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澳大利亚悉尼科技大学校友绿地

The University of Technology Sydney’s Alumni Green, Australia

McGregor Coxall景观与城市设计事务所 / McGregor Coxall

翻译 Translated by / 苏博 Bo SU
校对 Proofread by / 李舒雅 Shuya LI

1. 校友绿地设计效果图 © McGregor Coxall
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1. Alumni Green proposal © McGregor Coxall
2. Master plan © McGregor Coxall

摘要 ……

一般来说，世界顶级大学在其中心地带都设有一个宽阔的四方形广场，并往往会成为校园生活的中心。悉尼科技大学正在实施一项快速发展计划，旨在对其混乱的城市校区进行现代化改造。校友绿地项目将会成为此次扩建工程的重要标志，能够供学生和整个城市全天候使用。设计方案通过一个新的四方形广场来寻求对这一历史性景观元素进行创新性解读。新的广场采用了两种简单的构件：棚架——一个功能性的“绿肺”，以及格排底座——一层可渗透的有生命力的“皮肤”。

关键词 ……

校园设计；社区参与；创新；健康；互动

Abstract ...

Traditionally, the world’s leading universities have included a spacious quadrangle at their hearts, often forming the epicenter of campus life. UTS is on a fast track program to modernize its dislocated urban campus and the Alumni Green project will be a key symbol for this expansion being accessible 24/7 to both students and the city at large.The design proposal explores an innovative interpretation of this historical landscape element through a new quad which is created through two simple moves: the Treillage — a functional lung — and the Grillage — s permeable living skin.

Key words ...

Campus Design; Green Infrastructure; Innovation; Health; Interaction

项目地址： 澳大利亚新南威尔士州悉尼市欧田磨区
项目面积： 0.8hm^2
项目委托： 澳大利亚悉尼科技大学
景观设计： McGregor Coxall景观与城市设计事务所
首席设计师： Adrian McGregor
设计团队： Christain Borchert、Ann Deng、Jack Qian、Michael Cowdy
设计时间： 2012年

Location: Ultimo, Sydney, NSW, Australia
Area (size): 0.8 hm^2
Client: University of Technology Sydney
Landscape Architecture: McGregor Coxall
Chief Designer: Adrian McGregor
Project Team: Christain Borchert, Ann Deng, Jack Qian, Michael Cowdy
Design Period: 2012

悉尼科技大学的校友绿地是其目前混乱的城市校区中最大的室外空间。2012年，悉尼科技大学为这个空间举办了一次设计竞赛，该设计将成为一项更大的校园总体规划（对相互之间缺乏连接的城市校区进行现代化改造的大学快速发展计划）的一部分。校友绿地项目将成为这次扩建工程的重要标志及一个可供学生和全体市民全天候自由使用的场所。这一目标即是对该项目景观的要求——能够反映出悉尼科技大学“成为一所世界领先的科技大学”的战略目标。

一般来说，世界著名大学通常在其中心地带设有一个宽阔的四方形广场作为校园生活中心。McGregor Coxall景观与城市设计事务所提出的方案试图建造一个长满绿色植物的、可持续的、融合了先进技术的室外绿色空间，名为“四方庭院”，作为城市校区的标志性核心。这个理念将意识焦点从过去的学生（校友）转移到了现在和将来的学生对空间的所有权上，并以这种方式对“校友绿地”这一概念进行了重新诠释。它必须立足当下，并着眼未来。

悉尼科技大学的战略规划体现了融合创新、创意和技术的理想，这一理想在设计方案中通过建造一个“新一代大学庭院”而得到了具体表达。仿生学的最新研究成果为庭院建造提供了支持，并结合信息和机械技术，创造出了一种新型的可持续的现代校园空间。项目的目标为设计一种能够增强这一空间作为校园社交中心的作用的景观。项目团队意识到“四方庭院”需要被设计为一个灵活的、较为疏散的空间，配有有线和无线网络，并能够适应白天及夜间不断变化的活动需求。项目的理念是将这种灵活性限定在一个预先划定的四方形区域内，并进一步突出其“社会熔炉”的空间作用。这种方法从根本上要求景观在水平和垂直方向上均发挥作用，填补周围裙楼的缺口，从而在视觉上围合并完善整个空间。

为了实现这一目标，新的四方庭院采用了两种简单的构件：棚架和格排底座。棚架是一种采用了先进技术的钢架结构，可供植被爬蔓附着，能够创造出将四方庭院边缘补充完整的“第五立面”，形成一个功能性的“绿肺”。格排底座是一个采用了先进技术的钢铁格栅地板系统，

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能够成为一种具有渗透性和生命力的“皮肤”，为校园连接起各种地下设施和机械系统。

上述的每一个元素都运用了新一代技术手段和模仿自然生态过程的绿色基础设施系统。这些功能能够有效地降低学校的碳排放量，并为学生和教职工提供一个更加健康的场所。四方庭院也通过净化和预冷却空气，以及循环和冷却空调冷凝器中的水，为其四周建筑的机械系统提供生态服务。通过使用智能测量仪表和实时感知馈入系统，四方庭院能够向装有相应iPad或者iPhone应用程序的使用者发送环境数据，使学生们能够了解校园的环境状况。

四方庭院能够迅速改变其形式以承担多种功能。它能够适应多种操作模式，无论是进行少数人的聚会还是大型的娱乐活动，四方庭院都可以成为理想的场所。日间和夜晚活动能够通过使用多种即插即用系统来进行。该空间最多能够容纳约5 000人。无论是躺在洒满阳光的草地上阅读iPad上的校园新闻，或喝杯咖啡，或在艺术屏幕上欣赏最新的数字艺术，或观看最新的室外展览，使用者都将深深沉浸在一种独特的高校文化氛围之中。这是一个创意人士、技术人才、知识分子和电脑谜们都会喜欢的，充满趣味与未来感的舞台，能使人们感到如家般的惬意自在。它是一个能够容纳各种充满活力的活动的大熔炉，每周都会安排不同的活动，成为可供人们进行演讲、庆典、学习或只是简单的聚会谈天的好去处。

具体来讲，四方庭院的总体规划包括9个主要的元素，每一个都具有独特的用途和特性。它们均被安排在琼斯大街、格排底座和棚架的子空间之中。它们密切配合，共同提供了一个高水平的，融合了可持续性、景观、技术和基础设施的空间。

琼斯大街

琼斯大街是一个可供步行和自行车通行的空间，街道利用悉尼市的街景元素和地面铺装与周围的街道联系起来。花岗岩街道延伸至四方庭院中，形成了棚架的背景边界。在此能够举办集市和其他可在行道树下进行的活动。

格排底座

水格排

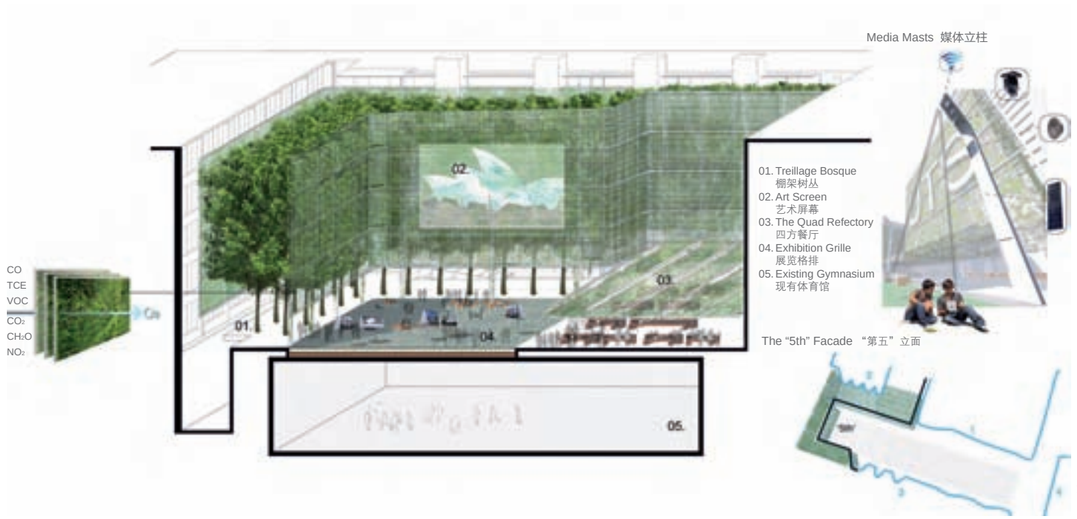
一层浅浅的水填补了金属格排之间的空隙，创造出一个倒映表面。喷雾器间断地制造和释放出宜人的冷却雾气，飘散于整个四方庭院。灯光从雾气上方投射下来，以创造出一种变幻的氛围。循环水源能够冷却来自附近冷却塔的冷凝物（建筑水汽），随后这些水汽被导流至大草坪下方的储水池中。当四方庭院举办无需用水的活动时，水能够很快被排干，从而使格排能够承担各种临时性用途。

大草坪

大草坪是一片阳光普照的开阔草地，适于安静思考、学习、放松和开展发散性的讨论。加固的草皮能够承受如半挂车、人群和临时性的大帐篷带来的沉重负载。草坪周围环绕着格排，电力、以太网和水管铺设其中，使得所有活动都能够直接接入悉尼科技大学的网络中。

展览格排

这个空间被周围的建筑所遮蔽，形成了一个举办临时性展览和灯光展示的理想区域。钢铁格排地板在这里形成一个开口，展现出一个位于地下体育馆屋顶上方的下沉式蕨类植物花园。这种可渗透性的呼吸表皮能够允许足够的光线通过，以供下方蕨类植物生长所需。植物同时能够吸收排放的碳，并形成了一块美丽的叶片地毯展现在整个格排中。建筑物机械系统的进气管线穿过土壤层，从而使空气预先得到冷却。在举办活动时，格排的各个区域能够使用简单的液压千斤顶进行升降以形成座椅。



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媒体立柱

这是一些能够抵抗风雨侵蚀的多用途钢柱，内含多种高科技装备。这些专门定制的立柱拥有静态的和可用电脑程序控制的旋转灯光固定装置、扩音器、无线网络、三相电源和安全摄像头，并且全部都设计成具有即插即用的功能。通过结合舞台灯光或为了视觉效果与艺术屏幕连接，立柱灯光能够立刻将四方庭院变成迪斯科舞池。照明控制设备将与悉尼科技大学的网络相连，并使用悉尼科技大学大型网络内的能源。

棚架

艺术屏幕

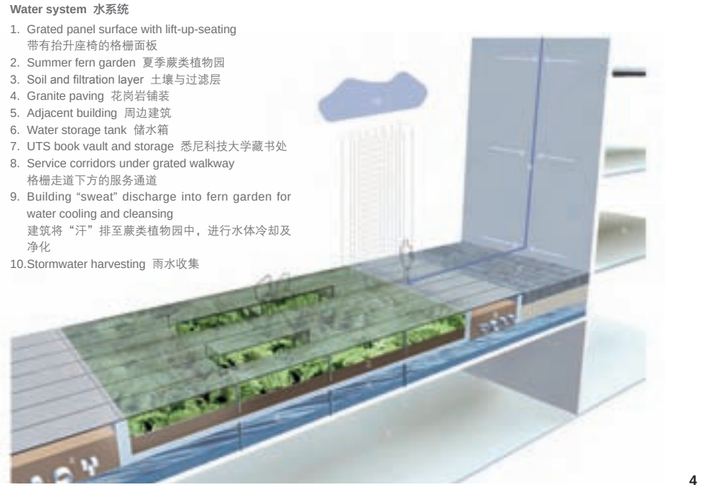
能够抵御恶劣天气的多功能LED屏幕被安置在空间被遮蔽的尽端，用于展播学校的日常新闻和事件。屏幕可由电脑程序控制，进行艺术作品展示和多媒体应用，还能够用作露天影院。在特别的活动模式下，屏幕还可以作为表演、摇滚音乐会、DJ/VJ活动的背景幕布，或是作为四方庭院的环境幕布。

棚架树丛

钢铁棚架位于四方庭院的东北角，形成了矩形的设计形状。在钢丝网覆盖层的后方是一个种植在混凝土板中的修剪过的澳洲赤楠树丛。这些树为鸟类提供了栖息地，并且在四方庭院的尽头创造出了一片繁茂的树林。周边建筑的进风管道整合于框架结构之中。树叶过滤了空气中的颗粒物，在空气进入建筑之前对其进行了净化，改善了学生和教职工所处的环境。

棚架凉亭

裙楼的入口被改造成了一个植物环绕的宽阔凉亭，斑驳的光线照射在下方的咖啡座上。凉亭填补了缺失的齿状部分，完善了立面，并且在规划的玻璃立面裙楼和新建成的大厅之间形成了一个调节性的节点。钢结构既是攀爬植物的生长支架，也保护着公共建筑区域免受夏日阳光的暴晒。



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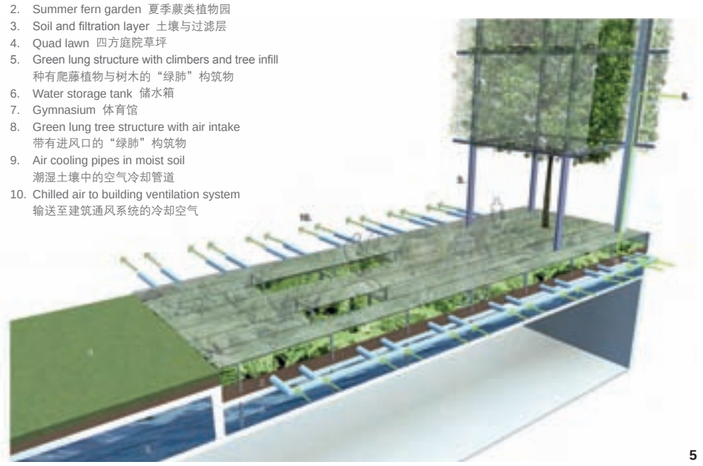

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四方餐厅

该餐厅是临近学生活动中心酒吧和餐馆的一个重要社交空间，这个室外用餐区域的功能是为大型团体提供餐饮服务。长长的木桌和凳子安放在荫蔽的凉亭之下，让学生们能够欣赏四方庭院的远景。取暖器和照明设施也安装在这一空间内，使其在全年内的适用性实现最大化。这是一个与朋友会面的绝佳去处，可以在美妙的绿藤覆盖的凉棚下品尝饮品、享用午餐。凉亭也不会阻挡视线，在此可以观赏到上方新建大厅的美景。**LAF**

3. 展览棚架剖面图 © McGregor Coxall
4. 水体交换示意图 © McGregor Coxall
5. 空气交换示意图 © McGregor Coxall
3. Exhibition Grille section © McGregor Coxall
4. Water exchange diagram © McGregor Coxall
5. Air exchange diagram © McGregor Coxall

The University of Technology Sydney's (UTS) Alumni Green is the largest outdoor space within its currently dislocated city campus. In 2012, UTS launched a competition for the space, which would form part of a broader campus master plan (a fast track program to modernize a disconnected urban campus between universities). The Alumni Green project offered means to be a key symbol for this expansion being accessible 24/7 to both students and the city at large. The brief outlined the need for a landscape that would reflect the University's strategic aim "to be one of the world's leading universities of technology".

Traditionally, the world's leading universities have included a spacious quadrangle at their hearts, often forming epicenters of campus life. McGregor Coxall's proposal is to create a verdant, sustainable and technologically advanced outdoor green room, called "The Quad", which would act as symbolic nucleus for the city campus. The idea repackages the Alumni Green concept by shifting the ideological focus from past students (alumni) to ownership of the space by current and future students. Needing to have its roots in the now, and the potential of the future.

The UTS strategic plan expresses an ambition to fuse innovation, creativity and technology together. The design embodies the ambition by making a "next generation university quad" underpinned by the latest research achievements in biomimicry, overlaying with information and mechanical technologies, to create a new type of sustainable space for contemporary campus. The intent is to design a landscape, which would facilitate the space's role as the primary social hub in the campus. To achieve this the team recognizes the need for "the Quad" to be flexible and loose fit, both wired and unwired, and able to accommodate a constantly changing program of day and night activities. The notion is to integrate this flexibility into a defined quadrangular area, further emphasizing the space's role as a social melting pot. This approach ultimately required the landscape to function both horizontally and vertically, filling in the missing section of the surrounding podium to visually enclose and complete the space.

The new Quad is created through two simple moves: the Treillage and the Grillage. The Treillage is a technologically advanced, vegetated steel structure that creates a "fifth facade" to complete the edges of the Quad forming a functional lung. The Grillage is also a technologically advanced steel grille floor system that acts as a permeable living skin connected to the underground facilities and mechanical systems of the campus.

Each of these elements utilizes new-generation technologies and green infrastructure systems which could mimic natural ecological processes. These functions will actively reduce the carbon footprint of the University and provide a healthier environment for students and staff. The Quad provides ecological services to the mechanical systems of its surrounding buildings by cleaning and precooling air, recycling water and cooling water from the air conditioning condensors. By using smart metering and live feed sensing, the environmental data can be sent to anyone with an App on an iPad or iPhone, enabling students to understand how their campus is functioning.

The Quad is capable of changing quickly to accept many kinds of function. It can accommodate many modes of operation and works efficiently whether a small number of people or a huge entertainment event are taking place. Day and night events can be held by using a variety of plug and play systems. At full capacity the space can accommodate around 5,000 people. Whether reclining on the sun filled lawn reading the uni-news on iPad, grabbing a coffee, watching the latest digital art on the art screen or seeing the latest outdoor exhibition, the user would be immersed in a unique university culture. The design emphasizes the space as a public show case for the academic culture of the campus. It is a fun and futuristic arena, where creatives, techies, intellectuals, and geeks will all feel at home. A melting pot of lively activity where events programs change weekly, will be a place for speeches, celebrations, learning, or just plain hanging out.

In greater detail the Quad master plan has nine major elements and each with distinctive uses. These are organised inside the Jones Street, and the subspace of the Grillage and the Treilage. Each of these work seamlessly together to offer a the high level fusion of sustainability, landscape, technology and infrastructure.

The Jones Street

The Jones Street element is a pedestrian and bicycle space that utilizes the city of Sydney streetscape elements and pavement to tie into the surrounding streets. Here the granite of the street runs into the Quad and forms the background border to the Grillage. The street is capable of accommodating markets and events under a canopy of shade trees.

Grillage

Water Grille

A shallow film of water fills the gaps between the metal grille creating a reflective surface. Misting jets fire intermittently to create a fine cooling fog that will wreathe across the Quad. The fog is lit from above to create changing ambience. The recycled water source cools condensate (building sweat) from the nearby cooling towers that is then directed back to the holding tanks under the great lawn. The water can be quickly drained when the Quad is in event mode and water is not required, leaving the grille free for any temporary use.

Great Lawn

An expansive sun filled lawn for quiet reflection, study, relaxation and discursive debate. The reinforced turf is capable of supporting heavy loads including semi trailers, crowds and temporary marquees. The lawn has a grille surround where power, ethernet and water conduits run allowing any event to plug directly into the UTS grid.

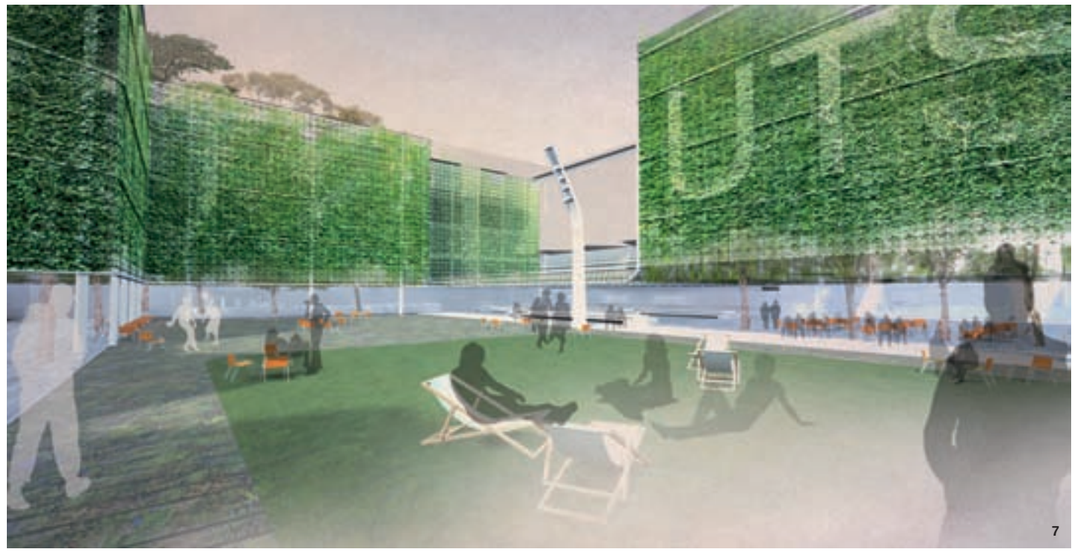
Exhibition Grille

This space is overshadowed by the surrounding buildings creating an ideal location for temporary exhibitions and lighting displays. The steel grille floor opens up to reveal a sunken fern garden on the roof of the gymnasium below. This permeable breathing skin allows enough light for the ferns to grow while capturing carbon and making a beautiful tapestry of foliage that emerges through the grating. The intake air pipework of the mechanical systems from the buildings passes through the soil layer to precool the air. Sections of the grille can pop up using simple hydraulic jacks to create seating or be dropped down in event mode.

Media Masts

Weatherproof multi functional steel poles contain a range of high tech gear. These bespoke masts have static and programmable rotating lighting fixtures, speakers, Wi-Fi, three-phase power and security cameras all

6. 四方餐厅效果图 © McGregor Coxall
7. 悉尼科技大学四方庭院效果图 © McGregor Coxall
6. Quad Refectory proposal © McGregor Coxall
7. UTS Quad proposal © McGregor Coxall



designed for plug and play compatibility. The mast lighting can instantly change the Quad into a disco floor, be coupled with stage lighting or linked to the art screen for visual effects. The lighting control gear would be wired up to the UTS network and use trigen energy from the UTS precinct wide grid.

Treillage

Art Screen

Weatherproof multi-functional LED screen for displaying day to day UTS news and events situated in the shadowed end of the space. The screen is programmable for art works and multi-media. The screen can also be used for outdoor cinema. In special event mode, the screen can be a backdrop for performances, rock concerts, DJ / VJ events or an ambient backdrop for the Quad.

Treillage Bosque

The steel treillage wraps around the northeast end of the Quad completing the rectangular plan shape. Behind the open steel mesh cladding is a trimmed bosque of lilly pilly trees planted in the concrete slab set down. The trees provide a habitat for birds and create a leafy forest at the end of the Quad. The air intake feed for the surrounding buildings is taken through pipes integrated inside the frame structure. The tree foliage filters out particulate matter from the air cleaning it before it enters the buildings improving the environment for students and staff.

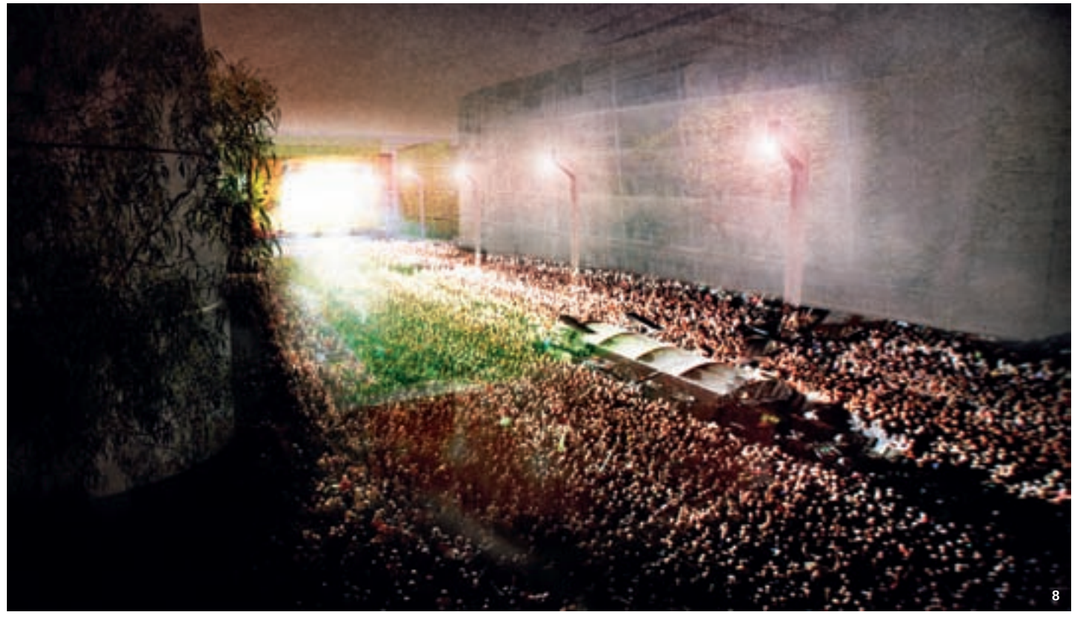
Treillage Arbour

The entrance to the podium building is reconfigured as a spacious planted arbour where dappled light covers the café seating below. The arbour fills the missing tooth, completing the facade and forming a mediating break between the planned glass facade of the podium building and the recently completed hall. The steel structure is a growing frame for climbing plants protecting the building public areas from summer sun.

The Quad Refectory

A key space for socializing adjacent to the Union Bar and restaurants, this al fresco dining area is set up to cater for big groups. Long timber tables and benches situated under the shady arbour allow students to enjoy the long views of the Quad. Heaters and lighting set up the space for maximum year-round use. This is a funky space to meet your friends and have a drink or lunch under a wonderful vine covered pergola. Views to the new hall above are not obscured by the arbour. **LAF**

8. Alumni Green proposal (night view) © McGregor Coxall
8. 校友绿地设计效果图（夜景）© McGregor Coxall



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等待被重拾的艺术品：
荷兰纽威海恩莱克运河拓宽工程

Objets Trouvés:
The Widening Project of the Lekcanal in Nieuwegein, the Netherlands

Bureau B+B城市规划与景观设计事务所 / Bureau B+B Urban Design and Landscape Architecture

翻译 Translated by / 张凌 Ling ZHANG
校对 Proofread by / 李舒雅 Shuya LI

1. 新拓宽的莱克运河将为野生动物提供多种多样的栖息环境。
1. The new widened Lekcanal will provide rich habitats for wildlife.

摘要 ……

作为荷兰最繁忙的运河之一，莱克运河拓宽工程以及新船闸扩建项目的兴建意味着新荷兰水上防线的一些遗迹将面临搬迁。作为第二次世界大战期间的一道防线，新荷兰水上防线的文化历史价值不言而喻。Bureau B+B城市规划与景观设计事务所深入探讨了如何尽可能地保存新荷兰水上防线文化历史价值的完整性。为了尊重历史真实性，Bureau B+B建议将扩建项目建设范围内的遗迹移至场地内的其他地方，而不是彻底的取而代之。这些遗迹仿佛是那些为新的发展提供空间而被推倒，并滚落至各地的遗迹碎块。这些遗迹被称为“Objets Trouvés”——堤坝两旁“等待被重拾的艺术品”。

关键词 ……

第二次世界大战；重新发掘；堤坝；水系；运河；船闸

Abstract ...

The widening of the “Lekcanal”, one of the busiest shipping routes in the Netherlands, and construction of a larger sea lock meant that some elements of the New Dutch Water Defence Line would have to be moved. Bureau B+B investigated strategies to treat the WWII defence line with integrity regarding its cultural historic value. In order to retain this authenticity it was decided to not replace but relocate the effected monuments, as if tipped over and rolled away to make place for the new development. They remain as “Objets Trouvés” – “Found Objects” along the dike.

Key words ...

WWII; Found; Dike; Water System; Canal; Lock