## **REVIEWS**

## MAARTEN VAN ACKER

From Flux to Frame: Designing infrastructure and shaping urbanization in Belgium

Leuven, Leuven University Press, 2014, 464 p., ISBN 978-90-5867-9581

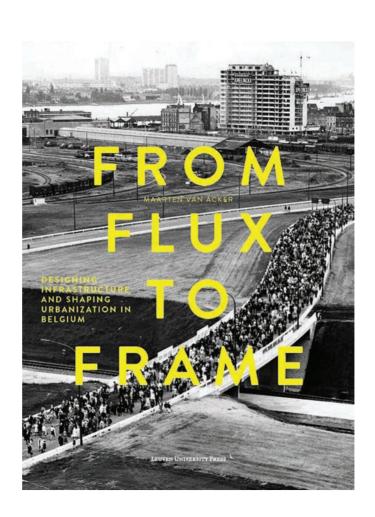
With From Flux to Frame. Van Acker has written an appealing, richly illustrated study which investigates the impact of infrastructure on urbanization in Belgium from independence in 1830 onwards. The concept of 'flux' corresponds with infrastructure and refers primarily to the flows of people and goods that infrastructures aims to support. Van Acker tries to get beyond the technical parameters of infrastructure projects and, above all, to uncover the societal goals involved in their construction. His research mainly targets the urbanization ambitions that were embedded in infrastructure designs. In the past two centuries, and long before, the infrastructure bound flux stimulated the emergence of 'frames', which Van Acker describes as specific local urban clusters that potentially result from infrastructure projects.

To get from 'flux' to 'frame' Van Acker employs a third central concept. This is 'fastening', the process by which the fluidity of flows is anchored in the urban built environment. The case studies that Van Acker puts central in his book form detailed studies of this process of fastening in three different regions: the Campine, the Belgian coastline and the ringroad around Antwerp. The choice fort the level of the region is a conscious one as, according to Van Acker, it is an appropriate level to investigate the transformation of territory and landscape.

Works from scholars studying the morphology of infrastructure networks in relation to their impact on urbanization inspires the book, as does works on the urban sprawl of the present-day from the point of view that infrastructure has been one of the driving forces behind it. The available literature devotes considerable attention to specific moments or phases in certain cities or personalities who have played a major role. Think of examples such as Georges-Eugène Haussmann for Paris, or Robert Moses in New York. The ambition of the book is to connect urban research as part of the historical discipline with its infrastructure counterpart by simultaneously using insights and methodology from geography and architecture.

The three case studies are all geographically concentrated in Flanders: a fact for which a more explicit and clear reason could have been given. At the same time, the three cases have been carefully selected and complement each other well. This strengthens the convincing power of the study, because it allows Van Acker to demonstrate comparable processes in three quite different contexts. The new element resides in the level of detail with which Van Acker manages to dissect the connections between infrastructure development and urbanization. He correctly observes that the literature has often claimed infrastructure to be important for urban development. Nevertheless, that particular relationship has rarely been researched systematically, certainly not as systematically as Van Acker does himself.

The second part on the Belgian coastline illustrates the procedure of the book well. Around 1830 the coast was still a scarcely populated region. Today it has grown into a strongly urbanized area that functions as a national tourist resort. The tourist flows form



a *flux* of major proportions that has given occasion for the frame of the seaside resorts along the coast and an urbanized coastal strip. The study portrays this specific fastening process in four steps.

In a short first section (pre-1830) Van Acker investigates the channels and coastal defense works up until the first half of the 19th century. The second step (1830-1885) consists of the stormy development of the railways, which resulted in the main turning point in modern history for the coastal area. lust as elsewhere, the increase in coastal tourism was closely connected with the development of the railways. Around the middle of the 18th century modern tourism had arrived from Great-Britain which was, in many respects, its birthplace. The ensemble of tourist technologies was more complex than railway development alone, however. In addition to organising the logistics of tourism, the continuous development of sites worth seeing required constant attention from within the tourist business. On the Belgian coast the infrastructure character of the creation of tourist hotspots was clearly visible.

For example, large infrastructure projects to protect the coast against the whims of the sea simultaneously functioned as attractive boulevards that provided a promenade for seaside visitors. The coastal defense works were often erected right at the sea's edge, creating strips of land that were soon used to construct holiday villas; they later gave way to sometimes colossal apartment complexes. Along with the urbanisation of the coast came the desire for mutual connections. While the railways brought passengers from the interior to a number of locations on the coast, a coastal tramway and the Royal Route

(Koninkliike Baan) developed parallel to the beach, a third step (1885-1935) in Van Acker's argumentation. Thus the coastal towns grew into an interconnected, urbanised zone from Knokke-Heist close to the Dutch border to De Panne near the French border.

The tramway's first section opened on the eve of the tourist season of 1885 between Ostend and Middelkerke, and eventually grew into what is still the longest tramway line in the world. The emergence of the automobile around the same time gave occasion for the construction of the Royal Route, which became the first road in Belgium to be asphalted in 1902 for the comfort of its motorised users. These two carriers of flux also intertwined at several points of the trajectory where the tramway was running along the 7-metrewide middle section of the Royal Route. At the same time, parts of the fragmented dunes were re-forested for the embellishment of the tourist landscape; a form of green networking. From the mid-1930s, a forth step (1935-1985) completed the transformation of the Belgian coast into the international tourist venue in roughly its current shape: the expansion of het road network which became a finemeshed network supporting automobilisation. It left less room for other modalities than in the past.

In similar fashion, Van Acker arrives at periodisations for the two other case studies on the basis of the various infrastructure networks that had been important there focused on, amongst others, the canals and the Iron Rhine for the Campine, military fortifications and ring-roads around Antwerp. The study thus illustrates the deep roots of the co-construction of technology and society and of infrastructure and spatial planning

which has been on the agenda in the history of technology for a while. The study also resonates with the more recent call, within mobility history and the history of technology. to research the interweaving of infrastructures. Although this has often been called for, it has rarely been put in practice. In part, this is undoubtedly the result of the time-consuming character of such an approach. From Flux to Frame ought to be praised that it has taken this seriously.

In fact, Van Acker even belittles his own work to a certain extent by stating his main question as the extent to which "linear transport systems were conceived as spatial organizers in the urbanisation in Belgium". His study is broader than that, because it also integrates parts of the energy system (in the part on the Campine) or coastal defense in his analysis. Van Acker's book gains power by devoting attention to a wide range of infrastructures, with which he can shed light on the infrastructural interweaving and the influence of infrastructure in addition to the logistics of the transport of people and goods on the urban environment.

Last but not least, it is worth mentioning the visual material that the book employs as part of building a dossier of evidence. Many maps and other visual sources, through which Van Acker has sketched bright yellow lines to emphasize certain traits, effectively support his lines of thought. This method is convincing and enables the reader to weigh the source materials alongside the text. This method also turns the book into a feast for the eye. All considered, Van Acker has managed to demonstrate and illustrate the mutual interweaving of infrastructure development and urbanisation in Belgium very well. It

can only be hoped that other researchers will apply similar methods to cases in other parts of the world. This will eventually enable us to arrive at comparative studies that can enlighten us with regard to whether the patterns that Van Acker uncovered can also be found elsewhere.

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