

# Renewed *boezem*,

(re)vitalizing the *boezem*-system in the Randstad as the multifunctional backbone of the landscape.

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## Abstract

### Summary

In this paper the authors will argue that the *boezem*-system, the main water drainage system of the Dutch polder landscape has lost its prominent spatial role and its explicit form.

The deprivation of function has led to a disconnection between the *boezem*-system, the polder landscape and the urbanization. The necessary alteration of the water system demands, among other functions, water storage. The renewed *boezem*-system could become again the structuring element in the lowlands.

The paper will consist out of the following elements:

- History of the '*boezem*' system
- Shape, spatial appearance of the *boezem*
- Spatial elements connecting the polder land, the urbanization and the *boezem*
- Changing role & environment
- Conclusions

### Boezem-system

The *boezem*-system in the West of the Netherlands is a complex system consisting of old peat rivers, canals, ditches and lakes. In order to understand the system it is important to map and describe its current state. In essence, a *boezem*-system is a network of water bodies, which stores water coming from the low-lying polders. The surplus water is transported out into a river and/or into the sea by means of a pump or discharging sluices.

### Historic spatial relevance

Historically, the *boezem*-system played a steering role in the development of the lowlands. Cities and settlements developed along or at the end of a peat river and later, along canals. Waterways had a strong multifunctional character providing for transport of goods, people and water and forming a

physical connection between cities and between the city and the countryside. At the same time, the *boezem* structured the development of the agricultural land.

### **Loss of functionality**

Due to new powerful water management technologies, which became partly invisible in the landscape, the connection between polder water, city water and the *boezem*-system changed drastically. It became a very functionally orientated system. In many cases the visual connection, in the first place represented by pumps, '*in-between boezems*' or other waterworks got lost.

*Boezem* and polder water were no longer providing water storage and transport of goods and people. They were solely used to discharge the water as quickly as possible. Other intermediates like wetlands on the edge of a polder, wider *boezems* and lakes disappeared under the pressure of occupation and the rationalization of the agricultural landscape.

### **Renewed demands**

Currently, more and more surface water is reintroduced into the landscape due to an increased demand of water storage, shortage of (fresh) water and increasing (recreational) traffic between city and countryside. Renaturalisation of the cultural landscape has become common practice. In what way all these projects contribute to the water as a comprehensive network, as part of the *boezem*-system, is the question that is at stake.

### **Potentials**

By integrating today's water demands, the technical knowledge on water management and the still existing spatial relation of the Dutch water landscape explicitly, the *boezem*-system could reclaim its central role in the landscape.

### **Presented research**

To support these hypotheses, the authors will present drawings of today's *boezem*-system and polders in the Randstad area. Detailed zoom-views of the map will show examples of spatial interesting connections, where water is expressed as a spatial system.

The research presented, will contain among other:

- A comprehensive map of the existing *boezem*-system in the Randstad.
- In-depth analyses of spatially interesting details of the *boezem*-system.
- Examples of a study on the visual relation between polder water, the pump(building) and the *boezem*-system.

The authors will base their research on 'The Polder Atlas of The Netherlands', Steenbergen a.o. , published in 2009, by Birkhauser.