



## 主防线——荷兰新水系

Main Defence Line — New Holland Waterline

撰文  
图片提供

隐藏在优美景色中的主防线时断时续、时隐时现，仿佛披上了一层神秘的面纱。

主防线是“荷兰新水系”的一部分，它在施工过程中充分利用了原有的堤坝和自然下沉区。荷兰水系分为三个区域，分别是湖区（Vecht区）、乌得勒支区和河区，每个区域都具有自己独特的景致和防御系统。主防线包括密集广阔的防护区，所有部分形成一个多元素组成的复杂系统。沿防线分布着诸多的要塞、水闸和其他小型水利工程以及后来修建的炮台。大量穿越堤坝的沟渠尽管不能直接看到（这些沟渠的位置只能在设计图上看到），但它们却是溢洪体系的重要组成部分。

景观创造机会

主防线贯穿三种不同景观——它在每种景观中的表现各具千秋，景观亦为它提供了丰富的想像空间。湖区的水面美轮美奂，仿佛即将溢出一样；乌得勒支区随处可见的胆小鬼雕塑栩栩如生、惟妙惟肖。主防线与城市肌理完美的融合在一起，河区的景致大多都藏于侧堤相对连续一侧。人们在这里不仅能够最真切地感受到主防线的延绵，而且只有在这里才有可能看清主防线和道路、要塞、炮台的关系。

干预  
全线 85km 的主防线无论是自然风光还是在休闲性上都颇具声望。因为大量的沟渠和邻近基础设施的存在，正在修建的自行车道尽可

能的沿着主防线的轨迹。主防线在功能上应该是连续性的，而整体性取决于自行车道的总体印象。

设计中充满诗意的一面是将“沟渠作为景观干预的标志”。巧妙地展示出该项目的细节设计，使得部分被隐藏的防线一目了然。

两处精心之作：De Gagel 要塞、Tienhoven 要塞

De Gagel 要塞守护的通道是诸多需要沟渠来加快溢洪过程的通道之一。一条狭长的泻水台仿佛薄纱一般沿堤坝展开，它精细的切边两侧是错落的水台。因为泻水台是不对称地穿过通道，人们的视线常常被引向南面——沟渠在一个平台上被继续延伸到更开阔的地方。主防线与原来的一条道路相连，路的尽头是一个观景台，人们可以在这里看到战时散落在战场上的掩体。沿着 De Gagel 要塞的一条蜿蜒小路引领着人们走向要塞，旁边的一条小路则通向 Ruigenhoek 要塞。

Honswijk 要塞隐蔽的社区道路连接了 Lek 北部的许多防御工事，它也是荷兰新水系的组成部分。原来隐藏的水面、道路和堤坝，在荷兰新水系的规划中都被打造成很容易看到的休闲场所。除了修建和翻新建筑物、土岸和观景台之外，自行车道和步道的修缮也增强了该项目的部分休闲功能。

Honswijk 要塞的隐蔽社区道路并不是一个防水堤而是一个防御要塞，作为系统的主防线

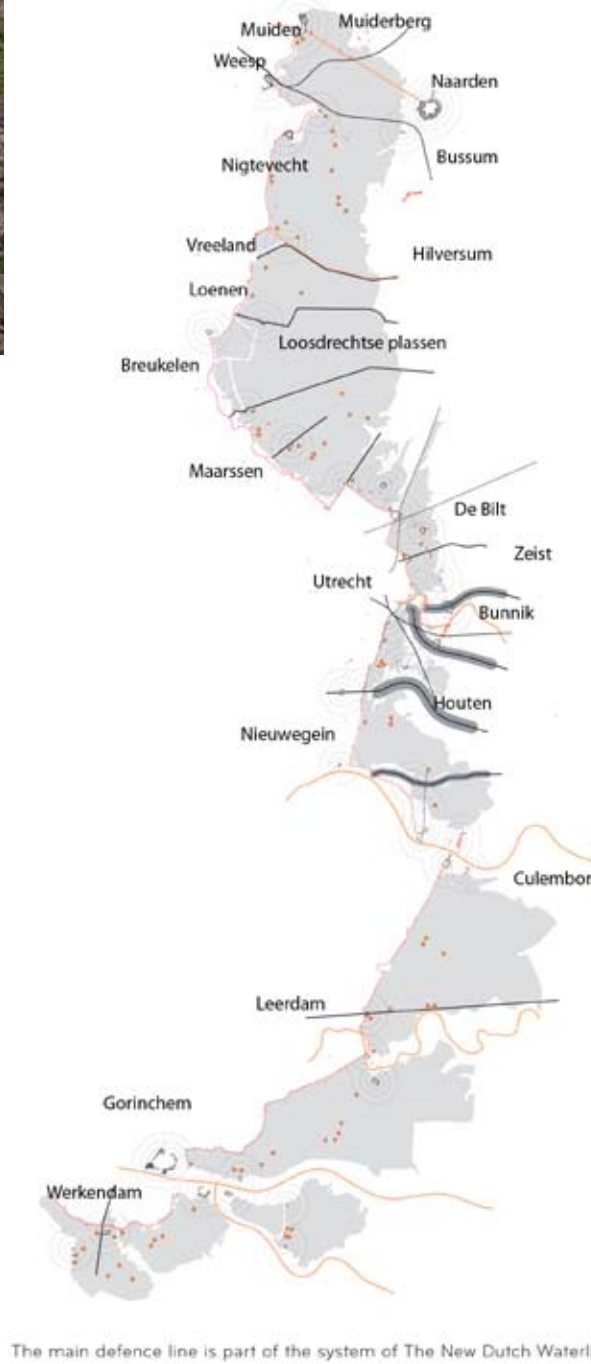


其不仅仅是一条具体的线路，它更需要精细性和明确性。沿着堤坝的通道不仅让人们能够深刻地体会到它的防御作用，还是人们闲眼散步的理想场所。通过地面通道的一个入口人们可以抵达水面。南面是一系列堤坝，它们使防御工事更加有效。

主防线的规划是在干预的基础上打造富有可读性的景观，并通过这些景观使防线时时处处都不变得那么突兀。

Tienhoven 要塞周边的景观具有丰富的历史，其目前的空间设置展现立法的发展历程。景观随着时间的变迁而不断变化。在荷兰新水系规划中，沿线的景观设计已经按照未来的发展变化被制定出来。

Tienhoven 要塞建于 1848 年~1850 年，由



The main defence line is part of the system of The New Dutch Waterline



一个 15cm x 15cm 的防御警卫室组成。它的作用是关闭 Tienhovensche 运河，保卫附近的码头、水坝水闸和 Kraaiennester 水闸。

乌德勒支——眼镜堡 (Houtense Vlakte)

始建于 1822 年的眼镜堡是保卫乌得勒支的首道防御线。1843 年，人们在这里修建了通往阿纳姆的火车道。四个眼镜堡成为新荷兰水系的又一亮点。这种独特的防御工事在沿线的其他地方都不曾出现。眼镜堡前面的地区很难被淹没，因此在这里修建了很多的防御工事。此外，这里两个重要的通道——Kromme Rijn 和 Koningsweg 也需要防御。如今，这种技术易于实现，但其可持续性发展的未来目标能否实现仍不得而知。此外，修建大容量车道和火车道线路加倍等问题也是该地区需要面对的问题。

荷兰新水系的整体性受到了国内民众的广泛关注，而且它也是荷兰结构蓝图和绿色结构等市政规划的重要方面。





Hidden and tucked away in the landscape the main defence line forms a secret line. There has never been talk of a continuous lining. The main resistance line in a way is just an unclear and diffuse line. The main defence line is a special line; hidden and tucked away in the landscape it forms a secret line. The line is part of the "New Dutch waterline". At the construction the existing embankments and natural depressed areas are used as much as possible. Therefore the Dutch Waterline can be

divided into three zones, the lake area or the Vecht area, the Collar of Utrecht and the river area. Each characterized by its own landscape and defence system. The line contains intensive and extensively defended zones. In its totality it forms a complex system of elements. Spread along the line are a sequel of citadels, an enormous amount of smaller objects such as sluices and other water-scientific works and the later added casemates. Not directly visible, but an essential part of the inundation

system, are a large number of cuts to be made in the embankments.

Landscapes offer opportunities

The main resistance line runs through three different landscapes and behaves different in each one. The Dutch Waterline complies with the underlying landscape. The three landscapes offer different opportunities for the imagination of the Main defence line. The elaborate water in the Vecht area and the lake area offer an opportunity to see the waterline in a state of inundation. The opportunity around Utrecht is the large number of recreants who are able to reach the Main defence line in a short period of time. The Main defence line is intertwined in the urban tissue. The opportunity for the river area is hidden in the relatively continuous lines over the side dikes. The feeling of a continuous Main defence line is strongest there.

Especially in the river area it's possible to extricate the relationship between Main defence line and intensifying in the form of access, citadels and casemates.

Interventions

For the full 85 kilometre the line gets a report of scenic and recreational articulation. The ongoing bicycle route will follow the trace of the main resistance line as much as possible. In a functional way it is about creating a continuous line, which is important, because of the large number of cuts and parallel adjoining infrastructure. A lot depends on the first impression of the route.

The poetic side of our approach is creating a 'cut as a sign of intervention'. By making cuts, particularisation can be connected to explanation.



The means of a cut is suitable, to make (partially hidden) systems visible.

Elaboration of two special places

The Gageldijk

The access defended by fort De Gagel was one of many that were pointed out with a cut to fasten the inundation process. A long and narrow water-table is made through the dike, accommodating a thin membrane of water. With an excellent cutting edge on both sides, an increased water level is represented. Because the table asymmetrically cuts the access, the view of the person passing is directed to the Southern directions, where the line of the cut is continued in a platform directed to the openness. The line connects to an existing path and ends with a viewpoint from which one has a beautiful view of the scattered series of bunkers in the field. A winding path leads the person back along fort De Gagel; a side path takes them to fort Ruigenhoek.

The covered community road at Fort Honswijk connects a number of defence works at the Northside of the Lek, as part of the New Dutch Waterline. The water, the roads and the embankments have a hidden purpose, which is put back on stage within the scope of the recreational development of the New Dutch Waterline. Besides reconstruction of the buildings, re-profiling the earthen bank and making a viewpoint, partial recreational use can be enhanced by improving cycle and foot paths.

The Covered Community Road at Fort Honswijk is not a damming embankment, but a defence embankment. The main defence line as a system calls for particularization and explanation, much more than concrete lining. By adding the 'cut' through the embankment, the defensive character of the embankment has been made experiential and a short walk is made possible. The water lying behind becomes accessible by an entrance through the cut in the ground. Southwards, a series of step stones form a staircase over the embankment,



making the defence work accessible.

With that, the plan for the main defence line is based on making intervention producing a readable landscape, by which the line does become special but not always and everywhere.

Fort Tienhoven

The landscape around Fort Tienhoven has a rich history. The current spatial construction is the result of this legislative history. The use of the landscape has gradually changed over time, whereby the image of the landscape changes. For the New Dutch Waterline, the line perspective has been drawn up, which adapts to the future changes in the line landscape.

Fort Tienhoven was built in 1848-1850 and consisted of a defensible guardhouse of 15 x 15 meters. Its purpose was the closure of the Tienhovensche Vaart and to guard the adjoining inundation quay, a dam sluice and the Kraaiennester sluice. Next to the citadel, two entrenchments were constructed.

Utrecht – Lunetten

The Lunetten are part of the first belt of defence-works around Utrecht, the construction was started in 1822. In 1843, the railway to Arnhem was added to that. The four Lunetten form a special part of the New Dutch Waterline; you will find this form of defence nowhere else in the line. Since the area in front of the Lunetten (the Houtense Vlake) was difficult to inundate, it was necessary to add more fortifications. Besides there were two important accesses here (the Kromme Rijn and the Koningsweg) that needed to be defended.

The current technical state of the Lunetten is mediocre. The direction of development of possible sustainable destinations for the Lunetten is still unclear. Besides that, this area also has to deal with developments such as the construction of the HOV-lane and a railway doubling. Further, there is a lot of national attention for the New Dutch Waterline as completeness and the NDW is also mentioned as an important aspect in the municipal plans such as the Structural Vision and the Green Structure plan. **LD**



发起人：新荷兰水系项目公司  
 联系人：Vera Cerutti  
 占地面积：Vecht 区——369369 0000m<sup>2</sup>；  
 乌德勒支区——504 0000m<sup>2</sup>；  
 河区——5260000m<sup>2</sup>  
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Initiator: Project agency New Dutch Waterline  
 Contactperson: Vera Cerutti  
 Area: Vechtzone - 369 0000m<sup>2</sup>,  
 Utrecht - 504 0000m<sup>2</sup>,  
 Riverarea - 5260000m<sup>2</sup>  
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