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# Paper consumption and the foundation of the first paper mills in the Low Countries, 13th–15th century

A status quaestionis<sup>1</sup>

We observe that in monographs on the spread of paper and paper production within medieval Europe, the Low Countries play a limited role. This is due to the lack of in-depth research on the use, trade and production of paper, which rarely caught the attention of scholars and historians and clearly received less focus than the Dutch cloth and woollen industry or the study of luxury goods.<sup>2</sup>



Fig. 1: Cover publication “Memorial of Jehan Makiel”, edited 1944. Kept in the Royal Library of Belgium.

The aim of the present article is to describe the development of the first paper mills in the economic and political context of the medieval Low Countries. We explore the evidence on the use of paper in municipal administration and the development of the first paper production centre in the 15th century. We conclude with a working hypothesis on the markets for the locally produced paper.

This work is partly based on the study of the available literature on medieval commerce and the use of paper in municipal administration during the 14th and 15th centuries. For the origins of paper production in the Low Countries I rely on my own archival research.

It is at the same time a renewed call to scholars and researchers for a more systematic study of the use of paper in the Low Countries. This will clearly help us to better understand how knowledge of the techniques of paper production spread from the

1 First of all, I would like to thank the organisers of this congress for the kind invitation to talk here about the use and production of paper in the Low Countries in the late Middle Ages.

2 Ryckaert and Vandewalle 1999, 1–224; Stabel et al. 1997, 1–44; Gelderblom 2005, 1–47.

south to northern Europe and what role the local paper industry played in the production of luxury products like tapestries, stained glass and manuscripts that were shipped throughout Europe.

## 1 Earliest evidence of paper in the Low Countries

Like everywhere in Europe, paper was traded in the Low Countries before the introduction of local paper production. The oldest paper manuscript discovered in the Low Countries is the Memorial of Jehan Makiel, clerk and collector for Gwyde van Dampierre, Count of Flanders, dated 1270–1275.<sup>3</sup> In this manuscript he kept notes on the expenses incurred during his master's expedition to Tunis. He noted on folio 17v: *pro paperio ad scribendum 4s.*, the purchase of writing paper in the French city of Montpellier. However, when and where Makiel acquired his notebook was not disclosed in his notes. In any case he must have obtained it before he bought paper in Montpellier. The provenance of the notebook paper, whether Spanish or Italian, has also not been determined.<sup>4</sup>

The oldest pieces of paper preserved in municipal archives in the Low Countries date back to the last decades of the 13th century. The oldest letter written on paper in Gent is a private letter from the Dean Van Bethune to a peer in Douai, dated the 8th of August 1298 and sent from Piacenza in Italy.<sup>5</sup> In Bruges, the minutes of a charter dated the 1st of December 1307 have been found.<sup>6</sup> Oudenaarde has preserved a *register van verkopingen en verhuringen* dated 1297.<sup>7</sup> In Brussels, the oldest registers on paper are from 1313.<sup>8</sup> Mechelen kept drafts of the municipal accounts on paper starting in 1311/1312.<sup>9</sup> In Mons, situated in the neighbouring county of Hainaut, a municipal account mentioned the purchase of paper in 1313, though the central administration was already using paper in the period from 1295 to 1304.<sup>10</sup>

**3** Buntinx 1944, I–XXXV. The note book contains six quires of an unequal number of folios. In total the book contains 72 folios. In size it is comparable to a sheet of A5 paper.

**4** The analysis of a folio from 1944 mentions straw and flax fibers. Based on the knowledge of that time, the author concluded it was Spanish in origin, but this is disputed. Buntinx 1944, XII–XIV; Arnould 1976, 268–269.

**5** This document is kept in the State Archives of Gent, *Tresorerie der graven van Vlaanderen*. Fonds diegerick, nr 260. The same depot keeps five registers of Italian financiers from 1305.

**6** Gilliodts-Van Severen 1878, 135.

**7** Santy 2003, 229–230.

**8** State Archives Brussels, *Tresorie der graven van Vlaanderen*, Reeks I, n° 855: „Dénombrement et taxe de tous les habitants de la ville et banlieu de Nieupoort et de Lombarzide“.

**9** Wittek 2001, 1–12; Joosen 1982, 1–269.

**10** Piérard 1965, 342; Sivéry 1975, 144–145, 197–203. At that time Hainaut was part of the Principality of Liège and did not belong to the Low Countries.

## 2 Paper consumption in the 14th century

The above examples show that by 1300, paper as a writing support for administrative purposes was already known. During the following decades, the use of paper for meeting minutes and copies of records and accounts became common practice, appearing first in the larger towns and later in the smaller cities.<sup>11</sup> Despite the growing popularity of paper in administration, it was only accepted as the formal carrier much later. Accounts with legal value were written on parchment for many centuries, until the first half of the 17th century.<sup>12</sup>

An interesting exception from the end of the 14th century has been observed. At nearly the same time, both Bruges and Gent substituted their parchment accounts with accounts on paper. After a little more than a decade, from 1381 until 1392, parchment prevailed again.<sup>13</sup> Pieter Santy observed that this period coincided with an increase in the price of parchment, which climbed to twice the price of paper just before 1380. The return to parchment, according to Santy, was the result of a forced drop in the parchment price, organised by certain members of the municipality with interests in the parchment trade. We question this conclusion, as we see comparable price fluctuations in southern Europe.<sup>14</sup>

In commercial trade, where the foreign traders had to work via the local brokers, paper consumption seems more integrated, at least from the last quarter of the 14th century. Numerous surviving ledgers are kept in the municipal archives of Bruges.<sup>15</sup>

## 3 Exploration of the trade routes

The increase in paper consumption starting at the end of the 13th century raises several questions: where did these paper consumers in the Low Countries get their paper from? Who were their suppliers, and how was the supply chain organised? To answer these questions, we must first look at how commerce in general was organised at that time. From the 13th century onward, the coastal provinces of the Low

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**11** Santy 2002, 220.

**12** For the persistency of parchment within the municipal administration see also van Huis in this volume.

**13** Bruges is an interesting case, as it has a nearly complete series of municipal accounts. Accounts dating from 1281 to 1794 are preserved, with the exception of the period from 1319 to 1331. Until 1625 the accounts were on parchment, except for the period between 1381 and 1392, when they were on paper. Santy 2002, 94–96.

**14** Balmaceda 2005, 16.

**15** Ryckaert and Vandewalle 1999, 83. Interesting examples are the ledgers from 1368 to 1369, left by the broker Colard de Marke and kept in the municipal archives of Bruges.



**Fig. 2:** Ledger of the broker colar de marke, 1368–1369. Kept in the municipal archives of Bruges, old archives. © City of Bruges, photograph Jan Termont.

Countries, located at the crossroads of international commodity flows, played a prominent role. Between 1280 and 1485, Bruges had grown and became the focal point of international trade in northern Europe. The city clearly benefited from the changes in trade patterns that emerged as the Italians exchanged insecure land routes for marine routes. The change in trade routes resulted in the decline of the important Champagne fairs, to Bruges' benefit.<sup>16</sup>

Bruges's unique marketplace was built on an economic system of pre-harbours and *staple rights*. The city attracted representatives of the most important trading nations. Hanseatic merchants, the so-called *oosterlingen*, merchants from Spain, Italy, the British Isles, and France, but also neighbouring Brabant – all of whom were granted safe-conduct, separate jurisdictions, and tax exemptions – established

<sup>16</sup> In the late 13th century merchant houses from Venice and Genoa stopped travelling to the Champagne fairs. Instead they began sending galleys with silk, alum, dyes, fruit, and spices to Bruges, where they employed agents to supervise sales, organize exports, and remit funds to Italy. In France, higher tariffs, political turmoil, and outright assaults on foreign merchants ended Flemish visits to the Champagne fairs around 1280. Gelderblom 2005, 34.

nations in the town.<sup>17</sup> At the turn of the 14th century Bruges centralised the exports of Flemish cloth to Germany, France, and the Iberian Peninsula, imported a wide variety of raw materials, foodstuffs, and manufactured items from around Europe, and played a major role in the transit trade between those foreign merchants. The presence of the nations attracted a significant number of artisans too. The foreign traders bought a variety of luxury items, including tapestries, jewellery, paternosters, and paintings.<sup>18</sup>

In the 14th century, Bruges saw competition from the fairs of Antwerp and Bergen op Zoom, established by the dukes of Burgundy in 1320. These expanding regional fairs took place four times a year, and in the end challenged Bruges' commercial dominance. The result was a decline which could not be reversed, despite several measures taken by the town magistrate.

By the end of the 15th century the predominance of Bruges as a market city came to a decisive end with the revolt against Maximilian of Austria in 1485.<sup>19</sup> While Bruges kept her status as a printing and manuscript centre for a while, the monopoly on this trade, including paper, had definitively moved to Antwerp by 1492.<sup>20</sup> Thus we can see how the medieval trade was organised and how it shifted gradually from Bruges to Antwerp. As an early commercial centre we presume that Bruges was heavily involved in the paper trade, but unfortunately this has not yet been formally documented. Only occasional references to shipments of paper have been collected.

## 4 The paper suppliers

As to the question of who bought paper within the various administrations and who were their suppliers, we detected different practices. From Santy we learn that in the administration at Bruges paper procurement was not centralised. Clerks and scribes had to pre-finance their paper needs. Reimbursement generally occurred once a year.<sup>21</sup>

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**17** Hanseatic merchants officially came to Bruges from 1252 onwards, to meet Spanish and Italian merchants. Stabel et al. 2000, 39.

**18** Ryckaert and Vandewalle 1999, 224; Gelderblom 2005, 8.

**19** When Mary of Burgundy died in an incident with her horse in 1482, the Flemish cities revolted against her husband, Maximilian of Austria, who was named regent on behalf of his son Philip the Fair. To force Bruges to accept his regency, he ordered all foreign trade enclaves to move to Antwerp in 1484, where they would receive the same privileges and compensation for possible damages.

**20** Blom and Lamberts 2005, 84.

**21** The ordinary clerks, lowest in rank, were already using paper in 1316–1317, but the clerks of the Treasury and the *upperclerks* only regularly used paper starting in 1330. Santy 2002, 125.

In Gent, the administration started using paper in 1343 and unlike Bruges, they procured it centrally. The traces indicate that their paper was purchased in Bruges.<sup>22</sup> This supports Bruges' role as a centre for paper. In addition, documents from the town of Oudenaarde reveal that their paper was purchased from Gent, indicating a business in cascade.

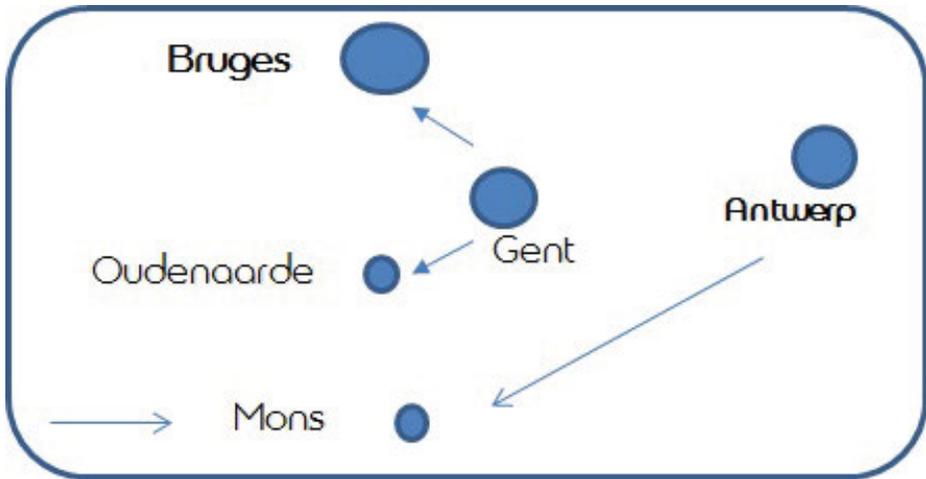


Fig. 3: Paper sales network

In Bruges we can distinguish two types of paper merchants: the *librariërs* and the *kruideniers* or *specyer* (grocers). The grocers were only interested in selling paper sheets and were further specialised in goods like spices.<sup>23</sup> The *librariërs*, on the other hand, specialised in selling paper and parchment. The latter also copied books and documents for the administration. In the early 14th century, the selling of *bondekens*, a kind of register, was recorded.<sup>24</sup>

The business of the *librariërs* flourished and an informal association, mentioned for the first time in 1426, grew into a proper guild for book and paper merchants in 1454. The function was defined as follows: ... *boucken te makene, te scrivene, te*

<sup>22</sup> Gent bought paper in gros and not in registers, as Bruges did. De Pauw and Vuylsteke 1893, 30. Gent City Archives, Stadsrekening 1376–1377: *Item van 23 riemen pampiers metten bringhene van Brugghe ende van onghelde...* On the transport to Gent the merchant had to pay an indirect tax.

<sup>23</sup> Santy 2002, 8, 111, 144.

<sup>24</sup> Schouteet 1963, 232.

*bindene of te reedene, ..., of met de coopmanschepe van der librarie ende datter toebehoort te doene, ...*<sup>25</sup> Elsewhere we see that, from the second half of the 15th century, *apothecaries* or pharmacists appear as resellers of paper.

## 5 Italian versus French Paper Imports

The different categories of paper resellers functioned as brokers for paper consumers. How they got their paper is a question that can mainly be explained by watermarks in identified archival documents. From the watermarks in archival materials, it becomes obvious that the centres of paper production moved from Italy to France over time.<sup>26</sup> From the available evidence, the process did not occur at the same time and rate.

The study of the watermarks in municipal papers teaches us that the Flemish administrations predominantly used Italian paper in the 14th century, while paper of French origin became dominant only after 1370.<sup>27</sup> Mechelen and Bruges seems to have remained loyal to Italian paper until 1425, after which it completely disappeared in favour of French paper.<sup>28</sup> In Hainaut, on the other hand, French paper supplanted Italian paper earlier, presumably because they were closer to the overland trade routes, and had more direct contact with French traders/papermakers.<sup>29</sup>

## 6 The emergence of local paper mills

For the 14th century we only know with certainty of the existence of one paper mill in the Low Countries. This mill was located in Houplines near Lille, at that time part of the county of Flanders. This mill was founded in 1389 at the latest, and belonged partially to the ducal domain.<sup>30</sup> Besides the paper mill, the complex contained two grain mills and one oil mill. According Arnould the foundation of the paper mill must be seen in the light of the creation of the General Council of Lille, which first met in 1386.<sup>31</sup> This presumption was confirmed by the fact that the mill's owner, Jean de

<sup>25</sup> Santy 2002, 117; Smeyers 1998, 194–214; Geirnaert 1994, 8–12.

<sup>26</sup> This phenomenon can also be observed in the medieval city of Luxemburg, see Bange in this volume.

<sup>27</sup> Santy 2002, 119–121, 146.

<sup>28</sup> Wittek 2001, 9–10.

<sup>29</sup> Piérard 1972, 346.

<sup>30</sup> Houplines is now part of the French 'Département du Nord', district of Lille.

<sup>31</sup> Arnould 1976, 276.

Pouques, was a confidant of John the Fearless, Duke of Burgundy and Count of Flanders.<sup>32</sup>

Due to the lack of watermarks clearly associated with paper mills in the Low Countries, it was long presumed that the local paper industry only emerged in the 16th century. Today we know better. Our own research has revealed that as early as the 15th century there were a number of paper-producing facilities, mainly concentrated around Brussels. At that time, Brussels had become the political centre of the dukes of Burgundy. The dukes attracted luxury products and from a morphological point of view, the region around Brussels was very well-suited for the foundation of paper mills.

This does immediately raise the question of how this paper industry emerged. Who introduced the technique of papermaking? Where did the first papermakers come from? How were they organised? For whom did they produce? How much did they produce? Did they produce for the local markets, or did they export?

Aside from the first initiative at Houplines, we have evidence that the first local paper mills emerged during the first half of the 15th century.<sup>33</sup> By the end of 1430, two paper mills were erected independently of each other. The first mill was situated in the independent Principality of Liège. Two years later, a second paper mill appeared in the Duchy of Brabant.

In the first case, a certain Wilhelm Meyde de Mouhault obtained approval to run a paper mill in 1436. Where he acquired the knowledge to convert an existing mill into a paper mill, we still do not know.<sup>34</sup> By 1469 the paper mill had disappeared.<sup>35</sup>

## 7 A French papermaker settled in Linkebeek in 1439

We have more information about the oldest paper mill in the Duchy of Brabant. It was founded 1439.<sup>36</sup> On the 31st of May of that year, Duke Philip the Good granted permission, via his steward, Jan Coels, for the establishment of a paper mill at an

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<sup>32</sup> Arnould 1976, 273–276.

<sup>33</sup> Vancoillie-Renard 1983, 11. Alphonse Wauters mentioned different paper mills, but he did not provide accurate references to his sources, though he has long been copied by other authors. Wauters 1974, Book 10B, 348.

<sup>34</sup> Lacroix 1988. Through a misinterpretation of the Latinised name ‘de alto’, Wilhelm was erroneously associated with Italian immigrants.

<sup>35</sup> Arnould 1976, 289–291.

<sup>36</sup> Van Wegens 1996, 173–176. Van Wegens 1999, 5–12. Older publications erroneously date the founding of this mill to 1459. Brussels, State Archives Anderlecht, Tolkamer van Brussel, inv I 088, reg. 80, fol. 58.

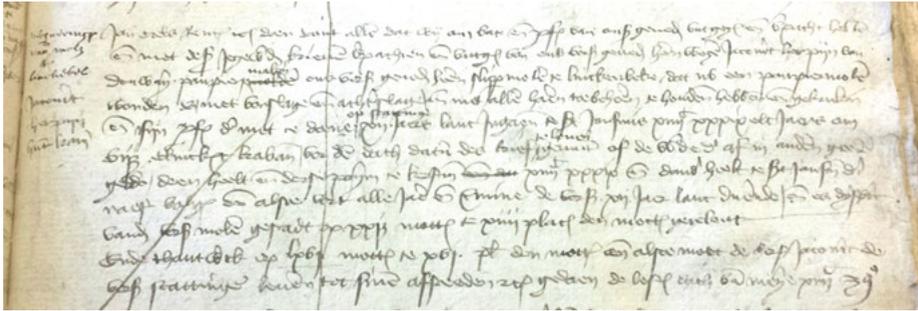


Fig. 4: Extract contract Jacomet Herpijn, May 1439. Brussels, State Archives Brussels (Anderlecht), Tolkamer van Brabant, Inv l 088, reg. 80, f. 58

existing mill in Linkebeek. The original mill was a *slijpmolen* and belonged to the ducal domain.<sup>37</sup>

This finding is interesting and extremely important for the study of paper in the Low Countries, because besides its indisputable foundation date, we know about the origin of the man to whom the mill was assigned. Jacomet Herpijn was a papermaker by profession and he came from Douai. For what reasons he left Douai, and whether Linkebeek had been his original destination, we do not know. Did he come at the request of the Duke himself? Presumably not, but his reason for settling near Brussels remains an open question. Yet it does indicate that the introduction of paper techniques in the Low Countries probably followed the tradition of the French papermakers.

The papermaker Jacomet Herpijn received permission to run the ducal mill for a period of twelve months at the yearly price of 7 *clinck/brabants*. When the contract was drafted, the value of the mill buildings was assessed. The iron work was estimated at *XXI mottoen te XIV plac de mottoen*. The wood work was valued at *LVI mottoen te XVI plac de mottoen*. Unfortunately, we have no further details about the equipment. Herpijn was expected to maintain the mill in the same estate as he had received it. The annual interest was due in November 1439.

We further know that Jacomet stayed at the mill for twelve years. We doubt that the first paper activities were very profitable, but clear evidence is lacking. From the numerous legal process fragments preserved in the archives of the Toll Chamber, we have learned that Herpijn had repeated conflicts with his neighbour, Mathijs Vandersmessen, who operated the ducal grain mill further upstream. In whose favour the dispute was finally resolved, we do not know, but it is clear that by 1453 Jacomet Herpijn had left the paper mill in Linkebeek.

<sup>37</sup> A *slijpmolen* is a grinding mill, where stones are cut and polished. The practice to convert another mill into a paper mill is very common, see Schultz and Follmer as well as van Huis in this volume.

A taxation report from the 21st of May 1453 mentioned that the mill was no longer inhabited and that the house – due to the war – was in a ruinous state. The wood and ironwork was worth only half of its original value.<sup>38</sup> Presumably Herpijn – tired of the quarrels with his neighbour – left the region and installed himself in the valley of the Woluwe on the other side of Brussels. This presumption is based on the fact that we find a certain Jacomart Herpijn in a cijnsboek of Diegem.<sup>39</sup> There it is noted that this Herpijn occupied the mill at Nijpenzele in Diegem after Ghijsbrecht Tays and Reyner Aerts, and before Peeter Clissen. The similarity in name is curious and it seems to coincide with the timeframe in which the papermaker disappeared from the paper mill in Linkebeek.<sup>40</sup> We have so far no evidence that he had a paper business there, though we know that there was a paper mill at Nijpenzele in 1462.

The mill in Linkebeek remained unoccupied for several years; it was still associated with Herpijn, but there was no further reference to papermaking activity – perhaps due to the years of conflict. On the 4th of May 1457, a church decree assigned the mill to a Gillis Lievens for the yearly interest of *1 carolus*, with the first payment to be made in two parts.<sup>41</sup> He was to restore the mill and pay the steward 14 gilders for the loss of income in the years that the mill had been uninhabited.

Four years later, on the 4th of May 1463, the mill was again turned over to a certain Rombout Vandenbroecke and his wife, Lysbet Proenen.<sup>42</sup> From older documents we know that this Vandenbroecke was also a papermaker. In a forester's account, dated 1471, we find a *Rombout Vandenbroecke papierslager* or papermaker. He and Moen Gosens were fined for grazing Rombout's animals in the Sonian Forest.<sup>43</sup>

## 8 Brussels prosperous for papermaking

By 1450 the notion that making paper might be a lucrative occupation must have been generally accepted, because more mills were being established. The grinding mills were extremely well-suited for conversion into paper mills. Despite the early foundation in Linkebeek, south-west of Brussels, the paper mills in the second half of the 15th century were concentrated on the south-east side of Brussels. One explana-

<sup>38</sup> Brussels, State Archives Brussels (Anderlecht), Tolkamer van Brabant, Inv I 088, reg 81, fol. XXVIIv.

<sup>39</sup> Maes 1973, 86. More study is needed to confirm that both citations refer to the same person.

<sup>40</sup> The book was dated from Christmas 1450, but the reference was clearly added later. State Archives Brussels, Rekenkamer van Brussel, n° 44958, fol. CXLiv.

<sup>41</sup> State Archives Brussels (Anderlecht), De Tolkamer van Brabant, Inv. I 088, reg 81, fol. 77r.

<sup>42</sup> State Archives Brussels (Anderlecht), De Tolkamer van Brabant, reg. 81, fol. 77r.

<sup>43</sup> State Archives Brussels, Rekenkamer, n° 12546, fol. 270r and 252v.

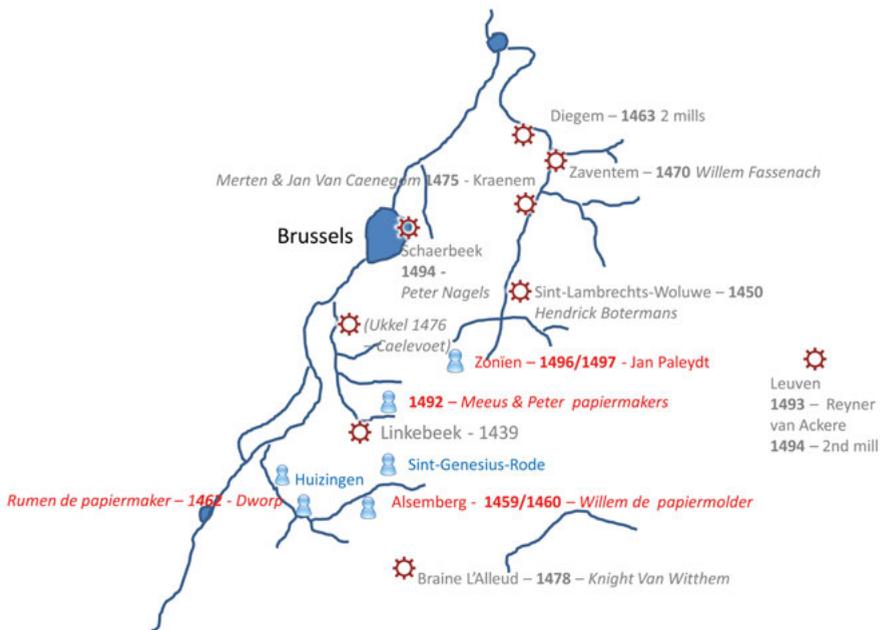


Fig. 5: Paper mills and paper makers in the Duchy of Brabant – 15th Century

tion for this may be that the Woluwe, thanks to earlier canalisation, was more readily exploited. It was also close to the existing trade routes.<sup>44</sup> New paper mills were now appearing at a rate similar to that of the neighbouring countries. Improvements in the production process and the increase in demand for paper gave it a comparative advantage over parchment.<sup>45</sup>

We found the first reference to a paper mill outside Linkebeek in the *cynsboek* of 1450, mentioning Hendrick Botermans in Sint-Lambrechts-Woluwe with respect to the substitution of a water channel at his mill.<sup>46</sup> The second reference concerned Ghysbrecht van Wickenroode. He was also mentioned with respect to the water channel of his mill *ter alnediger marien*. It is not clear whether both of these undated annotations concern the same mill. The *cynsboek* also mentions Nyrinck Maernolf and Lysbeth Vrancks as successors to van Wickenroode.<sup>47</sup>

<sup>44</sup> Nauwelaers 1941, 356–358.

<sup>45</sup> Hills 1992, 45.

<sup>46</sup> State Archives Brussels, Rekenkamer, n° 44958, fol. CLXXr.

<sup>47</sup> State Archives Brussels, Rekenkamer, n° 44958, fol. CLXXIv.

In Diegem the *cynsboek* mentions maintenance work on the channel between the pond and the paper mill on the Woluwe, done around 1462.<sup>48</sup> It is not clear whether this is the mill at Nijpenzele, for which Marie Wasselaerts and Gielij de Wallsche received permission to build a *heimelijkheid* and to make improvements on the drainage between the Woluwe and the Hollebeek.<sup>49</sup>

In the same period the *cynsboek* of Diegem mentions a second mill. A certain Jan De Schepper, son of the late Cornelis De Schepper, received permission to build a paper mill on the Hoelbeke, on a piece of land of 25 *dachwand*. In addition, he obtained fishing rights between the bridge of Cornelis van Diegem and the locks in Nederwoluwe, and he was allowed to add two locks.<sup>50</sup>

On the 8th of May 1464, the archives inform us that the brothers Jan and Koenraed van der Meeren, knights and lords of Zaventem, founded the paper and grain mill in Sint-Lambrechts-Woluwe.<sup>51</sup> The role of this family for the paper industry is still to be studied, but they seemed to have a keen interest in paper. Three paper mills fell under their jurisdiction, all three situated on land which they owned. Besides the mill in Sint-Lambrechts-Woluwe, they had a second paper mill in Zaventem and a third in Kraainem. In 1470 a certain Willem Fassenach was active at the paper mill in Zaventem.<sup>52</sup> The rights to the mill in Kraainem were transferred to the brothers Merten and Jan van Canegom by Gielij Mersant in 1475.<sup>53</sup>

Hendrick Van Withem, knight and lord of Beersel, to the southwest of Brussels, also seems to have had a special interest in paper. He was active in at least one paper mill in Braine-L'Alleud as of 1478.<sup>54</sup> We know of this thanks to a lawsuit before the feudal court of Brussels.<sup>55</sup>

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48 State Archives Brussels, Rekenkamer, n° 44942, fol. 2v.

49 More recent annotations mentioned *kathelijne en margriete heymans en nu gillis de smet*. Presumably these are additions from the 16th century. State Archives Brussels, Rekenkamer, n° 44958, fol. CLXXIV.

50 State Archives Brussels, Rekenkamer, n° 44942, fol. XIIIIV. In an undated addition we found the name Harry de Lagruyse.

51 Maes 1942, 11.

52 On the 10th of January 1479, Willem Fassenach left a house, located in the fiefdom of Jan Vander Meeren, Lord of Zaventem, to Jan Van Wynegem, called Van Duyst, with the obligation to grant his neighbours access to a nearby spring. Some months later, on the 18th of April 1479, Fassenach acquired the rights over two more fiefs of the Lord of Zaventem's – *één hofstad met woonhuis en kamme and één hofstad met 2 woonhuizen* – located in Nederwoluwe. For an annual interest of two guilders to Henrike Mommaert, son of the steward of Zaventem, Willem took out a mortgage on his paper mill in Nederwoluwe on the 22nd of February 1480. Sixteen years later, on the 8th of November 1496, he pledged his mill to Henrick vander Meeren for an annual fee of 8 bags of rye.

53 Vancoillie-Renard 1983, 158.

54 We assume that the paper mill of Braine-l'Alleud was not the only mill in which he invested, although we cannot yet prove this assumption.

55 A lawsuit documents the problems that Hendrick van Withem had with this paper mill in Braine-l'Alleud, belonging to the abbey of Affligem. Overdue interests was the immediate cause for the suit.

In 1479 a certain Henricke van Ertyngen owned two water mills in Diegem, when he asked the Courts of Accounts in Brussels for permission to build a third water mill and use it as paper mill.<sup>56</sup> He received permission to build two locks on the river *Hollebeek*.

With the exception of the paper mill in Linkebeek, there is so far no evidence for the existence of another paper mill west of Brussels before the end of the 15th century. According to Wauters, there was a paper mill in the Caelevoetmolen in Uccle in 1476, but so far no source has been found that confirms the existence of this mill.<sup>57</sup> However, in the accounts we found a considerable number of references to papermakers in Sint-Genesius-Rode, Alsemberg, Dworp and Uccle, which cannot be ignored. This may be an indication that the archives have not yet disclosed all their secrets. A small overview of the notices follows.

The accounts of the stewards of Rode mentioned a certain Willem de *papiermolder* or papermaker in 1459 and 1460. He was fined in Alsemberg for wearing a *blandreel* or *knife*.<sup>58</sup> Later, in the account book from Christmas 1464 to Christmas 1465, the wife of a certain *Willem den papiermakers* was penalized for beating her brother-in-law's wife. Half of the fine went to the lord of Stalle.<sup>59</sup> In the same or following year, Gielys den Hollander was fined for stealing from Willem the papermaker. The penalty was issued in Linkebeek.<sup>60</sup> Whether this concerned the same Willem named above is not clear. The available information does not indicate at which mill he was active. Two years earlier, in the account from 1462, a certain Gheerst was penalized in Dworp for fighting with *Rumen de papiermaker* or papermaker.<sup>61</sup> In the account from 1471, a *Rumen de papiermolder* or papermaker was caught collecting branches in the Sonian Forest and penalized.<sup>62</sup> Both citations presumably refer to the same person. The guild book of the brotherhood of Sint Sebastian, patron saint of the church in Linkebeek, mentions two papermakers with their respective family, Meeus hired with Marie with

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Hendrick defended himself by referring to the agreement he had made with the previous abbot. He described how he had twice invested a lot of money in the mill – once for improvements and a second time due to war – and how he was deprived of any income. The first time the mill was destroyed by fire. When he rebuilt the mill, he enlarged it. But the war had obliged him to dismantle the mill out of fear that it would again be destroyed. The former abbot had agreed to this, but his successor was of another opinion and sued van Withem in 1488. State Archives Brussels (Anderlecht), Leenhof, processen, 61.

56 State Archives Brussels, Rekenkamer, n° 44942.

57 Crokaert 1962, n° 155, 317. Wauters 1974, Book 10A, 257.

58 State Archives Brussels, Rekenkamer, n° 12775, fol. 384r, fol. 401v and fol. 413r–v.

59 State Archives Brussels, Rekenkamer, n° 12775, fol. 466r.

60 State Archives Brussels, Rekenkamer, n° 12547, fol. 485r.

61 State Archives Brussels, Rekenkamer, n° 12775, fol. 441v.

62 State Archives Brussels, Rekenkamer, n° 12546, fol. 269v and 234r.

children and Peter, wife and children.<sup>63</sup> In a document from 1492 we learn that at that time a second paper mill was active in Linkebeek.<sup>64</sup> In the account of 1495–1496 the papermaker Jan Paleydt was penalized for beating a woman in the Sonian Forest.<sup>65</sup>

We know of the existence of two paper mills in Leuven at the end of the 15th century. The eldest was located in the park abbey and in August 1493 the papermaker Reyner Van Ackere occupied the mill. A year later a second paper mill existed in the centre of Leuven. Unfortunately besides the two references no links with early printing offices or the paper consumption at the University of Leuven have been found. Additional research is required to get a better view.<sup>66</sup>

Finally, we know that on the 23rd of June 1494, a certain Peeter Nagels, *tinnepotgieter* in Schaerbeek, obtained permission to pump water into his pond and to move it via a drain to his paper mill to operate the hammer beaters. He had to pay *3 penningen leuens* each Christmas, with his mill as a pledge.<sup>67</sup>

## 9 Paper and Philip the Good

Through our study of the archives we have traced 18 paper mills around Brussels in the 15th century and the names of at least ten papermakers listed without connection to a particular mill. These findings show that paper was already produced locally on a considerable scale in the Low Countries before the appearance of printed books in 1473. The production techniques seem to have come from the French tradition, as we can deduce from the history of the first paper mill in Linkebeek.<sup>68</sup>

The number of existing ducal mills that were converted to produce paper, and the time in which the first paper mill was established in Brabant, lead us to suspect that the court of the Dukes of Burgundy, and especially the reign of Philip the Good, played a major role in the development of local paper production in the Low Countries.

Though clear evidence is still lacking, it does not seem like a coincidence to us that the first paper mills in the Low Countries were founded in the Duchy of Brabant, at the moment when Philip the Good added Brabant to his territories and thereby strengthened his position in the Low Countries. The displacement of the political

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<sup>63</sup> Vancoillie-Renard 1983, 126, 128.

<sup>64</sup> State Archives Brussels (Anderlecht), Schepengriffie, 995, fol. 43.

<sup>65</sup> State Archives Brussels, Rekenkamer, n° 12547.

<sup>66</sup> Arnould 1976, 279–280.

<sup>67</sup> State Archives Brussels (Anderlecht), Tolkamer van Brabant, inv. I 088, reg. 82, fol. 29.

<sup>68</sup> French papermakers remained in demand in the 16th century, Vandecasteele 1991, 15. The printer Arend De Keyser founded a paper mill next to his printing business in the city of Gent. He could not find qualified papermakers locally and went to France to hire skilled men to make paper for writing and print.



**Fig. 6:** Philip the Good, painted by Rogier van der Weyden. copyright: Royal Museum of Fine Arts Antwerp © Lukas – Art in Flanders vzw, photograph Hugo Maertens

centre from Lille to the Low Countries had already started under his father, John the Fearless, in answer to the rebellious Flanders.<sup>69</sup> When the Duke of Brabant, Philippe of Saint-Pol, unexpectedly died childless in 1430, his cousin Philip the Good cleverly

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<sup>69</sup> Blockmans and Prevenier 1997, 81–93.

claimed the Duchy of Brabant.<sup>70</sup> From that point, Brussels grew in importance and quickly became the centre of the unified territories. The choice for Brussels seems evident. It was central and more economically stable and reliable than the rebellious cities of Gent and Bruges.

The geographical and morphological conditions were very favourable for the foundation of paper mills, while the tradition of the cloth industry in Brabant and the changing textile market ensured that the rags necessary for the making of paper were readily available.

In the second half of the 15th century the centre of gravity for paper production lay in the valley of the Woluwe to the south-east of Brussels. Its earlier industrial use and connection to the transport network is a logical explanation. In the 16th century we will see that the centre of paper production shifted to the valley of the Molenbeek, to the south-west of Brussels.

## 10 Working hypothesis: local paper and paper markets

With respect to the importance, size, and final destination of the paper from the mills in the Low Countries in the 15th century, we are still groping in the dark. If you make a theoretical calculation of the potential production, then it is surprising to find almost no reference to locally produced paper. If we assume, that one paper mill produced between 800 and 1300 reams of paper annually, this would mean that 18 mills produced between 14.400 and 23.400 reams. One ream contained 480 sheets or 20 books of 24 sheets. This means a yearly production of between 6.912.000 and 11.232.000 sheets.

We saw above that in the 15th century, locally produced paper was not destined for municipal administration. The appearance of the first paper mills never made the demand for 'imported' paper superfluous. From the few data available on the paper trade, we see no decrease in the import of paper from outside, and that paper continued to be imported via the fairs and harbours of Bruges and later Antwerp.<sup>71</sup> If the paper produced locally in the 15th century was not for writing, for what was it then destined?<sup>72</sup>

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<sup>70</sup> De Maesschalck 2008, 123–124.

<sup>71</sup> Asaert 1973, 278, 280–281. Reams of paper are sent from Antwerp to England especially, but also within the country. Besides writing paper, archives mention wrapping paper, playing cards, calendars, and *spellepapier*. Spellepapier is paper that makers of pins used to wrap their goods. But it is difficult to quantify, as many ships only took small quantities of paper in their cargo.

<sup>72</sup> So far neither paper nor watermarks have been found that can be assigned with certainty to one of the above mentioned mills. Further detailed research is needed.



**Fig. 7:** *Philip visits Loyset Liedet. Miniature in David Aubert, *Historie de Charles Martel*, 1463 Brussels, National Library, MS. 6, fol. 9. Published by Mercatorfonds: *Prinsen en poorters Beelden van de laat-middeleeuwse samenleving in de Bourgondische Nederlanden 1384–1530*, Mercatorfonds, 1998.*

Our working hypothesis is that the answer lies in the trade of the luxury products. The Duke Philip the Good was a generous patron of the arts, commissioning many tapestries (which he tended to prefer over paintings), pieces from goldsmiths, jewellery, and other works of art. It is estimated that he added six hundred manuscripts to

the ducal collection, making him the most important patron of the period.<sup>73</sup> During his reign, for example, the richest English commissioners of illuminated manuscripts turned away from English and Parisian products to those of the Netherlands, as did other foreign buyers. As others copied Philip's behavior, a more diversified production of goods and services developed alongside the traditional textile industry. The traditional woollen goods were replaced by new luxury items.

During the last quarter of the 15th century, high-quality Dutch production was increasingly dominated by the workshops in Brussels. This was the result of three factors: the decline of the industry in Arras and Tournai, the emergence of Brussels as the principal seat of the Burgundian court in the Low Countries, which ensured its importance as a center of artistic and commercial activity and the monopoly that the Brussels artists' Guild of Saint Luke secured in 1476 over the fabrication of figurative tapestry cartoons.<sup>74</sup>

For the making of the tapestry cartoons one needed paper, lots of paper. So could it be that the paper for this industry was locally produced? To our knowledge this aspect has not been sufficiently studied. By their nature, the cartoons were not destined to be preserved, so the quality of the paper may have been of less importance. As few tapestry cartoons have been conserved, a meticulous study of the guild archives could eventually shed light on this intriguing question.

**Tab. 1:** Paper mills and papermakers in the 15th century in the Low Countries

Year	Place	Reference	Papermaker	Landlord
1386	Houplines	1 paper mill		Jean de Pouques John the Fearless
1437	Huy	1 paper mill		Willem Meyde de Mouhault
1439–1452	Linkebeek	1 paper mill	Jacomet Herpijn	Philip the Good
1445	Schaerbeek	1 paper mill		
1450	St-Lambrechts- woluwe	1 or 2 paper mills		
1459/1465	Alseberg/ Linkebeek		Willem de papiermol- der	
1463	Linkebeek	1 paper mill	Rombout Vanden broecke	
+ 1462	Diegem	1 paper mill	Jan De Schepper	
1462/1471	Dworp		Rumen de papiermaker	

<sup>73</sup> Dogae and Debae 1967; De Maesschalck 2008, 144–145.

<sup>74</sup> Delmarcel and Duverger 1987, 52–54; Delmarcel 1999, 28–44.

1462	Diegem	paper mill named <i>Nijpenzele</i>	Gielijs de Wallsche & Marie Wasselaerts (kathelijne and Mar- griete Heymans/Gillis de smet)	
1464	Sint-Lambrechts- Woluwe	1 paper mill		Jan van der Meeren
1468	Linkebeek		Meeus de papier- maker Peter de papiermaker	
1475	Kraainem	1 paper mill		(Van Caeneghom) Jan van der Meeren
1476	Braine-l'Alleud	1 paper mill		Hendrick Van Withem – Abbey of Affligem
1479	Diegem	1 paper mill		Henricke van Ertyngen
1479–1496 1490/1491	Zaventem Rode	1 paper mill	Willem Fassenach Clement de papier- maker	Jan van der Meeren
1492	Linkebeek	1 paper mill		
1493	Parc Abbey Heverlee	1 paper mill	Reyner van Ackere	
1494	Schaerbeek	1 paper mill named <i>Weyngaert-molen</i>		Peeter Nagels
1495/1496 1498/1501	Sonian Kraainem/Ukkel		Jan Paleydt Hennen de papierma- ker	

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