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法国南特市布缇尔-橡树生态区设计

Bottière-Chênaie Eco-district in Nantes, France

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摘要 ……

布缇尔-橡树生态区项目植根于当地的历史和地理条件。其设计通过凸显当地的特色来决定如何在场地中对项目进行安置，以及如何将该项目作为一个整体来定位，在过去农耕时代遗留下来的地块框架上行生出了新的公园和公共空间。

关键词 ……

法国；生态区；场地历史；雨洪管理

Abstract ...

The Bottière Chênaie Project was rooted in the site's history and geography. Our work looks to express these attributes in order to anchor the project in the site, to position it as a single place. The park and the public spaces are in keeping with the framework of parcels from the past agricultural occupation.

Key words ...

France; Eco-district; Site History; Stormwater Management

项目地址：法国南特市

项目面积：35hm²

项目委托：南特市大都市区

景观设计：Bruel Delmar景观设计事务所

项目费用：2 800万欧元

首席设计师：Delmar Christophe

项目团队：Jean-Pierre Pranas-Descours（建筑及城市设计）、Confluences Ingenieurs Conseil 工程公司（水处理）、SCE Amenagement & Environnement 工程公司（道路技术）

设计时间：2008~2010年

建设时间：2011~2015年

所获奖项：2009法国生态社区国家奖

2011法国行业协会城市艺术类罗贝尔·奥泽勒奖

2012法国区域管理局城市设计与公共空间区域类一等奖

Location: Nantes, France

Area (size): 35 hm²

Client: Nantes Metropole

Landscape Architecture: Atelier de Paysages Bruel Delmar

Cost Item: EUR 28 million

Chief Designer: Delmar Christophe

Project Team: Jean-Pierre Pranas-Descours (Architect and urban planning); Confluences Ingenieurs Conseil (Water treatment); SCE Amenagement & Environnement (Road technology)

Design Period: 2008 ~ 2010

Construction Period: 2011 ~ 2015

Awards: 2009 France National Prize of Ecological District Prize
2011 Urban Art Prize of Robert Auzelle Prize (France National Association)

2012 the Regional First Prize for Urban Design & Public Space (France Regional Authority)



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| <ol style="list-style-type: none"> 1. 重新展现在世人眼前的溪流重新连接了社区 © Atelier de Paysages Bruel Delmar 2. 总体规划 © Atelier de Paysages Bruel Delmar 3. 共享花园及新的社区 © Atelier de Paysages Bruel Delmar | <ol style="list-style-type: none"> 1. The reopened brook restores connections between the neighbourhoods © Atelier de Paysages Bruel Delmar 2. Master plan © Atelier de Paysages Bruel Delmar 3. Shared gardens and new neighbourhoods © Atelier de Paysages Bruel Delmar |
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布缇尔-橡树生态区项目植根于当地的历史和地理条件。土地利用的痕迹记录下了这里的历史，地质积淀留下了层层承压地下水。因为被允许开凿取水井和进行土地开发，人们利用这个优势在城镇入口引进了果树的种植。

我们的设计通过凸显当地的这些特色来决定如何在场地中对项目进行安置，以及如何将该项目作为一个整体来定位。新的城市框架、公园和公共空间延续了过去农耕时代遗留下来的地块框架。本着对历史积淀的尊重，新的设计方案以现有石墙的线性结构为基础而建设。

呈东南-西北走向的公园成为了连接旧的杜隆社区和布缇尔的社区住宅的纽





4, 5. 河道收集来自购物中心的雨水 © Atelier de Paysages Bruel Delmar
 6. 在公共图书馆建筑周边收集雨水 © Atelier de Paysages Bruel Delmar
 4, 5. The canal collecting the rain water from the mall © Atelier de Paysages Bruel Delmar
 6. The ditch collecting the rain water from the public library © Atelier de Paysages Bruel Delmar

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带，并为新开业的购物中心增光添彩。城市公园还与新的城市密度息息相关，起到了平衡城市密度的作用。公园内主要的乡土植被将有助于展现该地区恢复后的自然景观。我们渴望重现古哈河的想法源自于渴望表达对这片土地，尤其是对其地理特征的怀念。古哈河不仅成为了公园的心脏，也是新社区的雨水汇集点，雨水经由沟渠与河道汇集于此。城市街道既是可供人、自行车和汽车混行的道路，还充当了城市雨水收集渠的角色。新建房屋窗下50%以上的公共空间都将被植被覆盖，这将有助于减缓全球气候变暖所导致的区域变暖，并为该生态区带来新的生态景观。

人们过去对这个地方的认识所留下的痕迹在场地中比比皆是。其中，一些用于储存灌溉用水的水库与保留下来的水井相连，形成了该地区的一大特色。除了保留

和恢复其中的一些特色，我们还计划利用风能来补给公园未来的用水供应。为此，我们在该地区的不同地点设置了7个收集水源的风涡轮机，其中有4个用于浇灌菜园，其余3个用于在旱季为运河补给供水。

但是我们的工作并不仅仅止步于总体规划和公园设计。我们的设计理念的其中一个重点就在于重新梳理公共空间、街道、小巷、通道和广场，并借此机会创造出新的共享空间：能够满足汽车、自行车、行人和残疾人多种需求的混行空间。这类空间与大自然和谐共生，在有助于更新城市环境的同时，也提高了城市的生物多样性。新的街道和小巷彼此连接，创造出一个服务于行人和非机动车的框架。孩子们不需要穿过任何车流繁忙的交通干道就能到达学校或公园绿地。这种安全的交通方式，不仅能够改变城市的面貌，还使

得新居民的生活变得更加宁静。

汽车的停放问题成为了有待解决的关键问题之一，我们需要在不破坏项目的自然氛围的前提下进行设计，而不是沿街设置一排排的停车位。每个街区都需要一定数量的地下停车场，且每间公寓都需要配有一个停车位。令人欣慰的是，四通八达的公共交通网络使得这种低密度的停车位设计得以实现。项目中还设计了能够为游客提供停车位的小型户外停车场。这些小型停车场由矮墙和果树形成的围栏围合而成，唤醒人们有关当地园艺种植的记忆。基于以上策略，我们能够将街道划分为均等的两部分：50%的硬质铺装和50%的植被。混凝土路面与可以收集邻近建筑和公共空间的雨水的浅水渠相邻，构建了一种适用于不同水循环体系的方式。收集到的水循环流经该区域，沿着这些街道流向主河道。该河道能够存储和管控十年一遇的

洪水水量。这些水渠中种植了耐湿植物，如柳树、桤木、水曲柳，以及低矮的芦苇等多年生草本植物。这些植物可以使水在最终流入河流之前完成净化。

该区域中的主要开放空间被新近命名为“库斯托纪念场地”，是为了纪念法国著名的海洋生态学家雅克-伊夫·库斯托。这个场地朝着一个“足浴盆”——一个收集小斜坡汇水的浅水池。这个水池是雨水流入古哈河之前的最后一个雨水收集控制点。

如今，古哈河成为了该地区的“灵魂”，缓缓流淌至这个新的公共公园的中心。夏季，河流为儿童提供了嬉戏玩耍的机会，有时成年人也会到此，在这条被重新发掘的河道中享受、放松。这部分的设计方法非常具有代表性，充分展示了我们团队的项目所想要达到的最终境界。我们的设计手法就是了解每个特定的场所，然

后对该场所过去或现在所具有的所有特质进行展现。我们曾在对南特市的探索过程中发现了一条小河，它在20世纪60年代左右被征用为市政管道，当时我们不得不尽力说服委托方同意对其进行开掘，使水景得以重现。那时人们会质疑水质是否被污染？是否太深？对儿童是否安全？但如今，没有人会疑虑在大自然中享受时光时是否会存在危险。政府当局也鼓励家长和孩子们前去了解并欣赏新的布维尔-橡树生态区。**LAF**

- 7. 重新展现在世人眼前的古哈河 © Atelier de Paysages Bruel Delmar
- 8. 孩子们喜欢在古哈河边嬉戏。© Jean-Dominique Billaud
- 9. 重新展现在世人眼前的古哈河成为了公园的核心。© Atelier de Paysages Bruel Delmar
- 7. The rediscovered Gohards © Atelier de Paysages Bruel Delmar
- 8. Children like to play around the Gohards brook. © Jean-Dominique Billaud
- 9. The rediscovered brook is the heart of the park. © Atelier de Paysages Bruel Delmar





The Bottière-Chênaie project is rooted in the site's history and geography. A history marked on the ground by our occupation, a geological past that had left layers of confined ground-water, allowing boreholes and human occupation, taking advantage of this situation to introduce parcels of gardening at the town entrance.

Our work looks to express these attributes in order to anchor the project in the site, to position it as a single place. The new urban frame, the park and the public spaces are in keeping with the framework of parcels from the past agricultural occupation. In a spirit of sedimentation, the new script is drawn over the lines of the existing walls.

The park, facing southeast and northwest, asserts the new link between the old Doulon neighborhoods and Bottière community housing, while escorting the new mall. An urban park that goes hand in hand with the new densities, the predominantly indigenous vegetation will contribute to the expression of a nature regained. The wish to uncover

the Gohards Brook comes from wanting to express the memory of these places, and in particular, their geography. It becomes the heart of the park and the collection point for the new neighborhood's rainwater, which makes its way here via channels and canals. The streets also facilitates this work, acting as collection ditches for rainwater and as concrete path shared amongst pedestrians, cyclists and cars. Under the windows of the new houses, vegetation occupies more than 50% of the public spaces, contributing to a slow-down in the local warming due to global warming and bring a new ecological landscape in this eco-district.

There are numerous traces of man's understanding of the site from the past. Among them, several reservoirs that stored water, whose links to wells remain and form part of the identity of the place. In addition to preserving and restoring some of them, we planned to use wind energy to revitalize the provision of water for the future allotments and the park. Therefore, we set up wind

turbines to raise the water in different parts of the area. There are seven of them; four are used to irrigate vegetable gardens and three to replenish the water of the main canal during dry periods.

But our work is not only in the master plan and the park. An important part of the concept focuses on the public spaces – the streets, alleys, passages, squares, in order to take the opportunity to create new spaces to share. Shared spaces for all types of vehicles, cars, bikes, pedestrians and handicapped persons; sharing with nature and contributing

- 10, 11. 充满了雨水的“足浴盆” © Atelier de Paysages Bruel Delmar
 12. 雨水径流收集渠 © Atelier de Paysages Bruel Delmar
 13. 橡树社区中的人行小巷 © Atelier de Paysages Bruel Delmar
 14. 沿着小巷的草地及果树 © Atelier de Paysages Bruel Delmar
 10, 11. The "foot bath" filled with rain water © Atelier de Paysages Bruel Delmar
 12. The ditch collecting the runoff water © Atelier de Paysages Bruel Delmar
 13. Pedestrian alley of the Sècherie neighbourhood © Atelier de Paysages Bruel Delmar
 14. Grasses and fruit trees along the pedestrian alley © Atelier de Paysages Bruel Delmar

to the refreshment of the urban atmosphere as well as bringing more biodiversity into the city. The new streets and alleys communicate with each other to create a framework for pedestrians and soft mobility. Kids can reach their school or the public park without crossing any busy traffic road. This safe way of navigating, of changing urban attitudes and collaborating to make life more serene for the new inhabitants.

The question of car parking was one of the first issues to solve in order to fill the canvas with nature rather than with rows of parked cars on the streets. Each block requires a certain amount of underground car parking, one for one apartment. Fortunately, it is a very low ratio largely due to the extremely

rich offer of the public transport network. There is also some outdoor visitors parking. They are, surrounded by low walls and fences of fruit trees, like enclosures which evoke the horticultural past of the site. This preamble allows us to share the streets in two equal parts: 50% mineral / 50% vegetation. The concrete pavement offers a path for all types of circulation, which are close to the low ditches, collecting rainwater from the surrounding buildings and the public spaces. The circulation of the collected water goes through the area, going along these streets towards the main canal that stores and acts as a flood control measure against the one-in-ten-year flood. The ditches are planted with hygrophilous vegetation such as willow



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trees, alder and ash trees and a low level of mixed perennials based on Phragmites. The vegetation helps to purify the water before finally releasing it into the river.

The main plaza, newly named 'place du commandant Cousteau' in honor of this famous French sea ecologist Jacques-Yves Cousteau, is orientated toward a kind of 'foot bath', a low water pool reached by a slight slope. This is the final point of water collection and control before it flows into the River Gohards.

This river is now the 'soul' of the district, flowing into the center of the new public park. In summer time, it offers a happy opportunity for children, and sometimes adults, to refresh in the course of this rediscovered water. This part of our work is representative of the way our team creates projects to be places to live in, by using the expression of all the qualities, past and present, which we uncover from each site. Here in Nantes, we discovered, as in a treasure hunt, that a small river had been captured in a pipe around the 1960s. We had to work hard to convince our commissioner to allow water to surface. Was it polluted? Was not it too deep? Was it safe for children? Today, no one doubts anymore that sharing moments daily with nature can bring any danger. Parents and children are encouraged by the authorities to understand and appreciate the new eco-district of Bottière-Chênaie. **LAF**

15. 街道和旱渠用来收集雨水 © Atelier de Paysages Bruel Delmar

15. The street and the ditch collecting the rain water © Atelier de Paysages Bruel Delmar