152 (2015), 225–84.

⁶¹ Ryckaert, ‘Plan van Brugge’, 173.

⁶² J. Black, *Metropolis: Mapping the City* (London, 2015), 38.

⁶³ S. Füssel (ed.), *Civitates Orbis Terrarum, Cities of the World: 363 Engravings Revolutionize the View of the World. Complete Edition of the Colour Plates of 1572–1617* (Cologne, 2008), 73; H. Deys et al., *Guicciardini Illustratus. De kaarten en plannen in Lodovico Guicciardini’s Beschrijving van de Nederlanden* (‘t Goy-Houten, 2001), 171–4; M. van Delft and P. van der Krogt, *Atlas De Wit 1698: Town Atlas of the Low Countries. From Groningen to Cambrai* (Tiel, 2012), 232–3.



Figure 8: (Colour online) Marcus Gerards, *Brugae Flandrorum Urbs et Mercatu Celebre*, 1562, Bruges, Public Library, Historisch Fonds, HF530.

produced a highly accurate topographic map of the city on a single sheet of paper, but added an extra leaf in order to depict the Reie between Bruges and Damme, and a second canal to Koolkerke.⁶⁴

By far the most celebrated depiction of pre-modern Bruges was produced by the Bruges painter and engraver Marcus Gerards, and dates from 1562. *Brugae Flandrorum Urbs et Mercatu Celebre* shows the city, the surrounding countryside and part of the North Sea from a bird's-eye perspective (see Figure 8).⁶⁵ Whereas our knowledge about the context in which earlier maps were created is fragmentary at best, we are relatively well informed about the motivations behind this document. Explicitly referring to the ideologically preconceived idea of how their urban space should be represented, the city's magistracy wanted to order a map in which the cartographer made 'the water between Bruges and

⁶⁴ Brussels, Royal Library of Belgium, Kaarten en Plannen, MS 22.090 (14); see also B. Vannieuwenhuyze, 'Les plans de villes de Jacques de Deventer (XVI^e siècle). État de la question et pistes de recherche', *Revue du Nord*, 94 (2012), 613–33.

⁶⁵ Bruges, Public Library, Historisch Fonds, HF 530. The engraving consists of 10 copper plates, which measure 180 x 100 cm in total. In 2012, the MAGIS Brugge project was launched with the aim of meticulously analysing the bird's-eye view of Marcus Gerards and creating an interactive map with a web portal for the late medieval and early modern history of Bruges (<http://magis.kaartenhuisbrugge.be>); see also B. Vannieuwenhuyze and E. Vernackt, 'The digital thematic deconstruction of historic town views and maps', in K. Lichtert, J. Dumolyn and M.P.J. Martens (eds.), *Portraits of the City: Representing Urban Space in Later Medieval and Early Modern Europe* (Turnhout, 2014), 9–31; E. Vernackt, A. Heirman and B. Vannieuwenhuyze, 'MAGIS Brugge. Van zestiende-eeuws vogelvluchtplan tot stadshistorische databank', *Caert-Thresoor*, 33 (2014), 56–61.

Sluys wider, so one would notice the good navigability'.⁶⁶ Although the Antwerp printer Willem Silvius was initially asked to produce it, Marcus Gerards succeeded in obtaining the commission after mediation by the international artist and humanist network to which he belonged, and which was centred around Abraham Ortelius.⁶⁷ The authorities' desire to showcase their city as a hotspot for international trade governed nearly every decision Gerards took in the creation of his bird's-eye view. A similar initiative was undertaken in Venice, where the threat to the city's commercial hegemony mobilized the rulers to order a series of images that propagated its greatness.⁶⁸

Bruges' commercial infrastructure, essential in its portrayal as an attractive hub for merchants from all over Europe, is visible in Marcus Gerards' map, even if it is occasionally somewhat lost in the mass of topographical details depicted in this ambitious work. Yet, perhaps surprising for a commerce dominated map, is the absence of the hustle and bustle of international trade. The inner city is shown in great detail, but is completely devoid of people, animals, conveyances or street furniture. However, this 'silent city' concept may derive from a stylistic choice; indeed, Gerards was following a pictorial convention that had been circulating for some time in Europe.⁶⁹ Rosselli's famous *Pianta della Catena* of Florence (c. 1470–80), the anonymous view of London (c. 1550), Bononiensis' map of Antwerp (1565) and many bird's-eye views published in Braun and Hogenberg's *Civitates Orbis Terrarum* (first volume, 1572) all shared the same preference for empty streets and squares. Yet, references to trade are made in Gerards' map, where large and small ships ply the waters between the Zwin mouth, the outports of Sluys and Damme and Bruges.⁷⁰

⁶⁶ 'Hij sal twatere van Brugghe tot Sluus maken van meerdere breede ten fijne dat men mercken mach de goede navigatie': A. Duclos, 'Marc Gheeraerts en zijne kaarte van Brugge', *Rond den Heerd*, 18 (1883), 211.

⁶⁷ A. Schouteet, *Marcus Gerards: zestiende-eeuws schilder en graveur* (Bruges, 1985), 32–3; B. Dewilde, 'On noble artists and poor craftsmen: networking painters in Renaissance Bruges', in K. Brosens, L. Kelchtermans and K. Van der Stighelen (eds.), *Family Ties: Art Production and Kinship Patterns in the Early Modern Low Countries* (Turnhout, 2012), 94–5.

⁶⁸ Kittler and Holdsworth, 'Digitizing a complex urban panorama', 781. See also the efforts of the city government in seventeenth-century Mühlheim am Rhein to attract people by producing maps that underlined the city's tolerant religious climate and military protection. E.R.M. Taverne, 'Het getekende kaartbeeld als teken van stedelijke propaganda. Invloed van landmeetkundige en kartografische praktijken in Italië op enkele Nederlandse stadsplattegronden uit het begin van de zeventiende eeuw', in *Stad in Kaart. Voordrachten gehouden op het congres 'De historische stadsplattegrond-spiegel van wens en werkelijkheid'* (Alphen aan den Rijn, 1984), 131.

⁶⁹ According to Jelle De Rock, the representation of the city as an empty and lifeless place corresponded to the elites' perception of urbanity and social order. J. De Rock, 'Beeld van de stad: picturale voorstellingen van stedelijkheid in de laatmiddeleeuwse Nederlanden', Antwerp University Ph.D. thesis, 2011, 241–2.

⁷⁰ For a similar analysis of the absence of human activity in Barbari's bird's-eye view of Venice, see Miller, *Mapping the City*, 188.



Figure 9: (Colour online) Detail from Marcus Gerards, *Brugae Flandrorum Urbs et Mercatu Celebre*, with the connection between Bruges on the right and the North Sea on the left, 1562, Bruges, Public Library, Historisch Fonds, HF530.

Many other cartographic and iconographic elements in the conceived space of Gerards' map were the direct results of the city government's expectations. It had to be clear that the city had made every effort to improve its port infrastructure. The painter represented the Verse Vaart between Sluys and Damme, which had been dug between 1548 and 1557, and its lock system, which was still under construction when the bird's-eye view was printed. Moreover, Gerards made the hydrographic situation look better than it actually was. Whereas most of the North Sea is shown as very turbulent and even terrorized by gigantic sea monsters,⁷¹ the Zwin mouth is markedly quieter – a safe haven where ships with furled sails gather in order to reach the city's harbour (see Figure 9). Between the city and the sea, Gerards drew a dotted line to indicate where he had changed the scale. Everything on the left is represented much smaller than on the right, and as a result, Bruges' connection to the sea appears much shorter and straighter than it actually was.⁷²

Most of the countryside surrounding the city is shown rather generically, with only a monastery and a few smaller, isolated village churches, but an exception is made for Bruges' outports, Damme and Sluys, which played a crucial role in its accessibility and which were depicted in remarkable detail.⁷³ In accordance with the city's instructions, the canals within the city walls were drawn significantly wider than they were in reality, and most of them were provided with perfectly maintained stone quaysides.

⁷¹ See Ch. Van Duzer, *Sea Monsters on Medieval and Renaissance Maps* (London, 2013).

⁷² Gerards did give the actual distances in a separate box on the map, see L. Constandt, 'De kaart van Marcus Gerards', in Th. Vandercruysse (ed.), *Brugge en de zee: maritieme geschiedenis van Brugge* (Bruges, 1982), 37; Vernackt, Heirman and Vannieuwenhuyze, 'MAGIS Brugge', 57.

⁷³ For Gerards' portrayal of the city of Sluys, see W. Leloup, 'De vorming van Sluis. Het ontstaan en de ruimtelijke ontwikkeling van een laatmiddeleeuwse Zwinstad (ca. 1250–1560)', Leuven University MA thesis, 2013.

Nearly entirely unpeopled, boats are seen floating on the water, some of which would never have been able to pass under the canals' many bridges. And while Gerards depicted the water current in the south of the city, the canals used for international trade were all still and perfectly controlled. What mattered was not to show the city's commercial activity, but that its waterways were navigable.

A final important artistic intervention concerns the use of a virtual viewpoint in the sky. The adoption of a three-dimensional perspective has the advantage that it allowed for the detailed coverage of many topographical elements. According to Brown, this 'eye-witness style' permits viewers easily to identify the sites depicted, but the manipulation of the space also misleads them in order to reinforce the ideological content.⁷⁴ In her study of Jacopo de' Barbari's bird's-eye perspective of Venice, Howard argued that the artist not only intended to achieve remarkable accuracy, but also deliberately manipulated the image to convey a particular iconographic idea: to give Venice the visual appearance of a dolphin.⁷⁵ In Marcus Gerards' map, the detailed depiction of Bruges' hydrography and port infrastructure mattered less than the ideologically inspired image of a quiet, well-protected and well-equipped city, close to the sea, where merchants could trade in ideal circumstances.⁷⁶

It is likely that Gerards' commission constituted the city government's ultimate attempt to conceive Bruges cartographically as an international trade centre. Since the 1470s, the city's economic position had only deteriorated and by the end of the 1560s, it must have dawned on everyone that its golden age was not going to return. In 1553, the last official representation of the foreign merchant communities, that of the Hanseatic League, left Bruges.⁷⁷ Then, during the 1560s, the bankruptcies of the Spanish state, economic decline and the first outbreaks of religiously inspired violence also started to affect Antwerp. In 1585, following 20 years of devastating warfare, the centre of international trade moved even further north, to Amsterdam.⁷⁸ However inventive the cartographic conception of commercial space might have been, its impact was negligible in the face of the changes in international trade flows and the consequences of military conflict. The city paid two more cartographers to map Bruges' hydrography in 1564–66, and apart from two isolated commissions in the

⁷⁴ P. Fortini Brown, *Venetian Narrative Painting in the Age of Carpaccio* (New Haven and London, 1978), 125–64.

⁷⁵ D. Howard, 'Venice as a dolphin: further investigations into Jacopo de' Barbari's View', *Artibus et Historiae*, 18 (1997), 101.

⁷⁶ See the similarities with the seventeenth-century map of Palermo analysed by Hills, which aimed at presenting the city as a properly governed and defended location of wealth, rather than at accurately depicting the physical reality. Hills, 'Mapping the early modern city', 152–3.

⁷⁷ Maréchal, 'Le départ de Bruges', 45.

⁷⁸ Van der Wee, *Growth of the Antwerp Market*.

1580s, they were the last documented instances in which the city invested in the cartographic representation of its waterways in the sixteenth century.⁷⁹

Bruges and its graphic identity

A perspicuous commentator on Bruges' unstoppable decline was the elderly Zeger Van Male. As a merchant and alderman, he had been personally involved in the city's attempts to stop the crisis. In the 1590s, drawing on his youthful experiences and stories he had either read or heard, van Male wrote a jeremiad in which he looked back at the time 'when trade came from all other countries and kingdoms, and when all nations of the world were present in the city of Bruges'.⁸⁰ He ruminated on the state of the waterway to Sluys that had been completed at great expense in 1566, soon after Marcus Gerards had finished his map. It had suffered heavily from the war in subsequent decades, become silted up and the infrastructure ruined, with lots of its materials sold and the locks in need of repair. In the 1590s, a fortress and a dyke were constructed in front of the canals' mouths and Bruges lost its direct connection to the sea. 'We have no more rivers, only a pool', Van Male lamented. 'What benefits do your two locks in Sluys, your new canal and your pound lock, which have cost more than sixty thousand pounds, bring you now?' 'Where is the money now, to repair and restore the canal and the locks, so they could be navigable again for the merchant?'⁸¹

In his complaint, Van Male voiced the same concerns that had informed the iconographic programme of the town plans and maps depicting Bruges and its wider hydrographical context between the 1470s and the 1560s. In spite of the differences in scale, style and function between the various cartographic sources under scrutiny here, and independent of the technical and stylistic evolutions town and city mapping underwent throughout the sixteenth century,⁸² one motif recurs constantly: the city's accessibility. This theme is always either implicitly or explicitly present in the message these pictures seem to convey, regardless of whether they genuinely reflect the physical landscape, idealize the current situation or document a solution for the city's problems. In the case of Gerards' map, we know that the cartographer was explicitly commissioned to project the 'good navigability' of the town, but this was apparently an underlying concern for the makers of all maps and city plans preserved for this period. They communicated that Bruges was still a place that could easily be reached and

⁷⁹ BCA, 216, city accounts of 1564–65, fol. 117r; 1565–66, fol. 87r; 1585–86, fol. 41r; and 1588–89, fol. 38v.

⁸⁰ A. Dewitte and A. Viaene (eds.), *De lamentatie van Zeghere van Male. Brugge na de opstand tegen Spanje 1590* (Bruges, 1977), 108.

⁸¹ *Ibid.*, 55–6, 65.

⁸² Creators of city maps during this period aimed to produce a scaled-down image of the physical world while paying increasing attention to accurate, eye-witness observation and faithful reproduction. Black, *Metropolis*, 35.

where merchants could trade in the best possible circumstances, against low transaction costs.

For Bruges, maritime accessibility was the crux of what Fournier-Antonini has called a city's 'graphic identity', an image emblematic of a particular place, which was not so much the result of stylistic or technical choices or the site's topography, but of its local political, economic and social context.⁸³ During the late fifteenth and sixteenth centuries, Bruges' position as an easily accessible centre of international trade was under threat. Insecurity over its economic viability gave rise to a specific discourse shared by most of the city's inhabitants: it was the city government's duty to provide foreign merchants with excellent infrastructure for transportation and trade in order to reduce transaction costs. This ideology can be detected in many textual sources of the period, but it also determined the city's cartographic production. Despite, or rather because of, its greatly reduced position as an international commercial hub, engineers and artists continued to conceive of Bruges as the logical endpoint of networks of canals and other waterways.

Bruges' graphic identity had a lot in common with the way in which late medieval and early modern Venice was visually represented, though it lacked the emphasis on the waterways' defensive purposes that was typical of many Venetian maps.⁸⁴ Mapmakers in other cities highlighted other specific characteristics, informed by the inhabitants' particular discourses and the contexts in which they were embedded. The spatial conceptions that underpinned city maps and plans can provide us with unique windows into these ideologies. Much more than mere functions of artistic or technical developments or objective reflections of changes in the urban fabric, they should be studied as privileged sources for the ways in which late medieval and early modern city dwellers thought about the place that they considered home and its relationship with the wider world.⁸⁵

⁸³ Fournier-Antonini, *Barcelone, Gênes et Marseille*, 31, 37.

⁸⁴ For the characteristics of Venice and other Italian cities during the Renaissance, see Miller, *Mapping the City*, 227–30.

⁸⁵ See similar pleas in Hills, 'Mapping the early modern city', 146–7, and Taverne, 'Het getekende kaartbeeld', 123.