

Landscape shapes the city

The success or failure of big European cities was often closely linked with their location in the landscape. Today trade routes, water, food supply and safety are still crucial, and now there is climate change to contend with as well. It is time to look a hundred years ahead.

TEXT RENÉ DIDDE PHOTO PETER ELENBAAS

When you fly into Schiphol you can see for yourself how its good connections with the sea enabled Amsterdam to develop in the Middle Ages into one of the most important trading cities in the world. Moreover, its low-lying position and the soft soils that sank after the extraction of peat prompted the creation of a network of dykes and canals. This later grew into an excellent transport and trade network between the Dutch cities, facilitating fast export by sea.

‘The landscape played a coincidental but crucial role in the development of the Randstad,’ says Wim Timmermans, main author of *The Rooted City*, an essay about European capital cities and their links with landscapes around them.

The essay makes clear that these major European cities owe their success partly to the surrounding landscape, which offered advantages in terms of transport, trade, food supply and defences. Such advantages enabled certain cities to flourish through the centuries. On the other hand, the value of these landscape characteristics does not always remain the same. ‘If one of more factors change, the growth and prosperity of a city can suddenly stagnate and the city can go into decline,’ says Timmermans.

Durrës, for example, developed into the capital of Albania because of its strategic position with a safe rocky harbour and steep coast. But after two Balkan wars and the First World War, Durrës no longer seemed so unassailable. ‘In 1920 Tirana was given the status of capital,’ says Timmermans. ‘That city lay further inland on a sheltered swampy plain, surrounded by mountains and on two major roads.’

EXTREME WEATHER

Today too, cities are dependent on water, food, trade and defence. But they also struggle with traffic congestion, air pollution and problems that stem in part from their location. Delta cities such as Amsterdam and Venice, for example, are vulnerable to rising sea levels. Accessibility, heat stress and food supply pose problems for plateau cities such as Paris and Athens. Extreme weather, heat stress and flooding threaten mountain cities such as Tirana, Bratislava and Luxembourg. Studying patterns of growth and shrinkage in cities in relation to the landscape can help us analyse new challenges such as climate-related problems and address them before it is too late, Timmermans believes. And time is running out. In London and Sheffield, for instance, key infrastructure for



the economy is located in the valleys of flood-prone rivers. This problem is now acute, while the warning signs have been obvious for decades, notes the author.

HEAT PROBLEMS

Athens is heading for serious problems too, in the opinion of Timmermans and his colleagues. The city lies in an infertile bowl on the Attic peninsular, surrounded on three sides by mountains. Drinking water comes through vulnerable pipelines from two

mountain lakes 100 kilometres away. The city’s geomorphology – low-lying, surrounded by hills and sea – causes smog and heat problems in the summer. What should Athens do, given the limitations imposed by the landscape? Relocate the city? ‘They should at least think in terms of planning that covers 150 or 200 years,’ says Timmermans. The same goes for the Netherlands. ‘Even our long-term planning is actually dominated by short-term considerations,’ thinks

Timmermans. The ground in the Randstad [the urban belt comprising Amsterdam, Utrecht, Rotterdam and The Hague] will sink further, sea levels are rising and the rivers will bring down more and more water at peak times. ‘And yet when it comes to infrastructure we continue to concentrate on the Randstad. We just carry on investing in a tunnel here and talking about a new stretch of motorway there. But something that is an investment in the short or medium term can turn into a disinvestment in the long term. In a couple of hundred years the Randstad as we know it will no longer exist.’

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NEW COAST ROAD

Changes Timmermans expects by that time include the need for more space for green energy generation, and above all the more prominent role that will be played by sea level rises and salinization. Predictions are that the sea will be one metre higher in 2100 and will rise by the same amount again in the century after that. ‘Then the A58 will be a coast road, as it were, and Schiphol airport will be ringed by dykes and surrounded by the sea. We don’t have a crystal ball of course, but it makes no sense to stick our heads in the sand until things go wrong,’ says Timmermans. Amsterdam will only have a future if very costly investments are made. So he questions the sense of passively waiting to see what happens. ‘As an exercise you could develop a scenario in which you relocate the financial-economic side of Amsterdam to the eastern Netherlands over a period of 100 to 200 years, leaving only the tourist attractions in the same place. It would be sensible to start exploring these kinds of options now.’ ■

www.wageningenur.nl/en/rootedcities

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Its good sea access and its network of dykes and canals enabled Amsterdam to develop into an important trading city.