

3. Environs and hinterland: Cologne and Nuremberg in the later middle ages

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Pursuing the question of economic development and its spatial articulation with reference to the two most important German cities and their hinterlands during the transition from the middle ages to the early modern period is a double-edged venture. On the one hand, it is a rewarding task because both cities have received and still receive intense scholarly attention. On the other hand, due to the sheer amount of information available, it is impossible to give a full account of the economic development of both cities. Therefore we have to confine ourselves to specific examples of the economic driving-forces.

Let us begin, however, with a few methodological remarks. The basic notion of the town as a central place is the paradigm that has shaped research on urban history for the last thirty years.¹ While past research focused almost exclusively on the town itself and its dominance over all internal and external relations, more attention has been given to the role of the countryside since the 1980s. By using the terms *Umland* (environs) and *Hinterland* the interdependence and interconnection of the urban and rural economies were emphasized. However, for German speakers these terms are ambiguous. *Umland* suggests a bipartite character of the relation, whereas *Hinterland* evokes the impression of dependence and backwardness.² It is therefore necessary to define these terms as different spheres of influence. Pioneering work has been carried out by Hektor Ammann. Working from the notion of the town as a market, Ammann developed his concept of the economic unit (*Wirtschaftseinheit*) embracing town and countryside without referring to central-place theory.³ According to him an economic

¹ The literature is vast, see E. Meynen, 'Einführung' in E. Meynen (ed.), *Zentralität als Problem der mittelalterlichen Stadtgeschichtsforschung* (Cologne, 1979), pp. vii–xii; H.K. Schulze, 'Einführung', in H.K. Schulze (ed.), *Städtisches Um- und Hinterland in vorindustrieller Zeit* (Cologne, 1985), pp. vii–ix; W. Leiser, 'Städtische Zentralität im agrarisch-feudalen Umfeld', in H.K. Schulze (ed.), *Städtisches Um- und Hinterland in vorindustrieller Zeit* (Cologne, 1985), pp. 1–20; F. Irsigler, 'Raumkonzepte in der Historischen Forschung', in A. Heit (ed.), *Zwischen Gallia und Germania, Frankreich und Deutschland. Konstanz und Wandel raumbestimmender Kräfte. Vorträge auf dem 36. Deutschen Historikertag, Trier 8.–12. Oktober 1986* (Trier, 1987), pp. 11–27; F. Irsigler, 'Stadt und Umland in der historischen Forschung: Theorien und Konzepte', in N. Bulst, J. Hoock and F. Irsigler (eds.), *Bevölkerung, Wirtschaft und Gesellschaft: Stadt-Land-Beziehungen in Deutschland und Frankreich. 14. bis 19. Jahrhundert* (Trier, 1983), pp. 13–38; T. Scott and B. Scribner, 'Urban networks', in B. Scribner (ed.), *Germany: A New Social and Economic History, vol. 1: 1450–1630* (London, 1996), pp. 113–43 (pp. 119–29).

² Schulze, 'Einführung', p. viii.

³ H. Ammann, 'Vom Lebensraum der mittelalterlichen Stadt', *Berichte zur deutschen Landeskunde* 31 (1963), pp. 284–316 (pp. 290–3). H. Ammann, *Die wirtschaftliche Stellung der Reichsstadt Nürnberg im Spätmittelalter* (Nuremberg, 1970); cf. Irsigler, 'Stadt und Umland', pp. 15–16.

unit consists, firstly, of the immediate market area, which is based on the regular exchange of goods at the town's weekly market for basic needs. In a second, wider market area the economic influence of the town encompasses a broader space where higher-quality goods were sold, where the extraction and processing of natural resources were controlled and from which craftsmen and merchants were attracted. Finally, the third sphere of economic influence consisted of long-distance trade.⁴ Adopting Ammann's concept of town and countryside as economic units, which fits easily into a modified central-place theory, we mean by *Umland* (environs/surrounding countryside) the restricted marketing space and by *Hinterland* the wider marketing space.⁵

In Cologne and Nuremberg we have chosen the prime examples of economic units functioning as central places for their respective economic landscape or region (*Wirtschaftslandschaft*).⁶ In the following we will explain how the two cities exercised their economic influence upon their hinterlands, and ask whether they pursued a kind of spatial policy, how their economic power structured the hinterlands, whether these hinterlands were orientated only towards the two cities, or whether they were integrated into wider regional economies and, finally, what changes in these relations occurred during the period from the fourteenth to the sixteenth centuries.

Cologne

It was the Romans who first exploited the geographically excellent location of Cologne. Of all German settlements with Roman roots Cologne possesses the most elements of continuity, apart from Trier. Despite some setbacks, the town survived the turbulence of the so-called *Völkerwanderung* (migration of nations) as well as the sacking by the Normans in 881/882.⁷ By the tenth century Cologne probably had about 10,000 inhabitants; around this time the first extension of the wall between the Roman town and the river Rhine was carried out, followed by further expansions in 1106 and 1180. After 1180 Cologne covered an area of 401 hectares. This huge space, however, could not be fully utilised until the eighteenth century. By around 1340 Cologne had reached a population of 35–40,000. The losses incurred by the Black Death in 1349/50, 1368 and subsequent epidemics of plague had been made good by 1460/70. From then onwards the population remained stable at about 40,000 until the second half of the eighteenth century.⁸

⁴ Cf. Scott and Scribner, 'Urban networks', p. 117.

⁵ For a somewhat different interpretation of *Umland* and *Hinterland*, see R. Kießling, 'Das Umlandgefüge ostschwäbischer Städte vom 14. bis zur Mitte des 16. Jahrhunderts', in Schulze (ed.), *Städtisches Umland Hinterland*, p. 45.

⁶ It has to be mentioned that besides central-place theory, the theory of an urban network system has been advocated, in which the inter-urban relations are described by trading links within a complex pattern of trade routes: see P.M. Hohenberg and L.H. Lees, *The Making of Urban Europe 1000–1950* (Cambridge, Mass., 1995), pp. 62–4; Scott and Scribner, 'Urban networks', pp. 129–40. This theory certainly provides a more appropriate explanation for the regional economies of other areas in Germany like Württemberg or Thuringia. However, the two theories should be seen as complementary rather than conflicting.

⁷ E. Ennen, 'Kölner Wirtschaft im Früh- und Hochmittelalter', in *Zwei Jahrtausende Kölner Wirtschaft*, I (Cologne, 1975), pp. 87–193, here pp. 91–2.

⁸ F. Irsigler, 'Kölner Wirtschaft im Spätmittelalter', in *Zwei Jahrtausende Kölner Wirtschaft*, I, pp. 217–319.

General map



Fig. 3.1. Location map: places mentioned in the text

In the beginning Cologne's economy was determined by numerous large ecclesiastical households (e.g. those of the archbishop, various monasteries, chapters, parish churches and convents)⁹ and their great demand for luxury products which could not be obtained from the environs or the hinterland, and for some victuals such as fish or wine, which were not available in sufficient quantities in the surrounding countryside. That demand was increased by the needs of episcopal and monastic officials, the higher and lower nobility dwelling in the hinterland, and the rapidly rising ruling classes, consisting of merchants and wealthy burghers, who were organized in the so-called *Richerzeche* (political guild of wealthy merchants).¹⁰

In the late tenth and eleventh centuries big fairs developed which lasted up to four weeks, and were accompanied by a huge throng of pilgrims. The Easter fair existed by 967, the Peter's Chains fair by 965, while the Severinus fair probably began in the eleventh century. Together with the markets for Flemish merchants in Aachen (Aix-la-Chapelle) and Duisburg — established in 1166/73 by Emperor Frederic Barbarossa — and the fairs in Utrecht dating back to 1127, a network of fairs existed in the second half of the twelfth century in the area of the Lower Rhine. Cologne certainly played a leading part in this network.¹¹ Before the middle of the thirteenth century, however, Cologne had let its fairs fall into decay in favour of an expansion and enforcement of staple rights. Direct trade between foreign merchants (*Gästehandel*) was made impossible, and the burghers' three-day right of pre-emption on all goods passing through Cologne either by ship or by land enabled the merchants of Cologne to secure control over the transit trade.

From its early foundation Cologne kept a lead and a precedence over all other towns along the Rhine. Until the end of the middle ages only small towns (Deutz) or medium-sized towns (Bonn, Düren, Neuss, Siegen) could develop in the surrounding countryside. Cities were situated at a 'respectful' distance by medieval standards: to the west Aachen (75 km), Liège (120 km) and Maastricht (110 km), to the southwest Metz (270 km), to the south Frankfurt (220 km) and Strasbourg (370 km) and, finally, to the east Dortmund (100 km) and Soest (150 km).¹² Before 1500, however, the population of these Westphalian cities only occasionally exceeded 10,000; only Metz, Strasbourg and perhaps Frankfurt could be regarded as central places of the highest level.

Apart from occasional periods of crisis and high prices, the 40,000 inhabitants of later medieval Cologne could be supplied with basic foodstuffs by the surrounding countryside without problems. The area of Cologne-Bonn and the loess-soils around Jülich and Zülpich form one of the most fertile grain-growing regions in Germany. The supply of the city by the surplus of villages and towns to the west of the Rhine was

⁹ Cf. E. Hegel, *Das mittelalterliche Pfarrsystem und seine kirchliche Infrastruktur in Köln um 1500* (Geschichtlicher Atlas der Rheinlande IX.1) (Cologne, 1992).

¹⁰ Ennen, 'Kölner Wirtschaft', p. 121; M. Groten, *Köln im 13. Jahrhundert. Gesellschaftlicher Wandel und Verfassungsentwicklung* (Cologne, Weimar and Vienna, 1995), pp. 4–9.

¹¹ F. Irsigler, 'Jahrmärkte und Messesysteme im westlichen Reichsgebiet bis ca. 1250', in P. Johanek and H. Stob (eds.), *Europäische Messen und Märktesysteme in Mittelalter und Neuzeit* (Cologne, Weimar and Vienna, 1996), pp. 1–33.

¹² The data is based on medieval routes not on linear distances; cf. Fig. 3.1.

secured not only by the financial power of Cologne's cornmongers, bakers and brewers, but also and most importantly by the fact that at least two-fifths of the land in the wider area around the city belonged to ecclesiastical lords. These estates were able to provide large amounts of corn and kept considerable stores for times of need.¹³ Furthermore, Cologne played a central part in the grain trade across the Rhine: the exchange of wheat and barley for rye and oats, the latter two dominating the farming of the poor soils to the east of the Rhine.

Despite an increase in cattle breeding since the thirteenth century associated with a systematic laying out of meadows (including artificial watering), the meat production of the surrounding countryside was not sufficient to meet the growing demand after the fundamental change in consumption patterns of the fifteenth century. Hence Cologne became one of the prime destinations of the international oxen and pig trade. About 1500 Cologne consumed 5–7,000 oxen per year which came from the cattle-grazing marshes of Frisia and Emsland. Pigs were driven on foot or transported by ship from Lorraine and Saxony (Meißen).¹⁴ In order to procure the supply of dairy products like butter, dairy-fat or cheese long-term contracts, the so-called *Ventgutverträge* (*Ventgut* = oily, fatty goods and seafood) were set up with towns in Holland, Overijssel and Western Frisia as early as the fourteenth century. These contracts were in force until the eighteenth century.¹⁵

The demands of the foodstuff and textile trades turned the region to the west of the Rhine into an enclave of intensified agriculture. Hops, woad and textile crops like flax and hemp were cultivated.¹⁶ In some areas the rotation of the three-field system could even dispense with a fallow year by planting fodder crops in summer. This pattern preceded the elaborated farming of the early modern period (*Fruchtwechselwirtschaft*; in French *assolement*).¹⁷ There cannot be any doubt that Cologne's huge demand had a stabilizing effect on the structure of agriculture to the west of the Rhine. The special form of limited leasehold with tenants 'on share' (*Halbpachthöfe*, rent: half the harvest) producing for the market determined the agricultural practice and the social structure of the villages up to the modern period.¹⁸

The supply of primary energy (wood, charcoal, water power) was obtained mainly from the surrounding countryside and the hinterland to the east of the Rhine. By means of the Rhine, Neckar and Moselle building timber from Upper Germany and southwest

¹³ F. Irsigler, 'Getreidepreise, Getreidehandel und städtische Versorgungspolitik in Köln, vornehmlich im 15. und 16. Jahrhundert', in *Die Stadt in der europäischen Geschichte. Festschrift Edith Ennen* (Bonn, 1972), pp. 571–610.

¹⁴ F. Irsigler, 'Zum Kölner Viehhandel und Viehmarkt im Spätmittelalter', in E. Westermann (ed.), *Internationaler Ochsenhandel (1350–1750)* (Stuttgart, 1979), pp. 219–34.

¹⁵ F. Petri, 'Die Stellung der Südersee- und Ijsselstädte im flandrisch-hansischen Raum', *Hansische Geschichtsblätter*, 79 (1961), pp. 34–57.

¹⁶ Ch. Reinicke, *Agrarkonjunktur und technisch-organisatorische Innovation auf dem Agrarsektor im Spiegel niederrheinischer Pachtverträge 1200–1600* (Cologne and Vienna, 1989), chap. 'Sonderkulturen', pp. 214–27; cf. Fig. 3.2.

¹⁷ T. Scott, 'Economic landscapes', in Scribner (ed.), *Germany*, p. 8.

¹⁸ F. Irsigler, 'Groß- und Kleinbesitz im westlichen Deutschland vom 13. bis 18. Jahrhundert: Versuch einer Typologie', in *Grand domaine et petites exploitations. Seigneurs et paysans en Europe au moyen âge et dans les temps modernes* (Budapest, 1982), pp. 33–59; cf. W. Rösener, 'The Agrarian Economy, 1300–1600', in Scribner (ed.), *Germany*, p. 76.

Cologne as economic unit (15th century)

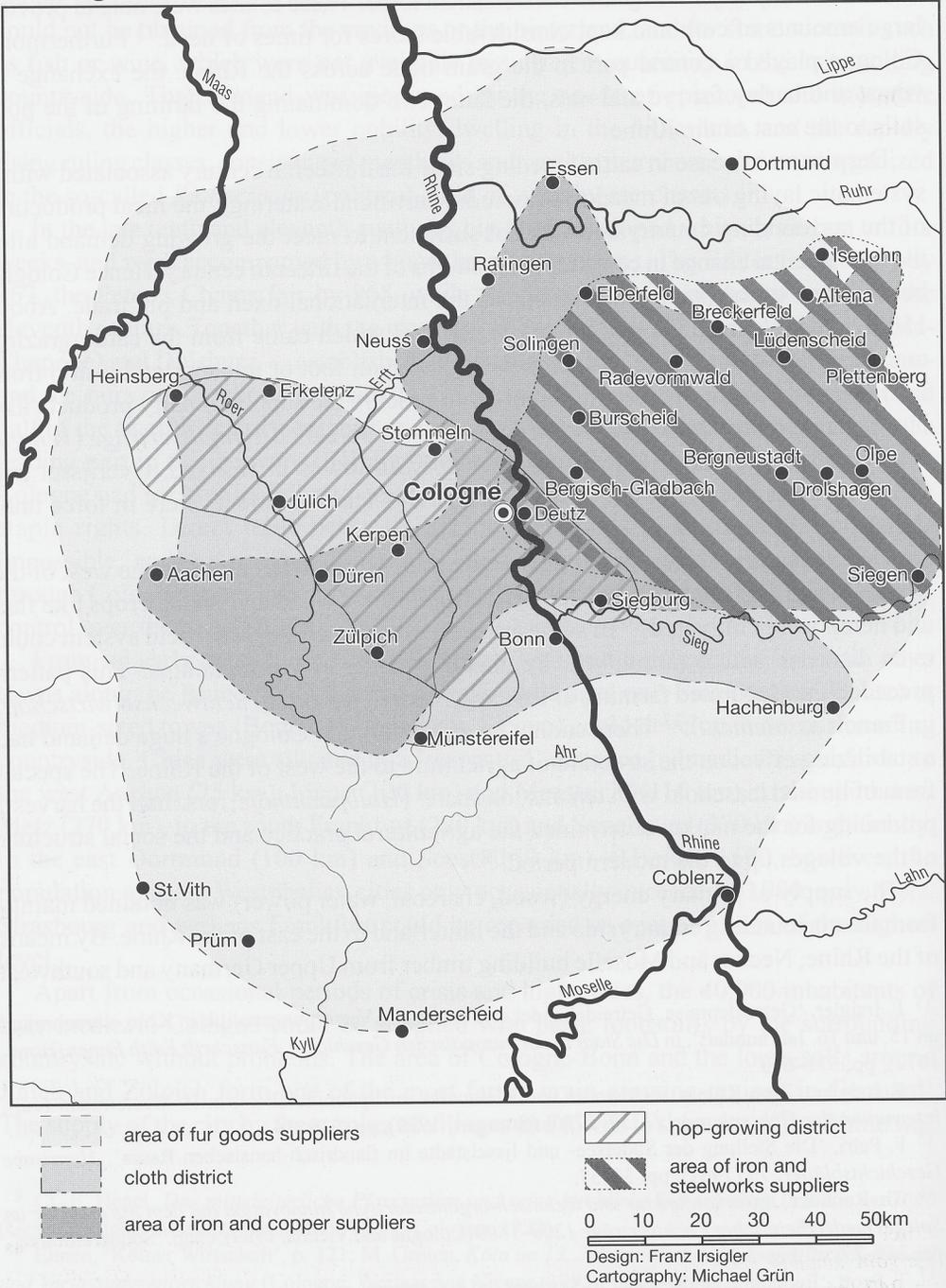


Fig. 3.2. Cologne as an economic unit in the fifteenth century

Germany, flowed down to Cologne.¹⁹ Even before the appearance of Dutch specialists,²⁰ rafting was an important trade in the large woodlands of Germany. Greater efforts were required in order to secure low-priced firewood. The *Königsforst* (King's forest) in the vicinity of Cologne was not sufficient. Likewise the water power available for the city was limited. The Blaubach running through the city was used by dyers and tanners for disposal of waste. On the Rhine at least eight floating mills grinding corn and malt were operating.²¹ In the fifteenth century windmills on top of two city-wall turrets increased the grinding capacity. The metal industries (hammer-mills, grinding mills) had to turn to the area of the *Bergisches Land*, in particular between Cologne-Deutz and Bergisch-Gladbach, with its numerous fast-flowing streams in order to meet their high demand for energy, while the threadmaker's guild employed yarn-mills (twisting-mills) in the city which were driven by horse whims. A brass foundry which employed almost fifty braziers in a putting-out system was forced to leave the city in 1464 because of the pollution caused by furnaces operating with charcoal.²²

As early as the twelfth century, swords from Cologne²³ were regarded as premium products which promoted the city's high international reputation in the armament industries. The highly diversified metal trades processing iron and steel had long-established and close links with the ore deposits and mining areas of the northern part of the Eifel (Schleidener Tal),²⁴ the Siegerland and the Sauerland. Cologne exercised a decisive economic influence upon these areas through credits, sale contracts or commitments to take delivery. The city not only obtained highly specialised products such as scissors, small bells, scythes, nails, stoves, buckles, knives, cauldrons and pans but also semi-finished goods such as pan-discs, metal sheets, wire and small pig-iron pieces for arrow and lance heads which were finished off or refined in Cologne. With this division of labour²⁵ between city and hinterland, and the putting-out contracts supporting Cologne's market, the city shaped and influenced the economic development as well as the settlement structure of the countryside to the west of the Rhine in a crucial way. The huge impetus to growth in the small metal-producing towns led in turn to a rise in population (2–5,000 inhabitants). On the one hand, specialisation in certain products — blades in Solingen, scissors in Ratingen, different types of wire in

¹⁹ F. Irsigler, 'Kölner Wirtschaftsbeziehungen zum Oberrhein vom 14. bis 16. Jahrhundert', *Zeitschrift für die Geschichte des Oberrheins* (1974; published 1976), pp. 1–21.

²⁰ Cf. D. Ebeling, *Der Holländerholzhandel in den Rheinlanden. Zu den Handelsbeziehungen zwischen den Niederlanden und dem westlichen Deutschland im 17. und 18. Jahrhundert* (Wiesbaden, 1992).

²¹ H. Kranz, *Die Kölner Rheinmühlen. Untersuchungen zum Mühlenschrein, zu den Eigentümern und zur Technik der Schiffsmühlen* (Aachen, 1991).

²² All references in F. Irsigler, *Die wirtschaftliche Stellung der Stadt Köln im 14. und 15. Jahrhundert. Strukturanalyse einer spätmittelalterlichen Exportgewerbe- und Fernhandelsstadt* (Wiesbaden, 1979), pp. 113–239.

²³ Ennen, 'Kölner Wirtschaft', pp. 137–8.

²⁴ P. Neu, 'Die Eisenindustrie der Eifel im 16.–19. Jahrhundert', in H.-W. Hermann and P. Wynants (eds.), *Wandlungen der Eisenindustrie vom 16. Jahrhundert bis 1960 / Mutations de la sidérurgie du XVI^e siècle à 1960* (Namur, 1997), pp. 247–71.

²⁵ See F. Irsigler, 'From manorial restricted to free urban trade. On the development of the division of labour in the Rhenish-Westphalian area (9th–15th centuries)', in *Labour and Labour Markets Between Town and Countryside (Middle Ages–19th century) / Travail et marchés du travail entre ville et campagnes (moyen âge – XIX^e siècle)* (forthcoming).

Iserlohn, Lüdenscheid and Altena — made these towns dependent and crisis-prone. On the other hand, Cologne offered attractive prospects of economic advancement for the most active local craftsmen and traders through migration into the metropolis. The area to the west of the Rhine illustrates how the route from the countryside to Cologne often passed through small and medium-sized towns in the fourteenth and fifteenth centuries.

In order to secure the supply of raw materials and semi-finished products merchant capital from Cologne was invested in the mining industries and prospecting rights acquired, for instance in the lead-mining regions of the northern and the southern Eifel (around Bleialf), the calamine mines in Moresnet southwest of Aachen or, in the 1460s, the alum extraction in the Hunsrück.²⁶ In contrast to Nuremberg, capital investment in more distant regions remained a rare episode, as two exceptional cases might illustrate. The Hanse merchant Tideman Lemberg, who began his career in Dortmund and ended it in Cologne, was active for some time in tin and lead mining in England (Cornwall 1347, Alston Moor, Cumberland, 1359).²⁷ Around 1500, Cologne merchants like Johann Liblar, Karl Wolff and Hermann Rinck attempted to participate in the silver mining boom of the Erzgebirge in south-eastern Saxony by buying up shares (*Kuxen*).²⁸

In Cologne, capital loans and credits were largely confined to the neighbouring regions. The city with its Lombards, Jews and merchants, mainly provided the money market for the Rhenish nobility up to the aristocracy and electoral princes (*Kurfürsten*).²⁹ In the area of political financing, or ‘high finance’ (*Hochfinanz*), as Wolfgang von Stromer put it,³⁰ Cologne fell way behind Nuremberg and later Augsburg (Fugger, Welsner). As became evident in the fifteenth century, this was due not so much to a lack of venture capital (*Risikokapital*) but to Cologne’s distance from the political power centre of the Habsburgs and the restraint of the wealthiest merchants.

Nevertheless, the economic power of Cologne remained unimpaired in the Rhenish region until the beginning of industrialisation. Although the development of new centres of the textile industry (e.g. Barmen, Elberfeld, Krefeld, and Monschau) partly dates back to the sixteenth century, the decisive impetus did not actually occur before the ‘long’ seventeenth century with its continuing wars. Indeed, the industrialisation of the area around Aachen and of the Ruhr district was sponsored and supported by Cologne banks.

²⁶ F. Irsigler, ‘Rheinisches Kapital in mitteleuropäischen Montanunternehmen des 15. und 16. Jahrhunderts’, *Zeitschrift für Historische Forschung*, 3 (1976), pp. 145–64.

²⁷ V. Henn, ‘Tideman Lemberg — ein Dortmunder Hansekaufmann des 14. Jahrhunderts’, in D. Kattinger and H. Wernicke (eds.), *Akteure und Gegner der Hanse — Zur Prosopographie der Hansezeit* (Weimar, 1998), pp. 37–51.

²⁸ Irsigler, ‘Rheinisches Kapital’, pp. 158–63.

²⁹ F. Irsigler, ‘Juden und Lombarden am Niederrhein im 14. Jahrhundert, Anhang: Das Schuldenverzeichnis des Juden Simon von Siegburg, edited by M. Huiskes and F. Irsigler’, in A. Haverkamp (ed.), *Zur Geschichte der Juden im Deutschland des späten Mittelalters und der frühen Neuzeit* (Stuttgart, 1981), pp. 122–62; W. Reichert, ‘Lombarden zwischen Maas und Rhein’, *Rheinische Vierteljahrsblätter*, 51 (1987), pp. 188–223.

³⁰ Wolfgang von Stromer, ‘Hochfinanz, Wirtschaft und Politik im Mittelalter’, in F. Burgard et al. (eds.), *Hochfinanz im Westen des Reiches* (Trier, 1996), pp. 1–16.

Nuremberg

Turning to Nuremberg, it is necessary to go some way back in order to delineate the basic political and economic factors which are decisive for town-countryside relations. The beginnings of Nuremberg are obscure.³¹ The name derives from a castle the Salian king Henry III (1039–1056) built on a hill north of the river Pegnitz. But the main impetus for the development of the little settlement forming at the base of the castle came with the Staufen dynasty. Conrad III (1138–1152) installed a burgrave (chatelain) at the castle to administer the extensive imperial domains around Nuremberg, notably the vast imperial forests. Sometime later (around 1190) the Zollern obtained the office of burgrave and for almost 150 years they were in strong competition with the thriving settlement in terms of their influence on the surrounding countryside. In the community itself an imperial bailiff (*Schultheiss*) responsible for the administration of justice had been appointed. The next big step was the first charter of liberties granted by Frederick II in 1219³² by which the town obtained, among other things, exemption from various tolls and was put under the king's protection. That privilege laid the foundation for the status of a self-governing Imperial City. According to the grant the reason for the emperor's promotion was the disadvantageous location of the settlement: '*cum locus ille nec habeat vineta neque navigia, immo in durissimo situs sit fundo*', i.e. the town had no vineyards nor was the Pegnitz a navigable stream and the soil was poor.³³ That was not just an excuse to get more privileges. In 1512, almost 300 years later and at the height of Nuremberg's power, the humanist Johannes Cochlaeus observed the barely fertile ground in the environs of the city and pondered over the implication of that disadvantage.³⁴

At first glance these circumstances do not seem favourable for the rise of the settlement. In the twelfth and thirteenth centuries the town's rights ended at the wall. Even the 'suburbs' Wöhrd, Gostenhof and Schweinau belonged to the *terra imperii* and were under the control of the burgraves. Economic links between town and the

³¹ For the development of Nuremberg, see generally H. Dannenbauer, *Die Entstehung des Territoriums der Reichsstadt Nürnberg* (Stuttgart, 1928); W. Wüllner, *Das Landgebiet der Reichsstadt Nürnberg* (Nuremberg, 1970); W. Leiser, 'Das Landgebiet der Reichsstadt Nürnberg', in R. Endres (ed.), *Nürnberg und Bern. Zwei Reichsstädte und ihre Landgebiete* (Erlangen, 1990), pp. 227–60; F. Schnelbögl, 'Die wirtschaftliche Bedeutung ihres Landgebietes für die Reichsstadt Nürnberg', in *Beiträge zur Wirtschaftsgeschichte Nürnbergs*, I (Nuremberg, 1967), pp. 261–317.

³² *Quellen und Forschungen zur Geschichte der Stadt Nürnberg. I: Nürnberger Urkundenbuch* (Nuremberg, 1959), pp. 111–14, no. 178.

³³ *Ibid.*, p. 113.

³⁴ '*Urbs ista in sterili solo. Sed quid ista ad politicam conferunt? Plurimum profecto. Nam urbs ipsa in sterili solo sita est, nequit proinde populus ex suo dumtaxat se sustentare agro, qui partim sylvis obductus est, partim sabulo sterilique harena opletus, quandoquidem hebdomadis singulis supra mille modiorum frumenti consumit centumque boves pingues preter reliquas carnes pecorum, ferarum ac volucrum non sufficiunt. Non est igitur apud externos politica eorum virtus ignota.*' J. Cochlaeus, *Brevis Germanie Descriptio*, K. Langosch (ed.) (Ausgewählte Quellen zur deutschen Geschichte der Neuzeit. Freiherr vom Stein-Gedächtnisausgabe, 1: Darmstadt, 1969), p. 76. Cochlaeus used this observation as an argument for the efficiency (*politica virtus*) of the city's government in overcoming these problems; cf. F. Irsigler, 'L'approvisionnement des villes de l'Allemagne occidentale jusqu'au XVI^e siècle', in *L'approvisionnement des villes de l'Europe occidentale au Moyen Age et aux Temps Modernes* (Flaran 5) (Auch, 1985), pp. 117–44 (pp. 117–19).

surrounding countryside must have existed all the time and there must have been some possibility of using the forests, but the firm grip of the Zollern burgraves upon the territory set limits to development.³⁵ Therefore it was vital for Nuremberg to expand its rights into the countryside.

During the time of the interregnum the burghers assumed control of the city government and successfully fought off attempts by the burgraves and the dukes of Bavaria to annex the town. The newly formed town council (first mentioned in 1256), consisting mainly of merchants, gradually eroded the authority of the Schultheiss until it finally bought the office from the king in 1385. The Zollern proved to be a harder task. The key to success was the steady growing prosperity of the town based on close ties to the monarchy, notably to the Luxembourg dynasty,³⁶ and an active merchant class who took advantage of the decline of the Champagne fairs in the fourteenth century. Despite the above mentioned shortcomings of the location, Nuremberg had a nodal position on the north-south and west-east trade routes. Its merchants established commercial links with the Low Countries (Bruges, Antwerp), the Baltic, Eastern Europe via Bohemia, and Italy. The ties with Venice, where merchants from Nuremberg appeared for the first time around 1300, and with Bruges, were particularly important in developing the city's position as a leading international trade centre.

In the second half of the fourteenth century the town council³⁷ intensified its efforts to control the surrounding countryside. They pursued their spatial policy with a dual strategy. On the one hand, patricians who had acquired castles and manorial lordships around Nuremberg were forced to put them at the council's disposal. On the other hand, the council purchased parts of the former *terra imperii*, notably the imperial forests which were in the hands of the Zollern burgraves. In 1372, 1391, and 1396 the city bought the forestry offices, and in 1427 the process was completed with the acquisition of the burgrave's castle, his villages in the vicinity of Nuremberg and most of his remaining rights in the forests.³⁸ With the so-called *Knoblauchsland* ('garlic land'), the imperial forests and the previously acquired *Amt* (lordship) of Lichtenau, Nuremberg possessed a significant territory which constituted the *Alte Landschaft* ('old territory').

After some set-backs in the middle of the fifteenth century³⁹ the city was able to enlarge its territory considerably at the beginning of the sixteenth century. In the

³⁵ Cf. Leiser, 'Landgebiet', p. 229.

³⁶ The alliance with the Luxembourg dynasty secured prestige and profit: in the Golden Bull of 1356 Charles IV stipulated that the first diet of a newly elected king had to be held in Nuremberg, in 1423 the city became the depository for the imperial regalia until 1796, and in the 1420s the crusades against the Hussites in Bohemia were organised from the Nuremberg area.

³⁷ Throughout the middle ages the council was dominated by patrician families and wealthy merchants. After an unsuccessful attempt of the craftsmen to take over the government (1348–49) the guilds were not able to exercise any real political influence within Nuremberg. Nevertheless, that continuity proved to be a decisive factor for the economic development of the city.

³⁸ In 1415 King Sigismund had enfeoffed the Zollern with Brandenburg and by doing so the interests of the burgraves were diverted towards that region; cf. Leiser, 'Landgebiet', pp. 231–2; Wüllner, *Landgebiet*, pp. 11–12; Dannenbauer, *Entstehung*, pp. 106–68.

³⁹ Under Margrave Albrecht Achilles the Zollern tried to regain their lost influence in Franconia and invaded the region in 1449–50.

Bavarian war of succession of 1504–5 (the so-called *Landshuter Erfolgstreit*) Nuremberg joined the coalition against the Electoral Palatinate and conquered extensive areas east of the imperial forests. Nuremberg's possessory rights to that 'new territory' or *Neue Landschaft* as it was called, were finally accepted by the Palatinate in 1523.⁴⁰

By the end of the middle ages Nuremberg governed the biggest territory (c. 620 square miles/1,600 square km) of all Imperial Cities. It consisted of six towns, seven so-called markets (*Märkte*) and more than seventy villages.⁴¹ What were the reasons behind such an ambitious long-term policy? Certainly there was the need for security. The city had to fend off such aggressive neighbours as the Zollern burgraves or the bishop of Bamberg and that was best achieved from a position of strength. But that policy served vital economic interests as well. The steady rise in population — according to conservative estimates Nuremberg had about 20,000 inhabitants in the middle of the fifteenth century and about 28,000 in 1497⁴² — made it necessary to improve the food supply. With the acquisition of the 'garlic land' Nuremberg obtained cultivable soil. Irrigation channels and the use of manure turned the sparse 'garlic land' into an intensified vegetable-growing area which even produced surpluses for export. By means of numerous water-wheels meadows were laid out on the banks of the Pegnitz, and the forests offered ideal possibilities to fatten pigs and sheep.

Of course the forests held even more 'treasures'. From the end of the fourteenth century a substantial apiculture was developed under urban control. The honey provided the backbone for the Nuremberg industry in sweet produce — just think of the *Lebkuchen* for which Nuremberg is still famous today.⁴³ Wax, the second bee-keeping product, was ubiquitous. It was used for candles, seals, for drilling furniture, to stiffen thread, to polish leather, in the so-called 'lost-wax process' of casting objects in copper-alloy⁴⁴ and so on. Naturally, the main commodity of the forests was wood. It provided building timber, firewood and the raw material for charcoal burning. In order to reduce the effects of this exploitation, the Nuremberg councillor Peter Stromeir successfully began a reforestation with spruce seed as early as 1368.⁴⁵ Other resources found in the forests were limestone, clay and sandstone. In the course of the fifteenth century several brickworks established themselves outside the walls of Nuremberg drawing their supplies mainly from the *Laurenzer Forst*. Around Heroldsberg and Kalckreuth, to the

⁴⁰ For a detailed account of the background of the war and Nuremberg's participation, see Dannenbauer, *Entstehung*, pp. 169–206; cf. Schnelbögl, 'Landgebiet', pp. 283–5; Leiser, 'Landgebiet', pp. 234–5.

⁴¹ Cf. R. Endres, 'Nürnberg in der Frühneuzeit', in K. Krüger (ed.), *Europäische Städte im Zeitalter des Barock: Gestalt — Kultur — Sozialgefüge* (Cologne, Vienna, 1988), pp. 141–67 (p. 142); see Fig. 3.3.

⁴² *Lexikon des Mittelalters*, article 'Nürnberg', column 1318; cf. Endres, 'Nürnberg in der Frühzeit', p. 141, who estimates the population at 40,000 to 50,000 at the beginning of the Reformation.

⁴³ Cf. R. Kießling, 'Markets and marketing, town and country', in Scribner (ed.), *Germany*, pp. 145–79, (p. 155); Schnelbögl, 'Landgebiet', pp. 263–5, 269–71.

⁴⁴ For the use of that method in the metal industry, see C. Blair and J. Blair, 'Copper Alloys', in J. Blair and N. Ramsey (eds.), *Medieval English Industries. Craftsmen, Techniques, Products* (London and Rio Grande, 1991), pp. 86–8.

⁴⁵ See W. von Stromer and L. Sporhan-Krempel, 'Die Nadelholzsaat in den Nürnberger Reichswäldern 1469–1600', *Zeitschrift für Agrargeschichte und Agrarsoziologie*, 17 (1969), pp. 70–106. Stromeir's method was so successful that it became an export item. In 1423 Frankfurt ordered spruce seed for its forest from Nuremberg; cf. Schnelbögl, 'Landgebiet', p. 273.

The territory of Nuremberg (16th - 18th centuries)

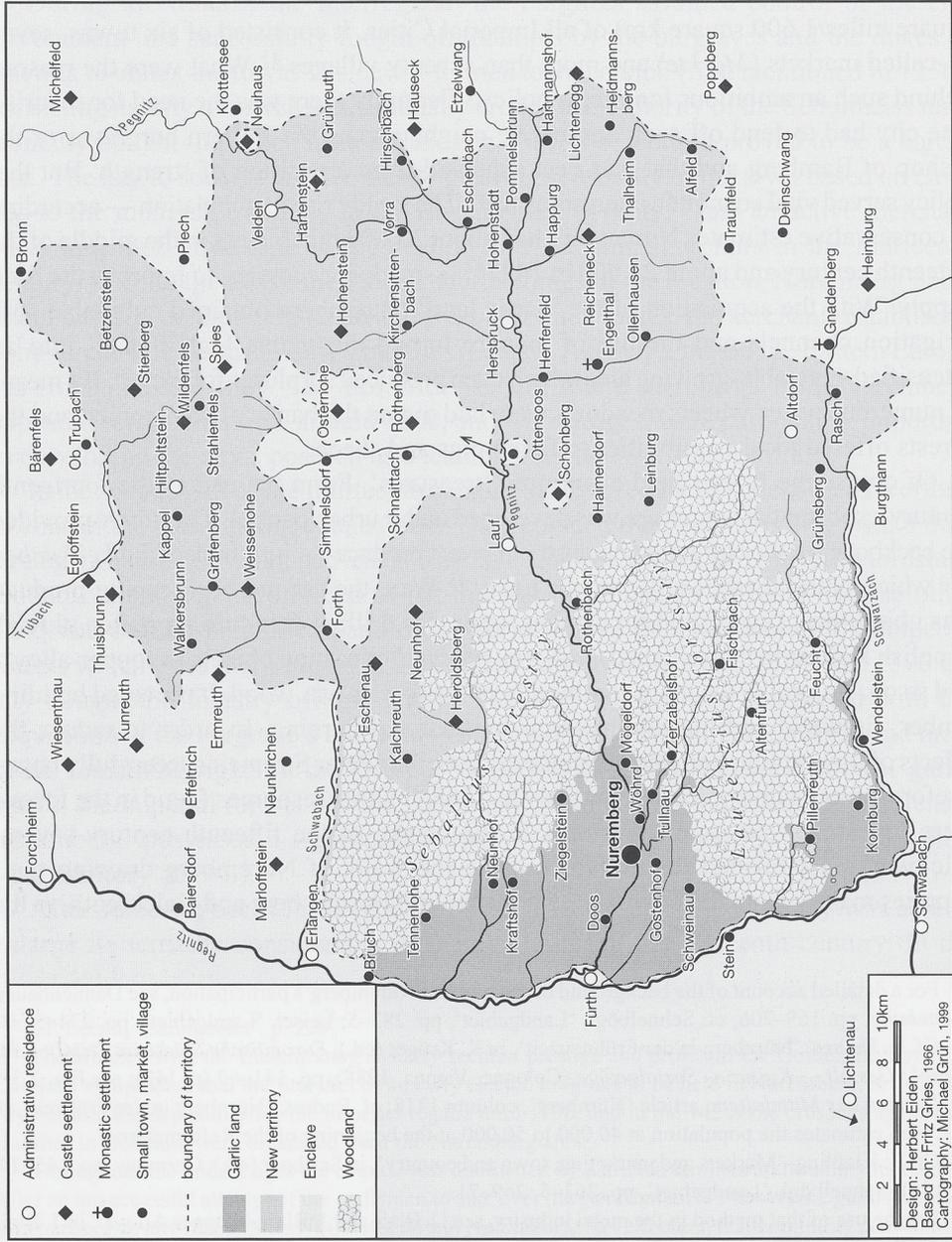


Fig. 3.3. The territory of Nuremberg: sixteenth to eighteenth centuries

north-east of the city, clay used in the brass-founding process and in the glass industry was found. The clay was of such a quality that it was much sought after all over Germany and for almost 200 years Nuremberg exercised a monopoly over its supply. Sandstone of different degrees of hardness for millstones, building and paving stones were broken all over the forests and by the end of the middle ages more than thirty sandstone quarries existed.⁴⁶

The commodities which Nuremberg obtained from the surrounding countryside were essential for the town. The city's demand shaped the environs, resulting in structural change of the formerly underdeveloped area. With market-oriented production and the emergence of new trades and industries the countryside was integrated into the regional economy. Both city and countryside profited from that process by mutually stimulating economic growth.⁴⁷

However, neither the 'garlic land' nor the forests were sufficient for the provisions of the city. The Nuremberg council reckoned that the city had to draw supplies from a radius of up to 100 kilometres (62.5 miles) and modern calculations of the catchment area required for the supply of grain come to 5,000 square kilometres. How formative Nuremberg's influence was is shown by the fact that its grain measure was used up to 100 kilometres away.⁴⁸ Cattle had to be driven from even further afield. Nuremberg imported oxen from Silesia, Bohemia and Hungary in vast quantities both for its own consumption and in its role as a transit centre. The generally growing demand for meat in Central and Western Europe in the wake of the grain crisis in the fifteenth century brought about fundamental and lasting structural changes, displacing 'the market structure towards an extensive regional traffic ... in cattle for slaughtering'.⁴⁹ In order to safeguard the vital trade routes and to keep them free from foreign influence the control over the 'new territory' proved to be very important. Economically the acquisition of the territory east of the forests was a wise move in several respects. Early on, craftsmen and merchants from Nuremberg had been involved in metalworking and trading in metal products. From the end of the fourteenth century Nuremberg became the foremost European producer of semi-finished and finished metalware such as wire, armour, weapons, household utensils and technical instruments. Supplies for the highly differentiated metal industry came from the abundant iron ore deposits of the Upper Palatinate bordering the 'new territory' at its north-eastern edge. Ready access to the mines was secured by the control of that area. Furthermore, the use of the waterpower (hammer forges) of the Pegnitz and other torrents, the abundance of timber and Nuremberg's leading position in national and international trade made the area an ideal location for the metalworking industry.⁵⁰ The distribution of the products

⁴⁶ Schnellbögl, 'Landgebiet', pp. 273–82.

⁴⁷ Cf. Scott and Scribner, 'Urban networks', p. 140.

⁴⁸ G. Franz, 'Die Geschichte des deutschen Landwarenhandels', in G. Franz, W. Abel and G. Cascorbi (eds.), *Der deutsche Landwarenhandel* (Hanover, 1960), pp. 37–8; quoted in Kießling, 'Markets', p. 150.

⁴⁹ Kießling, 'Markets', p. 153. For the importance of the trade in oxen, see generally Westermann, *Ochsenhandel*.

⁵⁰ For Nuremberg's metal industry, see Ammann, *Stellung*, pp. 48–70; Schnellbögl, 'Landgebiet', pp. 293–304; Kießling, 'Markets', pp. 164–6.

was organised via a sophisticated network of markets and fairs⁵¹ covering the entire south of Germany and extending into the sphere of the Hanseatic League as well as through the Frankfurt fairs⁵² into Western Europe. This wholesale integration of the countryside into the market system can only be compared with the market system of Cologne, with its linkage to the Siegerland, the Sauerland and the northern part of the Eifel.

By constantly extending and intensifying its influence Nuremberg excluded potential competitors from the countryside. The setting-up of *Bannmeilen* (a protected area within a certain radius), the obligation to submit products to the city's quality control, and the prohibition of certain forms of putting-out secured Nuremberg's dominant position. A very effective way of controlling the economy in the hinterland was to replace the resident craftsmen, traders and merchants with Nuremberg citizens. For example, once Nuremberg took control of Betzenstein (in the north-east of the 'new territory') it seized all ore-mining shares and issued them to burghers only, thus creating a monopoly. In Lauf, ideally located for the operation of mills and hammer forges, all the seventeen works with forty-five wheels in total which existed at the beginning of the sixteenth century were gradually taken over by the great Nuremberg families.⁵³ Nuremberg reaped the benefits of this development, while the old-established inhabitants of the towns and villages in the countryside profited only indirectly through an influx of buying and spending power. A last example cautions against a too positive picture of the consequences of this integration. It touches the second main driving force of economic development which has so far been ignored in the case of Nuremberg: the cloth industry.⁵⁴ In Wöhrd just outside the walls of Nuremberg a prosperous textile industry had developed under the rule of the burgraves. The dyers in particular obtained a monopoly position. Immediately after Nuremberg's acquisition of the settlement a fierce crowding-out competition was started by the city's craftsmen who were strongly supported by the council. New bleacheries were laid out in Nuremberg and gradually the city took control over the town council of Wöhrd. In the second half of the fifteenth century dyers from the Netherlands were settled in Wöhrd and the quality control for cloth was transferred to the draper's hall of Nuremberg. Any independence of the crafts in Wöhrd had been successfully destroyed by the beginning of the sixteenth century.⁵⁵

Conclusion

Since our paper had to be confined in scope and in time we could only explore those aspects which were pertinent to the topic of the conference, and which allowed a

⁵¹ Nuremberg's attempts, however, to establish a major fair in the city itself in the fifteenth century were unsuccessful; see V. Henn, 'Missglückte Messegründungen des 14. und 15. Jahrhunderts', in P. Johanek and H. Stob (eds.), *Europäische Messen und Märktesysteme in Mittelalter und Neuzeit* (Cologne, Weimar and Vienna, 1996), pp. 205–22 (pp. 218–22).

⁵² For the importance of the fairs of Frankfurt, see M. Rothmann, *Die Frankfurter Messen im Mittelalter* (Stuttgart, 1998).

⁵³ Cf. Leiser, 'Landgebiet', pp. 250–2; Schnellbögl, 'Landgebiet', pp. 302–3.

⁵⁴ For Nuremberg's cloth industry, see Ammann, *Stellung*, pp. 70–86.

⁵⁵ Cf. Ammann, *Stellung*, pp. 198–202; Leiser, 'Landgebiet', pp. 249–50.

comparison of the development of Cologne and Nuremberg to be made. Despite their different starting positions and their quite distinct locations both cities were astonishingly successful in integrating the surrounding countryside and, partly, the hinterlands into their respective market and production systems. From the second half of the fifteenth century onwards they intensified their market monopolies and thereby oriented the entire regions towards themselves. With the formation of an extensive territory Nuremberg took a kind of spatial or hinterland policy almost to extremes, whereas Cologne contented itself with economic dominance and did not attempt to acquire a territorial base. Both cities equalled each other in terms of the range and strength of their active trade as well as in terms of the scope, variety and quality of their products. Cologne and Nuremberg embodied in an almost ideal-typical form the quintessential international trading centres of Germany. It is conspicuous that the only two mining areas in Germany which successfully made the transition from single forges employing simple technology to a developed economic landscape with diversified and specialized production were the Sauerland and the Upper Palatinate. As Tom Scott observed, the growth of economic regions 'was only possible where town and country made up an economic unit'.⁵⁶ That growth was dependent on access to natural resources, the securing of provisions combined with a well operating long distance trade (e.g. cattle trade), the availability of a specialized workforce, and political stability.

It would be tempting to compare Cologne's and Nuremberg's development with other 'perfect' medieval cities such as Florence, but that would be another paper.

⁵⁶ Scott, 'Economic landscapes', p. 23.

