
ATLAS OF THE DUTCH URBAN LANDSCAPE

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TU Delft

INTRODUCTION

Why do today's Dutch towns look the way they do? The appearance, shape and size of modern Dutch towns can be traced back to their formation history and to the changes and developments that have affected them since. We investigate the long-term history of town planning and building in the Netherlands from the pre-urban past up to the present: from the 11th to the 21st century. The urban history of the Netherlands has been studied extensively and a wide range of subjects and periods have been the focus of attention, as have many individual towns. However, a comparative review and long-term analysis of the spatial development of towns in the Netherlands was still lacking. After mapping and combining a vast range of diverse data (e.g. geographic, archaeological, morphological, urban, demographic and economic) it is now possible to present an overview of a millennium of urbanization in the Netherlands.

The present atlas differs from other works on the subject in that it integrates four aspects which emerged over the years during our studies of earlier publications on Dutch towns and during our visits to the towns themselves: (1) An emphasis on what was actually built and did materialize, rather than on plans or the history of the ideas behind them; (2) A consistent recording of the results of our studies of the built environment and its landscape substructure, in the form of a series of uniform maps (the core of this atlas); (3) Extending our scope to towns throughout the country, rather than limiting ourselves mainly or exclusively to those in the west; and finally (4) A comparative overview of Dutch urban history from its earliest beginning to the present day; in other words, the *longue durée*. We did not attempt an exhaustive treatment of the subject, but merely to present some outlines.

But how to limit such a vast subject? By making strict, practical, and occasionally debatable choices. Our field of study encompasses the territory of the modern Dutch state, but for certain periods, for example the 16th and 17th centuries, we also looked beyond its modern borders. It proved to be impossible to outline the development of all Dutch towns, not the least because no clear-cut definition of the concept of 'town' or 'city' exists for the long period covered by this book. We were therefore forced to be pragmatic and select the thirty-five Dutch urban municipalities with the largest populations in 2010 (the year work on this atlas began) as our core sample, with 80,000 residents as a lower limit (Fig. 1). As we also wished to understand the present appearance of Dutch towns, selecting urban municipalities that are today among the largest was a logical choice. The choice for municipalities as our point of reference was imposed by the need for fixed spatial units to be able to map our data.



FIGURE 1

Delft

The town of Delft originated as an unincorporated settlement of fishermen, but in the middle of a land reclamation. This began with the construction of the 13th and 14th century dykes. The settlement was first mentioned in 1284. Around AD1200 the Delft dike was completed, and the town was established. The town's main drainage canal and the sea into which the water was discharged, formed a natural boundary. The drainage canals were dug perpendicular to the Oude Delft and Delftse Schied, providing the town with a unique urban structure that has defined the urban structure to this present day.

In the late 13th century a full-time church started in the town and a long Delftse Kade. South of this road stood an open settlement.

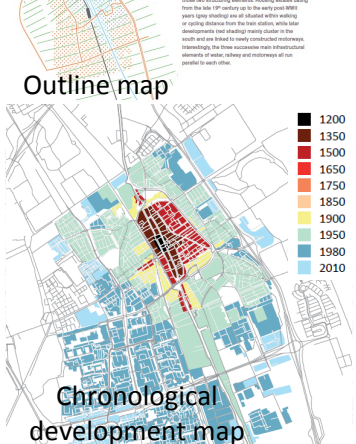
Google-Earth photo



Characteristic images

For the first time in 200 years a...
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The map clearly shows the two factors that profoundly influenced Delft's spatial development: the infrastructural axes of the dykes and of light canals from the field patterns of the past reclamation landscape (upper panel). Not only the layout of the town centre, but also the building, with canals that also the main arteries of Delft's 19th-century extension can be traced back to these two intersecting elements. Housing estates spring from the late 17th century up to the early 19th century, with varying distances from the town centre, while later developments tend to follow more closely the main arteries of water, railway and motorways and are oriented to each other.



View of Delft from the north, painting by Hendrick Comenius Ström, 1616 (StA Museum Prehistorical Delft). In the foreground the most conspicuous element is the tower of the unfinished Delftse kerk, which is built on the site of the tower that was destroyed in 1616.

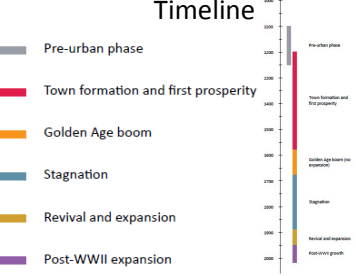


FIGURE 2

With respect to methodology and format we concentrated on the spatial aspects of urban development, on changes in shape and form. Geographical setting, landscape context, infrastructure, urban morphology and land use were therefore central in our approach. These elements we mapped, analysed and compared in an attempt at explanation. To identify a suitable angle of approach we first looked at each of the thirty-five towns individually (Part I of the atlas). The towns are presented in alphabetical order, by means of (see Fig. 2):

- 1 a chronological development map showing each town's built-up area for a fixed range of reference years from AD1200 to 2010;
- 2 an outline map showing in schematic fashion a number of factors that were crucial in the town's spatial transformation;
- 3 a Google Earth photo of the town in its landscape setting, with the names of e.g. housing estates, roads and watercourses that are mentioned in the text;
- 4 a timeline showing the most important periods in the town's genesis and development through time;
- 5 two characteristic images, for example a 17th-century town view and a recent aerial photograph;
- 6 and finally a text outlining and explaining the town's spatial development.

COMPARISON AND CLASSIFICATION

A comparison of the development history of the thirty-five largest urban municipalities in the Netherlands on the basis of the situation in 2010 and their spatial development between the 11th and 21st century allows us to identify five distinct categories:

- 1 the oldest towns,
- 2 second-generation towns,
- 3 the Big Three,
- 4 industrial towns, and
- 5 residential towns (Fig. 3).

Of the complete sample, twenty towns (the first three categories) originated in the Middle Ages as ports and/or trade settlements combining administrative and market functions. Of the remaining fifteen towns, most developed into substantial industrial or residential towns in the decades around 1900, while a few went through the same process in the last fifty years (Fig. 4).

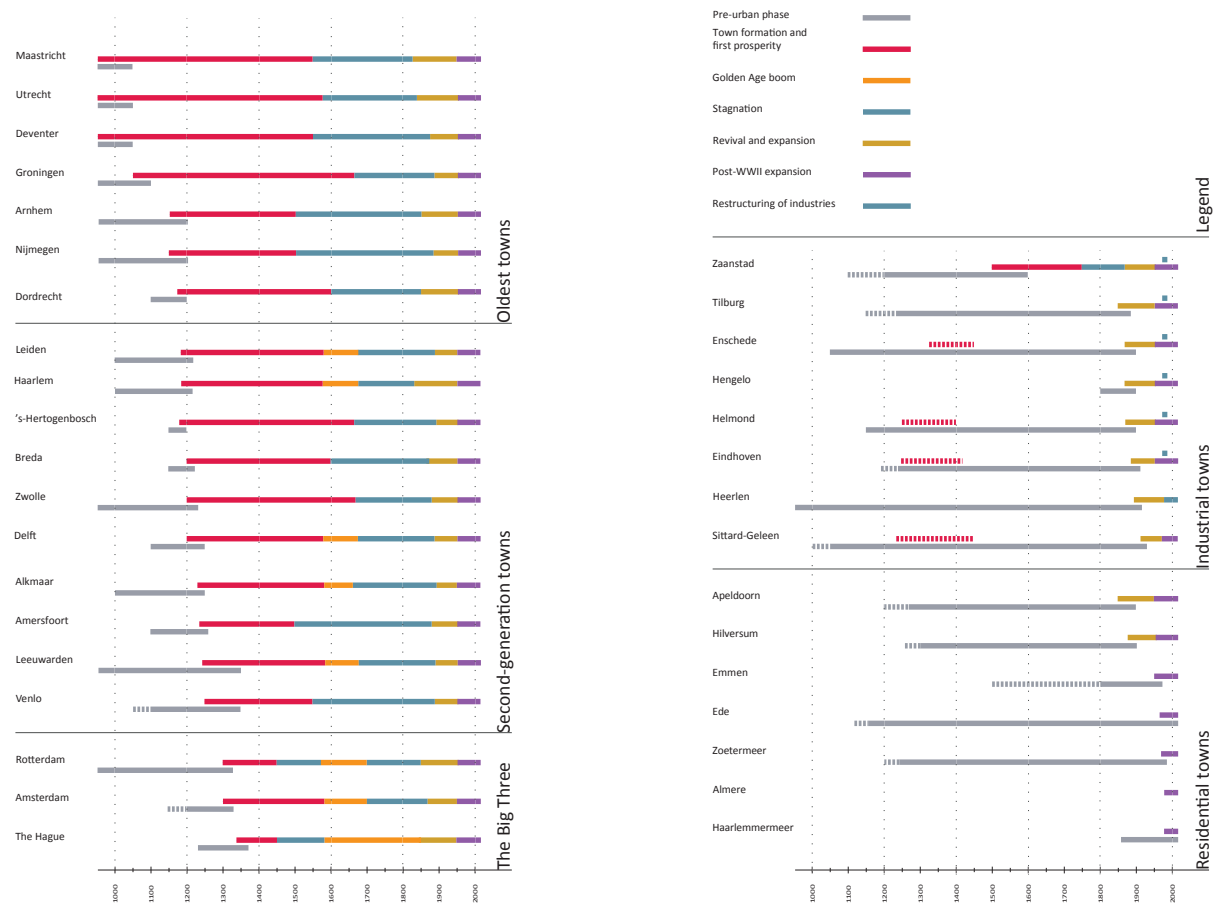


FIGURE 3



FIGURE 4

The comparison also provides us with a first inkling of the extent to which a town's specific formation and development history has influenced its present appearance (i.e. path dependency). It seems that the impact of this trajectory has been significant for most of the twenty towns with roots in the Middle Ages. In many of the oldest towns, a situation on one single river bank has been a decisive factor in spatial development to the present day. Other important factors were infrastructure and the changes affecting it. For centuries, waterways were decisive, but the construction of a railway network in the second half of the 19th century introduced major spatial changes and shifts in many of the medieval towns. The railways were crucial in the emergence of the new industrial towns and the earliest residential towns. The construction in the second half of the 20th century of the motorway network and the widespread adoption of cars inaugurated yet another era of profound change, and this time both older and younger towns were equally affected. The process moreover enabled the formation of the most recent residential towns, while the new, uniform housing extensions everywhere made all towns look increasingly alike.

A MILLENNIUM OF URBANIZATION

A look at the outlines of medieval and later urbanization reveals that the period from the 11th to the 14th century was an era of town formation. Economies blossomed and populations boomed. Over one hundred and thirty towns of various sorts and sizes emerged throughout the country (Fig. 5). In most cases their formation was closely linked to landscape transformations such as reclamations and interventions related to water management. A town's success greatly depended on its accessibility by water, on its position in the trade network and, associated with that, on its function as a regional or international market. Between the 15th and the 17th century some of these towns were still growing but no new ones emerged. The economic centre of gravity was the Holland region (today the Province of Noord-Holland and the Province of South-Holland). During the Dutch Golden Age, in the 17th century, a few towns in highly advantageous positions expanded (Fig. 6 and Fig. 7). These towns displayed a powerful economic and demographic growth, and together they formed a close-knit economic system with Amsterdam as the centre of international trade.

After the 17th century a period of stagnation set in, which lasted until the second half of the 19th century. In most of the towns outside Holland the onset of the stagnation was earlier, already in the 15th century. No significant spatial changes occurred in these towns until the end of the 19th century, a period of four hundred years. What might happen instead was either a condensation or a thinning out of the built-up area within the town, or the construction of new urban defences. In the second half of the 19th century a pronounced economic and demographic recovery set in, resulting once again in a close-knit urban system; this time, however, the system was not limited to Holland but covered the entire country. The recovery was closely linked to the new railway infrastructure, industrialization, and production for a growing world market (Fig. 8). In the decades around 1900, industrialization stimulated the formation of new industrial towns alongside the older, medieval ones. Suburbanization and commuting began in the same period, both giving rise to the development of new residential towns. The period after WWII saw the emergence of the welfare state and the construction of a motorway network, and it was the heyday of State-supervised spatial planning. New urban centres were built, existing towns expanded on an impressive scale, and built-up areas exploded in size as a result (Fig. 9).



FIGURE 5



FIGURE 6

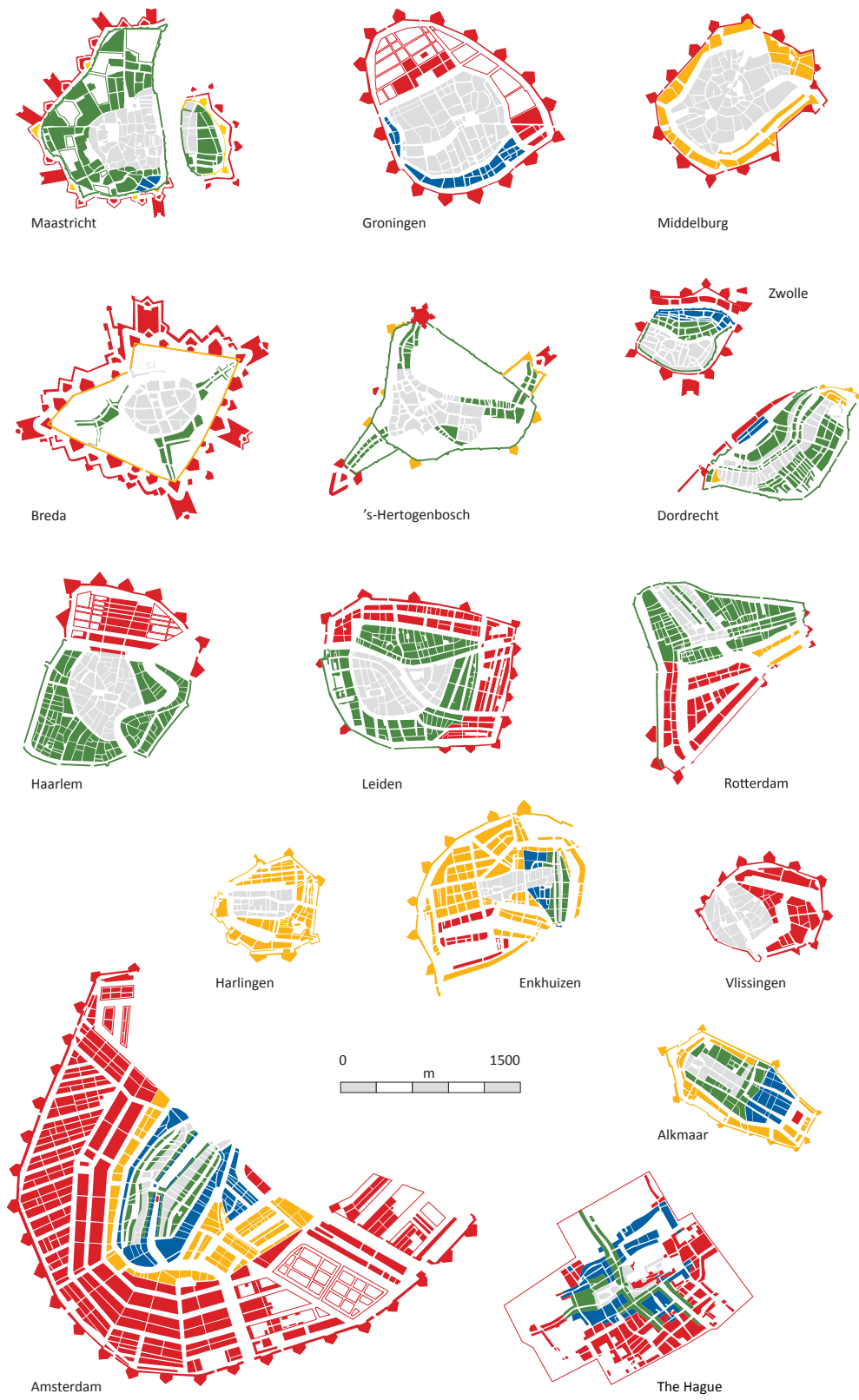


FIGURE 7



FIGURE 8



We may conclude that the economy and demography were not the only determining factors in Dutch town development throughout the ages but that also main infrastructures were of the utmost importance: rivers, railway lines and car roads. Until well into the 19th century transport by water was paramount, while between 1870 and 1950 this position was taken over by the railway network. In the second half of the 20th century the significance of the motorway network in turn overtook the railways.

In general the observed developments within our sample of the thirty-five largest towns in 2010 correspond to the overall urbanization process. Most of the Dutch towns emerged between the late 11th and the late 14th century. No new towns appeared after that period until the second half of the 19th century. This means that two periods were crucial in the formation of the modern urban distribution pattern in the Dutch landscape: 1100 to 1400, and 1870 to 1930.

From a long-term perspective, a number of peaks in town formation and expansion can be distinguished. After the piecemeal appearance of some towns in the 11th, 12th and 13th century dozens appeared at once between ca. 1270 and 1350. In the second half of the 14th century many towns expanded, and also the decades around 1600 saw many new urban extensions materialize, although fewer than in the late Middle Ages. The next major construction wave manifested itself centuries later, between 1870 and 1930, when not only many existing towns added significantly to their built-up area but new industrial and residential towns emerged as well, for the first time since 1400. The most recent peak occurred after 1950 in the form of large-scale urban extensions and the establishment of new residential towns.

A MILLENNIUM OF URBAN PRACTICE

Having sketched the main outlines of the urbanization process and the peak periods in town formation and expansion, we should now mention that urban practice, too, saw a number of crucial development phases in the late Middle Ages and in the 17th-century. The long period of stagnation formed a caesura, and in the second half of the 19th century urban practice had to be rebuilt from the bottom up before changing again around ca. 1900 and finally assuming some extraordinary forms after WWII.

A planned, systematic and comprehensive urban practice developed from the 11th century onwards. Aristocrats, clergy or entrepreneurs charged surveyors with the layout of new towns or urban extensions according to widely accepted organizing principles, such as standardized dimensions for building plots and fixed widths for streets and canals, taking into account the pre-urban situation and local economic, social and legal circumstances. Construction was in the hands of private individuals. Extant features in the landscape were incorporated, to the extent that the intended purpose of the plots allowed it and existing field and road patterns would be serviceable within an urban infrastructure, but straight roads were preferred over crooked ones, and a regular parcellation over an irregular one.

This practice hardly changed in the 15th and 16th century; in fact, the development of urban practice from the 11th-14th century to the 16th-17th century was marked by a high degree of continuity. The distinction commonly made between the Middle Ages and the Renaissance does not apply to urban practice. In the final decades of the 16th century, however, a number of innovations appeared. Social and functional segregation were now deliberately carried through in urban extensions; one new urban district might for example become a port, a second an industrial and working-class area, and a third a luxury residential zone. Street plans became more linear in tandem with innovations in fortification. New organizing principles increasingly dominated the plans, more so than they had done in earlier centuries.

After a period of over a century and a half without any major spatial shifts in the Dutch towns, urban practice revived between 1850 and 1900. Some major changes took place, in particular as a result of the fact that urban extensions no longer went hand in hand with fortification works. This was a highly dynamic period in which numerous factors and actors interacted. As was also the case between the 11th and the 17th century, the specific form in which urban extensions and new industrial and residential towns manifested themselves was often to a large degree determined by pre-urban conditions. The result was the product not only of location, cultural landscape type and infrastructure, but also of a town's earlier development history, its economic profile, the timing of the arrival of new railway connections and train stations, and last but not least the substantial involvement of private individuals. Private individuals in many cases initiated an urban extension.

Just as in the late Middle Ages, the active involvement of municipal authorities often lagged behind, and when it finally arrived was in response to a situation that had become intolerable: appalling housing conditions, or a hazardous urban environment. In 1901 the national government ended this period of unbridled local initiative by introducing the Housing Act, which allowed it to assert close control over urban expansion, construction and the involvement of private enterprise. State loans enabled housing associations to build large batches of houses, and well-regulated extension plans, building inspectors, and planning authorities became mandatory elements across the board. These developments gained momentum after WWI. It was a true revolution; since the 11th century the building process had been dominated by private initiative.

Because of the significant involvement of the municipalities in the urban extensions that resulted from the Housing Act, new organizing principles gradually penetrated urban practice in the first decades of the 20th century, and the influence of pre-urban structures on the specific form of urban extensions decreased. Greater government involvement, regulation, and the rise of urban planning and construction as an academic discipline combined to make the mandatory extension plans drafted by the municipalities starting to look more similar. Indeed, urban extensions began to appear increasingly uniform in the course of the 1920s and 30s. The arrival of a number of specialized urbanist and architectural design firms that operated on a national scale contributed to this trend towards uniformity. After WWII the process continued, supervised by the national government. While earlier, local building traditions and the wishes of private commissioners had contributed to a broad spectrum of building styles, after the 1920s a series of styles and fashions under State and municipal control dominated the scene, such as the Amsterdam School and Modernism. After WWII, if not already before, these developments all embraced the concept of the neighbourhood unit, a situation that has continued until the most recent urban extensions.

The changes in urban form and construction of the last few decades were minimal compared to the dynamic and highly varied urban practice of the period 1850-1900, or the 14th century. It is true that direct government influence on construction grew less after the mid-1980s, but the parties involved as commissioning bodies, such as housing associations and project developers, continued to operate on the same scale and within the same conceptual framework of the neighbourhood unit, often in collaboration with the same designer firms.

In the light of the long-term perspective of this atlas, the 20th century is an anomaly, especially the period 1950-1985. Never before were local and national administrations equally intensely and comprehensively involved in the development of towns within their jurisdictions, and never before have they to such a degree ignored actual economic and demographic developments. In the course of the 20th century towns became less distinct in their urban form but more so in their urban history (older, younger), their functional profile up to WWII (industrial town, residential town, administrative centre), their geographical location (on a river, on sandy soils, in the north, in the west), and their landscape situation (terrain, peat reclamations, beautiful green surroundings). Any differences in urban form after 1950 are mainly manifest in the locations of new housing estates and business parks, which were frequently determined by the situation and shape of the pre-WWII town, the character of any cultural landscapes present, and the course of main infrastructures. To conclude: towns today may appear

similar or different as a result of similar or different developmental and transformational trajectories since their origins. This is why a long-term approach of these developments is crucial to be able to understand the spatial manifestations of today's towns.

This text is based on: R. Rutte & J.E. Abrahamse (eds.), *Atlas of the Dutch Urban Landscape. A Millennium of Spatial Development*, Bussum/Delft, 2016. The figures are from the same atlas.

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