

Duisburg and its environs at the confluence of Rhine and Ruhr from the Late Antiquity to the Industrial Age – Essential aspects of its development according to archaeological and historical sources

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Duisburg (Nordrhein-Westfalen/D); settlement structures; town development

Abstract

From 1980 to about 1994 large scale interdisciplinary urban excavations took place in the former Old Town of Duisburg. They have provided a rich database for the development of the city and its environs. It widely exceeds historical sources and helps to clarify the change of this settlement area, caused by man and nature from the early beginnings to our days.

Topographic situation and general development

Duisburg has been favourably situated from early times because of its situation at the confluence of Rhine and Ruhr (fig. 1) and main roads to various directions (Binding 1969, 5 ff.; Gerlach 1992; Krause 1999, 109 ff.). The core of the early settlement formed a spur like extension of the lower terrace into the high water zone of the Rhine. It became the castle square (Burgplatz) in later times (fig. 2). From its foot, the distance to the west bank of the Rhine was only about 500 metres (fig. 3). This was exceptional for the Lower Rhine area. Therefore, it is the natural reason for an important crossing located below the core of the settlement.

Already the Romans used this place in the first century AD (fig. 4; Krause 1992b, 99 f.; 103 f.; 120 ff.). Since that time a continuous development has begun that has led to the large city of modern Duisburg.

The settlement growth up to the early 19th century took place in the area of the Old Town at the periphery of an old river bed of the Rhine that fell dry about the end of the first century AD and at the bank of the Rhine channel of the second to tenth century (fig. 2–5; 8), which formed the medieval port together with the mouth of the Ruhr. The alignment of the main buildings on the castle square, the town hall as successor of the palace of the German medieval kings and the Late Gothic church of Our Saviour next to it (fig. 2; 3; 10), with earlier predecessors back to the ninth century (Binding 1969, 35 ff.; 68 ff.), still follow the river bank of the first century AD.

On the top of the waterlogged sediments of the early Rhine (till the end of the first

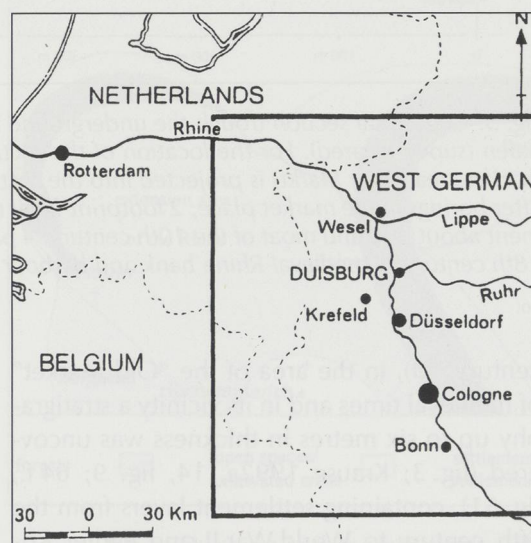


Fig. 1: Duisburg and the Lower Rhineland.



Fig. 2: The former Old Town of Duisburg about 1880. I Settlement core on the castle square (Burgplatz) with the church of Our Saviour (Salvatorkirche) and Town hall (Rathaus) next to it; II Old Market (Alter Markt).

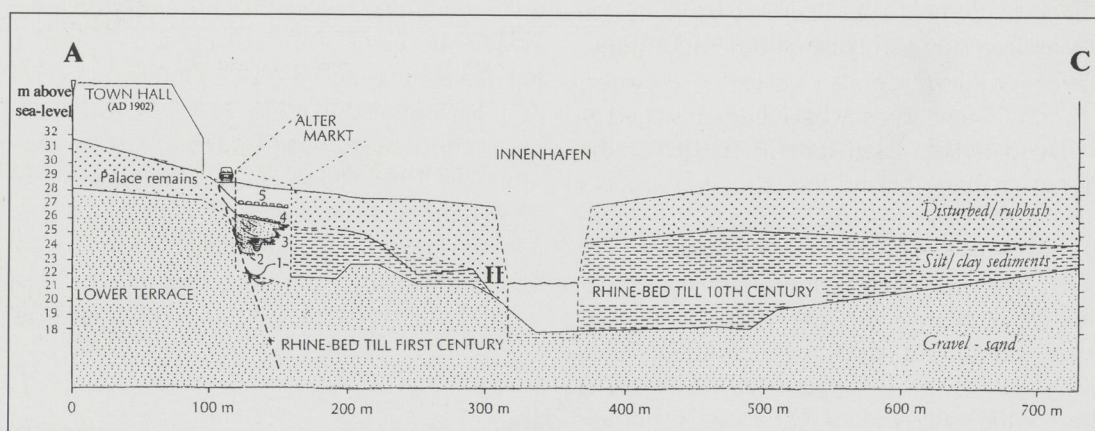


Fig. 3: Geological section through the underground from the castle square (Burgplatz) to modern Innenhafen (superelevated). For the location of the section see fig. 2 A–C. The stratigraphic situation in the market area (Alter Markt) is projected into the section: 1 border between sand of the river bed and silt after borings in the market place; 2 footprint-layer (cow tracks) 5th century; 3 Carolingian market pavement about 900 and moat of the 10th century; 4 pavement of the late 13th century; 5 pavement of the 18th century; II medieval Rhine bank and harbour area.

century AD), in the area of the “Old Market” of medieval times and in its vicinity a stratigraphy up to six metres in thickness was uncovered (fig. 3; Krause 1992a, 14, fig. 9; 64 f., fig. 51), containing settlement layers from the fifth century to World War II and earlier Ro-

man finds eroded from the castle square. Organic materials of various epochs have been preserved in the market layers as well as remains of environmental pollution caused by human activities, covering nearly the entire last 2000 years (Gerlach/Radtke/Sauer 1992;

Gerlach et al. 1993). From the market area the excavations spread to various parts of the Old Town (Krause 1992a, 1 ff.; 6 f., fig. 4). The final shift of the Rhine that proved fatal for Duisburg's further development had occurred already before the end of the tenth century (Krause 1997a, 101 ff.; Scheller 1958; 1970a; 1970b) and had left the town at a branch of a redundant river-bed. It ran completely dry during the second half of the 14th century (Krause 1999). As a consequence, Duisburg lost its importance as a centre of commerce (Milz/Kraume 1991) and became a minor place of craftsmen and farming citizens. Only after 1820 did the city begin to grow again. Five main stages of Duisburg's development shall be considered.

Roman Duisburg and its environs (fig. 4)

In its earliest dated river-course, the Rhine lay in the area of the later medieval Old Market (fig. 2; 3). Opposite the mouth of the Ruhr, on the left side of the Rhine, the Romans built the military camp of Asciburgium (first century AD). On the spur-like extension of the lower terrace at the bank of the early Rhine, above an advantageous crossing of the river, the Roman military may have been installed as a kind of bridge-head for the control of the mouth of the Ruhr and the exploitation of its hinterland (Krause 1992b, 115 ff.). Perhaps the later name of this place "castle square" (Burgplatz) goes back to this early stage of Duisburg, where stone buildings already existed. In the former bed of this early Rhine a Roman tomb of the second century AD was found (fig. 4; Tischler 1952, 429). So it must have been completely dried out by that time. According to this evidence, it is assumed that the Rhine had found a new bed about the end of the first century AD. Next to it a small new Roman camp was built in the second century AD (fig. 4, camp at Werthausen), replacing the earlier camp of Asciburgium. Settlement- and plant remains from the high water sediments underneath the Old Market allow us to reconstruct the local vegetation and to detect further human activities (Knörzer/Meurers-Balke 1992, 179 ff.; 186 ff.). Though the natural vegetation was quite intact, there existed cornfields on the lower terrace in the

vicinity of the later castle square that continued into the Middle Ages.

Early medieval Duisburg and its environs (fig. 5; 6)

After its shift around the end of the first century AD, the course of the Rhine remained stable until the tenth century. Beech trees spread in the area to an extent which was never again reached in later times (Knörzer/Meur-

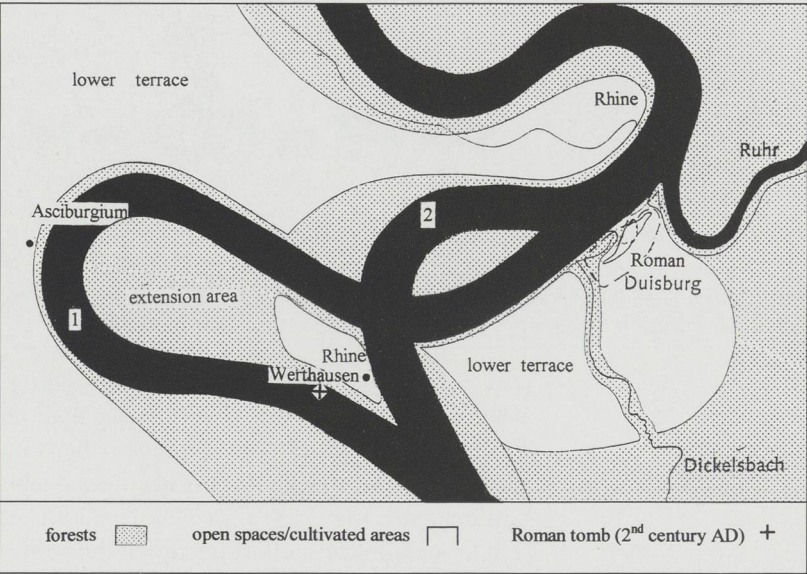


Fig. 4: Duisburg and its environs in Roman times.
1 Roman Rhine till about 100 AD; 2 Roman Rhine after 100 AD.

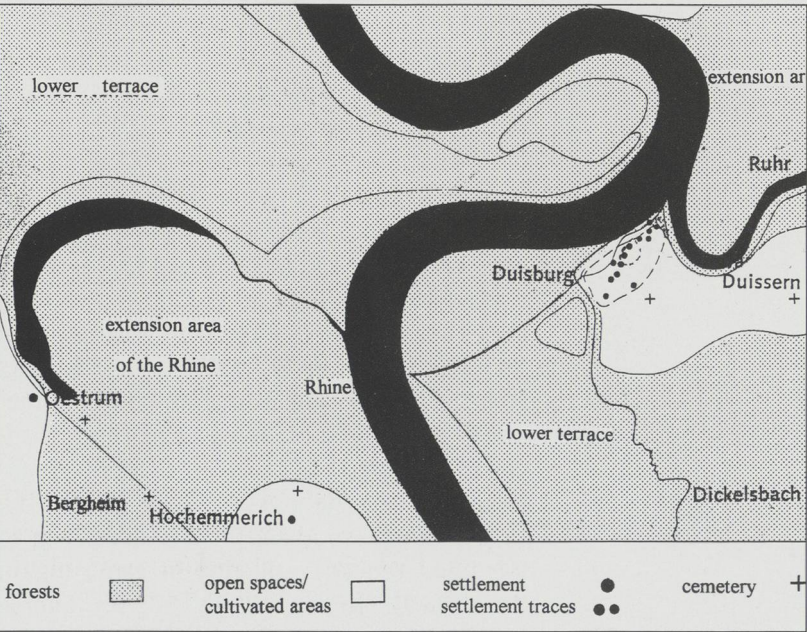


Fig. 5: Duisburg and its environs in early medieval times.

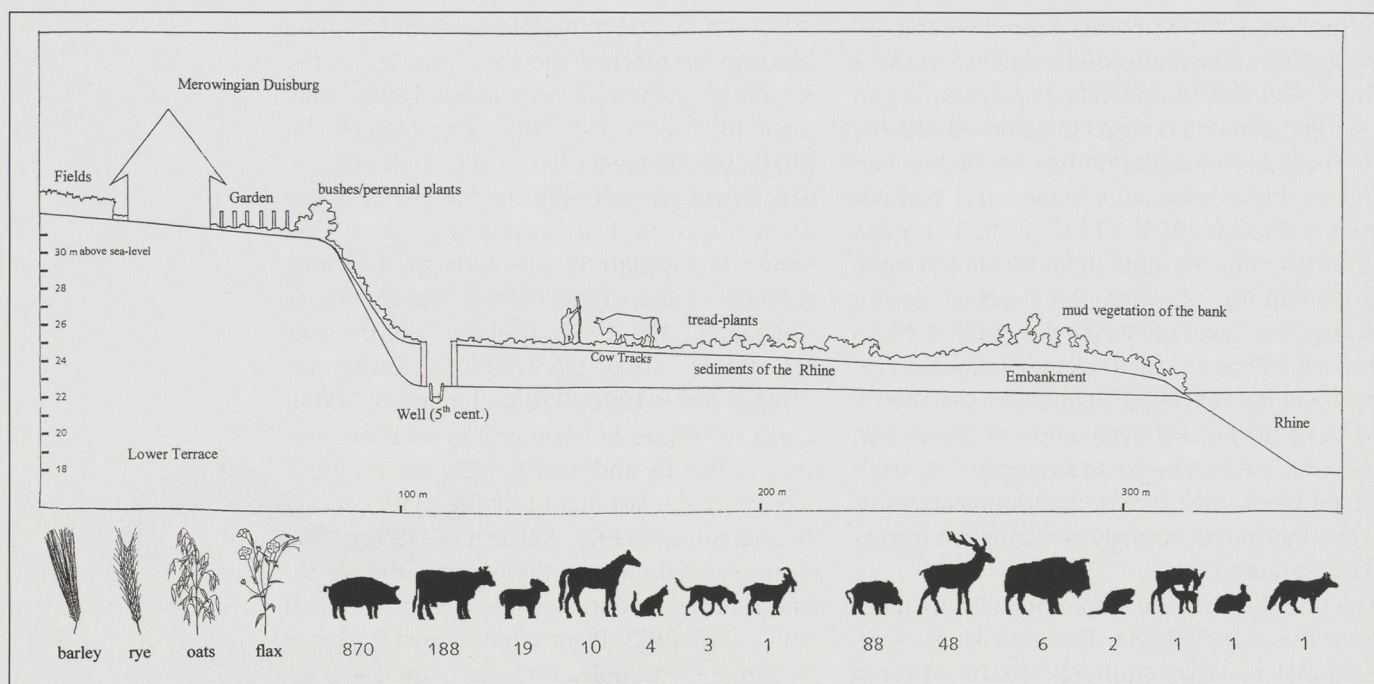


Fig. 6: Merovingian Duisburg about the middle of the 5th century. Above: Generalised section from the later castle square to the early Rhine (see fig. 2 A.B; fig. 3). Below, to the left: Preferred crops. Below, to the right: Animal use (domesticated and wild animals), numbers: frequency according to quantity of bone finds.

ers-Balke 1992, 195 ff.). This took place about 430–450 AD according to settlement finds on the lower terrace of the Rhine around the later castle square (fig. 5; Krause 1992b, 93 ff.). At that time, Frankish settlers occupied the strategically important confluence of the Rhine and Ruhr, which had been abandoned by the Romans. Preserved animal bones and plant remains show the settlers had come from outside the Roman provinces (fig. 6). Merovingian Duisburg was situated at the fringe of the lower terrace to the high water zone of the Rhine around the later castle square. Cornfields with rye, barley and oats covered the lower terrace behind the houses with their gardens. Flax was used to produce oil or even textiles (Knörzer/Meurers-Balke 1992, 186 ff.; 193 ff.). Wells existed at the bank of the former Rhine. Cow tracks near to a well in the high water zone of the Rhine show that there was a watering-place. A potsherd from the well and another one from the area of the watering-place fit together, so that they must be absolutely contemporaneous (about 430–450 AD). The neighbouring woodlands were, according to the bone remains, still rich in game (fig. 6; Berke 1992; Krause 1994b, 575 ff.). Simple handmade pottery and settlement wasters depict a way of life very different from the Ro-

man one. On the other hand, late Roman pottery was appreciated and is plentiful among settlement remains (Krause 1992b, 120 ff.). The rare early Frankish settlement material from Duisburg has a special importance. It may be related to the high opinion that existed in medieval and post-medieval times of early Duisburg as the seat of the Frankish kings, known by name, Clodio, from the first half of the 5th century AD (Krause 1992b, 105 f.; Siegmund 1998).

Medieval Duisburg and its environs (fig. 7; 8)

Due to the advantageous situation at the confluence of Rhine and Ruhr, Duisburg became a centre of commerce in Carolingian times. Though the Rhine already had changed its course before the end of the tenth century (Krause 1997a, 101 ff.) and had left Duisburg at a redundant branch of the Rhine, it did not lose its harbour facilities and connection with the Rhine and Ruhr for centuries, merely its strategic position at the main stream. Only in the course of the 14th century did the branch in front of the town connecting Duisburg with the Rhine dry up. The Ruhr also shifted its bed

further away, to the north of the town (fig. 7). Though the merchants tried to follow the rivers Rhine and Ruhr for a while – and even begun to dig channels to connect the city with the rivers – Duisburg was cut off from its lifeline and lost its importance as a trade- and harbour centre (Krause 1999, 112 f.; 117). The main Rhine trading activities shifted from Duisburg to Ruhrort (fig. 7), where there was a custom's duties post from 1371 (Scheller 1970a; Trapp 1991, 64 f.) and to other places along the Lower Rhine (Eickels 1996; Hantsche 1999, 48 f.). In front of the dry river banks of Rhine and Ruhr, the citizens began to strengthen the fortifications of their town, building additional walls and moats, strongly changing the former harbour area.

The first clear historic record of Duisburg dates from the year 883/884. Danish Vikings occupied the "*oppidum diusburch*" in the winter of 883 and stayed here until spring of 884. At the end of the ninth century AD a church with a priest, a royal court and a colony of Frisian merchants were recorded for Duisburg (Milz 1985, 3). In the first half of the tenth century the royal court developed into a royal palace (Krause 2002). A royal mint started the coinage of silver pennies in the early 11th century (Berghaus 1983). Already in 1129 the citizens of Duisburg are called citizens (*cives*) for the first time by King Lothar III (Milz 1985, 3).

Market activities in the area later called "Old Market", below the royal court on the castle square, had begun already in the last quarter of the ninth century. Ships could dock in close vicinity. Numerous staples for shipbuilding, nails and some rivets from Scandinavian ships were found alongside the Inner Harbour (fig. 2; 3; 8 below 1.2), the medieval waterfront of the City. They show extensive shipping and harbour activities from the second half of the ninth century to the 14th century (Krause 1997a; 1999).

Shortly after the breakthrough of the Rhine near Essenberg, and the loss of the main stream at the end of the tenth century, larger parts of the area between the Ruhr and Dickelsbach were fortified with a wall and a moat (Krause 1997b; 1999, 113 f.). About 1120/25 a wall of stone was built on top of the earlier fortification (Krause 1997b; Müller 1997; Porsche 2000, 85 ff.). In the course of the 13th century the fortification was strengthened; numerous towers were added (Müller

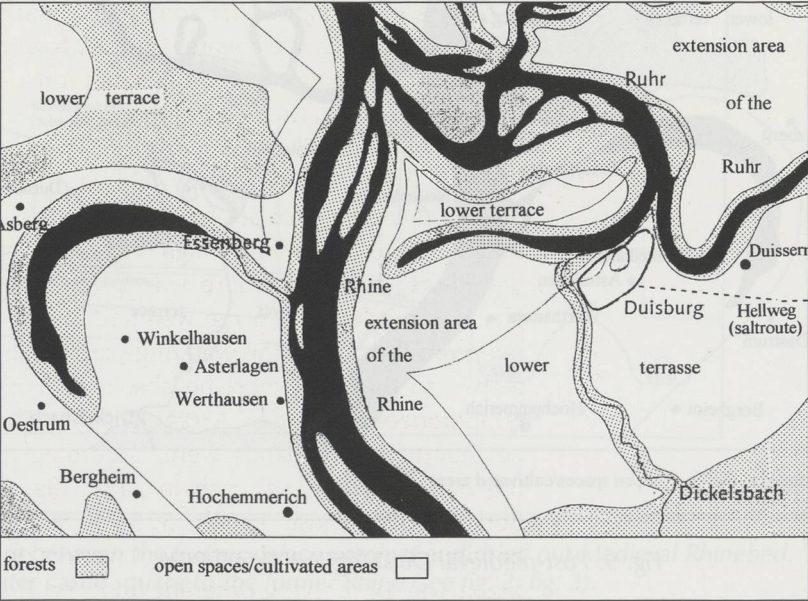
1992). At that time the Old Town of Duisburg had already reached the size, depicted in the map from 1566 (Milz/von Roden 1993). Only after 1820 were the first house outside the medieval City erected.

The abundance of finds from the market layers of the ninth to 13th century and other sites shows the wealth of the town at that time (Knörzer 1983; 1988; 1991; 1992; Krause 1983a, 20–29; 1983b, 58 ff.; 1985; 1988; 1992a, 41; 45 f., fig. 32–45; 64 f., fig. 51; 1994a; Farke 1992, 320 f.; Tegtmeier 2002). Large quantities of bone inform us about animal husbandry and -use, while game is absent already in the last quarter of the ninth century (Nobis/Ninov 1992; Reichstein 1992). Fish from regional sources, the Atlantic, the North- and Baltic seas enriched the menu (Heinrich 1992, 295–305). Plant remains give evidence of gardens and fields and the natural vegetation (Knörzer 1983; 1988; 1991; 1992, 223 ff.).

Post-medieval Duisburg and its environs (fig. 9–11)

From the time of Gerhard Mercator (1512–1594), the universal scholar and pioneer of modern cartography, who lived from 1552 to his death in Duisburg, there exist reliable maps of Duisburg and the Lower Rhine region. As contemporary sources they give us for the first time a more precise conception of Duisburg and its hinterland after the definitive shift

Fig. 7: Medieval Duisburg and its environs.



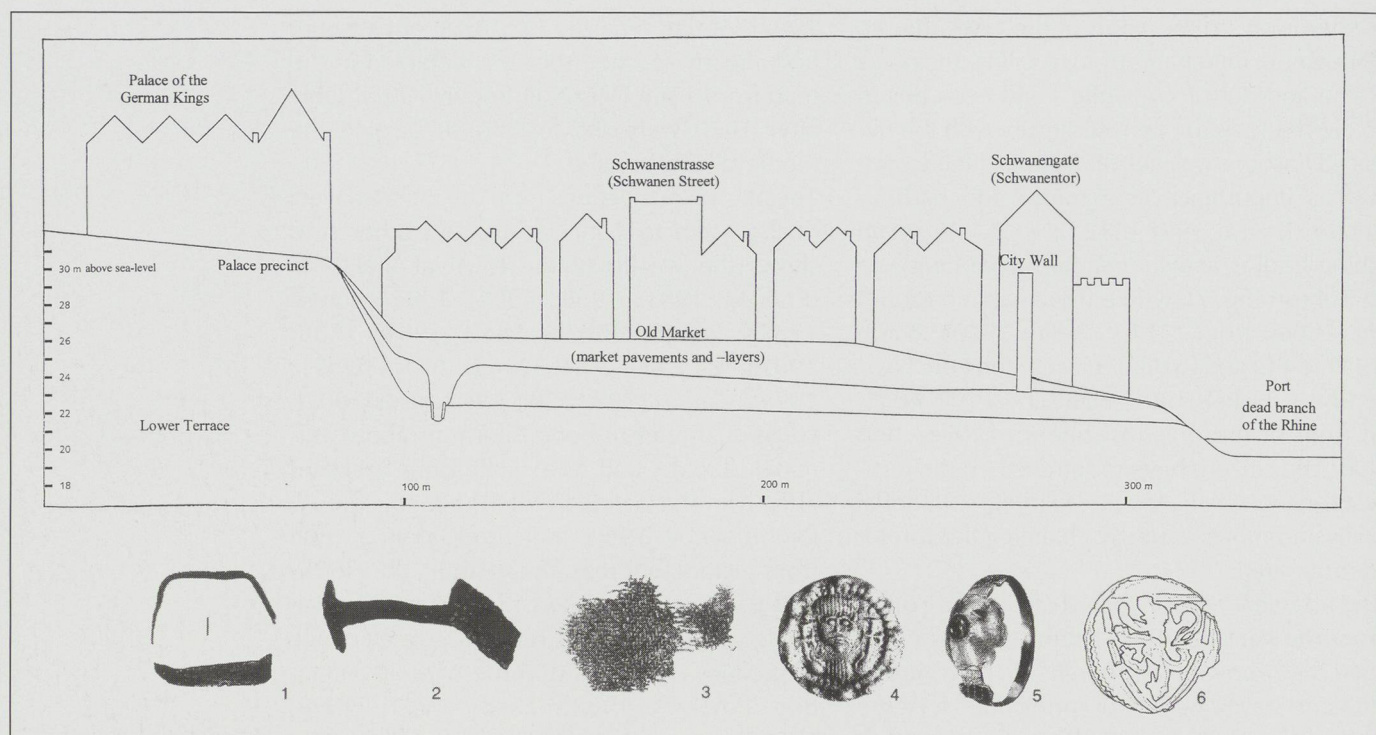


Fig. 8: Medieval Duisburg between palace precinct and Rhine. Above: Generalised section from the later castle square to the Rhine (see fig. 2 A.B; fig. 3). Below: finds from the Old Market, staple (1) and Scandinavian rivet (2) in shipbuilding, end of the 9th century, textile fragment (3), golden brooch (4) 10th century, golden finger-ring (5) with semi-precious stone 12th century, silver denier (6) of John I of Brabant (1268–1294), different scales.

of Rhine and Ruhr (Roden 1958), as well as for the reconstruction of the earlier landscape and its change (Scheller 1958). Accordingly, the course of the Ruhr gradually shifted to the north after the breakthrough of the Rhine near Essenberg before 1000 AD. Endeavours during

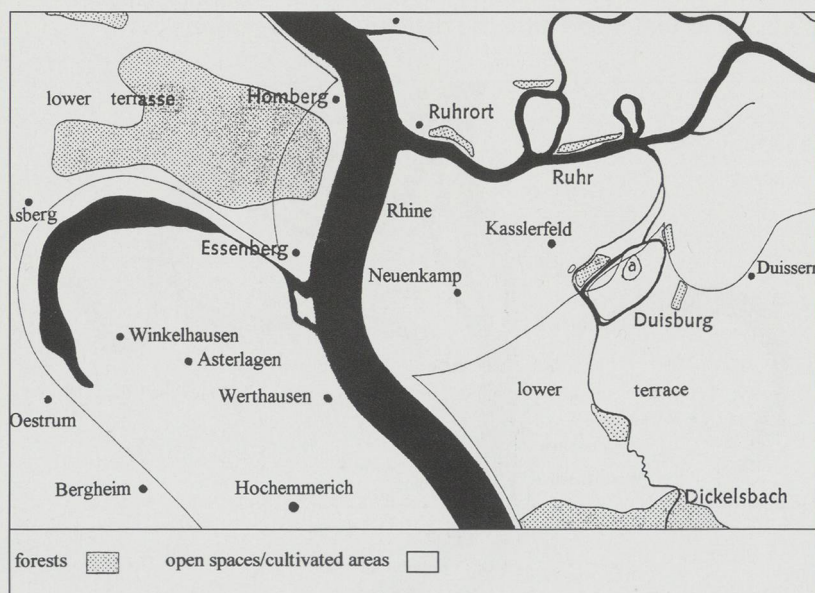


Fig. 9: Post-medieval Duisburg and its environs.

the 15th and 16th century to connect the city with the Rhine and Ruhr by means of artificial canals failed in the end. Only a small harbour in a pocket of the brook Dickelsbach in front of the “Schwanengate”, depicted in the City map of 1566, remained (Krause 1999, 109; 111 fig. 3). The clearing of the woodland continued.

From the map of Duisburg in 1566 we know the townscape in the 16th century quite well (fig. 10). But an impression of daily life is mainly derived from the excavations. Buckwheat, introduced from Central Asia, that grows even on the poorest soil, played an important role in the nourishment since late medieval times in order to cope with famines and to feed a growing population (Knörzer 1992, 127 f.; 233 f.). Turkey, domesticated in America, was eaten in Duisburg about half a century after discovery of the new continent (Reichstein 1992). Rhenish pottery still dominated the local markets. But in the last quarter of the 16th century tin-glazed painted pottery from the Netherlands appeared. Already in the early 17th century Chinese porcelain (Gaimster 1993) and other exotic goods were introduced from Eastern Asia.

Duisburg and its environs at the end of the 20th century (fig. 11–13)

With the beginning of the regulation of the Rhine at the end of the 18th century the permanent natural shift of the river came to standstill. The excavation of the Rhine- and Ruhr canals after 1820 with the help of machines in the former bed of the Rhine in front of the town is a first phase of the construction of new harbours, Duisburg's merchants aimed at the renewal of the city's heydays, "forcing the Rhine back again into its old bed in the front of the city". The harbour construction has formed the backbone for Duisburg's industrialisation and new economic growth. A subsequent increase in population and large incorporations caused an extension of the built-up area far beyond the Old Town. With the incorporation of Ruhrort, together with its large port in 1905, the modern confluence of Rhine and Ruhr has become again a part of the city area. So Duisburg has become the centre of steel and iron with the largest barge port in the world (Hafen-Zeit; Orts-Zeit). The pattern of the streets and properties in the Old Town, known already from the city map of 1566, survived the bombings of World War II. But the years 1950 to 1970 saw a period of constant rebuilding in Duisburg, regardless of the existing historic substance of the town.

More than 50% of the medieval city wall, of which about 80% was still preserved, was demolished and most of the pre-wartime buildings disappeared (Müller 1992). The Old Town of Duisburg, the heart of the city, did not exist anymore (fig. 2; Krause 1994c; 2000). Only parts of the archaeological deposits survived.

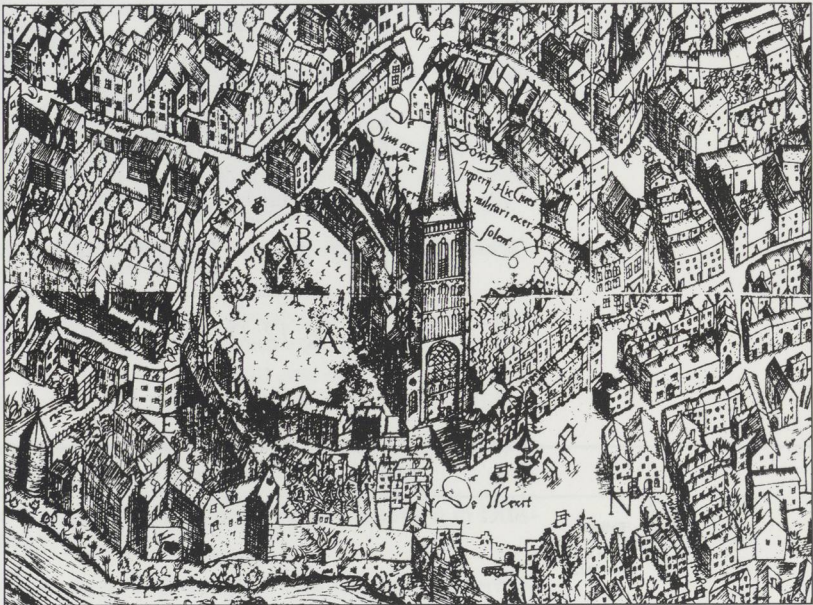


Fig. 10: Centre of post-medieval Duisburg with the church of Our Saviour, town-hall using a palace building from the 12th century, marked place with market hall (N), Minoritenkloster (Franciscan Friary). Detail from the Corpustius map 1566 AD.

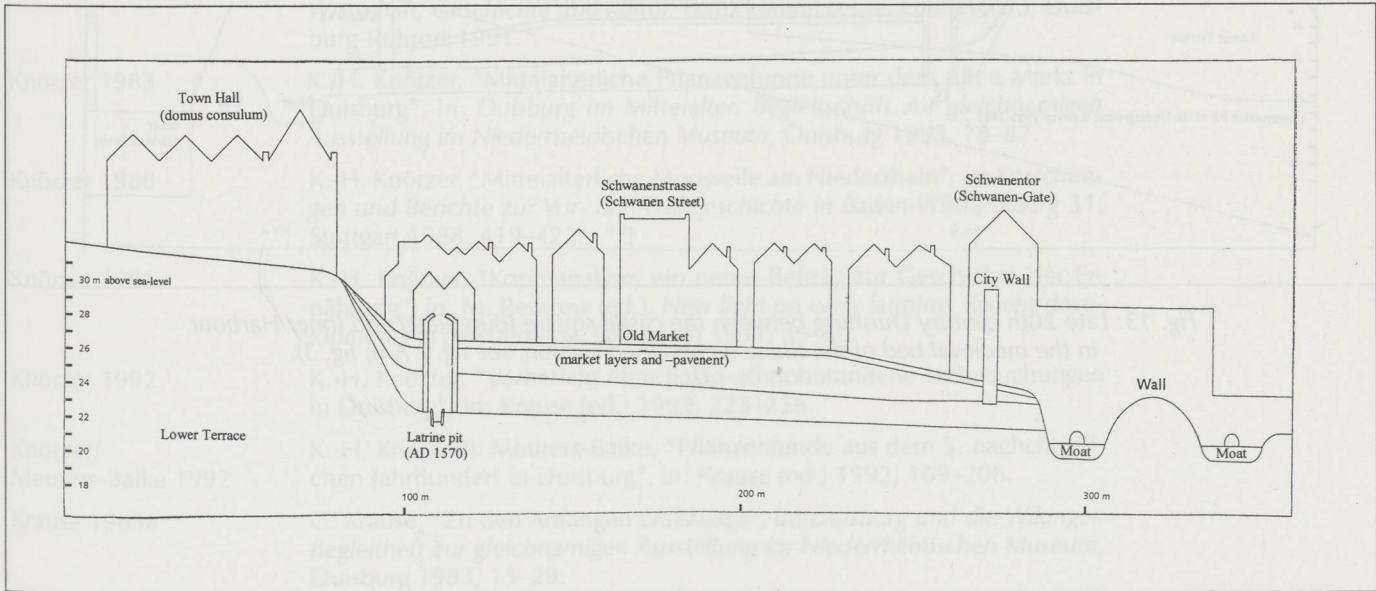


Fig. 11: Late Medieval and post-medieval Duisburg between the former palace precinct and dried out Medieval Rhinebed. Generalised section from the later castle square to the former Rhine (see fig. 2; fig. 3).

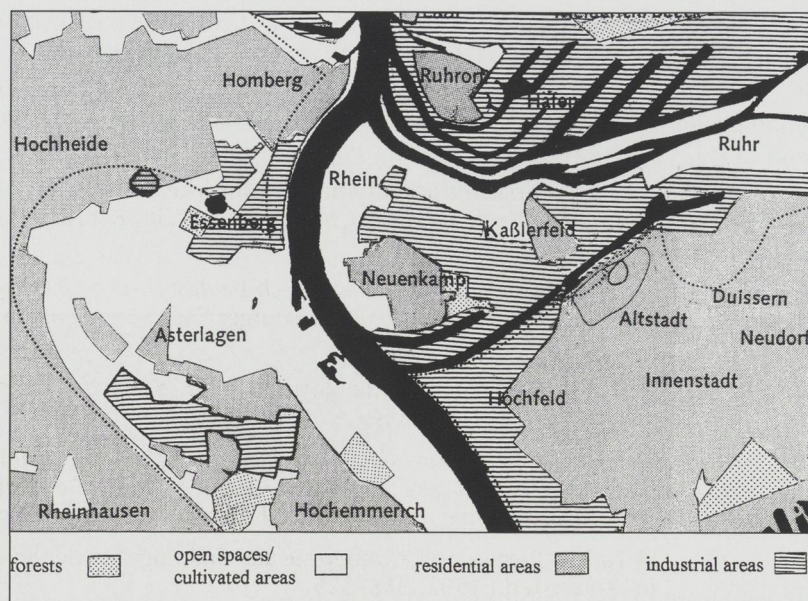


Fig. 12: Duisburg and its environs at the end of the 20th century.

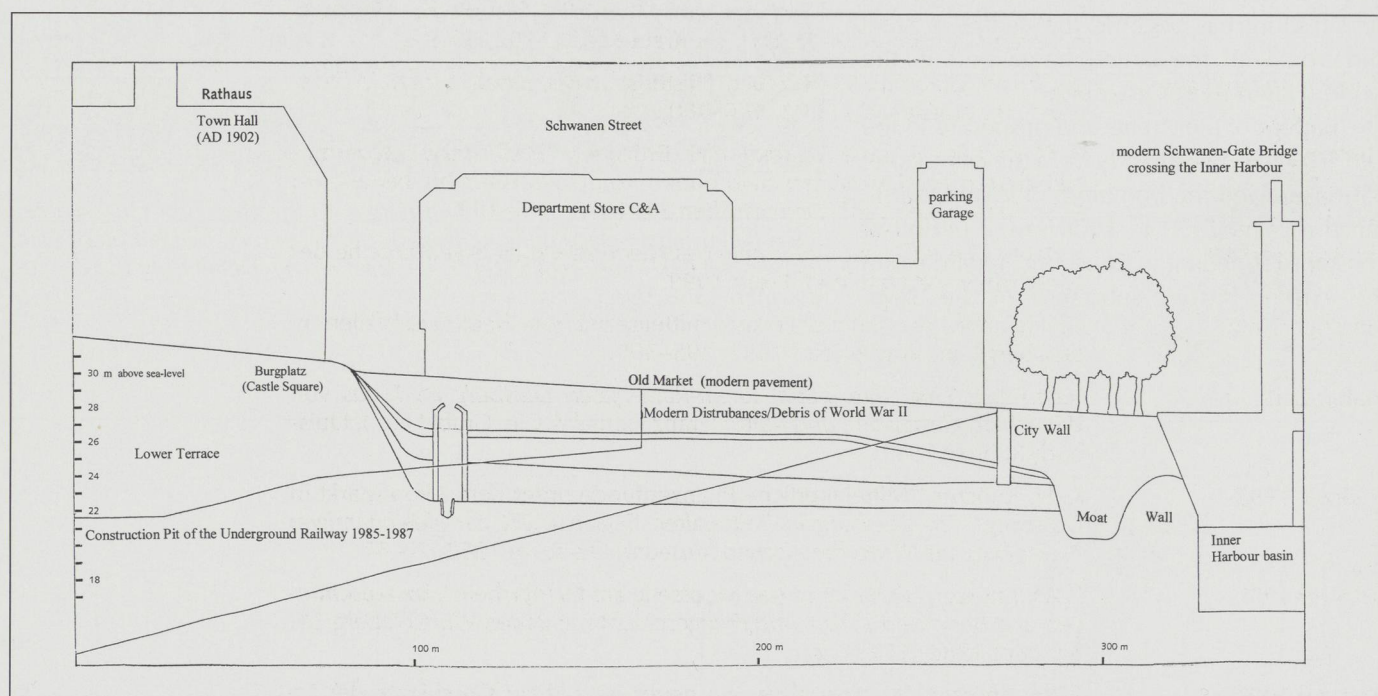


Fig. 13: Late 20th century Duisburg between the castle square (Burgplatz) and Inner Harbour in the medieval bed of the Rhine (generalised section, see fig. 2 A.B; fig. 3).

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