

# au

Architecture and Urbanism  
11:02

035

Novartis Campus

诺华园



Chinese Edition

**Novartis Campus**

诺华园





Architecture and Urbanism

Chinese Edition

2011:02 No.035

日文版

发行人/主编:

吉田信之

设计顾问:

麦西莫·维格奈里

顾问:

安藤忠雄, 大阪

杰克士·赫尔佐格, 巴塞尔

伊东丰雄, 东京

瑞姆·库哈斯, 鹿特丹

特伦斯·莱利, 迈阿密

塞西尔·巴尔蒙德, 伦敦

让-路易·柯芬, 巴黎

森俊子, 坎布里奇

莫什·莫斯塔法维, 坎布里奇

西泽立卫, 东京

中文版

主编: 阮海洪

执行主编: 王娜

英文编辑: 孔慧丽

美术编辑: 张璐

英文翻译: 陈霜/肖靖

市场总监: 付力

广告总监: 李金鹏

图书在版编目(CIP)数据

建筑与都市. 诺华园/《建筑与都市》中文版编辑部 编.

—武汉: 华中科技大学出版社, 2011. 3

ISBN 978-7-5609-6906-0

I. 建… II. 建… III. 建筑设计—作品集—瑞士 IV. TU206

中国版本图书馆CIP数据核字(2011)第017144号

建筑与都市 诺华园

《建筑与都市》中文版编辑部 编

出版发行: 华中科技大学出版社(中国·武汉)

地 址: 武汉市武昌珞喻路1037号(邮编: 430074)

出 版 人: 阮海洪

责任编辑: 王 娜

责任监印: 张贵君

美术编辑: 张 璐

印 刷: 北京建宏印刷有限公司

开 本: 965 mm × 1270 mm 1/16

印 张: 9.5

字 数: 76千字

版 次: 2011年3月第1版 第1次印刷

定 价: 98.00元

台湾地区总代理: 恩楷股份有限公司

电话: (02) 23121566

网址: www.archi-online.com



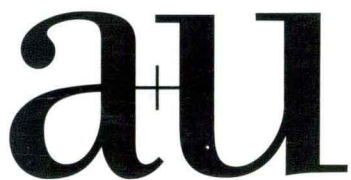
华中出版

订购热线: (010) 64155566 (兼传真)

本书若有印装质量问题, 请向出版社营销中心调换

全国免费服务热线: 400-6679-118 竭诚为您服务

版权所有 侵权必究



Architecture and Urbanism

Chinese Edition

2011:02 No.035

《建筑与都市》中文版编辑部  
华中科技大学出版社建筑分社  
地址：北京市朝阳区幸福村中路锦绣园公寓B座108  
电话：010-64155588-8818  
传真：010-64155566  
E\_mail: auchina@126.com  
<http://www.hustpas.com>

5

**最新信息：**UN工作室在新加坡技术与设计大学设计竞赛中获胜 / 中村拓志设计“雷克萨斯 CT200h”发布会舞台 / 马希米利亚诺与多里亚娜·福克萨斯建筑师事务所赢得深圳国信证券大厦设计竞赛

## 专辑：诺华园

8

**历史：**

论文：从圣·约翰工厂到诺华园

沃特·德特威勒

22

**园区总体规划：**

论文：诺华园总体规划——建筑的交流装置

维托里奥·马尼亚戈·兰普尼亚尼

30

**景观建筑：**

论文：景观建筑——街道与广场

彼德·沃克

36

**新工作场所与可持续性：**

论文：可持续性——诺华园

罗杰·穆勒

44

**艺术：**

论文：巴塞尔诺华园区的艺术

杰奎琳·布克哈特

48

**建筑**

50

**马克·塞拉**

工厂街2号

62

**迪纳与迪纳建筑师事务所协同赫尔姆特·费德勒与杰拉德·维德林建筑师事务所**

弗伦姆广场3号

70

**妹岛和世与西泽立卫 / SANAA 建筑师事务所**

工厂街4号

76

**彼德·马克利**

工厂街6号

90

**谷口建筑设计研究所**

工厂街10号

100

**建筑工作室**

工厂街12号

108

**拉斐尔·莫奈奥**

工厂街14号

116

**阿道夫·克里施尼茨**

工厂街16号

122

**植文彦综合计画事务所**

斯克艾尔广场3号

128

**大卫·奇普菲尔德**

工厂街22号

134

**安藤忠雄建筑研究所**

工厂街28号

140

**弗兰克·O·盖里**

工厂街15号





**Architecture and Urbanism**  
**Chinese Edition**  
**2011:02 No.035**

**Publisher/Editor:**  
Nobuyuki Yoshida

**Design Consultant:**  
Massimo Vignelli

**Advisers:**  
Tadao Ando, Osaka  
Jacques Herzog, Basel  
Toyo Ito, Tokyo  
Rem Koolhaas, Rotterdam  
Terence Riley, Miami  
Cecil Balmond, London  
Jean-Louis Cohen, Paris  
Toshiko Mori, Cambridge  
Mohsen Mostafavi, Cambridge  
Ryue Nishizawa, Tokyo

**Distributor:**  
Shinkenchiku-sha Co., Ltd.:  
Sawa Kato  
Emiko Yazawa

**Chinese Edition**  
**Editor-in-Chief:**  
Haihong Ruan

**Executive Editor-in-Chief:**  
Kidida Wong

**English Editor:**  
Ivy Kong

**Art Editor:**  
Lu Zhang

**Translator:**  
Shuang Chen/Jing Xiao

**Marketing Manager:**  
Aaron Fu

**Advertising Director:**  
Jinpeng Li

*Cover: Novartis Campus.*  
*Photo: Yasuhiro Nakayama/Shinkenchiku-sha.*

**Editorial Department**  
Architecture Branch of Huazhong University of Science and Technology Press  
Address: B-1-108 Jinxiuyuan, Xingfucun Mid. Road, Beijing, 100027 China  
Tel: +86-10-64155588-8818  
Fax: +86-10-64155566  
E-mail: auchina@126.com  
http:// www.hustpas.com

5

**Currents:** UNStudio Designs SUTD/Hiroshi Nakamura and LEXUS  
CT200h/Guosen Securities Tower

## **Feature: Novartis Campus 2010**

8

### **History:**

Essay: From St. Johann Works to Novartis Campus  
**Walter Dettwiler**

22

### **Master Plan:**

Essay: The Novartis Campus Master Plan: An Architectural  
Communication Device  
**Vittorio Magnago Lampugnani**

30

### **Landscaping:**

Essay: Landscape Architecture: Street and Squares  
**Peter Walker**

36

### **New Workplace and Sustainability:**

Essay: Sustainability – Novartis Campus  
**Roger Müller**

44

### **Art:**

Essay: Art on the Novartis Campus in Basel  
**Jacqueline Burckhardt**

48

### **Architecture**

50

#### **Marco Serra**

2 Fabrikstrasse

62

#### **Diener & Diener Architekten with Helmut Federle and Gerold Wiederin**

Forum 3

70

#### **Kazuyo Sejima + Ryue Nishizawa / SANAA**

4 Fabrikstrasse

76

#### **Peter Märkli**

6 Fabrikstrasse

90

#### **Taniguchi and Associates**

10 Fabrikstrasse

100

#### **Studio di Architettura**

12 Fabrikstrasse

108

#### **Rafael Moneo**

14 Fabrikstrasse

116

#### **Adolf Krischanitz**

16 Fabrikstrasse

122

#### **Fumihiko Maki + Maki and Associates**

Square 3

128

#### **David Chipperfield**

22 Fabrikstrasse

134

#### **Tadao Ando Architect & Associates**

28 Fabrikstrasse

140

#### **Frank O. Gehry**

15 Fabrikstrasse



## UNStudio's Design Chosen for the Singapore University of Technology and Design

### UN 工作室在新加坡技术与设计大学设计竞赛中获胜

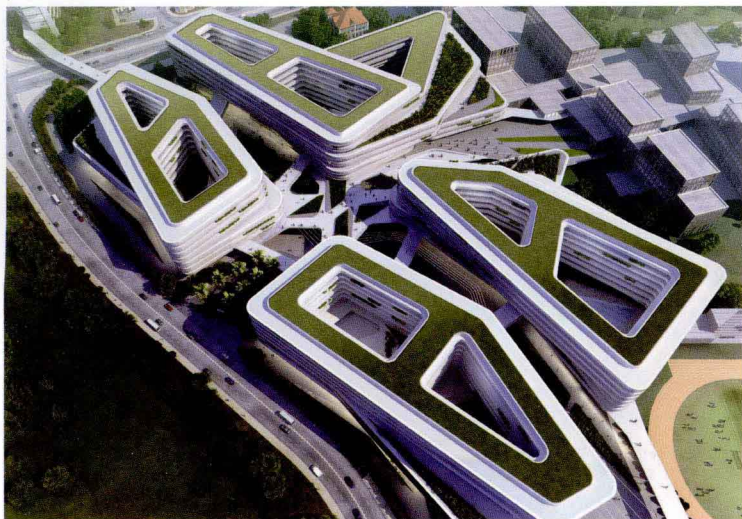
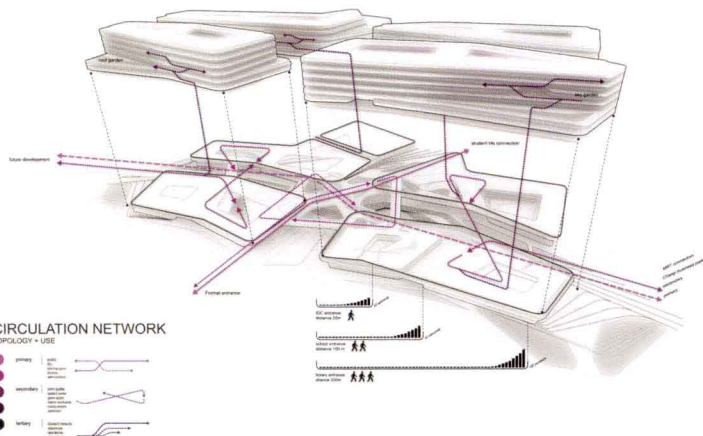
UNStudio, in collaboration with DP Architects, has been selected from a shortlist of five practices to design Plot A of the Singapore University of Technology and Design (SUTD) campus. Located on a site of 76,846 m<sup>2</sup> and close to both Singapore's principal airport and the Changi Business Park, the SUTD will be Singapore's fourth university. The design for the campus offers an opportunity to embrace innovation and creativity through a non-linear connective relationship between students, faculty, professionals and the spaces they interact with. The main aim is to create a campus that celebrates both teaching and learning in an open and transparent way. The network of horizontal, vertical and diagonal vistas within the double quadrant organization of the campus enables professors, students and faculty members to

see, meet and communicate with one another through a network of crossing points, presenting opportunities for continuous interaction and exchange. The orientation and organization of the campus is designed through two main axes; the living and learning spines which overlap to create a central point, binding together all corners of the SUTD.

UN 工作室与 DP 建筑师事务所合作组成的设计团队从五家候选单位中脱颖而出，被选定承担新加坡技术与设计大学 (SUTD) A 区地块的校园设计。

新加坡技术与设计大学为本地的第四所公立大学，项目占地 76 846 m<sup>2</sup>，邻近樟宜机场和樟宜商业园。

获奖方案意图在使用者（学生、教师和研究人员）与其所处空间之间建立起一种非线性的联结关系，从而促进和发展革新性与创造力。该方案旨在营造一座新型校园，其教学模式以开放性和透明性为特征。校园空间采用双重四分模式进行组织，构建出水平、竖直和对角线上的多方向观景体系和多结点交通网络，创造教授、学生和教职员们在校园中相遇、会见和交谈的机会，从而增进彼此的互动与交流。建筑朝向与功能空间通过两条主轴进行组织：一条是生活空间轴线，一条是学习空间轴线，其相交处为校园中心，两条轴线将整座校园紧密地结合为一体。



## Hiroshi Nakamura Designs Launch Event Stage for "LEXUS CT200h"

### 中村拓志设计“雷克萨斯 CT200h”发布会展台

LEXUS launched a new hybrid car "CT200h". A launch event for the CT200h was held on January 12 at Tokyo International Forum where fashion model Anne, architect Hiroshi Nakamura and musician Ryota Nozaki (Jazztronik) appeared on a stage and discussed the CT200h in regards to its similarities with their respective professions: fashion, architecture and music. Nakamura's idea for the design of the stage was found in the compact but generous design of the cockpit of CT200h and the small but rich designs of Japanese tearooms and townhouses.

由雷克萨斯推出的新款混合动力车“CT200h”于 2011 年 1 月 12 日在东京国际会议中心举行了新车发布会。时尚名模安妮、建筑师中村拓志和音乐家野崎良太 (Jazztronik 乐队) 到场，畅谈了 CT200h 与其各自专业（时装、建筑和音乐）之间的共通之处。发布会展台由中村设计，他认为 CT200h 的驾驶舱与日本传统茶室及排屋在设计上都具有形式紧凑小巧而功能丰富多样的特点，而这正是启发他设计展台的灵感来源。

## Massimiliano and Doriana Fuksas Win Guosen Securities Tower Competition

### 马斯米利亚诺与多里亚娜·福克斯建筑师事务所赢得深圳国信证券大厦设计竞赛

The project by Massimiliano and Doriana Fuksas is born from the intention to create a new concept of vertical public space for the tower. A three-dimensional void zigzagging along the facades gives a dynamic image to the building, creating different public scenarios

This page, top: View of Event Stage for LEXUS CT200h designed by Hiroshi Nakamura. This page, middle: Conceptual diagram of SUTD. This page, bottom left: Aerial view of the SUTD campus. p. 6, left above: General view of Guosen Securities Tower. p. 6, left below: Interior of Guosen Securities Tower. p. 6, right: Portrait of Fumihiko Maki. All images on pp. 5-6 except as noted courtesy of the architects.

本页，上：“雷克萨斯 CT200h”的发布会展台，由中村拓志设计；中：SUTD 的设计概念示意图；左下：SUTD 校园俯瞰图。

6 页，左上：深圳国信证券大厦全景；左下：深圳国信证券大厦室内；右：槇文彦肖像。（5-6 页：陈霜译）





for the offices and exploring the relation between the podium and the vertical section of the tower with diagonals spaces and fluxes that create a vertical tension in the full height of the tower. With its 220 m height space, the tridimensional atrium will be the highest lobby in the Shenzhen. The public spaces, lobbies and sky-gardens are interconnected along the tridimensional void of the atrium creating a stream of light, images and activity that are placed strategically in the facades, which takes advantage of the views and visibility according to the urban context. The design of Guosen Tower integrates the values of connectivity and trade fluxes of Shenzhen into an innovative vision for a XXI century tower.



马斯米利亚诺与多里亚娜·福克萨斯建筑师事务所的获奖方案为一塔式高楼，中央引入一个标新立异的竖向公共空间。以此概念为起点，方案设计于正立面上开缝，呈“之”字形曲折向上，形成一道弯曲的三维中空空间，为建筑平添一份活跃生动的气息；同时，该三维中庭也营造出各具特色的办公场所；此外，该三维中庭在平台与塔楼竖向剖面之间设置多处斜向空间和流线空间，因而制造出与建筑通高的竖向空间张力。

该中庭净空高达 220 m，建成后将成为深圳建筑中最高的大堂。各类公共区域、休息厅和空中花园都布置在中庭旁边，并与之相连。这些空间将光影、图像和人流活动组合构成一道曲折的流线，经过精心规划，巧妙地呈现在建筑立面上，并与所

处城市空间的街景与视线相呼应。国信证券大厦作为深圳的地方证券交易所，将其连贯流畅的美感和市中心商务区贸易流通的特性融合在建筑设计中，展现出一座拥有创新视野的 21 世纪高层塔楼。

## announcement

### Fumihiko Maki 2011 AIA Gold Medal Winner

槇文彦荣获 2011 年美国建筑师学会金奖



Fumihiko Maki began his career in the 1960s as a charter member of the Metabolists – a group of Japanese architects who believed in the obsolescence of fixed forms and the endless possibilities offered by flexible and expandable modular structures. Maki's approach to design is to assemble disparate collages of forms together in his buildings; abstract volumes as well as elemental shapes – spheres, cones, cubes, cylinders. His buildings are multifaceted juxtapositions of both discordant unity and synchronized disarray. The intent in binding varied forms together is to draw attention to the exposed links between these ensemble composition's individual elements and exploit them as dramatic and revelatory markers of time and place, full of immediacy and a bit of whimsy. Maki is the 67th AIA Gold Medalist. He joins the ranks of such visionaries as Thomas Jefferson, Frank Lloyd Wright, Louis Sullivan, Renzo Piano, I.M. Pei, Cesar Pelli and Santiago Calatrava.

槇文彦于 20 世纪 60 年代开始执业，曾为日本建筑界“新陈代谢运动”的创始成员之一。新陈代谢运动旨在破除建筑的固有形式，坚持采用可变化和可扩展的模块化结构，以求实现建筑形式的无限可能性。槇氏的设计手法以拼贴组合各种大相径庭的建筑形式见长；而且善于运用抽象形体和基本几何形状，例如球体、圆锥体、立方体或圆柱体。槇氏建筑常常呈现为多层次综合体，既在不和谐中展示出统一协调，又在无序中显示出同步平衡。槇氏设计之所以将不同建筑形式进行整合，其

用意在于明示和突显各元素之间的联结环节，并力求开发其戏剧性和启示性，以充满了即时性和奇思妙想的手法描画时空。槇文彦是美国建筑师学会金奖第 67 届得主。历届获奖的建筑大师包括托马斯·杰弗逊、弗兰克·劳埃德·赖特、路易斯·沙利文、伦佐·皮亚诺、贝聿铭、西萨·佩里和圣地亚哥·卡拉特拉瓦。

## call for

### LEAF Awards 2011

#### 2011 年度阿联酋玻璃绿叶奖

The Emirates Glass LEAF Awards honor the architects designing the buildings and solutions that are setting the benchmark for the international architectural community. The awards are open to all individuals and organizations that have made an outstanding contribution to the world of architecture. Previous winners include Zaha Hadid, David Chipperfield, SOM, Steven Holl and Terry Farrell.

阿联酋玻璃绿叶奖授予国际级的优秀建筑师，旨在嘉奖其建筑设计的先进性为业界设立了新的标杆。该奖项面向所有在建筑行业作出杰出贡献的个人和组织。往届大奖得主包括扎哈·哈迪德、大卫·奇普菲尔德、SOM 建筑师事务所、斯蒂文·霍尔和泰瑞·法雷尔。

**Host organization:** Arena International Events Group, John Carpenter House, John Carpenter Street, London EC4Y 0AN, UK  
**Registration deadline:** May 15  
**email:** [suzanneellingham@arena-international.com](mailto:suzanneellingham@arena-international.com)  
**url:** [www.leaf-awards.com](http://www.leaf-awards.com)

## competitions

### One Prize 2011: Water as the Sixth Borough

#### 2011 年度“One Prize”竞赛：让水域成为纽约第六区

The open international design competition is asking for proposals to create New York City's "blue network" by expanding waterborne transportation and by linking the five boroughs with a series of green transit hubs which incorporate electric passenger ferries, water taxis, bike shares, electric car-shares and electric shuttle busses which should also provide in-water recreation, water-oriented educational and cultural activities and climate resilience;

and to further propose a design for the clean tech expo, E3NYC in 2014.

该项设计竞赛全球公开征集方案，设计任务为在纽约市建立起一系列绿色环保的交通枢纽，并整合各种绿色交通工具（包括电动载客渡轮、水上的士、共用自行车、共用电动汽车和电动公共汽车），从而扩展纽约市的水路运输系统，构建“蓝色交通网”，最终实现联结纽约五区的目标。同时，要求所有交通设施具备水上娱乐、教育和文化活动的功能，并须适应不同气候条件。另外，竞赛内容还包括提交一份 2014 年洁净科技产业博览会（E3NYC）的规划设计方案。

**Host organization:** Terreform ONE, 33 Flatbush Ave. 7th Floor, Brooklyn, NY 11217, USA  
**Registration deadline:** April 30  
**Submission deadline:** May 31  
**email:** [info@oneprize.org](mailto:info@oneprize.org)  
**url:** [www.oneprize.org](http://www.oneprize.org)

### Barcelona 2011 – Tower in Gothic Quarter 巴塞罗那 2011：哥特区塔式旅舍

Spain has always been an important tourist destination in Europe. As a result, hostels have emerged, providing low cost, clean, and above all well-located accommodation in key locations popular with tourists. The challenge of this competition consists of designing a 100 m tall tower-hostel that includes relaxation areas and stores. A site has been chosen for the development of the project in the heart of the Gothic Quarter, opposite Barcelona Museum of Contemporary Art.

西班牙历来是欧洲重要的旅游观光胜地。众多旅舍应运而生，并以其干净便宜、地段方便而深受游客欢迎。本次竞赛内容为设计一座楼高 100 m 的塔式旅舍，要求将娱乐休闲和商业购物等功能空间整合在内。项目选址于巴塞罗那旧城哥特区的心脏地带，与巴塞罗那当代艺术博物馆隔街相望。

**Host organization:** Arquitectum, José Del Llano Zapata 331 Of. 201 Miraflores, Lima 18, Peru  
**Registration deadline:** March 31  
**Submission deadline:** April 15  
**email:** [barcelona@arquitectum.com](mailto:barcelona@arquitectum.com)  
**url:** [www.arquitectum.com](http://www.arquitectum.com)



Feature:

# Novartis Campus

专辑：  
诺华园

In Basel, Switzerland, there is an architectural wonderland called the Novartis Campus. It is the base of Novartis International AG, a multinational pharmaceutical company. The campus has been featured in several architectural magazines, including *a+u*, which have introduced buildings by Diener & Diener, Peter Märkli and SANAA. There are also buildings by Rafael Moneo and Fumihiko Maki, completed last year, and buildings by Yoshio Taniguchi, David Chipperfield, Tadao Ando and Frank O. Gehry, completed this year. Buildings by Alvaro Siza and Eduardo Souto de Moura are scheduled for completion next year. Unsurprisingly, in view of the international prominence of the architects who were invited to participate, the quality of the architecture is superb. The campus itself has been designed from corner to corner, including the squares, streets and gardens. However, the campus is not a place for the exhibition of architecture, like an exposition or a theme park like Disneyland. It consists of offices and laboratories for the people who work there.

The site of the Novartis Campus was originally an industrial complex, and it has seen continuous development since the late nineteenth century. The restructuring plan, launched about ten years ago, is based on a grand vision of the transformation of this production site into a “Campus of Knowledge”. In this issue, we provide an overview of the Novartis Campus of 2010, together with in-depth introductions to the individual works of architecture. The photographs were taken this July. Vittorio Magnago Lampugnani, one of the building architects and the master planner of the Novartis Campus, contributed an essay about the overall urban planning. This issue also illustrates the history of the site and the landscaping, artistic, and ecological aspects of the campus.

The Novartis Campus has not been completed. As a part of a multi-dimensional company strategy including architecture, landscaping and sustainability, it will develop further. What does it have to tell us about the possibilities of a new workplace?

(*a+u*)

在瑞士的巴塞尔，有一处“诺华园”，堪称建筑仙境。该园区是跨国集团诺华制药公司的企业基地。其中，由迪纳与迪纳建筑师事务所、彼德·马克利建筑师事务所和 SANAA 建筑师事务所设计的项目，已被多家建筑杂志（包括 *a+u* 在内）进行过专题介绍。之后，分别由拉斐尔·莫尼奥和楨文彦主持设计的建筑项目于 2009 年完工；谷口吉生、大卫·奇普菲尔德、安藤忠雄和弗兰克·盖里的建筑作品则于 2010 年面世；而阿尔瓦罗·西扎和艾德瓦尔多·索托·德·莫拉所设计的建筑预计于 2011 年竣工。不难想象，由这样一批具有国际声誉的建筑大师担纲设计，诺华园内所有建筑都是一流水准的。园区的每个角落都经过精心规划，包括所有的广场、街道和花园。然而，诺华园既不是建筑博览会，也不是迪士尼乐园那样的主题游乐场，而是为诺华员工所建的办公室和实验室。

诺华园的原址为工业厂区，始建于 19 世纪下半叶，历经变革。直至大约 10 年前，园区推出重建计划，前景宏伟，旨在将该生产制造基地转型成为一处“知识园区”。本期介绍了诺华园 2010 年的概况，并详细介绍了各个建筑项目。项目照片拍摄于 2010 年 7 月。负责园区总体规划的建筑师维托里奥·马尼亚戈·兰普尼亚尼为本刊撰写了一篇相关文章，兰普尼亚尼还承担设计了园区中的一座单体项目。另外，本期还介绍了诺华园的历史以及园区的景观设计、公共艺术及生态环保等方面的内容。

今天的诺华园仍在建设之中。诺华制药公司将该园区项目视为一项涵盖建筑、景观和可持续性发展等多个层面的企业发展战略，并将在未来持续深化发展。我们期待着该项目为新型办公场所带来更多可能性。

(编者)









*3 Arealstrasse, summer, 1920. In 1889 there were 50 employees, and ten years later there were 238. In 1920 the number of employees at the St. Johann plant was about 900. All photos on pp. 8-13 courtesy of Novartis.*

区域街3号, 1920年夏。1889年, 圣·约翰工厂共有50名员工, 10年后, 人数增长至238名。至1920年, 员工总数约为900名。



# From St. Johann Works to Novartis Campus

Walter Dettwiler

论文:

从圣·约翰工厂到诺华园

沃特·德特威勒

Around 1850, the area just outside Basel was still completely rural. Basel was enclosed by the city wall, which separated the town from the surrounding countryside. Today's built-up areas St. Johann, Klybeck and Rosental were only sparsely populated. Ten years later rapid development took place, triggered by the chemical industry.

With the exception of sulphur manufacture, industrial chemistry started out as dye production. In 1856, the Englishman William Henry Perkin succeeded in synthesizing a dye for the first time – quite by chance. His discovery signalled the end of the traditional, largely plant-based textile dyestuffs, and launched gold fever in Europe: every colour specialist in dyestuffs and fabric printing tried to discover similar substances or at least to obtain the formula. As early as 1859, the silk dyer Alexander Clavel began to manufacture synthetic dyes in Basel, having obtained a licence to produce dyestuffs through his family connections with a French manufacturer. In the 1860s other companies began producing artificial dyes in Basel.

## Chemische Fabrik Kern & Sandoz: A Fabulous Beginning

In 1886, the Chemische Fabrik Kern & Sandoz started its production in the northwest part of the city. Like the other dye factories, it was built outside the former Basel residential quarter on an approximately 11,000 square meter lot. At the time it was not known that the new factory and its neighbours were occupying grounds that the Celts had settled between 150 and 80 BC. This settlement had reached a maximum extent of fifteen hectares.

The factory of the chemist Alfred Kern and the salesman Edouard Sandoz consisted of an office building with an adjoining laboratory, three connected sawtooth-roofed production buildings, and a boiler house with a twelve-horsepower steam engine. Unlike the Basel chemical factories in the early years, the new company enjoyed dynamic growth from the very beginning. Ten years after the factory's foundation, its grounds had expanded to over 63,000 square meters.

## World War I: Takeoff at the St. Johann Works

When World War I broke out in 1914, there was no indication that the Basel dyestuffs factories would soon be making record profits. Only with hindsight can we see that the unparalleled boom during the war years was a logical consequence. Since the dominant German competition disappeared, overnight the Basel chemical factories became the main suppliers for the English textile industry, the market leader at the time. In 1914 the turnover of the Chemische Fabrik vormals Sandoz, as the company was then known, was just 6 million Swiss francs. By 1916 it had already reached 29.5 million, growing in 1918 to 37 million francs! Thanks to the sensational increase in business, a far-reaching modernization and expansion of the production apparatus was implemented during World War I at the St. Johann Works, which was extended from the 1920s to the 1930s. The old sawtooth-roofed buildings gave way to multi-story manufacturing locations in which vertical operation was implemented for the first time. According to a contemporary

位于巴塞两市郊的这片区域直到 1850 年前后还仍是一片田地。巴塞尔城由城墙围合，城内与城郊界线分明。今天巴塞市的圣·约翰区、克里贝区和罗森塔尔区，在当时仅有零星几户人家居住。之后 10 年，化工行业的快速崛起带动了巴塞尔郊区的土地开发和建设发展。

除了硫磺生产企业，早期的化工行业都是从染料制造起步的。1856 年，英国人威廉·亨利·柏金首次成功地（也是非常偶然地）制造出化学合成染色剂。在此之前，纺织品染色剂绝大多数从染料植物中提取；化学合成染料的发明终结了传统的植物染料时代，也开创了一波欧洲的淘金热：所有染料制造业和织物印花业的从业者都潜心钻研新型化学染色剂，或退而求其次，寻求已有染色剂的合成配方。早在 1859 年，丝绸染色业主亚力山大·克莱弗尔就通过与法国某染料制造商的亲戚关系获得了生产许可证，开始合成染料。进入 19 世纪 60 年代后，巴塞尔的其他企业纷纷跟进，开始生产人工染料。

## 科恩与桑多斯化工厂时期：精彩开局

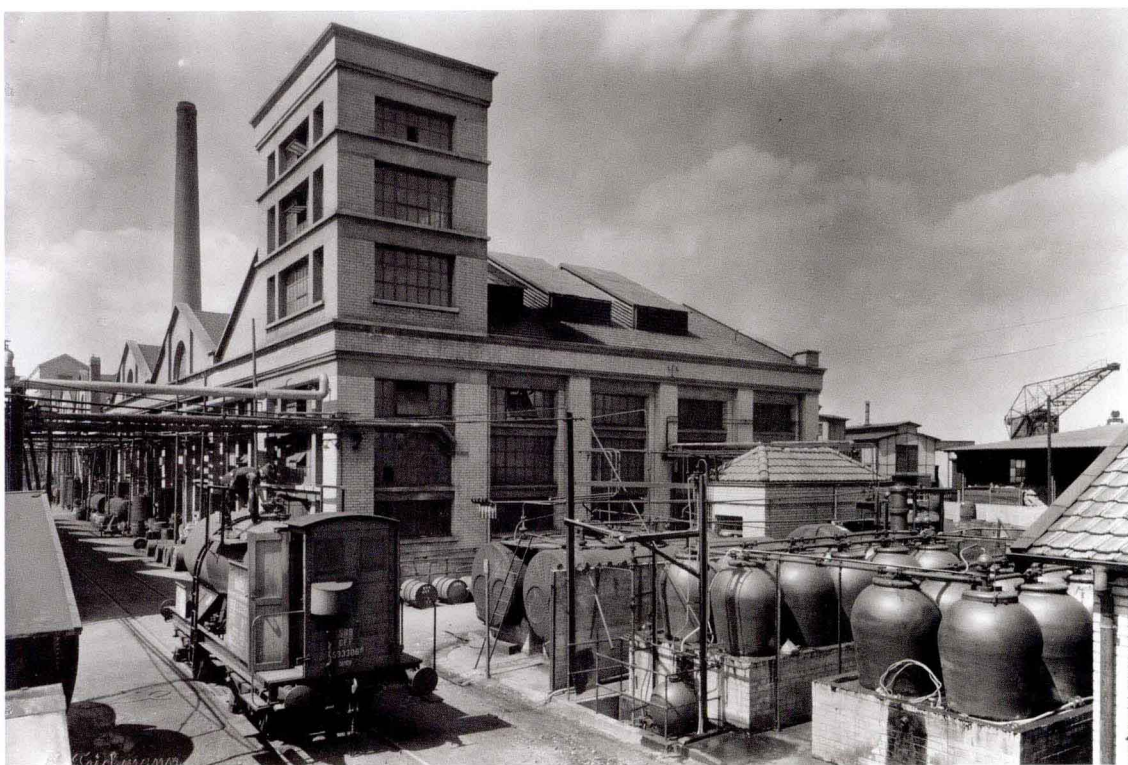
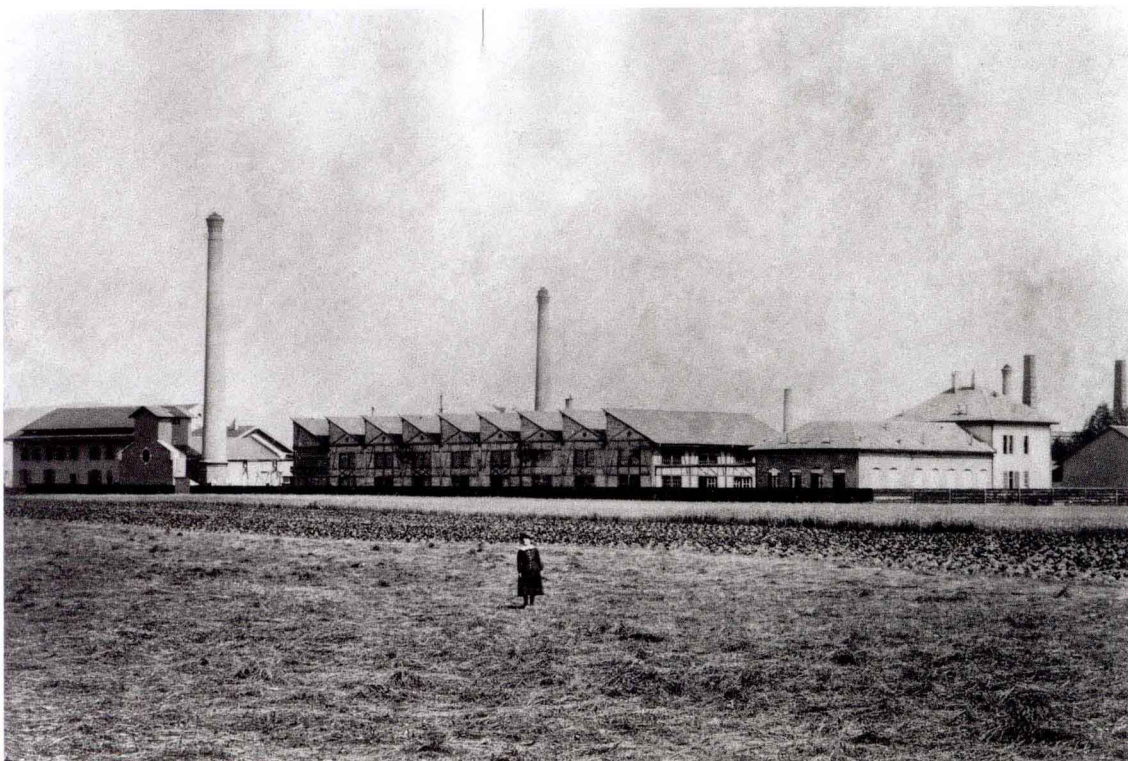
1886 年，科恩与桑多斯化工厂开业生产。当时，巴塞尔的染料企业都建厂于住宅区之外，科恩与桑多斯厂也不例外。它坐落于西北城郊，占地 11 000 m<sup>2</sup>。那时尚未考证出，该厂以及其他邻近工厂的基址早在公元前 150 至前 80 年时，曾为凯尔特人聚居地，范围最大达到 15 公顷。

该厂由化学家阿弗莱德·科恩与销售商艾德瓦多·桑多斯合伙创办。厂区内建有一幢办公楼和与之毗连的一座实验室，另有三幢连为一体的锯齿状屋面厂房，用作生产车间；还有一间锅炉房，内设一架 12 瓦力的蒸汽机。有别于其他早期的巴塞尔化工企业，科恩与桑多斯化工厂自从创业开始，就十分注重企业的成长活力。建厂 10 年后，厂区占地已扩大至 63 000 m<sup>2</sup> 以上。

## 第一次世界大战时期：圣·约翰工厂的起跳腾飞

1914 年，第一次世界大战爆发，当时尚未有迹象表明巴塞尔的染料企业会迅速从中受益并谋取前所未有的高额利润，只有当事后回溯才能看清这一局面的来龙去脉。那时，英国是纺织工业的市场主导，由于战时封锁，原先的主要竞争对手——德国染料供应商被踢出局，于是一夜之间，巴塞尔各家化工厂成为市场主要货源供给者。1914 年，当时的桑多斯化工厂仅有 600 万瑞士法郎的营业额；到了 1916 年，迅速增长至 2950 万；1918 年则高达 3700 万。20 世纪 20 至 30 年代，圣·约翰厂区得以持续进行并完成生产设备的现代化和扩张，都归功于一战期间的业务繁荣所积累的丰厚资本。老的锯齿形屋顶作坊被拆除，重建为多层厂房，新厂房内首次实行了竖向操作。据某一当代瑞士建筑杂志称，圣·约翰厂区的工业建筑考虑到了“时代的需求”，“就外观而言满足现代审美标准，就内部空间而言符合实用性要求”。





*Above: In the summer of 1885, Alfred Kern submitted a request for a building permit to the local Basel government. In September the government approved the building of a factory, which was begun that fall and completed in the spring of*

*1886. The photograph shows the first factory plant around 1890. Below: Manufacturing Plant I built 1917, ca. 1925.*

上：1885 年夏，阿弗莱德·科恩向巴塞尔市府递交了建设许可申请。同年 9 月，政府批准其项目申请，同意修建工业厂房。同年秋天项目动工，次年春竣工。照片中为第一座厂房，摄于 1890 年前后。  
下：建于 1917 年的厂房，摄于 1925 年。



Swiss architecture magazine, these new industrial buildings took into account “the demands of our time”, because they fulfilled “in reference to their exterior the striving for beauty, and in reference to their interior, the desire for practicality.” These were the industrial buildings of Ernst Eckenstein, who was the house architect of the company from 1915 until World War II. His last project on the St. Johann grounds was the administration building designed by Wilhelm Brodbeck and Fritz Bohny (Building 200). This triangle-shaped building, which was completed in 1939, was extended to form a rectangle through the addition of two wings after World War II.

### The 1950s and 1960s: The Boom Years of Buildings

The 1950s and 1960s were boom periods when the Basel chemical groups grew rapidly. The pharmaceuticals divisions developed into each company's largest business. From 1950 to 1969 the group turnover of Sandoz AG grew from 278 million to 2.5 billion Swiss francs. The appearance of the St. Johann Works changed fundamentally and at breakneck speed: the area was consolidated, unused lots were built upon, and old buildings were torn down and replaced with modern high-rises. In 1956, some 20 million Swiss francs per year was expended for only the most urgent needs, but by 1960 the building investments had doubled and in 1965 they rose to 80 million francs per year. In 1960, construction was begun on Area 5. The office and laboratory Building 503 was built here in two stages between 1961 and 1969 by Burckhardt Architekten and, at a height of seventy-seven meters, was extraordinary by Swiss standards. In 1965 the Burckhardt Architekten-planned offices of the Building 202 were completed: the structure today called Forum 2 was supposedly the first Basel industrial building to be built from prefabricated parts. In the same year the new restaurant for factory personnel run by Conrad Müller and his co-worker, Guido Doppler, went into business. In 1969 Sandoz finally took over the neighbouring dye manufacturer, Durand & Huguenin, and the surface area of about 29,000 square meters this accrued rounded off the St. Johann grounds in a useful fashion. In the 1970s the last significant aboveground buildings in the Basel Sandoz Works were built by Burckhardt Architekten and Burckhardt + Partner: in 1973 the laboratory Building 360 and the office high-rise Building 210, and in 1976 the research spaces of the Building 386.

### From Building Slump to Campus Kickoff

With the advent of the oil crisis in 1973, the long period of economic boom came to an end and gave way to an economic situation that was determined by much shorter upward and downward swings. As a consequence of the recession, Sandoz massively curtailed group-wide investments in buildings, facilities, and real estate beginning in 1975. This put a substantial brake on the formerly busy construction developments at the St. Johann Works. In the 1980s, investment activities started up again, whereby modernization of production facilities and projects for environmental protection and security took centre stage. The only “visible” new construction on the St. Johann grounds until the merger in 1996 from which Novartis emerged was the Building 25. This building, which went into operation in 1994, served the production of prioritized active pharmaceutical ingredients. The renovation and reconstruction of the Building 200 – today called Forum 1 – was completed in 2002, and at the end of this reconstruction phase the inner courtyard of the building was also redesigned. These last projects were simultaneously the starting point for the redesign of the entire St. Johann grounds into a “Novartis Campus of Knowledge”.

项目负责人恩斯特·埃克肯斯坦于1915年至二战期间担任桑多斯公司的主任建筑师。圣·约翰厂区由他所主持的最后一个项目是行政管理大楼（200号楼），由威尔海姆·布罗德贝和弗里茨·波尼设计。这座建筑呈三角形，1939年竣工，二战后，加盖两翼后变成长方形。

### 20 世纪 50 至 60 年代：建设高峰期

20 世纪 50 至 60 年代是建设高峰时期，当时巴塞尔各大化工企业都纷纷迅速发展壮大。化学制药业逐渐成为主导业务。从 1950 年到 1969 年，桑多斯集团公司的营业额从 27 800 万急速攀升至 25 亿瑞士法郎。其圣·约翰厂区也日新月异，改头换面：建筑密度大幅提高，空地迅速动工开发，老房子推倒拆除，现代化高层建筑一幢幢树立起来。1956 年，约 2000 万瑞士法郎投放于最为紧急的资金需求上；到了 1960 年，年度建设资金翻倍增长；1965 年，该项数额更攀升至 8000 万。1960 年，第 5 区的建设项目开始破土动工。1961—1969 年间，该区兴建了用于办公和实验室的 503 号楼。工程分为两期，由布克哈特建筑事务所主持设计。503 号楼的建筑高度达到 77 m，在当时的瑞士已属杰出不凡。1965 年，用于办公的 202 号楼（即今天的弗伦姆广场 2 号）顺利竣工，该建筑由布克哈特事务所规划设计，是巴塞尔有史以来第一座用预制构件建造而成的工业建筑。同年，员工专用餐厅正式开业，由科拉德·慕勒及其同事圭多·杜普勒创办经营。1969 年，桑多斯公司并购了邻近的杜兰德与胡格宁染料厂。该举措将圣·约翰区的工业用地悉数收纳在桑多斯公司名下，其厂房占地面积增加了约 29 000 m<sup>2</sup>，有效充实了厂区的使用条件。20 世纪 70 年代，桑多斯公司的最后一波建设热潮进入尾声，由布克哈特事务所和布克哈特与合伙人事务所承担项目：1973 年，实验室用的 360 号楼和办公用的高层建筑 210 号楼完工；1976 年，研究中心 386 号楼建成。

### 建设衰退期到诺华园项目启动

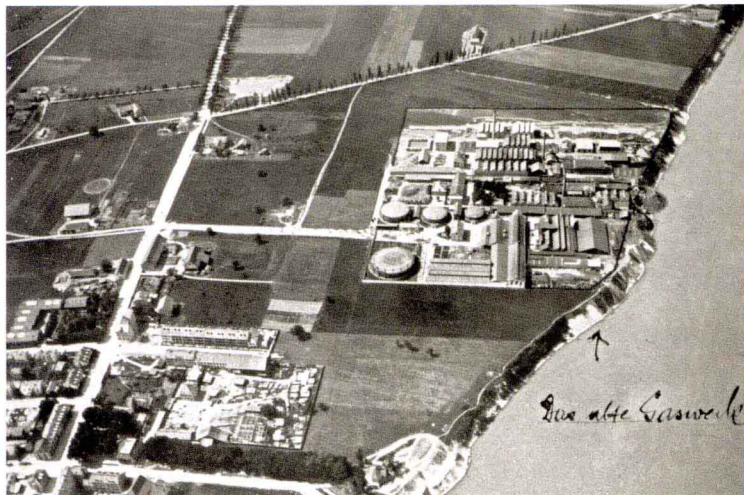
1973 年爆发的石油危机终结了为时已久的经济繁荣时代。随后，经济形势短幅振荡，起起落落。桑多斯公司从 1975 年开始大量削减建设资金、设备投资和房地产项目。先前蓬勃兴盛的建设工程一时驻足不前。20 世纪 80 年代，建设投资再度启动，但主要以生产设备的更新换代、环境保护项目和安全项目为重点。在此期间，圣·约翰厂区仅新建一座 25 号楼，于 1994 年投入使用，用于活性药物成分的生产制造。1996 年经过并购之后诺华集团成立。200 号楼的维修和重建工程于 2002 年竣工，建筑改名为弗伦姆广场 1 号。项目临近最后阶段时，又增加了内部庭院的景观工程。这些项目标志着圣·约翰厂区向诺华园项目的转换和过渡，以之为起点，诺华集团将致力于打造一处“诺华知识园区”。

（陈霜译）

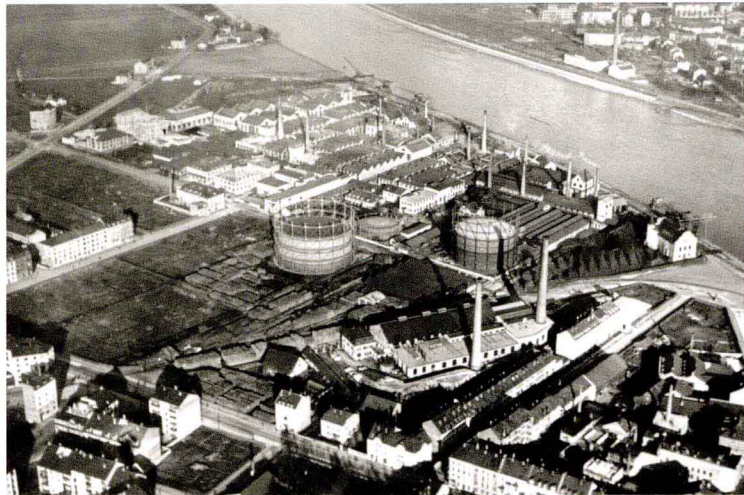
**Walter Dettwiler** (born in 1960) is director of the Novartis company archive. He studied history and philosophy, and has worked at the Schweizerische Landesmuseum in Zurich as well as the Historisches Museum in Basel. In addition, he has been active as a freelance historian.

沃特·德特威勒（生于 1960 年）现任诺华集团档案室主管。德特威勒主修历史与哲学，供职于苏黎世的瑞士国家博物馆和巴塞尔的历史博物馆。此外，他还是一位活跃的历史学自由撰稿人。





1)



2)



3)



4)



5)



6)

1: Gasworks and factory facilities by Durand & Huguenin and Sandoz & Cie. The photograph was taken from an altitude of 450 m from the balloon Urania on June 16, 1895.

2: Aerial photograph, between 1914 and 1920.

3: Aerial photograph with the

St. Johann grounds in the left background, ca. 1926.

4: Aerial photograph, 1936.

5: Partial view of the St. Johann grounds, aerial photograph, September 1958.

6: Aerial photograph, 1995.

1. 杜兰德与胡格宁染料厂、桑多斯化工厂两家的煤气厂及工厂设施。照片是从450 m 高空的气球(名为“拉尼亚女神”)上于1895年6月16日拍摄的。

2. 航拍照片, 摄于1914-1920年期间。

3. 航拍照片, 左侧为圣·约翰厂区, 摄于1926年左右。

4. 航拍照片, 摄于1936年。

5. 航拍照片, 圣·约翰部分厂区, 摄于1958年9月。

6. 航拍照片, 摄于1995年。









Aerial photograph of the Novartis Campus and its environs looking in the direction of France and Germany. 2005. Photo courtesy of Conet. Photoshopping GmbH, Novartis.



