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THE PRINTING PRESS AND THE RISE OF THE AMSTERDAM INFORMATION EXCHANGE AROUND 1600*

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INTRODUCTION

The success of a trading company depends largely on its knowledge of its goods and markets. That knowledge is not available ready-made but comes into being through subjective selection, interpretation and processing of the flows of information to which an individual or firm has access. The subjective element in the acquisition of knowledge implies that an abundant supply of high quality information is not a sufficient condition for a successful career as a merchant; but it is a necessary condition. Information was the basis of the merchant's business. And what was true for the individual trading firm also applied to the mercantile community as a whole. The rapid expansion of Amsterdam's commercial network, the increasing dominance of the city among the gateways of Holland and Zeeland, and the position of Amsterdam in the international economy were intimately related to the extent and quality of the information that was available in Amsterdam. In the decades around 1600 this city developed into the centre of a smoothly functioning system of information supply that connected the regional economies of Europe with one another and also ramified into regions beyond Europe. Amsterdam was, as an English correspondent in Amsterdam expressed it, 'a great Staple of News'.¹ And in his *Beschreibung der Stadt Amsterdam Von Zesen* wrote on the Amsterdam bourse: 'Ja hier erfähret man den zustand aller Königreiche und länder der gantzen welt, auch was sich in den selben denkwürdiges begiebet'.²

In this paper I will focus on the contribution of the printing press to the rise of the Amsterdam information exchange. It will be argued that the large-scale application of the printing press relieved some of the constraints that hampered an information system based on the spoken word and handwritten information. But the printing press could only have this effect because, compared to other commercial centres, the flow of information in Amsterdam was relatively free. But let us first turn to the more traditional forms of information exchange: the spoken and the written word.

§ 1. TRADITIONAL MEANS OF INFORMATION EXCHANGE

Information flowed into Amsterdam along two channels: physically, with persons who had acquired it elsewhere, and in correspondence. Among the informants who brought news in person we find seafarers, merchants and trading agents. Although most seafarers lived in the North Holland countryside and in such towns as Enkhuizen, Hoorn, Medemblik and Edam, Amsterdam was by far the most important port of call in the Republic and its importance continued to increase until the middle of the seventeenth century. Thousands of seamen came once or twice a year to Amsterdam and told tales of the countries they had visited; ships' masters reported to merchants and ship owners, and undoubtedly were questioned about their experiences in foreign ports and the news that was going the rounds there.

* I would like to thank organizers and participants in the Osaka-conference for their comments and suggestions. Information exchange is also discussed in my *The Rise of the Amsterdam Market and Information Exchange; Merchants, Commercial Expansion and Change in the Spatial Economy of the Low Countries, c.1550-1630* (Aldershot, 2006).

¹ James Howell to his brother, 1 April 1617: 'This City of Amsterdam, though she be a great staple of News, yet I can impart none unto you at this time' (J. Howell, *Familiar Letters or Epistolae Hoelianaë*, 3 vols (London, 1903), i, p. 12). For the importance of information and local knowledge see also E.J. Malecki, 'Creating and sustaining Competitiveness. Local Knowledge and economic Geography', in J.R. Bryson et al. (eds), *Knowledge, Space, Economy* (London/New York, 2000), pp. 103-19.

² F. von Zesen, *Beschreibung der Stadt Amsterdam* (Amsterdam, 1664), p. 233.

When the desired information was unavailable in Amsterdam, men were sometimes sent out to seek it. It is well known that the directors of the Compagnie van Verre sent Cornelis and Frederick de Houtman to Lisbon in 1592 to collect information in secret on the Asiatic trade and the Portuguese presence in Asia. To be as unobtrusive as possible they professed to be commercial agents, and were supplied with goods from Amsterdam.³ The adventurers who voyaged to distant lands on their own initiative also acted as informants. When Cornelis and Frederick de Houtman in Lisbon had only just begun their work of collecting information, Jan Huygen van Linschoten returned from Goa in India to the Netherlands. His knowledge and that of Willem Lodewycksz, who had been to west Africa, were put to good use by the Compagnie van Verre when it was preparing its first voyage to Asia.⁴

And of course, merchants still travelled extensively, and on their travels they gathered information about foreign markets. Augustijn Boel and Hans Thijs, for example, left Amsterdam in 1585 to settle temporarily in the Baltic region. For the company of which Boel was a member this was a way of cutting out the middleman, for it enabled the partners to buy hides directly from the tanners in the Baltic countries. For Hans Thijs on the other hand the move was inspired by his desire to be closer to the most important customers for his goods. The jewels he sold were bought chiefly by the German, Polish and Scandinavian nobilities.⁵ In 1594 and 1595 the two merchants returned home to Amsterdam, but that was not the end of their travels. We know at least that Hans Thijs visited friendly merchants in Middelburg, Antwerp and Hamburg after his return to the Low Countries.⁶

Mobility and therefore the flow of information to Amsterdam were also promoted by the custom in merchant families of sending family members to trading centres in other parts of Europe to live there for a shorter or longer time. The famous Amsterdam merchant family of Hooft appears to have made this its deliberate policy.⁷ While Cornelis Pietersz Hooft, the burgomaster, and his brother Willem upheld the interests of the family in Amsterdam, two other brothers, Jan and Gerrit, were based in Danzig, where the family had taken refuge when Amsterdam became unsafe for Protestants in the years after 1566. Three cousins of the Hooft brothers were also involved in the firm, and in or shortly after 1584 they settled in Norway, La Rochelle and Aveiro in Portugal.

The information brought back to Amsterdam from their travels by citizens and other inhabitants of the Republic was supplemented and increased by the contributions of foreigners. Some of them only passed through Amsterdam briefly, but in the years of its great expansion hundreds of foreign ships' masters and seamen must have visited Amsterdam, and countless visitors must have come to the city from its continental hinterland. We do not know how many or how important they were, but numerous foreign merchants certainly visited Amsterdam, did business there and brought information about their homelands. Others settled in the city permanently or for longer periods and even became citizens. Most of the persons who declared their business as wholesale trade when registering as citizens in the decades around 1600 were born in the Low Countries and the adjacent parts of France and Germany, but new citizens also came to Amsterdam from England and Scotland, Norway, eastern Europe (Danzig and Reval), and from Portugal. Not all these newcomers were engaged in

³ Kees Zandvliet, *Mapping for Money. Maps, plans and topographic paintings and their role in Dutch overseas expansion during the 16th and 17th centuries* (Amsterdam, 1998), p. 37.

⁴ V.D. Roeper and G.J.D. Wildeman, *Om de Zuid. De Eerste Schipvaart naar Oost-Indië onder Cornelis de Houtman, 1595-1597, opgetekend door Willem Lodewycksz* (Nijmegen, 1997), pp. 9-16.

⁵ Oscar Gelderblom, *Zuid-Nederlandse kooplieden en de opkomst van de Amsterdamse stapelmarkt (1578-1630)* (Hilversum, 2000), pp. 97-8.

⁶ *Ibid.*, pp. 131-2.

⁷ The following is based on Milja van Tielhof, *The Mother of all Trades. The Baltic Grain Trade in Amsterdam from the late Sixteenth to the early Nineteenth Century* (Leiden, 2002), chapter 1.

wholesale trade before they arrived in Amsterdam; but they would certainly have had some knowledge of the markets in their home regions.

A great deal of information also reached the city by letter, and merchant networks were very important in this context. Such a middle-ranking entrepreneur as the Antwerp merchant Jan van Immerseele, for example, wrote to about 120 correspondents in the Low Countries and beyond.⁸ And between 1584 and 1600 Daniel van der Meulen, who did business on a larger scale, exchanged letters with about 300 correspondents, who were spread across the major centres of trade in Europe and who kept him informed of what was going on in their region.⁹ But merchants were of course not the only ones who corresponded. Dutch cartographers exchanged letters with persons abroad through whom they tried to expand their geographical knowledge. One such letter written in 1628 was addressed by the Amsterdam cartographer Hessel Gerritsz to the Danish court. In it Gerritsz reports that he is working on a new map of Denmark, Norway and Sweden and the adjacent regions as far as Moscow and Archangel. For Sweden he had excellent source materials but for Norway and Denmark he would be glad of accurate 'geographical sketches'. If these were not available for some regions, he hoped to receive 'verbal descriptions'. He also asked to be sent the Danish ordinances on shipping, trade and tolls, 'which documents would be printed among us here in the Netherlandish tongue under the title "Danish Sea-Law", along with the Sea-Laws of other countries'.¹⁰

The letters that agents and partners abroad sent to Amsterdam contained commercial information in the strict sense, but also more general remarks on the political situation in these foreign parts. Adriaen Speelman reported from Antwerp to his principals in Lisbon on the consequences of the Revolt in the Southern Low Countries: farms were going uncultivated, and Don John's army was plundering and burning the countryside. And in 1581 Claes Adriaensz van Adrichem received word from his correspondents of rumours that France and England were about to declare war on Spain.¹¹ This type of news, which could be of vital importance for a merchant, did not reach Amsterdam in the form of private merchants' letters alone, but also came in the form of *nouvelles*, handwritten newsletters. The central and civic administrations were the principal clients for these reports.¹² The suppliers were agents who were sent abroad by the States-General, but private entrepreneurs also gathered information and wrote newsletters.

One such private entrepreneur was Hendrik van Bilderbeke, a migrant from the Southern Low Countries who had settled in Cologne as a notary. Besides his notary's practice he found time to supply the States-General with news, an activity that was continued after his death by his son Hendrik junior. The weekly newsletters that he and his son sent from Cologne from the 1590s were based on reports gathered in Rome, Venice and Cologne. From Rome came information about Italy, Sicily, Malta, Spain and France. Venice was an

⁸ Krista Mees, 'Koopman in troebele tijden: Jan van Immerseele (1550-1612)', *Spiegel Historiae* 19 (1984) pp. 545-551, p. 547.

⁹ Gisela Jongbloet-van Houtte, 'De belegering en de val van Antwerpen belicht vanuit een koopmansarchief. Daniël van der Meulen, gedeputeerde van de Staten van Brabant ter Staten-Generaal (1584-1585)', *Bijdragen en Mededeelingen betreffende de Geschiedenis der Nederlanden* 91 (1976) pp. 23-43, p. 25. For this period virtually nothing is known of the correspondence of trading firms based in Amsterdam. The examples of Van Immerseele and Van der Meulen, however, give a good impression of the extent of networks of correspondence.

¹⁰ Cited in Hendrik Diferee, *De geschiedenis van den Nederlandschen handel tot den val der Republiek* (Amsterdam, 1908), pp. 150-1. Naturally Dutch cartographers also drew much of their information from printed and unprinted works. Petrus Plancius and the publisher Cornelis Claesz, for example, are known to have acquired 25 maps from the Portuguese cartographer De Lasso (Zandvliet, *Mapping for Money*, p. 43).

¹¹ A. Stolp, *De eerste couranten in Holland. Bijdrage tot de geschiedenis der geschreven nieuwstijdingen* (Haarlem, n.d.), pp. 12-13.

¹² *Ibid.*, chapter 3.

important source of news from the Mediterranean region (Constantinople, Alexandria), and Cologne was the collecting point for reports from Germany, central Europe and the Southern Low Countries.¹³ The Van Bilderbekes' newsletters were copied at The Hague and forwarded to magistrates in other cities and provinces. But from Cologne Van Bilderbeke also sent copies directly to Amsterdam, where they formed an important source for the (handwritten) *Nouvelles van den comptoiren van Amsterdam*. This Amsterdam newsletter was less detailed than Van Bilderbeke's originals, but it contained additional news that was available in Amsterdam at the date of issue, and thus, being more up to date in this respect than the Cologne newsletter, found a market of its own.¹⁴

Although the amount of information available in Amsterdam was thus rather substantial, its impact was not very profound because the distribution of information by word of mouth and in handwriting has serious drawbacks. In the first place it does not easily spread to all members of the business community. Take for example the knowledge that seamen accumulated of the waters and coasts they passed on their voyages and the harbours at which they called: much of the knowledge and skill required for navigation was passed on by word of mouth and only in a limited circle. Thus, it was hard for new knowledge to penetrate to those who might benefit from it. And by definition the same is true for information in private correspondence of merchants. But even the impact of the handwritten newsletter was limited. Their price and the way in which they were copied limited their value to the commercial community. Only a few of the better off merchants could afford to subscribe to these newsletters.

An information system based on the spoken and handwritten word also introduces numerous errors and misunderstandings. This is of course, especially the case with oral transmission of information, but it also applies to handwritten texts and hand-copied images like maps. In general the quality of oral and hand-copied information deteriorates rapidly with the increase of the number of copies. The third and most important shortcoming of the traditional information system is the lack of feedback and of possibilities of correction when information proved to be false or incomplete. Every user of new information had to find out how reliable it was the hard way, through his own experience, but there were no ways of recording that experience and making it known on a large scale. Manuscript guides to European waters had been available in the Low Countries even in the fifteenth century. They contained descriptions of routes, wind directions, landmarks and sometimes also drawings of the coasts. Hand-drawn charts also circulated from an early date, but they were of limited value and suffered from the same faults that bedevilled oral transmission.¹⁵ With regard to maps, Eisenstein writes: 'Instead of demonstrating "orderly development" a sequence of hand-copied images will usually reveal degradation and decay'. She then cites Lloyd Brown, who says 'more than 600 maps and sketches made between 300 and 1300 have survived the ravages of time [...] regardless of size and the quality of workmanship, it is impossible to trace in them a developmental process, a progression of thought [...] it is also impossible to grade them in terms

¹³ Ibid., p. 61ff. See especially the informative diagrams on pp. 63-4.

¹⁴ Copies of the Amsterdam nouvelles have been found in Middelburg, Groningen, Utrecht and Arnhem. In fact several of these handwritten newsletters circulated in Amsterdam. They were produced by, among others, the notary and schoolmaster David Mostart, an immigrant from Antwerp, and by Loys Elle, also a notary in Amsterdam (Stolp, *De eerste couranten*, pp. 57-8).

¹⁵ See G. Schilder and W.F.J. Mörzer Bruyns, 'Zeekaarten en navigatie-instrumenten', in: Asaert e.a. (ed.), *Maritieme Geschiedenis der Nederlanden*, 1 (Bussum, 1976) pp. 239-348 and C.A. Davids, *Zeewezen en wetenschap. De wetenschap en de ontwikkeling van de navigatietechniek in Nederland tussen 1585 en 1815* (Amsterdam and Dieren, 1986). 'Portolans' or manuscript guides had been known for the Mediterranean since the thirteenth century (see E.L. Eisenstein, *The Printing Press as an Agent of Change. Communication and Cultural Transformations in Early-Modern Europe* (Cambridge, 1979), pp. 512-13).

of accuracy and utility'.¹⁶ All this changed with the large-scale application of the printing press in the production of information for the Amsterdam commercial community.

§ 2. THE PRINTING PRESS

Unlike manuscripts, which deviated more and more from their originals as they were copied and recopied, the printing press allowed large numbers of reliable copies to be produced.¹⁷ In itself that was no guarantee that the content of the information was accurate. If the original contained errors, then of course they were reproduced as well. The first printed guides and cartographic works in fact went back to very unreliable manuscripts and the work of Ptolemy. But the distribution of uniform texts in print created a situation in which the printed work could be checked against geographical reality, and the reliability of various nautical works could be established. Printed works were, after all, not anonymous but bore the names of the authors and publishers on the title page, allowing the consumer to recognize them.¹⁸ Authors and publishers had every interest in gaining a reputation for the reliability and usefulness of their works. That gave a powerful stimulus to the insertion of corrections drawing on information supplied by users. The frequent announcement on title pages that the work was an improved or augmented edition was evidently a strong selling point. The fact that users were responsive to this argument indicates that feedback and correction were regarded as valuable elements in the acquisition of knowledge. Practical first hand information was now available to everyone; and as more information was published in print, it became simpler for scholarly cartographers and the producers of practical guides and maps to compare the quality and usefulness of their products with others and to improve them when necessary. The accumulated knowledge of seafarers and other travellers was no longer lost but added to the reservoir of available and usable information.

This is splendidly illustrated in the emergence of the famous mariners' guides in Holland. They consisted of a combination of text, coastal profiles and sea charts. The first to appear in print was the *Spiegel der Zeevaert* ('Mariner's Mirror') of 1584, compiled by Lucas Jansz Waghenaer of Enkhuizen. He drew on a large number of manuscript and printed sources, supplemented by his own experiences as a steersman.¹⁹ The 'Mirror' was a great success and was translated into Latin, French, German and English. It soon found many imitators: the very next year it was followed by the *Amstelredamsche Zeearten* ('Amsterdam Sea charts') of Albert Haeyen. The rapid expansion of Holland's shipping and trade soon made the information out of date, however, and in 1592 Waghenaer put his *Thresoor der zeevaert* ('Treasury of Seafaring') on the market. This contained the most recent information but also took over successful elements from competing works. The competition between the various mariners' guides and the wide availability of printed material stimulated the compilers to produce a continuous stream of improved and updated editions. In his successful *Licht der Zeevaert* (which appeared in English as *The Light of Navigation*) Willem Jansz Blaeu wrote that 'for several years now, with all possible zeal and diligence, sparing no time or cost' he had 'gathered together everything that might be of benefit and help to mariners, and brought the same to light, according to my promise, after previous ripe examination ... in this the third part of my *Licht der Zeevaert*'. He also explicitly

¹⁶ Eisenstein, *The Printing Press*, p. 479.

¹⁷ Cf. Eisenstein, *The Printing Press*, especially pp. 29, 112-13 and chapter 5.

¹⁸ P. Dijstelberge, 'De Cost en de Baet. Uitgeven en drukken in Amsterdam rond 1600', *Holland*, 26 (1994), pp. 217-34, p. 226, states that the author was very emphatically present in works of this type.

¹⁹ See Schilder and Mörzer Bruyns, 'Zeekaarten en navigatie-instrumenten'; Davids, *Zeewezen en wetenschap*, pp. 86-102 and F.J. Dubiez, "'Int Schrijfboeck". De Amsterdamse boekdrukker en boekverkoper Cornelis Claesz', *Ons Amsterdam*, 12 (1960), pp. 206-13, 240-8.

acknowledged his debt to the work of Willem Barentsz, but added that ‘I have not only ... improved on this in several places, but also much enlarged it’.²⁰

The pressure of competition is very evident in a letter that Waghenauer wrote to the Delft merchant Claes Adriaensz van Adrichem. Waghenauer had heard that his Amsterdam publisher Cornelis Claesz was working on ‘some maps or book’ that would do great damage to Waghenauer’s own editions. Waghenauer therefore asked Van Adrichem if he would try, on the pretext that his ships’ masters needed the charts, to get hold of Cornelis Claesz’s materials for him, all this of course in the deepest secrecy and without mentioning his name to Claesz.²¹ Blaeu’s *Licht der Zeevaart* was also plagued by competitors. In 1620 Joannes Janssonius published a pirate edition of the *Licht*, and Blaeu had no recourse but to try to regain his market share by bringing out an improved edition. That appeared in 1623 as his *Zeespiegel*. Nine years later Blaeu’s market lead and his good reputation were again threatened, this time by Jacob Aertsz Colom, a newcomer to cartography, whose *De vyerighe Colom* (‘The Pillar of Fire’) was a tough competitor for Blaeu. Once again Blaeu reacted by issuing a new edition in 1634, his *Havenwyser van de oostersche, Noordsche en Westersche Zeen* (‘Guide to the Harbours of the Eastern, Western and Northern Seas’).²²

The fierce competition may have been unwelcome to those directly involved, but it was of huge benefit for the progress of cartographical knowledge.²³ To avoid losing market share the compilers of cartographic works were forced to make continual improvements and additions to their products.²⁴ The ease of comparison between them and the need to improve and expand the maps and atlases were greatly stimulated by the concentration of the profession in Amsterdam. At the beginning of the seventeenth century the city had become the most important centre of cartographic information. A few decades later the wealth of geographical knowledge amassed in Amsterdam was to be demonstrated in Joan Blaeu’s *Atlas major* or *Grooten atlas*, which brought together all the cartographical knowledge currently available in a structured format that made it permanently accessible.

The printing press made enormous contributions in other areas besides cartography. Practical accounting books intended for merchants only became more familiar in Europe north of the Alps when they appeared in print.²⁵ As in cartography, works of this type displayed the same mechanism of borrowing, compilation and expansion. Over the sixteenth century, as the costs of printing fell, accounting books became more and more comprehensive. The expansion was not the result of devoting more pages to accounting per se, but of the inclusion of more and more practical questions and the answers to them. At the beginning of the sixteenth century these made up about a third of the books, but by the middle of the century more than two thirds of the text of Dutch accounting books consisted of questions and answers. Because education was based chiefly on constant practice in solving

²⁰ Willem Jansz [Blaeu], ‘*t derde deel van ‘t Licht der Zee-vaert inhoudende De Beschrijvinghe der zeeusten van de Middellandsche Zee* (Amsterdam, 1621). The citations are taken from the dedication to the States-General and Prince Maurice, and the foreword ‘to the benevolent reader’.

²¹ Dubiez, ‘Int Schrijfboeck’, pp. 241-2.

²² See Schilder and Mörzer bruyns, ‘Zeekaarten en navigatie-instrumenten’, pp. 173-7. Colom claimed that in his work ‘the faults and mistakes of the aforesaid Licht or Spieghel der Zee were laid bare and corrected’ (idem, p. 175).

²³ The same mechanism operated in the enlargement of knowledge of the world outside Europe. Such famous geographers or cartographers as Plancius and Van Linschoten in the first instance unlocked knowledge that had been collected by the Portuguese and Spanish navigators. Only later, once the Dutch trades to the lands beyond Europe had got under way, was this material supplemented and corrected by new information (Zandvliet, *Mapping for Money*, chapters 1 and 9).

²⁴ For several cartographic innovations see Davids, *Zeewezen en wetenschap*, pp. 86-102.

²⁵ W. Starke, ‘Ein nye Rekenboeck vp aller Koepmanshandelingen - kommerzielles Wissen in den niederdeutschen Arithmetiken des 16. und 17. Jahrhunderts’, in S. Jenks and M. North (eds), *Der Hansische Sonderweg? Beiträge zur Sozial- und Wirtschaftsgeschichte der Hanse* (Cologne, 1993), pp. 235-54, p. 236.

problems, and not on theoretical insight, it may be assumed that the practical utility of the accounting books to merchants grew in the course of the century.²⁶ As they grew more comprehensive these accounting books accumulated and recorded the knowledge and experience of generations in accessible form. The effect of printing on the accessibility of commercial knowledge is clearly shown by the tables of interest, which allowed compound interest to be calculated easily. These tables had long circulated in manuscript among merchants, but were 'kept hidden by those who had them as great secrets'.²⁷ It was not until 1582 that the first printed table of interest for general use appeared. The compiler Simon Stevin had been a money-changer and bookkeeper in Antwerp, where he may have been familiar with a manuscript interest table. He wrote his book, *Tafelen van interest*, when he was living in Leiden. The first edition was published by Plantijn, but the second enlarged edition of 1590 appeared in Amsterdam, where the expansion of trade created a demand for practical manuals for merchants.²⁸

Private correspondence contained very specific information for the recipient, but often also general news of the situation on markets, the goods that were in demand at the moment, and the prices paid for them. Specialist information suppliers were also active in Amsterdam. One such, Henrick Huybrechtsz, sent detailed letters on the Amsterdam market to the Delft merchant Claes Adriaensz van Adrichem. The core of these market reports was the list of prices of various goods. The standardized format of these price lists and the way in which Huybrechtsz had them copied by a colleague, reveal the professional approach to the provision of information.

Huybrechtsz's reports were the forerunners of the printed commodity price-currents that began to appear at Amsterdam in 1585 or shortly before. At first not many products were listed, but the number rapidly increased and by 1635 350 different sorts and qualities of goods were included.²⁹ The prices quoted in the price-currents were determined on the basis of information supplied by brokers.³⁰ The information was thus based on a large sample of observations and was up-to-date, its reliability and accuracy being guaranteed by the civic authorities. Moreover the price-currents appeared with strict regularity once a week, were accessible to everyone and available at low cost. Copies could be bought for two stuivers each from the Bourse servant, but it was also possible to subscribe and have copies delivered to one's home. In those price-currents the expertise of the hundreds of brokers was as it were collated and made available to the mercantile community at large. Nowhere else in Europe

²⁶ See M. Kool, *Die conste vanden getale. Een studie over nederlandstalige rekenboeken uit de vijftiende en zestiende eeuw, met een glossarium van rekenkundige termen* (Hilversum, 1999), p. 279, for a diagram of borrowings and p. 231 for the growing bulk of the accounting books. There is a comparable diagram of borrowings, but for Italian bookkeeping, in P.G.A. de Waal, *De leer van het boekhouden in de Nederlanden tijdens de zestiende eeuw* (Roermond, 1927), p. 284 bis.

²⁷ Simon Stevin as cited in C.M. Waller Zeper, *De oudste intreestafels in Italië, Frankrijk en Nederland met herdruk van Stevins "Tafelen van Interest"* (Amsterdam, 1937), p. 11 note 3.

²⁸ C.M. Waller Zeper, *De oudste intreestafels*, pp. 42-3, and see also the appendix, where Stevin's Tafel is reproduced in full. There was also a growing demand for Nicolaus Petri's popular books for merchants in the years after the Alteration (De Waal, *De leer van het boekhouden*, p. 161). For the increasing importance of Amsterdam as a centre for publications of this sort, see J. Hooock and P. Jeannin, *Ars Mercatoria. Handbücher und Traktate für den Gebrauch des Kaufmanns, 1470-1820. Eine analytische Bibliographie* (Paderborn, vol. I, 1991, vol. II, 1993), vol. I, tables 2a-2g (where the transfer from Antwerp to Amsterdam is finely illustrated), and vol. II, table 2.

²⁹ Westermann, 'Beschouwingen over de opkomst en den bloei des handels in de Gouden Eeuw', in: A.E. d' Ailly (ed.), *Zeven eeuwen Amsterdam*, II (Amsterdam, z.j.) pp. 65-120', p. 88. This total increased, because of differentiation and the introduction of new articles, to 550 in 1686.

³⁰ John J. McCusker and Cora Gravesteijn, *The Beginnings of Commercial and Financial Journalism. The commodity price currents, exchange rate currents, and money currents of early modern Europe* (Amsterdam, 1991), pp. 43-9. A contract of 1682 is known, which reveals that the compilers of the price-currents collected information from brokers specializing in particular branches, who were paid for it (J.G. van Dillen, 'Termijnhandel te Amsterdam in de 16de en 17de eeuw', *De Economist* 76 (1927), pp. 503-523, p.504).

were comparably comprehensive and reliable price data published at such frequent intervals.³¹ It was the mercantile community of Amsterdam in the first place that benefited from the price-currents, but the printed price-currents were also transcribed into or enclosed in merchants' letters, and thus reached interested readers in the Republic and beyond.³² The foreign market was also served by translations into Italian, French and later English; the oldest known Italian edition of an Amsterdam price-current dates from 1619.³³

News from many parts of Europe reached Amsterdam in the form of handwritten newsletters. From about 1618 enterprising Amsterdammers saw an opportunity to serve the market with a printed newspaper. The transition from manuscript to print had several advantages from the point of view of information provision that matched those already identified in the printing of maps, charts and seamen's guides or handbooks for merchants.

One of these advantages was that printed information became far more accessible, and not simply because it was cheaper.³⁴ The handwritten newsletters grew out of the tradition of private commercial correspondence. They were sent directly by the compiler or copyist to the client, and the number of copies remained limited, since the compiler himself had hardly any opportunity or incentive to increase their circulation, as each copy demanded a similar outlay of time and expense, that is, the marginal costs remained almost the same.³⁵ The print media were in a very different position: compiler and publisher now had both the technical means and a strong incentive to increase the print run. After all, printing extra copies cost very little, and as marginal costs remained (for a time) lower than marginal income, total profits increased. The enlarged print run was then circulated to readers by advertising the printed newspaper to as many people as possible. It is not surprising therefore that the production of the earliest printed newspapers in Amsterdam was an initiative of the printers and booksellers. They added the new product to their range and disposed of part of the print run through other booksellers, as was customary for books.³⁶

Circulation was also promoted by building up a reputation for accuracy and topicality. A good reputation was vital, for the customer for the printed copies was in a far better position to compare the various newsletters on the market than the reader of the handwritten letters. The newsmongers were thereby induced to make improvements and additions to their products. That may explain why the printed newspapers in fact provided fuller information about many more subjects and areas than the handwritten newsletters.³⁷ In addition to the traditional military and political reports they also contained information on the number and cargoes of ships arriving in port, commercial treatises and the consequences of political and military events for the merchant. The compilers of newsletters displayed their keen eye for what would sell in the full attention they devoted to marvels of nature and the fortunes of the princely houses of Europe. A heading that we would now describe as 'information wanted' also appealed to the public's desire for sensation and entertainment. Finally the printed

³¹ For the popularity of the Amsterdam price currents see McCusker and Gravesteijn, *Beginnings of commercial and financial Journalism*, p. 74 note 9.

³² This is shown by the handwritten copies of the printed price currents that McCusker and Gravesteijn (*Beginnings of financial and commercial Journalism*, p. 49) found in the archive of Daniel van der Meulen.

³³ French versions have survived from 1632 and English from 1678 (McCusker and Gravesteijn, *Beginnings of commercial and financial Journalism*, table 1.3).

³⁴ For the prices of written and printed newsletters see Stolp, *De eerste couranten in Holland*, p. 9.

³⁵ They were profitable because the fixed costs - the costs of acquiring information incurred by the compiler of the coranto - did not rise as the number of copies printed increased.

³⁶ The oldest known Amsterdam publishers of printed corantos were Joris Veseler, Caspar van Hilten and Broer Jansz (F. Dahl, 'Amsterdam - Cradle of English Newspapers', *The Library: The Transactions of the Bibliographical Society*, 5th series, 4 (1949), pp. 166-78, pp. 172-4). These men are also found in the list of printers and booksellers in J.A. Gruys and C. de Wolf, *Thesaurus 1473-1800. Nederlandse boekdrukkers en boekverkoopers met plaatsen en jaren van werkzaamheid* (Nieuwkoop, 1989), pp. 205-6.

³⁷ Stolp, *De eerste couranten in Holland*, p. 87.

newspapers included advertisements that drew public attention to newly published books - no coincidence in view of the business of the newspaper publishers.³⁸

It is obvious that disseminating news and information through the newspapers was a business run by commercially oriented entrepreneurs, who kept a close watch on consumer demand and the activities of their competitors. Such competitors were numerous in Amsterdam. Dahl has been able to establish that before 1645 at least ten different 'corantos' appeared in Amsterdam each week. Their names reveal their broad outlook: 'Extra European Tidings from various Quarters, European [Tuesday, Thursday or Saturday] Coranto, Coranto from Italy and Germany, etc.' and 'Tidings from various Quarters'.³⁹

The amount of information available in the city and the large number of newspapers made Amsterdam in the first half of the seventeenth century the centre and cradle of the modern periodical press. Amsterdam newspapers were consulted as sources of information not only by merchants and interested laymen, but also by foreign powers. Nearly 1300 copies of chiefly Amsterdam newspapers of the years 1618 to 1665 have been found enclosed in letters sent by Swedish agents in Holland to their government in Stockholm.⁴⁰ The international reputation of the Amsterdam corantos is also shown by the part played by their English and French editions in the birth of the periodical press in those countries. For a long time England and France were content to rehash the Dutch materials.⁴¹

The initiative for the commercial publication of printed corantos came from the Amsterdam booksellers and printers. That is not surprising, since the sector had undergone great changes following the Alteration of 1578. In the middle of the sixteenth century the book trade and publishing played only a modest part in disseminating information. Burgomaster Cornelis Pietersz Hooft wrote of that time: 'about five or six years before the beginning of the troubles ... there were no more than two principal booksellers' shops here, one in [the sign of] the Fat Hen and the other in the Bible'.⁴² Besides these principal booksellers' shops, there were two other booksellers active in the city around 1560.⁴³ Of this quartet only one remained in business in the 1570s, when Amsterdam was isolated and surrounded by States-held Holland, the shop of Harmen Jansz Muller (at the sign of the Gilded Compasses in the Warmoesstraat).⁴⁴ After the Alteration the number of publishers rose to five in 1585, 20 in 1600 and about 45 in 1630. From the 1590s Amsterdam rapidly developed into the most important centre of publishing for works on trade and navigation in

³⁸ That was the case at least for the earliest printed corantos; later advertisements would cover a much wider field. There is a survey of these printed corantos in F. Dahl, 'Amsterdam. Earliest Newspaper Centre of western Europe. New Contributions to the History of the first Dutch and French Corantos', *Het Boek*, 25 (1939), pp.161-97, pp. 175-83.

³⁹ Dahl, 'Amsterdam. Earliest Newspaper Centre of western Europe', p. 186. The oldest surviving Amsterdam corantos are the *Courante uyt Italien, Duytslandt etc.*, and the *Tijdinghen uyt verscheide Quartieren*, of 1618 and 1619 respectively.

⁴⁰ *Ibid.*, 170-1, and see also F. Dahl, *Dutch Corantos 1618-1650. A Bibliography* (The Hague, 1946), which includes numerous facsimiles.

⁴¹ Stolp, *De eerste couranten in Holland*, pp. 81-2, and Dahl, 'Amsterdam. Earliest Newspaper Centre of western Europe', pp. 194-7. Recently Arblaster has reacted to Dahl's 'Amsterdam - Cradle of English Newspapers' by pointing out that Antwerp too was still an important source of information for British compilers of corantos in the first half of the seventeenth century (P. Arblaster, 'London, Antwerp and Amsterdam: Journalistic Relations in the first Half of the seventeenth Century', in L. Hellinga et al. (eds), *The Bookshop of the World: The Role of the Low Countries in the Book-Trade 1473-1941* (Houten, 2001), p. 145-50.

⁴² H.A. Enno van Gelder, *Memoriën en Adviezen van Cornelis Pietersz. Hooft*, Werken uitgegeven door het Historisch Genootschap, 3d series, 48 (Utrecht, 1925), p. 268.

⁴³ That is apparent at least from the surviving printed matter from those years. For this see Gruys and De Wolf, *Thesaurus*, p. 204 ff., from which I take the following details of the number of printers and publishers.

⁴⁴ Gruys and de Wolf, *Thesaurus*, p. 204, and J.G. van Dillen, *Amsterdam in 1585. Het kohier der capitale impositie van 1585* (Amsterdam, 1941), p. 24.

the Republic and far beyond it.⁴⁵ That was largely the achievement of the very active and substantial publisher Cornelis Claesz, who between 1581 and his death in 1609 brought out hundreds of books, maps, pamphlets and prints.

Little certain is known about the life of Cornelis Claesz. He was born around the middle of the sixteenth century in the Southern Low Countries, probably at Leuven.⁴⁶ While still a child he was taken by his parents to Emden, where he learned the bookbinding trade. As a young bookbinder he went in 1572 from Emden to Cologne, a great centre of publishing. In 1578 he appears as the owner of a bookshop in Enkhuizen, where he sold books printed by Plantijn of Antwerp among others. His time in Enkhuizen probably had a great influence on the composition of the stock that he later built up in Amsterdam, for the towns of North Holland, especially Enkhuizen, were the outstanding centres of seamanship at this time, and the crews who manned the Holland ships lived in the countryside of North Holland. Van Selm suggests that it was in Enkhuizen that Claesz made the connections that later allowed him to draw copy from mariners, navigators, explorers, geographers and cartographers in North Holland. Perhaps it was there too that he realized the commercial potential of this type of material. It is certain that from his Enkhuizen shop he sold Peeter Heijns's atlas, the *Spieghel der werelt*, ('Mirror of the World') printed by Plantijn.⁴⁷ However that may be, he moved from Enkhuizen to Amsterdam immediately after the Alteration. From a house on the Damrak, at the sign of the Writing Book on the Water, near the Old Bridge, he carried on his business for nearly thirty years.

As a bookseller Claesz kept an enormous range of stock, which he drew largely from the Frankfurt book fair and from his fellow-publishers. In the years 1604-08 alone his range contained 1273 new titles acquired at Frankfurt.⁴⁸ They included many works on (Protestant) theology, history and philosophy for which he expected to find a market in Amsterdam. But whatever the size of his business (and Claesz was without a doubt the greatest bookseller in the Republic), the fame of his shop rested on the cartographical and navigational works published under his name. Publications of that type had been hard to obtain when Claesz arrived in Amsterdam in 1578. In a relatively short time he built up an impressive list from nearly nothing and made his bookshop, and therefore Amsterdam, the most important source of cartographical and navigational literature in the Republic.

Of the 269 titles in Cornelis Claesz's list that Van Selm has traced, 40 per cent refer to commerce and sea voyages in the broadest sense. The list included such classic works as Waghenauer's *Thresoor der Zeevaart*, Van Linschoten's *Itinerario*, the *Caert-tresoor* and editions of Mercator's atlas published in collaboration with Jodocus Hondius and Johannes Janssonius. But these star works were not the only ones. Claesz produced for the market and tailored his supply to the demand. Specifically this means that besides such innovative works as Waghenauer he did not shrink from reissuing older seamen's guides such as those of the famous navigators Govaert Willemsz of Holysloot, and Adriaen Gerritsz of Haarlem; works that had not been published in their authors' lifetimes.⁴⁹ His enormous activity in this field made Claesz's shop the most important storehouse of this kind of material, the place from which information was disseminated about lands far and near, their products and how to reach them.

The rapidity with which Amsterdam became the centre of information on cartography and navigation has rightly been attributed to the practical knowledge and experience of the

⁴⁵ For scholarly publications Leiden was the most important publishing town in the Republic.

⁴⁶ The most recent data on the life of Cornelis Claesz are collected in B. van Selm, *Een menighe treffelijke boecken. Nederlandse boekhandelscatalogi in het begin van de zeventiende eeuw* (Utrecht, 1987), pp. 176-9.

⁴⁷ *Ibid.*, pp. 178 and 182.

⁴⁸ *Ibid.*, p. 215, tables 10 and 11.

⁴⁹ Dubiez, 'Int Schrijfboeck', pp. 209-11.

Holland seamen, the so-called North Holland school of cartography, and the contribution of the Southern Low Countries cartographic tradition. But it took the possibilities offered by the printing press and the restless entrepreneurial spirit of a publisher such as Cornelis Claesz to bring all these things together.⁵⁰ His motivation was purely commercial; in Amsterdam there was a demand for maps, charts and navigational works, and Claesz supplied that demand. In hindsight that part of his activities as a bookseller and publisher turned out to be of vast importance for the expansion of Dutch commercial shipping and for the rise of the Amsterdam information exchange, but for Claesz himself it was probably no different in principle from his other business. Perhaps Claesz's outlook is best characterized by his own defence against the charge that he printed and published un-Christian and lying almanacs: 'we are in business *propter sanctum denarium*, for the round God [money]. The world wants to be deceived, and I might as well do it as another'.⁵¹ That profit motive, in both publishers and authors, gave a powerful impulse to the dissemination of the fund of information that was available in Amsterdam.

§ 3. A RELATIVELY FREE FLOW OF INFORMATION

And yet, an extensive trading network and the information that it generated, the presence of the printing press and a profit motive in both publishers and authors are necessary but not sufficient causes in the rise of the Amsterdam information exchange. Vital is also the absence of forces curtailing the free flow of information to all strata of the mercantile community and to the public at large. Obviously, not all information became public. In a competitive environment merchants will jealously guard information that might give them an edge over their competitors. They therefore had every incentive to keep information from private correspondence to themselves. And neither of course, were the reports of Dutch consuls abroad and of the VOC officials accessible to everyone. But, in contrast to many other centres of commerce, in Amsterdam a large volume of printed information was available at low costs. As a consequence even minor merchants and small firms had information at their disposal that elsewhere could only be obtained by large firms with sufficient resources to keep up a network of correspondents and informants. This raises the question why commercial information – which is usually more valuable when competitors have no access to it – became public at all? This question is all the more interesting, because in the decades around 1600 the Amsterdam magistrate was heavily involved in trade and shipping and had every incentive – and also the means – to restrict the free flow of information.

To restrict access to information was not unusual in early modern Europe. Take, for instance, Nuremberg. From the fifteenth through the seventeenth centuries Nuremberg was one of the major trading centres in continental Europe and consequently a large volume of information entered the city.⁵² In 1528 Luther even called the city 'Das Auge und Ohr Deutschlands'.⁵³ But the urban government (Rat) had a firm grip on the dissemination of information. Both printers and publishers/booksellers and even Briefmaler und Formschneider

⁵⁰ For the North Holland school of cartographers see Schilder and Mörzer Bruyns, 'Zeekaarten en navigatie-instrumenten', pp. 168-9, and Zandvliet, *Mapping for Money*, chapter 3.

⁵¹ *Nieuw Nederlandsch Biografisch Woordenboek*, vol. 10 (Leiden, 1937), col. 173. A comparable entrepreneurial spirit is found with some German printers and booksellers: E. Weyrauch, 'Das Buch als Träger der frühneuzeitlichen Kommunikationsrevolution', in M. North (ed.), *Kommunikationsrevolutionen. Die neuen Medien des 16. und 19. Jahrhunderts* (Cologne, 1995) pp. 1-13, p. 10.

⁵² Nuremberg was also the centre of an extended network of Fernstrassen (see the map in Hans-Jörg Künast, 'Getruckt zu Augspurg'. *Buchdruck und Buchhandel in Augsburg zwischen 1468 und 1555* (Tübingen, 1997).

⁵³ Lore Sporhan-Krempel, *Nürnberg als Nachrichtenzentrum zwischen 1400 und 1700* (Nürnberg, 1968), p. 21.

were subjected to censorship and precensorship. From 1513 onwards all printed matter had to be checked by censors before going to the press.⁵⁴ Especially newsletters were a source of anxiety for the urban government and although they never managed to fully control the flow and content of written newsletters, they did prevent printed newsletters to be published until late in the seventeenth century.⁵⁵ In practice this meant that the information flowing into Nuremberg was only available to the upper strata of society: the political and economic elites.

But even in trading centres with a less restrictive censorship, information was not available to just anyone. In Augsburg the Fugger company, if only because of its size and the extend of its commercial network, functioned as an information exchange of its own. It did supply German princes with information in their famous Fugger-Zeitungen, but these handwritten newsletters were not published and the information they contained was not open to the public at large. And what is true for the Fuggers is also true for the major trading firms in other European cities. They collected a large volume of information through their networks of associates, correspondents and informants, but commercial self-interest prevented these firms from making that information public. As was mentioned above, Antwerp merchant firms even maintained the greatest secrecy about tables for calculating compound interest.

Before addressing the question why commercial information was relatively easy to come by in Amsterdam, it should be clear that the political and economic elites in Amsterdam were no advocates of free information for all on principle. When it promised to be advantageous to them, they just as easily restricted information to the public as did elites in other cities. That was for instance the case in the extensive land speculations of burgomaster Frans Hendricksz Oetgens, his brother in law and fellow burgomaster Barthold Cromhout, and the future burgomaster Jonas Cornelisz Witsen.⁵⁶ They were the key figures in a powerful faction within Amsterdam's magistracy and they not only exerted a great deal of influence on the course of the great extension of the city in 1612, but stood to gain greatly from it. Quietly and at low prices these speculators bought up large areas of land in the district they themselves had earmarked for the extension of the city. The location of the new district and also the very favourable terms the speculators were able to push through were not, however made public until much later, so that the political elite and their friends and relatives had ample opportunity to acquire land on favourable terms. And the directors of the Dutch United East India Company (VOC) used their advance information to speculate in VOC shares and even spread rumours in an attempt to influence the price of shares to their own advantage.⁵⁷ Here too, the elite restricted the free flow of information to the commercial community at large. Why then, was it that they did not pursue this policy to its logical end: restricting access to commercial information to the upper strata of society?

For a full answer to this question more comparative research is needed, but for now I would like to draw attention to three factors: (1) the absence of a monopoly on information with large firms or groups within the Amsterdam mercantile community; (2) the competition of other trading centres and (3) the political structure of the Dutch Republic.

Elsewhere I have argued that for much of the sixteenth century Amsterdam was one of the nodal points in a system that also comprised other gateways in the Low Countries.⁵⁸ Within the Low Countries each nodal point had a specific and limited function. Amsterdam clearly was an important gateway in the exchange with northern Germany, Scandinavia and

⁵⁴ Sporhan-Krempel, *Nürnberg als Nachrichtenzentrum*, p. 68 ff.

⁵⁵ Sporhan-Krempel, *Nürnberg als Nachrichtenzentrum*, pp. 67 and 139.

⁵⁶ Elias, *De vroedschap van Amsterdam*, pp. LXII-LXXVI.

⁵⁷ S. van Brakel, *De Hollandsche handelcompagnieën der zeventiende eeuw. Hun ontstaan-hunne inrichting* (Den Haag, 1908) pp. 132-3.

⁵⁸ See Lesger, *Handel in Amsterdam*, esp. Chapters 1-3.

the Baltic region. Through the port of Amsterdam foodstuffs, raw materials and finished products from these areas were imported into the Low Countries and exchanged for the products processed or manufactured in the Low Countries. For most of the sixteenth century Antwerp was by far the most important trading city in the Low Countries. Yet in spite of its enormous extent even that city's trade was clearly oriented to specific regions: the German hinterland and central Europe, England and the Iberian peninsula. The land routes linked Antwerp with such places as Cologne, Frankfurt, Nuremberg and Augsburg, from where the goods found their way to central Europe, northern Italy and beyond. It was not just the products of the Low Countries themselves that were transported to these regions, but also English cloth, spices from Portugal and other products of international trade. Compared to Antwerp Amsterdam was only a minor gateway and one in which the commercial sector lacked the financial resources, know-how and prestige of the Antwerp merchants.

By the end of the sixteenth century all this changed. The Dutch revolt, and especially the fall of Antwerp for the armies of the Duke of Parma (1585) destabilized the gateway system. The specialization that had taken shape over time now became a serious problem, because the fall and blockade of Antwerp cut the link that connected the Northern Low Countries with continental Germany, Southern Europe, and the colonial world. The problem was even more acute because the collapse of productive capacity in the Southern Low Countries and the arrival of numerous migrants gave a powerful boost to the export industry in Holland. In Amsterdam, which had already become the most important gateway to the North before the Revolt, this created new opportunities. They found fertile soil for growth because after the ousting of the old pro-Spanish magistracy in 1578 commercial interests became even more prominent in city politics than before. Within a few decades the city widened its commercial horizons from eastern and northern Europe to Russia, the Mediterranean, Asia Minor, Africa, America and the Far East. In the same years the value of the goods traded in Amsterdam and the volume of shipping in its harbour had also increased enormously.

For the free flow of information the developments sketched above had major implications. When, at the end of the sixteenth century, the great changes in the gateway system boosted Amsterdam's trade there was no well-established commercial elite that dominated trade, had exclusive access to vital information and restricted the entrance of competitors. During the pre-1585 era great firms like the ones in Antwerp, Augsburg and Nuremberg were altogether missing in Amsterdam. Moreover, many of old mercantile elite left the city when it turned protestant. A monopoly on information for some firms or groups within the mercantile community was also precluded by the fact that the expansive trades on Russia, the Mediterranean, Africa, America and Asia were entirely new to the city and involved many merchant firms, large and small. No single firm or group of merchants dominated in all trades and had access to all commercial information. This, of course, promoted the exchange of information and diffusion to the mercantile community at large.

For the political elite, dominated by merchants who were well aware of the benefits of exclusive access to information, there were other considerations as well. Restricting access to information for the middle and lower strata of the mercantile community might be tempting, but would be disastrous for Amsterdam's commercial expansion – and their own incomes and prestige – in the long run. For Amsterdam's rise as a major market was not uncontested. Many in Amsterdam feared that trade would eventually return to Antwerp. Moreover, gateways like Enkhuizen, Hoorn, Rotterdam and especially Middelburg also expanded their trade and shipping and competed with Amsterdam merchants in home and foreign markets. The financial (and political) interests of the elite were thus best served by promoting expansion of trade and shipping in their home town. It should therefore not come as a surprise that the merchants who made up the political elite nevertheless founded institutions that

promoted the free flow of commercial information (the Bourse and the price currents) and did almost nothing to stop private entrepreneurs from publishing newspapers, maps and manuals for the merchant. It was only when the monopoly on trade and information of the United East India Company was in danger that access to commercial information was restricted.

Finally it should be stressed that the political structure of the Dutch Republic also contributed to the relatively free flow of information. In contrast to England there was no central government that, for fiscal reasons, ordered trade to be organized in chartered companies, thereby restricting the access to information to the members of those companies. Only with the formation of the Dutch East India Company (1602) was information on one part of trade, that to the East Indies, no longer freely accessible to all. Like the urban magistracy of many trading centres, the political elite of Amsterdam was concerned that news and opinions in books and newspapers might offend foreign powers and jeopardize trade and shipping.⁵⁹ But unlike almost any other trading centre Dutch magistracies did not have to bother about the sensitivities of their own ruler, be it emperor, king or prince. Moreover, they would have found it difficult to limit the freedom of the press. That was rooted in the religious and political multiformity of the Dutch Republic and also in the self-assertion of numerous writers, printers and publishers/booksellers, who, in the politically fragmented Dutch Republic, could easily move to another city when things got too hot for them.⁶⁰ Such restrictive laws as existed, were thus not easily enforced and in practice the inhabitants of the Dutch Republic enjoyed a level of individual freedom (of conscience, of speech, and of the press) that was unparalleled in early modern Europe.

CONCLUSION

Information systems based on the spoken and written word have serious drawbacks, like a limited range of the information that is circulated, liability of mistakes when information is copied and transferred to others and lack of accumulation and feedback. For the Amsterdam commercial community these drawbacks were largely removed when, from the last decades of the sixteenth century, the printing press was used in the production of nautical charts, navigational guides, accounting books, handbooks for the merchant, commodity price-currents and newspapers. Compared to the spoken and handwritten word, printing increased the orbit of the available information, it generated accurate copies at much lower prices and it furthered the accumulation and improvement of information through feedback.

It needs to be stressed, however, that none of this was entirely new. The printing press was in use for at least one hundred years, price currents were known in Italy long before the end of the sixteenth century; handwritten newsletters were no Dutch invention and neither were nautical maps and navigational guides. What made Amsterdam unique was – apart from the extent of its trading network and the volume of information available in the city – the scale on which the printing press was used in the production and distribution of commercial information. In Amsterdam the advantages of the printing press could be fully exploited because the free flow of information was not restricted by political, economic or religious authorities. In that respect the situation in Amsterdam deviated from what was common practice in most of Europe.

⁵⁹ See Sporhan-Krempel, *Nürnberg als Nachrichtenzentrum*, p. 68; Künast, 'Getruckt zu Augspurg', p. 215 and Willem Frijhoff & Marijke Spies, *1650. Bevochten eendracht*, Nederlandse cultuur in Europese context (Den Haag 1999), p. 267.

⁶⁰ Frijhoff & Spies, *Bevochten eendracht*, pp. 264-265 and see also J.L. Price, *Culture and society in the Dutch Republic during the 17th century* (Londen, 1974), chapter 7. A comparative approach to the history of the Dutch Republic in Karel Davids en Jan Lucassen (eds.), *A miracle mirrored. The Dutch Republic in European perspective* (Cambridge, 1995).

I have argued that the radical changes in the spatial economy and political structure of the Low Countries contributed mightily to this happy exception to the rule. Since no firm or single group within the commercial community of Amsterdam had a monopoly on information and trade, it was in nobody's interest to restrict the flow of commercial information. And the political elite, faced with economic competition by other gateways in the Low Countries, did everything to promote the expansion of the Amsterdam trading sector. Not only did they little to restrict the flow of commercial information, they even promoted information exchange by providing the merchants among other things with a bourse, a regulated and sworn brokers guild and commodity price-currents of which the accuracy was guaranteed by the civic authorities. Finally it has been pointed out that the political structure and religious multiformity of the Dutch Republic created an environment in which individual freedom and the freedom of the press were not easily curtailed by the authorities.