中国是外国建筑师的实验场吗?

随着我国业主对“好建筑”的需求日益增加，国际建筑大师在中国的土地上设计建筑已是司空见惯。在感叹大师带来的全新美学感受之时，人们往往以“实验场”一词批评业主对“洋大师”毫无控制力。事实上，这样的批评指出了中国建筑产业链中更为深层而敏感的问题：

业主筹备建筑项目时，无论延请国外或是本国建筑师，是否应有从策划到执行上的相应准备，并为日后使用做好长远打算？

建筑亦是一种“生活着的有机体”，如何才能结合业主、建筑师、工程师、建造商、使用者等的力量，以岁月磨砺出“坚固、实用、愉悦”且适于生活的好建筑？

我国最大的民营房地产企业——万科从2005年开始筹建其位于深圳的公司总部——万科中心。经过多轮竞标，美国建筑大师斯蒂文·霍尔（Steven Holl）以“水平的摩天楼”方案拔得头筹。该方案复杂的结构和严格的绿色建筑要求，使得万科的建筑团队和设计方团队共同付出了巨大的努力，终于在2009年建成。员工入驻之后，发现了种种使用问题，万科又请来国际景观大师玛莎·施瓦茨及其他著名建筑师，逐一对万科中心整体景观、岗亭、室内外泳池等进行了进一步改造，并且还有一系列改造正在进行中。

本书以万科总部历史、竞标过程、设计与建造、使用与未来等章节，采访了上百名有亲身经历的业主方、设计方、建造方和使用方代表，汇集了数千张图纸、工作模型和建造过程照片，整理了过程中数以万计的文件和资料，第一次从筹建到使用、全方位深入地展示了一座国际大师设计的建筑的诞生、建造、使用，以及人们对它的思考。

学会和好建筑相处，是创造更多好建筑的开始。我们希望本书能为当前中国的建设大潮提供有益的思考。

Is China the experimental field for foreign architects?

Along with the increasing demands for “good architecture” by our local owners, it is commonly seen that the international master architects design buildings in China. Besides the exclamations of new aesthetic feeling by the masters, people often use the word of “experimental field” to criticize our local owners having no control towards “foreign master architects”. In fact, such criticism points out the deeper and sensitive problem in China’s building industry chain:

When we plan an architecture project, no matter foreign or local architects shall we invite, should we have some corresponding preparations from planning to implementation, and the long-term plan for future use?

The architecture is a living organism. It is critical to combine with the strengths of owners, architects, engineers, contractors and users after years of polishing and refining to form the solid, practical and joyful buildings that are also suitable for living.

China’s largest private real estate enterprise Vanke began to prepare its headquarters—the Vanke Center in Shenzhen since 2005. After several rounds of bidding, the master architect Steven Holl finally won the competition by the scheme of “Horizontal Skyscraper”. For its complicated structure and strict requirements of sustainability, Vanke’s construction team and the design team paid great efforts together. The building was completed in 2009. However, after the settlement of employees, many problems in usage were emerged. In this case, Vanke invited some famous international landscape designers and architects such as Martha Schwartz to further improve the whole landscape of the building, such as sentry box, indoor and outdoor swimming pool etc., and there are still a series of transformation under way.

The book is comprised of several chapters on development history, bidding process, design and construction, use and future, including the interviews towards hundreds of representatives of users, designers, contractors and owners, organized data of thousands of drawings, models and photos during the design and construction phases. It is considered the first comprehensive analysis of the birth, construction phase and usage of the building by top international architect, as well as people’s thoughts.

Learning to get along with the good buildings is the beginning of creating more.

We hope this book can offer thoughts of benefit for the rapid construction development in China.

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水平的摩天楼

Horizontal Skyscraper

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第一次全面解析一个建筑的前世今生

Total Reveal of a Masterpiece's Past, Present and Future

竞标与概念 Competition and concept / 设计与建造 Design and construction / 使用与未来 Use and future

一座水平、等长的纽约帝国大厦

A horizontal skyscraper as long as Empire State Building is tall

漂浮于花园之上，是万科的新家
Floating above the garden, Vanke's new home resides

新印象 New Impression 002

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序言 I
不确定的建筑

六年前的一天，设计师斯蒂文·霍尔把方案拿到我面前，开始介绍他的设计。没一会儿，我插话说：“你不用多说，从第一眼开始，我就已经喜欢上这栋大楼了。”

按照规划，这栋大楼必须承载多种功能：万科总部、深圳万科写字楼、万科大学、体验中心、图书馆、万科博物馆、酒店、国际会议中心，不仅体量大，而且形态复杂。但受城市规划限制，近海的“万科中心”高度十分有限。要考虑充分利用自然采光，进深也不能超过20米，建筑体型也受到限制。怎么办？

霍尔采用了最简单的办法：把建筑水平拉成长条形，一字长蛇阵，再截取数段，安放到主体腹部的一侧，像延伸出来的枝条。

现在看俯瞰图，有人说像AK47冲锋枪，有人说像恐龙。

大楼从最东端到最西端，长380米，这么一个庞然大物如果横放到地面，势必会像一堵巨大的墙，阻挡南面吹来的海风。到夏季，北面学校的孩子们会闷热难耐。怎么办？

霍尔的想法是：完全不占用地面空间，把整个建筑抬升起来，建筑物下方可以让海风吹过，可以绿化，可以向市民开放。怎么把建筑抬起来呢？答案是：用悬拉索，像造桥一样造楼。

这就有了“漂浮的地平线，躺着的摩天楼”。人们从市区驱车过来，穿过七个隧道，在风格各异的度假建筑中，万科中心均质的水平展开，面朝大海，城市界面完全架空，若干草坡在眼前，给人一种强烈的感觉：不确定。

今天，甚至未来，我们还在不断微调大楼的内外部环境：种植吸引蝴蝶的金橘和马樱丹，养殖中华蜂，形成互动的小环境；装备小型气象设备；托管大楼红线外的人工湖，在湖上引入小型帆船和划艇；进行湿地植物净化水质的试验；在人工湖上安设三个浮岛，吸引白鹭到此栖息。还会有长度为1公里的塑胶慢跑道、健身房、室内外游泳池、羽毛球馆、攀岩壁，还要建设体验中心、万科博物馆、万科大学、旅馆，还加设图书馆、讲座、咖啡厅等，所有这些合在一起，你想到的是什么？是的，大学校园！

2012年初，哈佛大学主办的“亚洲企业伦理研讨会”在万科中心举行，新儒学大师杜维明与会。大师对万科中心一见倾心，和我相约明年一定再来！我告诉大师，明年来到时，他会看到许多新内容。这是一个不断变化、不断创新、不断有新内容加入的万科校园，一个联系周边居民，为万科人服务，吸引世界各地优秀人才的未来社区。

我期望，它会持续一直变化，不断纳入大大小小新的内容。它有点像现在的中国，充满不确定，由事件驱动，一点点找到自己。

对于这栋大楼，我们没有确定的答案。它已经超越商业，我们也没有打算用经济账来衡量它的想法。但是它有明确的思想：开放、自由、平等、万科人的社区。在这里发生的所有事，但凡尊重了这些思想，都会被鼓励。

简·雅各布斯曾经说过一个故事，美国某市建城时，有四个大小、形状完全一样的公园，经历200年后，却差异极大：有的变成了城市交通圆盘，面积大大减小；有的变成肮脏混乱的角落；有的成为黄金商业地段。原本初衷相同、资源也相同的城市空间，会因为时间、环境和管理者的思路导致截然不同的结果。

设计师霍尔架空万科中心，是为了给大梅沙——这个几乎连沙滩都私有化的地方创造一个城市公园。这个公园是友好的，开放的，甚至在四季如夏的深圳创造出足够多的阴影和海风对流，尽量适于人们停留。他也给万科人留出了一个白、一个难题：如何让空间不只是空的，而是友好的、宽容的、多样的？——这个答案不会现在得出，也不会在未来几年内得出。可能是几十年，上百年。

王　石

万科企业股份有限公司集团董事会主席

Foreword I
The Building of Uncertainty

Six years ago, Steven Holl presented his design proposal to me. In a short while, I interrupted him and told him that I fell in love with it at the first sight.

According to the plan, the building must be multipurposed: Vanke Headquarters, Shenzhen office building, Vanke university, experience center, library, hotel, museum and International Conference Center. It demands not only a massive volume but also a complicated form. However, with the restriction of city plan, the height of Vanke Center is limited. Take natural light into consideration, the depth should not be wider than 20 meters, and the shape of the building is also limited, so what should we do?

Holl employed the simplest method: stretching the building into a linear structure, then cut it into several pieces and place them on one side of the main body like a branch extending from its trunk.

If we take an aerial view of the building, somebody may say it looks like an AK47 machine gun while others may think it looks like a dinosaur.

For such a huge and long building, 380 meters from the east end to the west, it will undoubtedly block the sea wind coming from the south like a giant wall if it is placed onto the ground. Therefore, children in the schools in the north will feel uncomfortable and hot in summer. What should we do?

Holl's idea is to lift the whole building to completely free the ground space so that sea breeze blows beneath the building. The ground space can also be used as green area open to citizens. But how to lift it? The answer is to use suspension cable, like building a bridge. Thus, the "floating horizon skyscraper" appeared. People from downtown drive through seven tunnels and various types of holiday buildings to reach sea-facing Vanke Center which is expanded horizontally. The urban context overhead and grass slopes in front together create a strong feeling of uncertainty.

Today, and even in the future, we will constantly improve the internal and external environment of the building: to grow kumquat, lantana and breed bees to form comfortable micro-climate; to install small meteorological equipments; to manage the artificial lake outside the building and to introduce small sailing boats and rowboats; to conduct wetland plant water purification experiments; to build three floating islands to attract egrets. According to the plan, there will also be a running path, a gymnasium, indoor and outdoor swimming pools, a badminton hall, climbing walls, an experience center, Vanke museum and Vanke university, a hotel, a library, lecture halls, a coffee shop, etc. With all these facilities together, what does it look like in your mind? Yes, a university campus!

At the beginning of 2012, "Asia Business Ethics Seminar" was held by Harvard University in Vanke Center, the new Confucianism master Tu Wei-ming was invited. Prof. Tu fell in love with our building at first sight, and we made a deal to meet here again next year. I told him there will be more new contents. The Vanke campus is never lacking of changes, innovations and new contents which continually connect us and surrounding residents, it is a community that will serve people of Vanke and attracts talents from all over the world.

I hope that the center will continue to change and absorb new elements, big and small, just like today's China which is full of uncertainty and tries to find itself, driven by one event after another.

For the building, we have no definite answer. It is beyond business matters, and we do not intend to measure its value with economic standards. It has a clear direction: a community for all people of Vanke with qualities of openness, freedom and equality. All things happening here will be encouraged as long as they respect these values.

Jane Jacobs once told a story: one city in the USA built four parks of the same size and shape. However, after 200 years, they looked totally different: some became traffic roundabouts with a significant reduction in area; one was turned into a dirty corner while the others became bustling business area. Urban spaces with the same purpose and resource will lead to totally different results according to time, context and management principles.

Vanke Center, designed by Holl, is lifted to offer a city park to Dameisha —— a place where even beaches are private. This park is friendly and open, creating enough shadow and wind to make people in here comfortable. Holl also leaves a difficult and unsolved issue to our people of Vanke : how to make a space not empty but friendly, tolerating, and diversified? —— The answer may not be clear right now, or even in the next few years. It may take decades, or even hundreds of years for us to have the answer.

Wang Shi

Chairman of the Board of Directors of China Vanke Co., Ltd.

序言 Ⅱ
建筑的哲学

“水平”的摩天楼

建筑共分四类：地下的建筑、有地下结构的建筑、无地下结构的建筑，以及悬浮的建筑。在第四种建筑中，水平的摩天大楼属于一个相对较新的建筑类型。直到20世纪早期，建筑还完全受限于重力的作用；而像莫斯科广播塔、巴黎的埃菲尔铁塔这样的结构，则预示了克服重力的可能性。

1921年，在前苏联莫斯科高等艺术暨技术学院的拉多夫斯基（Ladovsky）自由国家艺术工作室，一个名为“飞行城市”的项目首次成型。当时，诗人维克多·维斯宁（Victor Vesnin）也手绘了一些有机悬浮架构。1926年，莫斯科的埃尔·利西茨基（El Lissitzky）设计的“钢铁之云”，是最早可以称作水平摩天楼的项目。

在1997年，埃尔·利西茨基根据图纸制作了一个模型，从模型中可以看出，设计中的大楼桁架数量过多。大约在同一时间，意大利的皮耶罗·波尔塔卢比（Piero Portaluppi）提出了一些有关水平摩天大楼的想法，但这并没有解决埃尔·利西茨基项目中的问题。

1926年，马列维奇制作了Architecton Alpha建筑模型，这一作品启发了整个建筑界，为它的蓬勃发展开了一个好头。

我现在正在设想一种物质，白色玻璃、混凝土、有焦油的质感，可用电进行加热。这样我们就可以营造一个不需要管道和线缆的星球。这样一颗可居住的星球以黑色和白色为主色调。或者，在特殊情况下，根据国家之前的武力较量或活跃程度，还可采用红、黑、白三色来区别。

这样一颗星球，其内外区域必须都是有形体，并且有简单的结构，人类可以任意择地驻家，天气好的时候，人们甚至可以直接坐在地上。星球自身的系统结构可以帮助它一直保持洁净。人们甚至可以毫不费力对它进行日常清洗。同时，这也是一颗具有高度文明的星球，因此从各种角度来说，它都是无害的。

在我长大的小镇里有一座水平的摩天楼，我每天都能看到它。这个1949年建造的“锤头式起重机”至今仍然屹立在华盛顿布雷默顿（Bremerton）。如果那时的你和我一样差不多四五岁的话，布雷默顿就是你的全部世界——这就是建筑。当时的布雷默顿没有其他什么显眼的建筑，所以，可以说，这幢建筑便是我文化认知的开始。

在这座锤头起重机上，悬挂着一栋四层楼高的建筑，这让当时的我叹为观止。之后的研究中，我发现尤纳·弗莱德曼（Yona Friedman）在1959年也提出了类似的理论，这是非常重要的。

1977年，我在纽约开始了我的实验性建筑工作，当时我没有客户和佣金，所以我不得不从头做起。我为哥伦比亚大学普林提斯·霍尔出版社（Prentice Hall）画了一座布朗克斯区体育馆大桥（Bronx Gymnasium Bridge），当时我的哥哥在这所大学攻读艺术硕士学位。有5个年轻的建筑师被邀请到兰德尔岛（Randall's Island）参与一项人行天桥的设计竞赛，我建造了一个“体育馆桥”。当时的设想是，人们可以一边打拳击，一边从布朗克斯区南部步行过桥。没有工作的人也可以在这座桥上通过锻炼赚钱，所以这里也成为人们走进正常生活的桥梁。由于桥的尺寸无法容纳一个篮球场，所以我专为这座桥设计了一个“长形的篮球场”。

1988年，我们赢得了为柏林的美国纪念图书馆做建筑设计的机会。其中包括一个儿童阅览室，位于一座横跨于现有建筑的桥上，形成一个翻书的流线造型。1989年，我们在菲尼克斯城搭建了很多“空间杆”(Spatial Retaining Bars)，用以扩展城市的范围，同时达到保护沙漠的作用。这些混凝土材料的框架结构从花园中拔地而起，可作为居民楼、写字楼等多功能建筑。

在各类实验性的建筑设计中，相比于建筑本身，建筑内空间的形成过程才是我们的首要目的，这也是我们深圳万科中心的建设中所融汇的理念。

中国：质疑与民主

一位中国学者曾说过：“如果你想透彻地了解中国，你必须读她的诗……”诗歌可以通过模糊美和悬念，为内容赋予自由的形式。伟大的中国诗歌如同一座可以跨越时间的桥梁，让人们在主观与客观之间找到平衡点。传统的阴阳之道和道家的音乐美学思想都是古代人类对浩渺宇宙的解读，二者都反对对事物的绝对定义。阴可指水，房子及阴影，还有女性精神；阳代表光、农业、狩猎捕鱼、清新的空气、开放和男性精神。这种相互交融的循环动态地描述了万物的规律。中国古代诗人重视生活的具体层面，他们不相信那些所谓的未来和天堂。通过一枚落叶、一片雪花、一缕阳光、或是投影在湖面上的明月，人们可以窥见一个世界。对于具体事物的体验帮助人们接受永无止息的变化。一句“桃花流水杳然去”道破了中国诗歌的中心思想——世事无常。

老子（公元前604—前531）曾写到：“埏埴以为器，当其无，有器之用。”这种“无”便是建筑的核心理念。诗歌和建筑之间原本就有很多共通之处。从城市空间的多角度重叠到反射在拱腹面上的粼粼波纹，建筑总能为我们提供一个存在性的立足点，即使我们有时还会花费时间去寻求所谓的终极模糊和怀疑状态。

在历史上，西方的诗歌意境高远，中国诗则着眼于现实和日常细节。为了体验这些细节，人们需要动用自己的所有感官：听觉、触觉、视觉、味觉和嗅觉，正是这些感官的体验将建筑和诗歌联系在了一起。基于这些感官的作用，我们可以想象一座自由漂浮于地表之上的建筑，这建筑本身又通过空间、光线及其反射而和地面交互。

正如无止境的地平线勾勒着大海无止境的空间，建筑也可定义类似的空间，在这个空间里，充满了很多可实现的经验，这些经验也可以向多个维度延伸。空间和体验无限延伸直至诗歌和建筑共有的极致境界。与西方对极致的定义不同，中国古代的诗人们从道家的角度在已知和未知之间对极致的境界进行解译。

作为一个对极致模糊和怀疑的追求有着深厚历史积淀的国家，今天的中国正在经历历史上最大规模的城市化进程。在21世纪的第一个十年，中国的建设和生产速度急剧增长。此水平摩天楼的所在地——深圳——是地球有史以来发展最为迅速的城市之一。在中国，我们致力于在建筑中为公众创造互动空间，这也是我们关注的核心问题。

建筑是一项耗时的工作。一座真正优秀的建筑仅绘图就需要一年多的时间，另外还要耗费两年左右的时间来搭建。建筑的寿命可持续数十年，甚至是数百年，古老的建筑甚至可以对一个地域的政治局势产生影响。鉴于多层面的不确定性，在21世纪，我们必须学会在充满歧义和疑问的环境下工作。也许我们可以在这些疑问的牵引下，再次和古代的中国诗人对话，从中体会他们在客观和主观中寻求平衡的大智慧。

“只有一种力量能够抵御世界的毁灭，那就是创造。”
——肯尼斯·雷克斯雷斯（Kenneth Rexroth），1957

斯蒂文·霍尔
斯蒂文·霍尔建筑事务所主持建筑师

Foreword Ⅱ
Architectural Philosophy

Horizontal skyscraper

There are four types of architecture: under the ground, in the ground, on the ground, and over the ground. The fourth type and its extreme, the horizontal skyscraper, is a relatively new building type. Until the early part of the 20th century, architecture was confined to expressions of the consequences of gravity. Towers, like the Shukhow Tower in Moscow, or the Eiffel Tower in Paris revealed the potential to overcome gravity.

In the USSR in 1921, in Ladovsky's studio at VKhUTEMAS, produced a project called Flying City. At that time, the poet, Victor Vesnin drew some organic suspended architectures. The 1926 project for Moscow, Cloud of Steel by El Lissitzky, is the most resolved early horizontal skyscraper.

As revealed in a model of 1997, made from the drawings that El Lissitzky produced, the proposed building had a problem of too many trusses. Around the same time, the Italian Piero Portaluppi proposed a kind of horizontal skyscraper fragmentation, without the resolution of the El Lissitzky project.

In 1926, perhaps the most ambitious and inspirational beginning can be felt in the architecture of Malevich. This quote from Malevich is about Architecton Alpha:

"I am now thinking of a material, white opaque glass, concrete, tarred felt, heating by electricity, a planet without pipes. The coloring of the residential planet is predominantly black and white. Red, black, and white, an exceptional circumstance, as it depends on the tension of the states of powers, and its weakness in dynamism."

"The planet must be universally tangible for man, inside, as well as outside. The planet is as simple as a tiny speck, everywhere accessible to the man living in it, who, in fine weather, may sit on its surface. The planet, thanks to construction and system, will afford the opportunity to keep it clean. It can be washed every day, without the least difficulty, and thanks to its small stature, is harmless."

I grew up in a town facing a kind of horizontal skyscraper. This 1949 "Hammerhead Crane" still stands in Bremerton, Washington, 1950. When you are four or five years old, and Bremerton is your reality, this is architecture. There was no other significant Bremerton architecture, so this was my sort of cultural beginning. There's a four storey building hanging off of this hammerhead crane, which, to me, was quite wonderful. Later in studies, Yona Friedman's work of 1959 was important.

I started my experimental architectural works in New York in 1977, without clients or commissions. I had to invent the projects from scratch. I drew the Bronx Gymnasium Bridge in Prentice Hall at Columbia University, where my brother was doing a Masters of Art. Five young architects were invited to a competition to make a pedestrian bridge on Randall's Island, I made this a "gymnasium bridge." The idea was you could box your way out of the South Bronx. The unemployed could earn money doing sports in the gymnasium as a bridge to a more normal life. I couldn't fit a basketball court inside of this plan; I invented "long basketball," in order to fit the bridge.

In 1988, we won the competition for the Amerika Gedenkbibliothek in Berlin. The children's library is in a bridge that spanned over the existing building, completing the "browsing circuit." In 1989, we did a project "Spatial Retaining Bars," which is about the sprawl in Phoenix and protecting the desert. These concrete frames would rise from courtyards and be multifunction buildings, residences, and live/work buildings.

China: doubts & democracy

A Chinese Scholar said "if you wish to understand China at all, you must read her poetry…"

Poetry sets matter free, embracing ambiguity and doubt. As a bridge across time, great Chinese poems balance the subjective and the objective. The notions of Yin and Yang, the musical core of the Dao, resist absolute definition and yet their rhythm offers an ancient understanding of the universe. Water, the house, its shadow, and the female spirit are Yin; light, agriculture, hunting and fishing, fresh air, openness, and the male spirit are Yang. This cyclic combination describes a dynamic cosmic order. Ancient Chinese poets loved the concrete aspects of life; they had no belief in a future heavenly world. They would find illumination in the falling leaf, flakes of snow, sunlight, dapples on waves, or the white mirror of the moon on a lake. Attention to the physical experiences of the concrete opens us to impermanence and the dynamics of change. The impermanence of things, a central idea in Chinese poetry, is captured by the saying "the peach blossom follows the moving water." The experience of being is suggested by moving water; the peach blossom provokes the idea of the empty vessel.

Lao-Tse (604 BC—531 BC) wrote: "We can turn clay to make a vessel, but it is the space where there is nothing that the usefulness of the vessel depends."

This 'space of nothing' is at the core of architecture. It is among many phenomenological aspects which link poetry and architecture. From the overlapping perspectives of inspiring urban space to the material glowing of sun-reflected water ripples on a soffit, architecture offers an existential foothold, even as we occupy a time of extreme ambiguity and doubt.

Historically the poetry of the West aimed at high subjects, while the Chinese have aimed at the earth and the phenomena of the everyday. These experiential dimensions engage all of the senses; sound, touch, sight, taste, and smell join the architectural with the poetic. Without losing connection to the basic senses, we can imagine an architecture that floats free of the earth, yet is bound to it by space, light, and reflection.

Just as the unending horizon above the sea inscribes "oceanic" space, architecture might inscribe an analogous space that is teeming with potential experiences and capable of extending in multiple dimensions. This oceanic extension of space and feeling opens the realm of the sublime in poetry and in architecture. Rather than a western definition of sublime, a Daoist origin of the sublime traces its interpretation of the known and unknown to ancient Chinese poets.

From an historic foundation of sublime ambiguity and doubt, today's China is undergoing one of the largest urbanizations in history. China's abrupt increase in construction and production accelerated in the first decade of the 21st century.

Shenzhen, the site of the Horizontal Skyscraper project, is one of the most rapidly growing cities in the history of the planet. Creating spaces of public interaction has been a central concern of the architecture we have aimed to realize in China.

Architecture takes time. A good building takes over a year to draw and two years to construct. The duration of a work of architecture may be decades or even centuries, allowing it the potential to influence several waves of changing political climate. As uncertainty prevails on many levels, we must work in a climate of ambiguity and doubt in the 21st century. Perhaps this thread of doubt connects us again with the Chinese poets who had an enlightened way of balancing the objective and subjective.

Against the ruin of the world there is only one defense, the creative act.
—Kenneth Rexroth, 1957

Steven Holl
Principal Architect of Steven Holl Architects

序言 Ⅲ
不断变化的建筑

2009年9月28日傍晚，我和十多位同事从老总部——梅林路63号出发，冒雨徒步行走三十多公里，第二天早上来到了大梅沙万科中心，我们的新总部。

转眼，我们已经在这里上班三年，大楼四周陆续增加了许多东西：混凝土雕塑、气象站、塑胶跑道、鲜花浮岛、蜜蜂箱子……湖面上也多了几张美丽白帆。每当早晨或者傍晚，我穿上跑鞋，从楼下跑过，穿过绿色山丘，吹着海风，感觉充满活力，也感觉很酷。

直到现在，每次我看到这座建筑，心中依然有一种新奇的感觉——不是因为它的庞大规模或别致设计，而是因为它的内容一直在变化，未来也依然会变化。

每个变化，都是一次创新。带来这种变化的是大楼内外的人，是他们头脑中的思想和创新精神。

我印象最深的是，今年6月，万科中心举办了两场公开论坛，日本建筑大师安藤忠雄和英国年轻建筑师托马斯·赫斯维克的演讲，每场都吸引了一千多名来自省港深的青年。那时的万科中心，就像过节一样。想不到，思想的魅力不仅让人渴求，还能带来那多么快乐！

我想，这一幕最切合万科人理想中的总部大楼：它是万科人的社区，但它更是属于公众的，属于年轻人的，属于未来的；它应该是一个永远的校园，让许许多多年轻人在这里学习，发展，碰撞，释放他们的活力。

郁亮

万科企业股份有限公司集团总裁

Foreword Ⅲ
Everchanging Architecture

In the evening of 28th September 2009, my colleagues and I started from our old headquarters—no.63 Meilin Road, walked more than 30 kilometers in the rain and reached the Dameisha Vanke Center on next day morning, our new headquarters.

In a flash, we've been working here for three years, there are many things had been added around the building: concrete sculpture, meteorological station, runnig path, floating island of flowers and more white sails on the lake surface. Every morning or evening, I put on my runners running through green hills, with blowing sea breeze, feeling vigorous and cool.

Until now, each time I see the building, I still feel impressed, not because the massive volume or delicate design, but its everchanging contents. There will be more changes in the future.

Every change is an innovation. It is the people working inside the building that bring such great changes, the innovative thinking and spirit in their minds.

What impresses me the most is that Vanke Center conducted two public forums in June, invited Tadao Ando and Thomas Heatherwick to give the speech, each presentation attracted more than one thousand young people from mainland and Hong Kong. It was like celebrating the festival. Surprisingly, the charm of thinking is not only desirable, but also brings great happiness and pleasure.

I believe this energetic scene is really the ideal picture of the building for the people of Vanke: it is the community of people, but more importantly, it belongs to the public, the youth and the future; it shall be a ever-lasting college for young people learning, studying and displaying their passion and creativity.

Yu Liang

Group President of China Vanke Co., Ltd.

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0.Development History of Vanke Center

万科中心发展历程

从国商大厦、和平路50号、水贝二路27号直到梅林路63号建筑研究中心，万科中心一路搬迁。不到三十年，万科的员工人数从1984年的67人发展至近4万人，营业额从五千多万发展至上千亿，总部面积也从三千多平方米发展为十二万平方米。总部，仿佛一个沉默的朋友，一路见证了万科这一企业生命中的重要事件：诞生、股份化、上市、转变思路、扩大发展……事实上正是万科总部功能和面积的一路发展，才一点点画出了大梅沙万科中心的梦想起点和路径。

From National Commerce Building to No. 50 Heping Road, from No.2 Shuibei road to No.63 Meilin Road, Vanke headquarters had been moving all along. In less than 30 years, the staff number of Vanke increased from 67 to nearly 40 000, revenue had grown to billions and building area developed to 120 000 m^2. Vanke's headquarter is like an old friend who had witnessed the growth of Vanke: the company establishment, entering into stock market, company listing, tranformation and expansion. In fact, it was the gradual growth of Vanke headquarter that step by step drew out the starting point and path of Vanke Center, Dameisha.

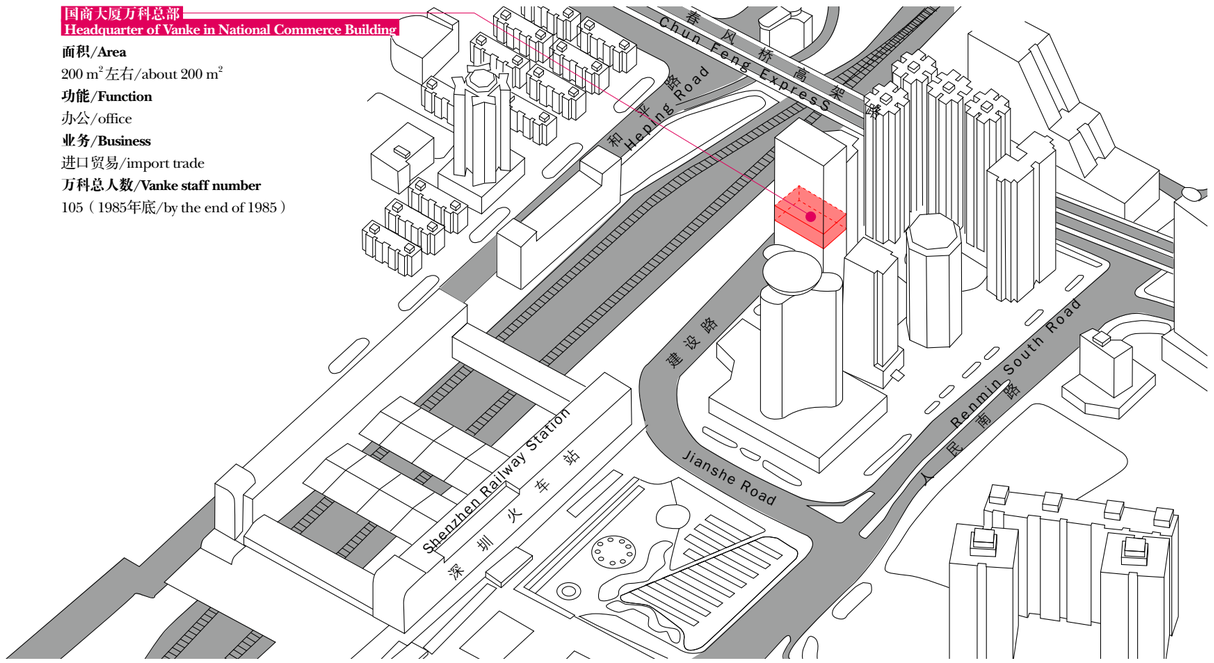
地点:
国商大厦二层
深圳市建设路1号
1984.05 – 1986

1984年5月30日，万科在深圳罗湖区建设路南口一座名叫国商大厦的多层建筑中诞生了。1992年邓小平南巡俯视深圳并留下珍贵照片时所站的那座大厦，正是此处。
万科成立时名叫“深圳现代科教仪器展销中心”，占据了国商大厦的整个二层，性质为国营企业。手持3000万美元调剂外汇，万科成为当年深圳的外汇储备大户和最大的视频器材进口销售商，经营办公设备、视频器材的进口销售业务。1984年底，万科员工总数达67人，公司完成营业额5785万元，实现利润538万元。
1985年，面临国家对计划外外汇和机电产品进行全面清理的恶劣环境，万科主动裁员20%，同时形成深圳调汇进货、广州储运、北京销售的“三点一线”模式。到年底，万科经销的专业摄录像设备占全国计划外市场60%，员工增至105人。

On May 30th, 1984, Vanke was established in a multi-story building named National Commerce Building. The building is located at the southern junction of Jianshe Road, Luohu District, Shenzhen. It was the exact place where Deng Xiaoping stayed when he was inspecting Shenzhen in 1992.

Location:
Second Floor
National Commerce Building
No.1 Jianshe Road, Shenzhen
1984.05 – 1986

Vanke was founded with the name "Modern Science Equipment Center". It was a state-owned enterprise and covered the whole second floor of National Commerce Building. Holding nearly 30 million USD of foreign exchange for swap, Vanke became a large depositor of foreign exchange and the biggest import merchant and retailer of video equipment in Shenzhen that year, who ran the import and sale business of office devices and video equipment. At the end of 1984, Vanke had 67 staff in total, gained a turnover of 57.85 million RMB and realized the profit of 5.38 million RMB.
In 1985, facing harsh reality of thorough liquidation of unplanned foreign exchanges and electrical products by the state, Vanke actively laid off 20% of the employees and simultaneously formed a mode of "Three point and one line"—foreign exchange purchase in Shenzhen, storage and transportation in Guangzhou, and sales in Beijing. By the end of the year, the professional camera and video recording equipment sold by Vanke had accounted for 60% of national unplanned market, and the staff number had increased to 105.



国商大厦万科总部
Headquarter of Vanke in National Commerce Building

面积/Area
200 m^2左右/about 200 m^2
功能/Function
办公/office
业务/Business
进口贸易/import trade
万科总人数/Vanke staff number
105（1985年底/by the end of 1985）


1984年5月30日，万科出生在深圳市建设路1号。
Vanke was established at No. 1 Jianshe Road, Shenzhen on May 30th 1984.


万科前身“现代科教仪器中心”注册成立，经营办公设备和摄录机进口销售业务。
Modern Science Equipment Center (MSEC), as the predecessor of Vanke Group, was successfully registered, engaged in import and export trading.


“现代科教仪器中心”成立时，王石只有33岁。
Wang Shi was only 33 years old when MSEC was founded.


“现代科教仪器中心”开幕式上的来宾。
The guests in the opening ceremony of MSEC.


“现代科教仪器中心”开幕式上，王石正与来宾交流。
Wang Shi was communicating with the guests during the opening ceremony.


万科当年的职员正在讨论。
The older generation of Vanke staff was discussing and sharing ideas.


最右为邓奕权，万科的第一个员工，从特发集团饲料科开始就跟着王石干。
Deng Yiquan (right) is the first employee of Vanke, who worked with Wang Shi since they were at Tefa Group.


东门新区三栋404房，当年邓奕权和王石同住三年的地方。三房一厅，一人一房间，剩下那间做客房，客厅就是办公室。
Wang Shi and Deng Yiquan had shared a house at No.44 East Gate New Direct for three years. For three bedrooms and one living room, they lived in two bedrooms separately, the third bedroom was the guest room and the living room functioned as the office place.


王国荣，万科的第一批员工之一，在万科做过从招聘到注销公司全过程的所有工作，并且在公司举办了他的婚礼。
Wang Guorong, one of the first generation of Vanke's employees, worked almost every position, even held his wedding in the company.


涂志云，万科的第一批员工之一，入职万科时甚至不满20岁，从产品介绍员开始，最终成为专业的财务。
Tu Zhiyun, one of the first generation of Vanke's employees, was less than 20 years old when he entered the company, started as a product guide. Then, she became a professional financial staff.


邱强，万科的第一批员工之一，万科集体户口簿上的第一人。
Qiu Qiang, one of the first generation of Vanke's employees, was the first person on the Collective Registered Residence of Vanke.


万科最早的员工之一张笑美的工作证和笔记，她于1984年4月1日入职。
Zhang Xiaomei was one of the earliest employees. This is her employee card and working notes, she entered the company on April 4, 1984.


张笑美当年的“我和我的同事”相册。
The photo album of “my colleagues and me” of those years.


由于做贸易，万科当年的职员常无法顾家，因此公司专设房管员二人，帮助六七十户员工家庭换煤气、装电话等。
Because many employees were too busy to take care of their families, Vanke hired two special employees to help family members to switch the gas cylinders or set up phones, etc.


1992年邓小平南巡站在国商大厦楼顶，正是万科渡过婴儿期的建设路1号。
In 1992, former Chairman Deng Xiaoping stood at the top of National Commerce Building, located at No. 1 Jianshe Road where Vanke was born.

地点：
九龙海关单身宿舍
深圳市和平路50号
1986 – 1993.06

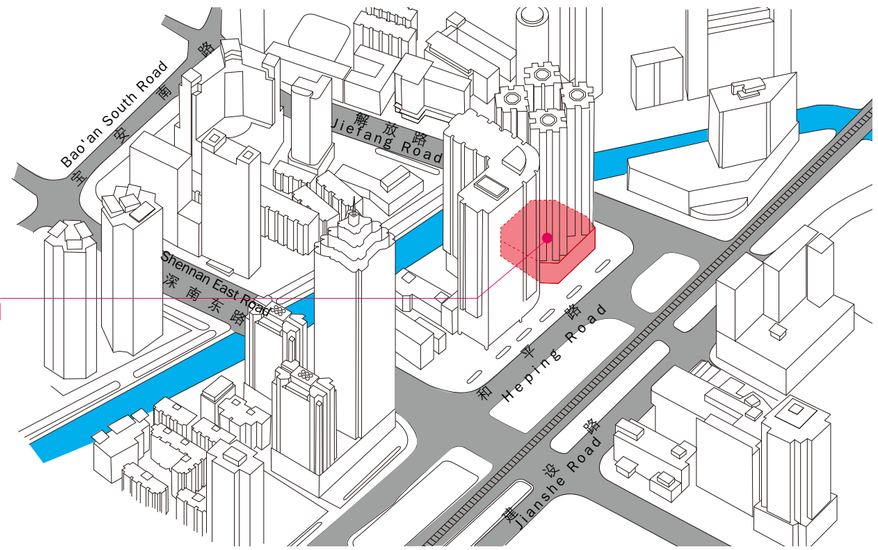
Location:
Bachelor Quarters of Kowloon Customs
No.50 Heping Road, Shenzhen
1986 – 1993.06

1986年，万科成立“深圳国际企业服务公司”以经营展览、广告等业务，并作出以股份化和上市为目标的战略决策，决定开展出口和来料加工等多种业务。由于业务不断扩展，万科保留国商大厦二层作为展场，同年将总部搬迁到和平路50号一栋由九龙海关三层单身宿舍改建而成的办公楼。为了办厂，1987年万科以495万元人民币在深圳市水贝工业区购置了一座六层厂房。6年之后这座厂房成了万科集团总部的办公楼。1988年11月21日，深圳市政府批准了万科的股份化改造方案，公司定名为“深圳万科企业股份有限分司”。12月28日，万科股票公开发行，公司资产及经营规模迅速扩大。同年11月，万科以2000万元人民币“天价”竞投获得深圳的一块地，正式介入房地产领域。1989年，万科招股顺利完成，召开了第一届股东例会，成立了由王石等11人组成的第一届董事会。

1990年，万科初步形成了商贸、工业、房地产和文化传播的四大经营架构：商贸方面投资连锁零售业务，也就是后来的万佳百货；工业方面已拥有彩色印刷、制衣、电子装配等生产能力；房地产方面建成并售罄万科第一个地产项目“深圳天景花园”，实现利润2000万；文化传播方面涉足电影制片及激光影碟等新领域。至1992年，万科的地产已先后在深圳、上海、厦门、香港、青岛、天津、北海、沈阳、鞍山等多座城市落成，万佳商场在武汉和乌鲁木齐先后开办，旗下还拥有怡宝纯净水等品牌，同时还对国内13家公司进行股权投资，金额总计4500万元。

"Shenzhen International Enterprises Service Company" was founded by Vanke for exhibition operation and advertisement in 1986. With the strategy of entering the stock market and going public as its target, Vanke decided to launch multiple businesses including export trading and materials processing. As its business expanded, Vanke reserved the second floor of National Commerce Building as the exhibition hall. In the same year, it moved its headquarter to an office building which was reconstructured from a three-storey bachelor dormitory of Kowloon Customs on No. 50 Heping Road. In order to set up the factory, Vanke spent 4.95 million RMB buying a six-storey plant in Shuibei industrial area in Shenzhen in 1987. Six years later, this plant became the office building of headquarters of Vanke Group. On November 21st, 1988, Shenzhen Government approved Vanke's proposal of shareholding reform, and the company was named "Shenzhen Vanke Co., Ltd.". Vanke's assets and operation expanded significantly with its shares offered to the public on December 28th. In November of the same year, Vanke received a piece of land in Shenzhen through bidding with "an extremely expensive price" of 20 million RMB and officially entered into the real estate market . In 1989, Vanke succeeded in raising capitals by floating shares, and then held the first General Meeting of Shareholders and founded the first Board of Directors consisted of 11 members including Wang Shi.

By 1990, Vanke had initially formed four operation frameworks—— commerce, industry, real estate and communications. It had invested in retail business in terms of commerce, which later became Vanguard Department Store; In terms of industry, Vanke had the production capacity of color printing, clothing, electronics assembly and so on; As for the real estate, Vanke had established and sold out its first real estate project "Shenzhen Sky Garden", gaining the profit of 20 million RMB. Vanke had set foot in new fields, such as film-making and laser disc in the aspect of cultural media. By 1992, the real estate of Vanke had made advancements in many cities like Shenzhen, Shanghai, Xiamen, Hong Kong, Qingdao, Tianjin, Beihai, Shenyang, Anshan, etc. Wanjia shopping mall was established one after another in Wuhan and Urumchi. It also owned brands like Yibao pure water. At the same time, Vanke had made equity investment in 13 domestic companies, with total sum of 45 million RMB.



和平路50号万科总部
Vanke Headquarters at No. 50 Heping Road

面积/Area
600 m^2 ~1 629 m^2
功能/Function
总部办公/headquarter office
业务/Business
商贸、工业、房地产、文化传播/
commerce and trade, industry, real estate, communications
万科总人数/Vanke staff number
442（1992年底/by the end of 1992）


1986年新年伊始，万科迁往和平路50号一座“在当时看来特别前卫的建筑物”。
At the beginning of 1986, the site of Vanke office was changed into “an avant-garde building at that time” located at No. 50 Heping Roan,


和平路50号办公室内忙碌而秩序井然。
Busy but organized inside the office at Heping Road.


1987年，万科开始生产“精时牌”石英手表，并开始联合进行进口摄录像设备的散件组装销售，因此四处参加各种展览，寻找商机。
In 1987, Vanke began to produce the “Jing Shi” watches and started the business of import and sales of equipments parts, touring around to find business oppotunities.


万科当时生产的礼品模型。
The gift model of Vanke at that time.

1988年12月27日，万科的招股通函在《深圳特区报》第二版刊登，这是国内第一份按照国际惯例面向公众在报纸上刊登的招股通函。
On December 27th 1988, Vanke published the prospectus files and registration statement on Shenzhen Daily.


1992年，加拿大温哥华证券代表团来万科访问。
Securities delegations of Vancouver Canada visited Vanke in 1992.

王石为公司内部讲解万科股份化全程运作。
Wang Shi giving speech on stock operation of Vanke.


万科动员职工去街头摆摊卖股票，公司100来人几乎都派出去了，公众也积极认购。
Almost every Vanke's employees went to sell stocks on the street.

1989年3月28日，深圳会堂举行了万科第一届股东例会。
Vanke held the first shareholder meeting in Shenzhen on March 28 1989.


万科于1990年完成的第一个地产项目“深圳天景花园”。
The first real estate project of Tianjing Garden was finished at Shenzhen in 1990.


1991年，万科邀请日本地产专家来公司培训。
In 1991, Vanke invited Japanese real estate experts to train the employees.

1991年，万佳商场在深圳友谊城购物中心B座四楼开业，营业面积2000平方米，率先提出“不满意就退钱”的口号。
Vanguard Shopping Mall opened on the 4th floor of Shenzhen Friendship Building B in 1991, business area covered 2000 m^2, firstly making the slogan of “refund when unsatisfied”.

1991年，万科初涉电影业，与长影合作拍摄《离婚合同》。
Vanke worked with Changying Film to shoot a movie *Contract of Divorce* in 1991.

1992年9月28日，上海万科房地产有限公司开业。
Shanghai Vanke Real Estate Development Co., Ltd started business on September 28th 1992.


1992年，青岛银都花园项目动工。
The project of Yindu Garden in Qingdao started construction in 1992.

地点：
万科大厦
深圳市罗湖区水贝二路14栋
1993.07 – 2001.12

1993年，万科将工业生产基地搬到百门前工业区，腾出的水贝厂房经过简单装修，成了总部办公楼。同年3月，万科成功发行4500万股B股，于1993年5月28日在深圳证券交易所上市，筹资4.5亿港元，保障了其之后的跨地域发展战略。

1993到1997年，在许多发展商艰难度日的宏观调控期间，万科地产的规模却以平均70%的年均速度递增，1998年成为了沪深两市市值最大的房地产企业。1996年，万科转让了怡宝的全部股权，并在随后几年坚决收缩非核心业务，集中资源发展房地产业务。最终在2001年9月，随着万科完成万佳股权的转让，正式退出零售行业，万科的专业化战略调整全面完成，成为真正意义上单一业务的房地产集团。

1998年，万科管理团队进行日本住宅市场考察，受一家煤气公司的展厅启发，决定万科建设的第一座自用建筑应该是能同市民交流的建筑研究中心，次年便选址在梅林路63号。1999年2月，王石辞去总经理职务，意在作为董事长“腾出更多时间和精力去学习、去思索、去交流，才有可能在更高的层次上对市场作出准确的判断和决策。”在访问硅谷时，王石注意到“它的环境轻松、自由、能够激发人的想象力和创造欲。置身其中怎不令你热爱珍惜生活，怎不令你焕发想象力，焕发创新的欲望!”当时便决定“回到深圳要改造办公环境，创造员工愿意置身其中，能够精神饱满工作的办公环境”。2001年，建筑研究中心主体完工。

In 1993, Vanke moved the industrial production base to the previous Baimen **Industrial Z**one and then the empty Shuibei plant became the office building of headquarters after simple decoration. In March of the same year, Vanke succeeded in issuing 45 million B stocks. The company was listed in SZSE on May 28th, 1993 with the financed 450 million HKD, its later

Location:
Vanke Plaza
Unit 14, Shuibei 2nd Road, Shenzhen
1993.07 – 2001.12

trans-region development strategies had been secured.

From 1993 to 1997, though many developers were struggling to **survive during** macro-control, the scale of Vanke Real Estate was progressively increasing at an average of annual rate 70%, and became the real estate enterprise with largest market value in Shanghai and Shenzhen in 1998. In 1996, Vanke transferred all the equity of Cestbon mineral water, shrank the side businesses and focused its resources to develop real estate business in the following years. Finally, in September, 2001, with the completion of Vanguard's equity tranfer, Vanke officially retreated from retail industry and had completely finished professional strategic adjustment, thus becoming the real estate group with a single business focus.

In 1998, the Vanke management team conducted a market research in Japan. Being inspired by the exhibition hall of a gas company, the team decided that the first in-house building for Vanke should be an Architecture Research Center which can communicate with the public. A year later, the site was chosen in No.63 Meilin Road. In February 1999, Wang Shi resigned his CEO position to spare more time and efforts for further studying, speculating and communicating, which can make it more possible to make accurate verdicts and decisions for the market at higher level. During his visit to Silicon Valley, he noticed that "its environment is relaxing, free, and able to rise people's imagination and desire for creation. How could you not love and cherish your life, wake to your imagination and creation in such a place!" At that time he made up his mind that "I will improve the work environment so that my colleagues will be willing to stay, and work with full spirit when I return to Shenzhen". In 2001, the main building of Architecture Research Center was completed.

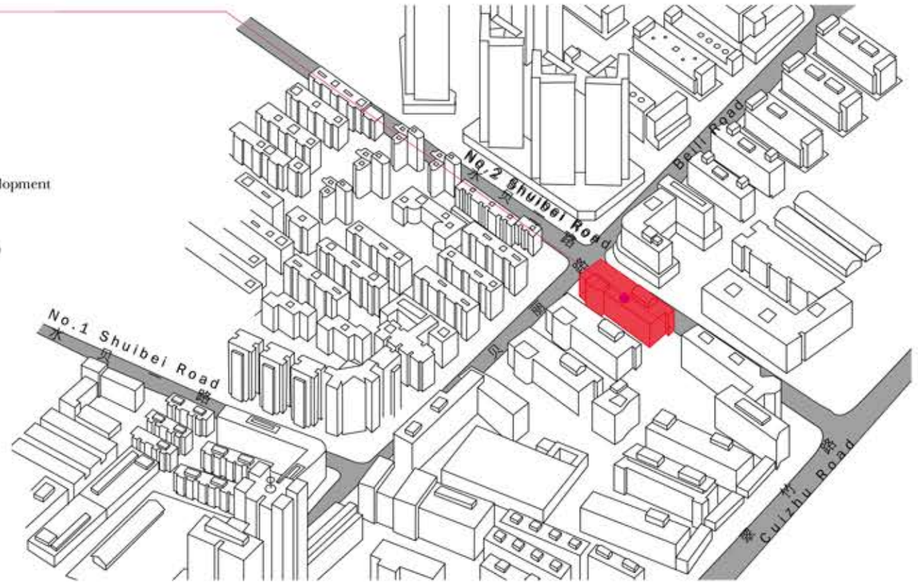
万科大厦
Vanke Plaza

面积/Area
8 000m²

功能/Function
总部办公/headquarter office

业务/Business
逐渐缩减为房地产单一业务/
gradually reduced to a real estate development with a single business focus

万科总人数/Vanke staff number
6 055（2002年底/by the end of 2002）




1993年7月，万科总部迁至深圳市翠竹北水贝二路14栋万科大厦。
Vanke headquarters was moved into Vanke Plaza at Cuizhu North Road of Shenzhen in July 1993.


1993年，上海万科城市花园开工典礼。这个项目为万科日后在城郊结合部大规模开发住宅小区积累了不少经验。
Shanhai Vanke City Garden was held the commencement ceremony in 1993. The project offeted rich experience of developing residential communities at the joint of urban and rural areas for Vanke.

1993年水贝二路万科总部的前台。
The reception desk of Vanke headquarters at Shuibei 2nd Road in 1993.


1993年，深圳海神广场奠基。这个高层写字楼项目后来被证明决策失误，改建为如今的俊园。
A grand foundation stone laying ceremony for Shenzhen Haishen Plaza was held in 1993, because of mistakes on decision, the high-rise office building was renovated into Vanke Amber Jun Garden.

1994年7月，万佳百货平价广场开业，迅速带动所在的华强北成为商业黄金地段。
In July 1994, Vanguard department store opened for business, driving the surrounding area of Huaqiang North into a business golden district.

1994年，上海万科城市花园首批业主入住，图中为看房专车。
In 1994, the first group of owners of Vanke City Garden in Shanghai moved into the community. A bus shuttle in the picture.

1995年，万科投资200万美元的电影《兰陵王》获得洛杉矶桑塔克瑞塔最佳外语片奖等奖项，但票房惨败。
Vanke invested 2 million USD to produce the film of Warrior Lanling, which won the Best Foreign Language Film at San Sebastian Film Festival but failed at the box office.


水贝二路办公场景。1995年，万科整顿了快速发展中的质量和受贿问题。
The office scene at Shuibei 2nd Road. In 1995, Vanke took some measures to rectify the problems of corruption and quality in development.


1995年，在海滩举行的万科内部生日会。
Vanke celebrated its birthday at beach in 1995.


1996年，万科物业赢得鹿丹村住宅小区的物业管理权，打破了“谁开发，谁管理”的传统模式。
Vanke won the rights of property management to Ludan residential community in 1996.


1997年，王石受邀向朱镕基总理汇报工作，两人就“住宅是否能成为国民经济支柱产业”进行了讨论。
Wang Shi was invited to report his work to Minister Zhu Rongji, and started a discussion on "is residential housing the national economic industry?"

1998年是万科的“职业经理年”，意在建设以职业经理人为主体的人力资源管理体系。
The year of 1998 was named as “the year of professional manager”, aiming to build a HR management system of professional managers.


1998年，万科开始建立自己的客户会——万客会。
Vanke established an organization for clients – Vanke Property Customers Club in 1998.


1999年，深圳梅林关外的“万科四季花城”建成售罄，并荣获国家康居示范小区。
Wonderland Shenzhen was completed and sold out in 1999, and won the national awards of Comfortable Housing Project.


2000年，万科职员正向华润来客介绍公司业务，这一年华润受让特发所持有的万科股权，成为万科最大的股东。
Staff is showing the company's business to guests. In 2000, China Resources became the biggest shareholder of Vanke.

地点:
万科建筑研究中心
深圳市福田区梅林路63号
2002.01 – 2009.09

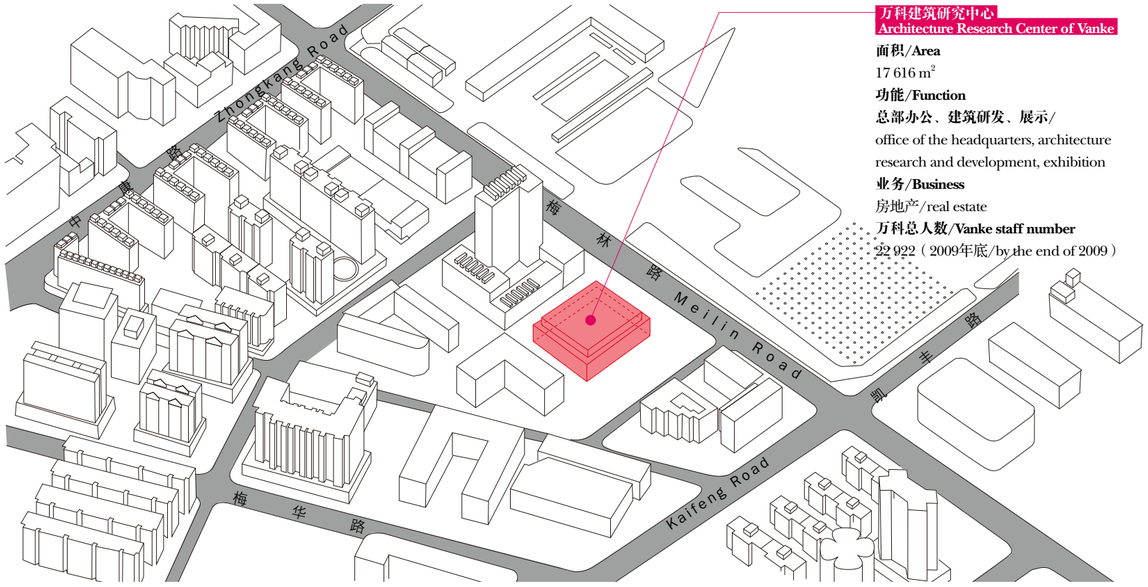
2002年1月，万科总部搬入深圳市福田区梅林路63号万科建筑研究中心。当年，中国银行将万科的授信总额度提高到15亿元人民币，之后万科向社会公开发行总额15亿元人民币的可转换公司债券，万科资信能力进一步增强。同年提出“建筑无限生活”概念。

2003年，万科开拓以深圳为中心的珠江三角洲区域、以上海为中心的长江三角洲区域、以沈阳为中心的东北区域，形成深圳、上海和沈阳区域管理中心，并先后进入中山、广州、大连和鞍山四个城市。2005年，万科受让上海南都、苏州南都和浙江南都部分，加速了长三角战略布局。“万科”被国家工商行政管理总局认定为全国驰名商标，成为中国房地产界第一全国驰名商标。2006年，万科受让北京市朝万房地产开发中心的60%国有产权，在环渤海区域的发展迈出具有战略意义一步。万科成为唯一进入2005年度“中国纳税百强”的房地产企业，并在广州试点建设城市中低收入人群住宅。2007年11月，万科被建设部授予企业联盟型“国家住宅产业化基地”，并与中国航空工业第一集团公司、中国建设银行股份有限公司、CapitaLand Retail Limited等签署战略合作协议。同年更换品牌标识，口号改为“让建筑赞美生命”。2008年，万科投资建设的中低收入宜居住宅示范项目“万汇楼”交付入住，而汶川地震后，万科全额捐建的四川绵竹遵道镇学校主教学楼及卫生院综合楼也交付入住。

In January 2002, the headquarters of Vanke was moved to the Vanke Architecture Research Center located in No.63 Meilin Road, Futian District, Shenzhen. In the same year, Bank of China upgraded the credit amount to 1.5 billion RMB for Vanke. After that, Vanke publicly issued convertible bonds worthy of 1.5 billion RMB, which strengthened its credit capacity. The concept of "Buiding Infinite Life" was proposed in the same year.

Location:
Vanke Architecture Research Center
No.63, Meilin Road, Futian District, Shenzhen
2002.01 – 2009.09

In 2003, Vanke started its business in Peral River Delta with the center of Shenzhen, Yangtze River Delta with Shanghai at the center and Northeastern Region with Shenyang at the center, forming the regional management centers in Shenzhen, Shanghai and Shenyang. In addition, it entered into Zhongshan, Guangzhou, Dalian and Anshan successively. In 2005, Vanke transferred its Shanghai Nandu, Jiangsu Nandu, and Zhejian Nandu, which accelerated its strategy arrangement in Yangtze River Delta area. "Vanke" was identified as national well-known trademark by the State Administration for Industry and Commerce, and became the top national well-known trademark in China's real estate industry. In 2006, 60% state-owned property rights of Beijing Chaowan real estate development center was transferred to Vanke, taking a step of strategic significance in the region surrounded by the Bohai Sea. Vanke became the only real estate enterprise that had been listed as one of the "China's top 100 tax paying enterprises" in 2005 and began the construction of pilot work for low income citizens in Guangzhou. In November, 2007, Vanke was awarded "National Housing Industrialization Base" of enterprise alliance type by the Ministry of Construction, and signed strategic partnership agreement with China Aviation Industry Corporation, China Construction Bank co. ltd, and CapitaLand Retail Limited. In the same year, Vanke replaced its trademark and changed the slogan into "Architecture–our tribute to life". In 2008, moderate and low-income group's livable housing demonstration project "Wanhui building" invested and constructed by Vanke was delivered for residence, so did the main teaching building and the health care complex building of Sichuan Mianzhu Zundao school donated by Vanke after Wenchuan earthquake.




2002年1月，万科总部搬迁至中国深圳市福田区梅林路63号万科建筑研究中心。
Vanke headquarters was moved to Vanke Architecture Research Center located at No.63 Meilin Road Futian District of Shenzhen in January 2002.


建研中心的设计师朱建平让各部分功能空间互相渗透，象征着万科的“透明化、规范化和专业化”。
Vanke Architecture Research Center, designed by Zhu Jianping, enjoys a well organized structure with each space connected, symbolizing Vanke's concept of transparency, standardization and professionalization.


2002年，深圳万科金色家园的业主因万科将规划中的地面绿地改为三层屋顶花园而集体抗议，最终王石出面公开道歉。
In 2003, the owners of Golden Home Community protested the decision of changing the green zone in planning into three-storey roof garden, the event ended up with Wang Shi's public apology.


王石在登山途中写博客。2003年，王石成功登顶珠穆朗玛峰。
Wang Shi blogging during mountain climbing. He successfully reached the summit of Everest in 2003.

2003年万科19周年庆上员工表演《四只小天鹅》。
Staff performed the Dance of Four Swans in the 19th anniversary ceremony of Vanke in 2003.


2004年万科20周年庆，为服务了20年的老员工颁发欧米茄手表。
Senior workers were awarded by Omega watches to honor their 20 years' contribution to Vanke in the 20th anniversary ceremony in 2004.

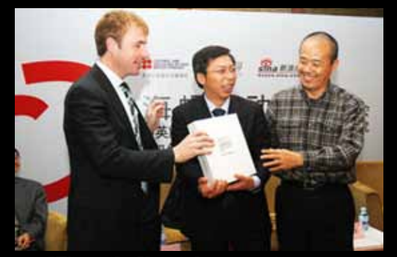
2005年，“万科”被国家工商行政管理总局认定为全国驰名商标，成为中国房地产界第一全国驰名商标。
Vanke was recognized as national famous brand by the State Administration for Industry and Commerce, becoming the top brand of nation real estate industry in 2005.


王石和探险队友在南极。2005年，王石成功抵达南极点和北极点。
Wang Shi and his teammates were at the South Pole. In 2005, Wang Shi successfully reached the South Pole and the North Pole.

2005年，万科进入中国纳税百强。
Vanke became one of the top 100 tax paying companies of China in 2005.


2007年11月12日，万科“国家住宅产业化基地”揭牌仪式。
The opening ceremony of “national housing industrialization base” of Vanke was held on November 12 2007.

2007年，万科新标识发布会，口号改为“让建筑赞美生命”。
Vanke held the Press conference of new corporate identify as "Architecture–our tribute to life" in 2007.


2007年万科发起“海螺行动”，关注低收入人群居住问题。
Vanke started the activity of “Conch action” in 2007, focusing on the housing issue of low income group.


2008年，万科投资建设的中低收入宜居住宅示范项目“万汇楼”交付入住。
The Pilot project of The Commune of Vanke invested for low income group was completed and ready for occupancy in 2008.

汶川地震后，万科迅速召开临时股东大会通过无偿捐助1亿元人民币议案，并参与救助。
After Wenchuan earthquake, Vanke quickly responded with stockholders' meeting, donating 100 billion CNY to disaster relief and actively participating in post-disaster reconstruction.

万科全额捐建的四川绵竹遵道镇学校主教学楼于2008年完工并交付。
Vanke donated money to build Zundao School at Mianzhu of Sichuan. In 2008, the project was completed and came into service.

数据：

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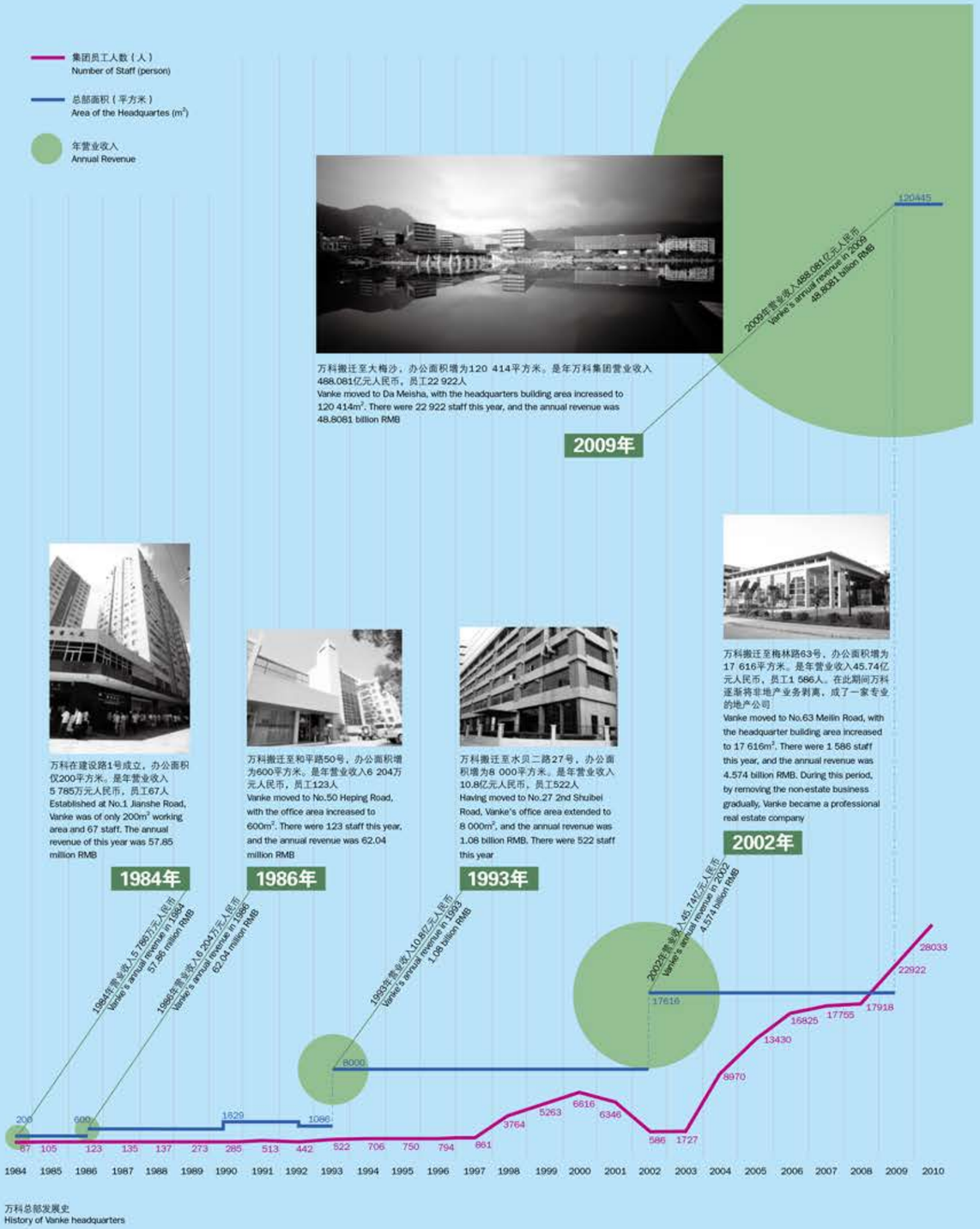


万科总部发展史
History of Vanke headquarters

第一章 Chapter 1

访谈与评论：王石，斯蒂文·霍尔，肖博，徐洪兵，朱建平与房扬/interview and comments: Wang Shi, Steven Holl, Xiao Nan, Xu Hongbin, Zhu Jianping and Nelsons

万科中心发展历程/Development history of Vanke Center

访谈与文章：斯蒂文·霍尔，李虎，傅学怡，朱志荣，朱建平，彭兴宇/interview and essays: Steven Holl, Li Hu, Fu Xueyi, Zhu Zhirong, Zhu Jianping, Peng Xingyu

访谈与文章：玛莎·任石茨，钱强/interview and essays: Martha Schwartz, Qian Yuan

1.Competition and Concept

竞标与概念

2005年、2006年万科前后邀请了五家国内外事务所进行了两次竞标，国内国外的众多优秀建筑师都为万科中心贡献了他们的思想。

竞标时，万科给出的任务书除了最基本也是面积要求最小的功能——万科总部，以及政府作为用地附属条件的国际会议中心和五星级会议酒店，还有公寓和SOHO，共计五大区块。当时万科“不希望做一个放哪都行的方案，比如这个方案做完了，放纽约也行，放欧洲也行，放北京也行。这个场地背山面海，属于亚热带气候带，我们希望建筑是基于这个场地和气候设计、形成的东西……另外就是希望底层有一部分架空。”

据万科高管回忆，万科中心的竞标评选过程“是比较模糊、随意的……之前是纯粹的头脑风暴，自己没有想清楚、没有找到方向，更无法告诉别人什么东西。反而是让别人提供靶子，如果否定，就是这个方向不行，那就再寻找一个方向……保留的东西就是下一步再征求方案时需要坚持的。”

终于，在2006年的某一天，斯蒂文•霍尔把方案拿到王石面前，开始介绍他的设计。双方颇有几分心意相通的默契，没一会儿，王石就插话说：“你不用多介绍，其实从第一眼开始，我就已经喜欢上你的这栋大楼了。”

In 2005 and 2006, Vanke Group invited five architecture firms both within China and abroad to participate in two competitions. Many excellent architects made their contributions to Vanke Center.

During the process of bidding, Vanke offered the brief, in addition to Vanke Headquarters, the International Conference Center and five-star Conference Hotel required by government as the attached conditions of land using -- there are five blocks including apartments and SOHO. At that time, Vanke did not want to do "a project that could fit into everywhere, for instance, a plan which can be put into New York, Europe and Beijing as well. The site is near mountain and facing the sea, and belongs to the subtropical climatic zone. We hope that the building is specifically designed for the site and the climate...what's more, we hope the ground floor is partially lifted."

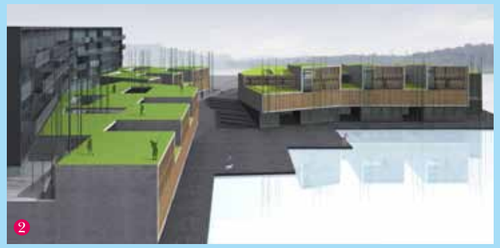
According to the memories of Vanke executives, the bidding and selection process for Vanke Center was "unclear and random... it was a completely brain storm at the beginning, we didn't have any clear ideas, nor the right directions, and can't provide with anything to anybody. Instead, the direction was proposed by others, if it was negative, then we had to look for another one... what we kept was the solutions we need to adhere to during the next step."

Finally, one day in 2006, Steven Holl put the proposal of Vanke Center in front of Mr. Wang Shi, the president of Vanke Group, starting to present his design. They both felt inspired and satisfied. In a short while, Wang Shi interrupted him: "there is no need for more information. In fact I love your plan at the first sight."

第一轮竞标方案
The first round of bidding scheme
竞赛时间 competition phase
2005.6

1. HPP设计方案
   HPP Design Proposal
2. 华汇设计公司设计方案
   Hua Hui Design Design Proposal
3. PES 设计方案
   PES Design Proposal


1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3

第二轮竞标方案
The second round of bidding scheme
竞赛时间 competition phase
2006.2—2006.6

1. MVRDV设计方案
   MVRDV Design Proposal
2. 华汇设计公司设计方案
   Hua Hui Design Design Proposal
3. 斯蒂文·霍尔事务所设计方案
   Steven Holl Architects Design Proposal


1


2


3

第一轮竞标方案：
竞赛时间：
设计公司：

The First Round of Bidding Scheme:
Competition Phase: 2005.6
Bidding Companies: HPP/华汇/PES

对页：入口广场效果图。
本页：透视效果图。
Opposite page: Perspective of the main plaza.
This page: Perspective rendering.

HPP设计方案
HPP Design Proposal

公司简介
德国HPP国际建筑规划设计有限公司是一家有79年悠久历史的国际一流建筑规划设计公司。HPP的总部坐落于德国杜塞尔多夫著名的媒体港湾。公司成立以来所设计的知名建筑有：安联保险集团总部（法兰克福）、蒂森克鲁博集团总部（杜塞尔多夫）、Vodafone欧洲总部（杜塞尔多夫）、柏林的“欧洲中心”莱比锡火车总站、杜塞尔多夫音乐厅Tonhalle、德国足球博物馆、德国Heiligendamm超五星凯宾斯基大酒店（2007年度八国峰会召开地）、沙尔克04体育场、鲁尔西部大学等项目。并在中国参与了如上海2010世博村，北京中石油总部等大型公建的设计活动。

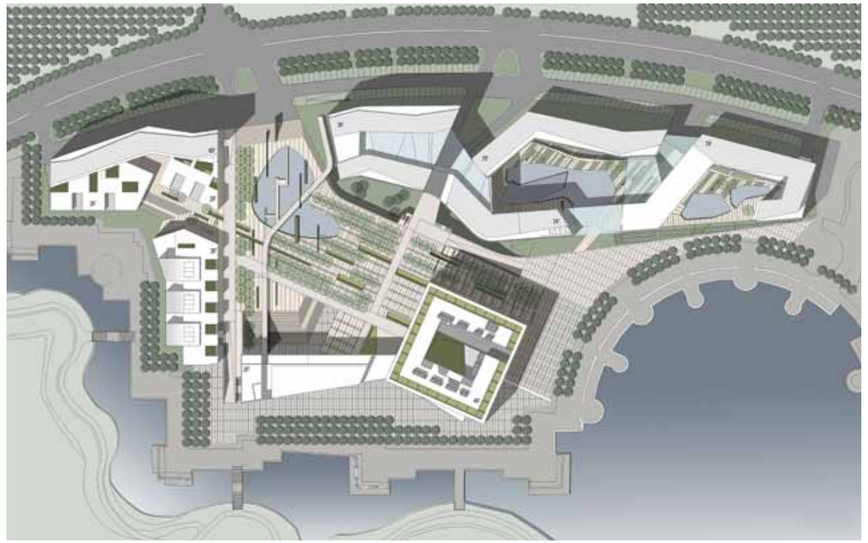
Company Profile
The company group HPP Hentrich-Petschnigg & Partner belongs to international leading architecture and planning firms and operates successfully since 1933. Headquarter of HPP is located at the famous Media Harbor in Düsseldorf. Some of the outstanding buildings of the company history are: Headquarter of Allianz Group in Frankfurt/Germany, "Thyssen Dreischeibenhaus" in Düsseldorf/ Germany, Vodafone European HQ Campus in Düsseldorf/Germany, "Europacenter" in Berlin/ Germany, "Central Station" in Leipzig/ Germany, "Tonhalle" Düsseldorf/ Germany, DFB Football Museum, Dortmund/Germnay, "Grand Hotel Kempinski" Heiligendamm/ Germany (G8 peak meeting of 2007), Arena Schalke, Ruhr West University, and etc. HPP has participated in the projects of Urban Plan and Architecture Design of Shanghai Expo Village, Headquarter of China Petro in Beijing, and many more projects.

设计理念
当今时代存在于肯定和否定之间，徘徊于静止和运动之间。在这种对立和矛盾中经常能激发人的灵感，开拓人的创造力，构思出意想不到的前卫作品。
设计的目标是要在深圳大梅沙创造一个独特的、具有鲜明个性的建筑群。本方案以“海崖”为设计意向，寓意其在形态上、生态上的独特之处。
本方案设计两个不同层面的重点。一是寻求一个独特鲜明具有强烈标志性的形态，二是重新审视工作和休闲两大功能的关系，以及如何将这些功能内容与生态建筑这一主题结合起来。两块结构紧凑的建筑群，同时通过一层竹表皮，首先从形态上标志着生态和可持续性。两块建筑群之间通过结合地势形态的建筑，景观设计使得空间贯通起来。成为人们流连、交流的场所。建筑体块通过立面的进退取得岩石的意向。
建筑群之间是以通透晶莹为特点的万科总部办公楼。自由的建筑群总体轮廓再次强调了生态建筑的可读性。该方案以及立面设计的目标是体现建筑的生态性，同时应有一定的地域特色。对主要建筑体块的南北立面区别对待，原则上北向立面相对南立面较为开敞通透，材料以石材竹木遮阳装置为主。万科总部办公楼立面设计与其他建筑截然不同，本案以双层立面通透白玻墙、金属网作为遮阳元素以取得对比。屋顶设置了太阳能电池板，除了其技术上的实际意义外，还获得远距离的高科技标志性。一层竖向的竹竿结构表皮除万科总部以外的其他建筑包裹成两个大建筑群。同时在屋顶层面通过拉索形成第二个屋面，其上可培植攀缘植物，或以张拉膜结构等为遮阳装置，通过这样的包裹形成了一个较为内向的空间世界。
针对像深圳这样炎热又潮湿的城市，在建筑的设计过程中对节能和生态的要求比较高，投入量也很大。其中要考虑的方面有自然通风系统、采光、日晒控制、优越的环境小气候等。自然通风与采光的主要原则是：通过有效的总体规划和建筑布局来组织气流，满足使用者健康及舒适的要求。小气候的设计原则是通过有效的总体规划使空气进入开放空间，以满足使用者的舒适性要求。
景观设计方面的主要目标是进一步加强内向空间世界的效果，从而在基地内形成“绿洲”。为使用者提供安静悠闲的休憩空间。共分为景观退台、主广场、内院、屋顶绿化四部分。

可持续设计
- 外廊/骑楼：提供公共空间室外遮阳。
- 悬挑楼板/屋顶：悬挑楼板/屋顶提供内部空间室外遮阳，并在不同季节调节阳光摄入量。
- 内院/冷巷：通过密度和自遮阳调节阳光摄入量。
- 热量缓冲空间进一步减少热量进入室内。
- 流线型大空间，高屋顶进一步增强烟囱效应。
- 绿化屋顶利用植被蒸腾作用降温。
- 土壤蓄热利用土壤蓄热降低室温。并可进一步结合通风组织获得“自然空调”。
- 双层墙：不受外部气候干扰，利用自然空气流通进行散热的遮阳系统与直接及间接的新风口直接及间接的新风口，无须依赖空调设备，自然通风。
- 屋顶绿化：其设计内容包括通过植物蒸腾作用改善微气候、通过遮阳构件减少热量进入、缓冲区域提供空气循环空间、金属网架上的绿色藤类植物覆盖建筑及建筑间的绿地，提供遮阳，减少热量进入。

Design concept
The current era exists between positive and negative, and wanders between stationary and motion. This kind of confrontation and contradiction usually stimulate the inspiration of people to develop their creativity as a way to design unexpected avant-garde works.
The design aims to create Shenzhen Dameisha as a unique architectural complex with distinctive features. The proposal takes sea cliff as design intention to reflect and highlight its unique shape in both form and ecology.
There are two important aspects to highlight our proposal. One is to seek a distinctive and landmark form, the other is to balance the two functional relationship between work and leisure sincerely and to make this kind of functions connect with the theme of eco-building. Two buildings with compact structure are covered by a layer of bamboo skin, marking its ecology and sustainability in its forms. Based on its topography forms, the space between two buildings can interconnect with each other via landscape design, making this area become a place for people to communicate with each other. Beyond that, building volume also can outstanding the concept of rock through the arrangement of façade.
Vanke headquarter office building is located in between building group featured by sparkling and translucent. The overall outline of building group again highlights the readability of eco-building. The design proposal and its facade design aim to not only reflect the ecological of building itself but also enjoy some certain regional characteristics. The south and north elevation of the main building volume will be different with each other, in principle, north elevation will be more translucent than south elevation, the materials will be focused on stone bamboo solar protection devices.

Sustainable design
- Verandahs/arcades: provide outdoor shade for public space.
- Cantilevered floor/roof: provide indoor shade for internal space, and adjust incident amount of the sunshine in different seasons.
- Inner garden/ cold lane: adjust the incident amount of the sunshine along with the density and sun-shading.
- The buffer space further reduces the heat entering indoor.
- The large streamline space and high roof further strengthen the chimney effect.
- Lower the temperature of roof by vegetation transpiration.
- Reduce indoor temperature by soil thermal storage and obtain a "natural air conditioner" by further combining with the ventilation system.
- The double wall Twin Façade: free from external climate interference. The shade system and a direct and indirect new outlet use the natural air circulation for heat dissipation. It can conduct natural ventilation without relying on air conditioning equipment.
- Roof Greening: The design elements include improving the microclimate by plant transpiration, reducing heat by sunbreaker, providing circulation space by buffer area, offering the shade and reducing heat entering by the green vines on the metal rack covering the buildings and the greenbelt.



对页：透视效果图。
本页：总平面图。
Opposite page: Perspective rendering.
This page: Masterplan.

华汇设计公司设计方案
Hua Hui Design Design Proposal

公司简介
华汇工程建筑设计有限公司（Hua Hui Design）是由中外合资，具有国家建筑甲级、规划乙级设计资质的综合性建筑设计单位，由曾经留学德国的周恺先生创建，并任总建筑师。周恺先生目前在国内外享有盛誉，所设计的作品多次获得国际和国内大奖，并在国内外专业期刊发表，被国内外同行称为“最具实力的中国当代建筑设计大师”。
华汇公司在上海、深圳、厦门设有分公司，总部在天津。最具影响的成果为2008年北京奥运场馆设计（与SASAKI合作）获得奥林匹克公园和网球馆国际竞赛两项第一，上海旗忠森林网球馆国际竞赛第二名，以及上海华东师范大学新校区竞赛第一名等。

Company Profile
Hua Hui Design (Hua Hui Engineering and Architectural Design Co., Ltd.) is a Sino-foreign comprehensive architectural design institute with the National Grade-A Qualifications for Architectural Design and Grade-B Qualifications for Planning Design.
Hua Hui Design was created by Mr. Zhou Kai, the Chief Architect having ever studied abroad in Germany. At present, Mr. Zhou Kai enjoys high reputation both at home and abroad, and has been titled as "Chinese Modern Architectural Design Master with the Most Strength" by domestic and overseas counterparts.
With the headquarters in Tianjin, HHD has established branch companies in Shanghai, Shenzhen and Xiamen. In the engineering operation. The firm has various experiences on working with other international design firms. The cooperated design projects including:Master Plan of Beijing 2008 Olympic Park, Songshanhu Hyatt Regency Hotel, Dongguan, Tianjin Hyatt Regency Hotel， and many more projects.

万科中心项目选址于深圳市大梅沙湾度假区的核心位置。建成后将成为由万科总部、国际会议中心、酒店和SOHO办公建筑组成的城市设计综合体。针对该项目得天独厚的资源，同时结合万科的企业文化，建筑师在规划设计之初即确定了如下基本目标：包括规划设计达成对资源的最优化配置，对场所精神的充分阐释，对功能理性、自然生态及人文关怀的和谐统一。

设计理念
万科总部及会议中心突出体现为“质朴方正、外拙内秀”；酒店呈现为开放通灵、连续而富韵律的表情；而SOHO办公则力求在灵活性秩序性以及含蓄和活泼之间达到平衡。
建筑形象设计在多元统一的前提下，结合不同建筑的功能逻辑而展开，在统一的建筑语汇之中，亦希望一定程度地体现其各自的特色。
方案最终确定的规划布局可概括为：各部分建筑充分顺应基地的形状，沿用地周边以一种开放亲水的姿态布局展开，并以有机围合的方式形成由道路向水岸的整体开放空间系统。建筑与外部界面采用周边式的半围合布局，其优势一方面在于可以形成连续完整的城市空间界面，同时符合面积最大化原理。而基地内部建筑与外部关系形成一种明确有机的图底关系。作为底的内部环境居于中央位置，既是所有建筑图的共享资源，又成为它们之间有机联系；同时也以明确的指向和开放的形态与外部的环境形成有机的沟通与交融，从而营造出项目整体的“大场所”。

建筑空间形态
在上述的整体规划结构之下，有机联系的各部分建筑，也具有符合其自身功能逻辑的空间形态表达。
以办公空间为主体的万科总部呈现为一种相对集中的形态，围合、架空以及内部空间的拓扑是其空间形态的突出特色，通过景观引入、视线渗透、自然通风及室内外空间的融合，体现一种全新的总部办公空间模式。
相连的国际会议中心以聚会和集散的功能要求为基点，形成水平展开的体量，并通过底部架空和下沉庭院形成多样的空间形态，在提供会议、集散、展览场所之外、更为休憩和交流提供了丰富的平台。
酒店则是以半围合的布局形式力求实现对湖景和海景资源的最大化利用，同时，内部的环境水体更增加了景观的层次，形成了远景、中景、近景相结合的景观体系。
SOHO办公则以尺度更小、方式更灵活的模块化空间形态呈现在灵活之外更有宜人的尺度和空间氛围，以其独特的空间体验回应了特定的场所条件。

环境设计
基地北侧为城市道路东南西面临水,且由道路向水岸形成2.5m的地势高差，为规划布局和开放空间的设计提供了有利的前提。
本方案将整体环境空间规划为三个层次：公共层次是由中央广场环境和滨湖景观带共同组成的开放空间；半公共层次是各建筑的外部主体环境空间，如万科总部底层架空的台地花园，酒店的水庭园和国际会议中心的下沉前院等；私密层次则是各建筑内部独享的环境。如SOHO办公的小内院等。以上三个层次与外部的景观资源相结合，共同构成该项目结构丰富，形式多样的复合环境体系。

可持续设计
其基本理念：自然化生态、低技术生态。
优先采用被动式生态节能设计，在规划布局及建筑设计中积极有效地组织场地通风和气流循环，达成优良的自然通风和散热效果，是本方案节能设计的突出特色。

本页：办公楼透视图。
对页：模型图。
This page: Office perspective.
Opposite page: Model diagram.

In connection with the unique resources of the project, while combining the special corporate culture of Vanke, we decided the following basic goals at the beginning of the design: the most optimized configuration of resources, the full explanation of places' spirit and the harmony and unity between functional rationality, natural ecology and human care.

Design concept

Vanke Headquarters and Conference Center highlight "simplicity and uprightness, exterior primitiveness and interior elegance"; the hotel presents an expression that is open, flexible, continuous and full of rhythm; while SOHO office strives to achieve a balance between flexibility and orderliness, as well as implicitness and liveliness.

Under the premise of unity and diversity, the building image design combines with the functional logics of different buildings. In the unified building vocabulary, it is also hoped to reflect their features to some extent respectively.

The final planning layout of the project can be summarized: every part of the building should comply with the site, and stretch in an open and water-loving layout along the rim of area used, forming an overall open space system from road slope to water bank by using the organic enclosure method. The building and external boundary surface adopt periphery style of semi-enclosure layout, one of whose aspects of advantage is being able to form continuous and complete boundary surface of the city space, and meanwhile corresponding to area maximization theory. The interior building of the base forms a clear and organic relationship with the exterior. As the internal environment of building bottom is standing in the central location, it achieves not only the common sharing resource of the building, but also the organic connection between them; at the same time it also formulates an organic communication and fusion with the external environment because of its specific direction and open form, and then creates a "mega space" of the whole project.

Building spatial form

Under the overall planning structure mentioned above, each part of the building, being in organic connection with each other, has its own spatial form expression which corresponds to the functional logic of its own.

The Vanke Headquarters with the office space as the main body shows up a relatively intensive form, and its distinctive features of spatial form are enclosing, overhead and topology in interior space; and it embodies a kind of brand-new headquarters office spatial pattern by introducing landscape, permeating sight, natural ventilation and fusing interior and exterior space.

The interconnected International Conference Center is based on the functional requirements of gathering and distributing, forming horizontally developed volume, and it forms multiple space and the sinking courtyard. In addition to providing for conference, gathering and distributing, and exhibition place, it offers abundant platform for recreation and communication.

With semi-enclosure layout, the hotel strives to make the maximum use of the lake and sea landscape; meanwhile, by adding landscape layers in the interior environment water body, it formulates a landscape system combining the close, medium and long-range views.

SOHO office, with smaller scale and more flexible modularization space form, presents a pleasant dimension and space atmosphere beyond flexibility, responds to the specific place condition via particular space experience.

Environmental design

The base is surrounded by city road on the north and water on the east, south and west, and a 2.5 terrain altitude difference between the road and the water bank, which provides a favorable precondition for the planning arrangement and open space design.

The plan divided the whole environment space planning into three layers: the public layer is an open space composed of central square scenery and shore landscape; the semi-public layer is external main environmental space of each building, such as the overhead terrace garden on the ground floor of Vanke Headquarters, the water courtyard of the hotel and the sinking front yard of International Conference Center; the private layer is the internal exclusive environment of each building, such as the small inner courtyard for SOHO and hanging garden in the hotel, etc. The above three layers combine with the exterior landscape resources, jointly formulating the diversified compound environment system of the project.

Sustainable design

Basic concept: naturalized ecology and low-tech ecosystem.

The prominent features of the energy-efficient design in this project include: prioritizing passive ecological and energy-efficient design, actively and effectively organizing to keep ventilating and air circulation during layout planning and building design so as to achieve good natural ventilation and heat dissipation.

对页：全景图。
本页：东立面效果图。
Opposite: Panorama.
This page: Rendering of east façade.

PES 设计方案
PES Design Proposal

公司简介

PES事务所是在芬兰领先的且最具有国际化影响的建筑设计事务所。建筑师兼教授Pekka Salminen于1968年创建了该事务所，PES建筑事务所的合伙人为首席建筑师Pekka Salminen和Tuomas Silvennoinen，以及CEO Jarkko Salminen。创造性人才和对于卓越方案的不懈追求，是该事务所连续四十多年成功的基石。PES建筑事务所的主要建造项目包括复杂的公共建筑，除了建筑设计之外，他们的活动还包括室内设计、城市规划和项目管理。自2003年起，PES建筑事务所开始在中国运作，并于2010年在上海开设了办事处。该事务所在欧洲的主要实践项目包括位于芬兰的赫尔辛基机场和德国的圣玛丽音乐厅。PES建筑事务所目前已经在中国参加了超过50场建筑竞赛。无锡大剧院落成于2012年4月。成都Icon云端项目于2011年初开始建造。

Company Profile

PES-Architects is one of the leading and most international architectural design firms in Finland. Professor, Architect Pekka Salminen founded the company in 1968, giving the office over 40 years of continuous success, based on creative talent and commitment to find outstanding solution to each project.

The main built projects of PES-Architects are such complex public buildings. The partners of PES-Architects are Pekka Salminen and Tuomas Silvennoinen as Chief Architects and Jarkko Salminen as CEO.Besides architectural design, the line of activities includes interior design, urban planning and project management. PES-Architects has operated in China since 2003 and in 2010 opened the office in Shanghai.PES-Architects has participated in more than 50 architectural competitions in China.The Wuxi Grand Theatre was inaugurated in April 2012. The construction of the Chengdu Icon Yun Duan Super High Rise Tower started at the beginning of 2011.

设计理念

该方案的建筑特征很大程度上取决于万科的地形条件和特征。已知的地块规划原则留下了许多悬而未决的问题，例如，如何在不同的建筑体量之间营造合理的平衡感。就建筑面积而言，酒店和SOHO要比万科总部的面积大得多，尽管后者应该是整个建筑群的核心。为了将万科总部大楼打造成为真正的视觉焦点以及整个建筑群中等级最高的建筑，建筑师打造了一个公用屋顶，既服务于总部大楼又服务于研究中心。广场上，落地柱托起整座大楼，足有+9层高，不仅增加了建筑体量的亮度，更在广场和湖泊之间提供了视觉和空间上的连续性。会议室翼位于总部和酒店之间，显得温和而低调。酒店和SOHO共享同一种形式语言，于细微之处和总部区分开来，赋予了其街道明显的特征，并提供了从街道到总部的全景视图。酒店的一般租赁楼呈塔状矗立在广场的西北角，成为万科中心的出入口。

广场地下两层为建筑群的主要停车场，这样广场可为行人和开展不同的活动提供便利。水是整个现场设计重要的主题之一：池塘、喷泉、小瀑布，等等。其赋予了楼宇和风景仿佛千年不会变的质感，使内部空间和外部空间和谐地融为一体，相映成趣；而且，水还带来了清凉之感。整个广场呈现几何式风格，而与其形成对比的是周边的景观——溪流和热带植被物种有机地组合在一起。

万科总部的设计方案代表着万科的理念、价值、企业形象及未来发展。建筑师通过建筑设计展示了创造性，可靠性及可持续性的价值理念。设计的终极目标是将万科总部打造成中国乃至全世界范围内的一个真正独特的建筑原型。

技术解决方案，如太阳能板、蒸发冷却技术及自然通风等，结合建筑设计，打造了一个生态建筑。

不管是白天还是黑夜，人们都能从远处眺望大楼多彩而有趣的双层外立面。大楼外部的立面是“竹墙”，配有彩色混凝土的遮阳元素。不同大小和形状的孔是对竹子细胞结构的模仿。竹子因其结构和生态特征不仅是传统的建筑材料也成了现代化的建筑材料。竹子的快速生长能力使其成为一种既经济又环保的建筑材料。“竹墙”外立面以生态设计理念在视觉上展现了万科的形象。“竹墙面”结构由嵌板元素构成，并打磨抛光处理。 这样，混凝土就像一块精细格调的石块。室内立面由隔热倾斜窗组成。

建筑师认为楼是景的一部分，即是景本身。+5层高的大楼区分了主要行人入口和VIP通车道。广场上高处有两个出入口，一个通向总部大楼，另一个通向研究中心大楼。围绕圆形广场而分布。通过圆形广场的阶梯，穿过水景，可以到达+5层高处的展厅和会议中心。大楼拔地而起，不仅显示了建筑的明亮和宏伟，而且赋予建筑一个巨大的形象。由于落地柱的支撑，可以从办公室俯瞰湖泊景观；而且，在广场和湖泊之间被营造出了视觉和空间上的连续性。

所有建筑主要是钢筋混凝土结构，并结合部分钢结构。

可持续设计

- 通风及能源概念

与太阳能制冷相结合的自然通风及机械通风，使用通风系统的目的在于，以低能源成本的生态方式通过利用诸如风能及太阳能等自然能源，一年四季内保持合理的室内环境条件。通过综合使用自然通风设备及太阳能供电的机械通风设备，在所有天气条件下，都可控制建筑物楼层中的室内空气温度及湿度。

- 室内条件

建筑物内楼层中的温度将全年保持在+ 15 °C至+ 30 °C范围内。基于天气状况，通过使用自然通风或机械通风，自动控制建筑物内的温度。夏季，可使用太阳能为制冷设备提供电能。当使用自然通风时，可通过控制进入建筑物的空气流速，控制建筑物内部的温度。当使用机械通风时，通风率将被保持在最低状态，以使得制冷设备及制热设备在最佳条件下运行。通过使用机械通风，还可控制建筑物内部空气的相对湿度。在这里，对相对湿度的控制主要是指除湿。

- 太阳能

在万科总部的顶层，使用的是太阳能棚顶。这一“电力花园”式的顶层不仅可以收集太阳能，而且可以控制室内温度，防止室内温度过热。同时，漂浮的绿色顶层还可以提供强有力的企业形象。

- 水

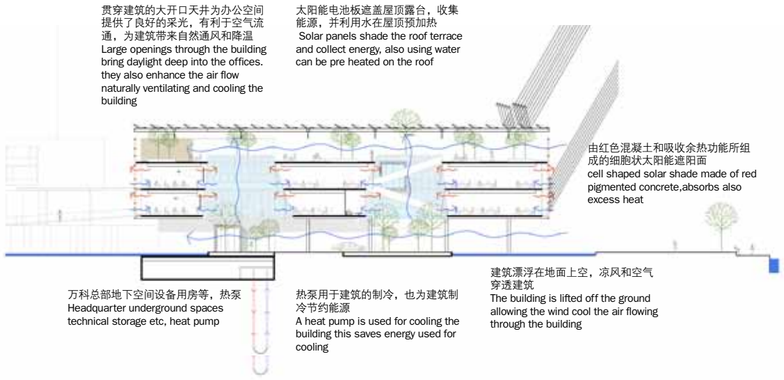
雨水及地表水：靠近建筑物的水面，不但可以显著改善建筑物周围的微气候，并且水还可被建筑物所使用。在我们的项目中，将根据环境特色修建水池及水渠，为周边建筑物打造蒸发冷却的微气候。硬度较低的地表铺设，同样可以促进水分的自然渗透，以保护地表水并因此具有可持续性的水管理功能。

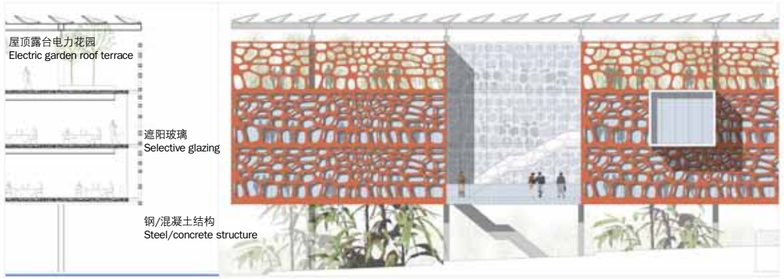
建筑物中的“灰水”（从公寓水槽或淋浴设施中收集的污水 ，而并非从卫生间收集的污水）收集装置，独立于“黑水”（从卫生间收集的污水）收集装置。可通过多种不同的方式，在冷却系统中使用灰水。综合性的水概念：对于带有公寓或酒店房间的综合建筑物，可在此类建筑物中装配适用的管道节水设施：冲水量为4升及6升的厕所，装配有流量调节装置的卫生间接头等。不但可以从综合建筑物中收集雨水，而且可以从部分种植有植物的楼顶处收集雨水。对于标准型的办公建筑计划，厕所冲洗、小便器、及建筑物附近景观区浇水所需使用灰水的50%—60%，可由该建筑物收集的雨水所提供。过量雨水和经清洁后的废水，可通过渗流的方式返回至地下水系统。

- 能源

自然通风系统是最具生态性的通风系统。该系统完全通过利用自然能源、风能、太阳能及温差所形成的叠加效应予以运行。

机械通风通过三种不同的方式使用能量。空气调节装置的运行需要使用电能。空气调节装置为建筑物内的空间加热时需要使用热能。制冷设备需要使用电能，以冷却空气调节装置中的空气，进而冷却建筑物内的空间温度。在这种情况下，运行冷却设备所需的绝大部分电能，由光伏电源系统提供。这也就意味着绝大部分所用的电能，通过利用自然能源的方式予以提供。





生态原则细节分析
Ecological principles

对页，右图：主广场透视图。
本页：室内效果图。
Opposite page, right: View of plaza.
This page: Interior perspective.

Design concept

The architectural character of our proposal is largely determined by the site and the character of Vanke. The given site planning principle has left many open questions for us to explore, for instance, how to create right balance between the building volumes. In term of the size of floor area, Hotel and SOHO are much bigger than the Vanke Headquarters, although the Headquarters should be the core of the complex. In order to give Vanke Headquarter building a real visual focus and the highest hierarchy in the whole complex, we created a common roof which houses the Headquarters and Research Center together. The pilotis structure lifts the building above the plaza, adds the lightness to the building volume, moreover, it brings the visual and spatial continuity between the plaza and the lake. Congress wing is located between the Headquarter and the Hotel, with modest architectural appearance. Hotels and SOHO share the same form language to make nuance from the Headquarter, give a clear identity toward the street, and frame the view from the street to the Headquarter. Hotel for common lease in tower shape, stands in the north-west corner of the plaza, marking the entrance to Vanke Center.

Major parking space is arranged beneath the plaza in two levels, so that the plaza serves for pedestrians and different scaled of events. Water is one of the important themes in designing the whole site: water basin, fountain, etc. It adds the texture and sense of timelessness to the building and landscape, connecting and integrating the interior with the exterior space. Furthermore, it brings the cooling effect. In contrast with the geometrical style of plaza, surrounding landscape are in organic form with streams and rich species of tropical vegetation.

Our design proposal for Vanke Headquarters represents Vankers philosophy, value, corporation image and future. Creativity, reliability and sustainability are the values we intended to express through the building design. Our ultimate goal is to make the Headquarters a truly unique architectural archetype in China and in the world.

Technical solutions, such like solar panel, evaporative cooling and natural ventilation etc, for creating an ecological building are fused into the architecture design.

One can see from the distance the colorful and interesting double skin facades of the building. The exterior façade is the "bamboo wall", a solar shading element in colored concrete. The pattern with holes of different sizes and shapes is an imitation of the cell structure of bamboo. Bamboo is the traditional building material but also modern because of its structure and ecological character. The enormous speed of growth makes bamboo an economical and ecological material. "Bamboo wall" facade is the visible element to express the image of Vanke in an ecological design approach.

The structure of "bamboo wall" is supposed to be made of panel element, finished with fine polishing surface. In this way the concrete will get a stone like sophisticated touch.

The interior façade is composed of heat-insulating tilt-turn windows.

Sustainable design

• Combined natural and mechanical ventilation with solar cooling

The aim of the ventilation system is to maintain reasonable indoor conditions around the year, in ecological way with low energy costs by utilising natural energy sources such as wind and solar. With this combined natural and solar powered mechanical ventilation indoor air temperature and humidity in the floor level of the building can be controlled in all weather conditions.

• Indoor conditions

Temperature in the floor level of the building will be maintained all year round between + 15 and + 30 °C. Temperature is controlled automatically by using either natural or mechanical ventilation depending on the outside weather conditions. In summertime solar energy is used for cooling. When natural ventilation is used, inside temperature will be controlled by controlling the entering air flow rate to the building. When mechanical ventilation is used ventilation rate will be kept in minimum so that cooling and heating units can have optimum dimensioning. By mechanical ventilation the relative humidity of indoor air can be controlled. Mainly this means dehumidifying.

• Solar energy

On the roof of Vanke Headquarters, solar shed roof, an "electrical garden" will not only collect the solar energy, but also control the room temperature from overheating. Meanwhile, the floating roof will provide a strong corporation image.

• Water

Water surfaces near buildings considerably improve the microclimate and can be used accordingly. In our project, water basin, water moats are appropriate environmental formations for creating evaporative cooling near buildings. Less hard paved ground surfaces also encourage the natural infiltration to preserve the ground water and hence bring a sustainable water management.

Collection of "gray waters" (sewage from apartment sinks and showers, not from restrooms) in buildings, separately from "black waters" (from restrooms).

Grey water can be used for cooling in a variety of ways.

• Energy

Natural ventilation is the most ecological ventilation system. It is totally utilising natural energy sources, wind, solar and stack effect caused by temperature difference.

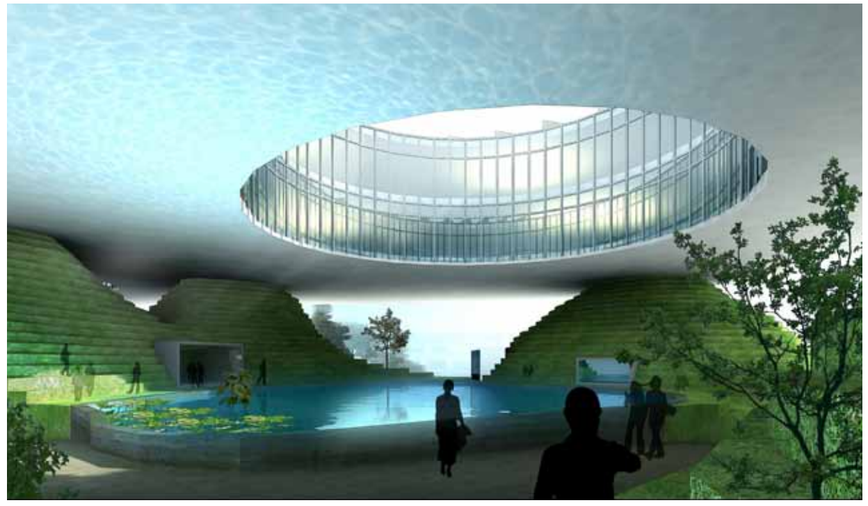
Mechanical ventilation uses energy in three different ways. Fans of air handling units need electrical energy for running. Heating energy is needed in air handling units for space heating. Chillers need electricity in order to be able to cool the air in air handling units for space cooling. In this case most of the electricity, which is needed to run the chillers is produced in phovoltaic power system, which means utilising of natural resources. The best thing is that solar energy is available most of the time, when top cooling load is needed. This means that solar energy can be immediately used for cooling and space needed for battery storage is very limited.

The total amount of energy needed in the building depends on the running time of mechanical ventilation and indoor conditions, which are maintained in the floor level of the building.

第二轮竞标方案：
竞赛时间：
设计公司：

The Second Round of Bidding Scheme:
Competition Phase: 2006.2~2006.6
Bidding Companies: MVRDV/华汇/SHA

对页：全景效果图。
本页：入口角度效果图。
Opposite page: Panorama.
This page: Entrance rendering.



MVRDV设计方案
MVRDV Design Proposal

公司简介

MVRDV 事务所是由 Winy Maas, Jacob van Rijs 和 Nathalie de Vries 于1993年在荷兰鹿特丹建立，着重于创造性地解决城市问题。已建成的项目包括2000年汉诺威世博会的荷兰展览馆。近期MVRDV赢得了30 000平方米的中国杭州动漫博物馆的竞赛以及在丹麦罗斯基勒的摇滚博物馆。其在上海办事处也于去年成立。除此之外，MVRDV还与代尔夫特理工大学共同组建了全球城市问题智囊团和研究机构，The Why Factory。

Company Profile

MVRDV was set up in Rotterdam (the Netherlands) in 1993 by Winy Maas, Jacob van Rijs and Nathalie de Vries. MVRDV engages globally in providing solutions to contemporary architectural and urban issues. Realized projects include the Dutch Pavilion for the World EXPO 2 000 in Hannover. Recently MVRDV won the competition for the 30 000 m^2 China Comic and Animation Museum in Hangzhou, China, and the Danish Rock museum in Roskilde, Denmark. A branch office in Shanghai opened last year.
Together with Delft University of Technology MVRDV runs The Why Factory, an independent think tank and research institute providing argument for architecture and urbanism by envisioning the city of the future.

设计理念

• 城市规划

大梅沙区的总体城市规划可以用高度不确定性予以描述。这一区域的主要现场条件为依山傍水、环境适宜，但除了海边的雕塑之外，功能性单一的城市进程使得该区域缺乏焦点。

万科新总部项目可借此机会创建该区域内的标志性建筑。

沿着项目地块蜿蜒的小河及临近地块的池塘，不但可为公寓及办公室建筑物中的人们提供观赏美景的视野，也为在该区域中居住的人们提供走出建筑物依水散步的理由。

该区域的主要公路位于地块的西北侧。该地块的位置处于城市地带向休闲地带，及商业地带向娱乐地带过渡的区域。建筑师正是把这种不对称的特色，作为拟定总部项目位置分布的基础之一。在该区域内，布置有酒店、SOHO单元、服务式公寓及普通公寓等建筑。

经过对若干个位置的研究及讨论，建筑师已选择出最佳的建筑组织分布，将周边良好的视野及景观融为一体。

• 功能组织

酒店处于地块西侧的道路及人行道之间；公寓处于地块东侧，并且在公寓中居住的人们可以直接欣赏水景；服务式公寓处于酒店的东侧，并且居住在该公寓中的人们可以观赏到河景；SOHO单元位于公寓的西侧；总部大楼处于公路旁侧区域的中心位置。

为使得办公区中的人们能够拥有良好的观景视野，总部大楼整体建筑将直接从地面拔地而起。高耸的总部大楼也将从市区的其他建筑中脱颖而出。鉴于已将SOHO及公寓的建筑高度限制在最大高度以下，因此，在办公室中依然可以观赏到周围的水景。按照这种方式，可以把可视性问题，风景观赏问题，公寓建筑及其他设施所需建筑面积总量（平方米）问题，予以综合考虑。

所有建筑物的定位将围绕中心绿地展开。可被视为生态走廊的公用绿地不但可以改善人工湖湾的水质，而且可以向现场的建筑物提供额外的供水。

通过从北侧道路引入两条对角风景线，可使人们在向远处眺望时，观赏到更多的水景。绿化带及远景线将现场分为五个地块，并可依次定位不同的建筑物。这五个地块分别对应于项目中五种不同的项目类型（总部、酒店/会议大楼、服务式公寓、SOHO单元、个人公寓）。每栋建筑都将分配有临近中心绿地的（半）共用空间：酒店的中央大厅、总部大楼所覆盖的部分水上公园及三个公寓分区所占有的庭院花园。公寓街区中的庭院可以通过巨大开口的建筑外立面将滨水区相连。

在每栋建筑物中，都有电梯或楼梯直接通向地下停车场。通过庭院中的沉降式花园设计，地下停车场拥有良好的采光。停车场内的出入开口使停车场内拥有良好的自然通风。

• 平躺的总部大楼

总部大楼项目可被分为2个主要区域（各占5 000平方米）。其中一个区域供项目开发小组使用，另一区域供研发中心使用。两个主要组成区域都具有极强的功能灵活性。总体来说，办公楼中的每一楼层，都将被按照小组办公区域予以划分（每个小组办公区域约占500平方米）。

办公楼项目竣工后，此建筑将配备餐厅、休息大厅、展厅、档案室/图书室及小型会议厅等常规设施。从办公楼项目示意图，人们可以设想到万科集团运行的横向组织结构。因此，平躺的办公楼建筑恰好适合容纳万科的横向工作团队。横向意味着更多的沟通，更具灵活性、更具开放性。除此之外，平躺式的建筑物还可以收集到更多雨水和阳光，而阳光及雨水是两种主要的可持续性能源。太阳能板（5 000平方米）电池组可以收集太阳能，而雨水可被收集至池塘中。池水可被用于建筑物降温进程。池塘水面高于地形的一般地表平面的特征，使得池水可流至中心绿地并经芦苇丛过滤。

按照这种方式，在人工湖整体水质得到改善的同时，建筑物本身也起到过滤器的作用。

可持续设计

• 可持续建筑理念

深圳万科总部大楼除满足传统建筑的一般要求外，亦遵循自然气候环境建筑设计、善用自然资源及可再生能源以及关注建筑的全寿命周期的设计原则，同时注重能源效益，建筑评价及认定。

• LEED要求

根据建筑概念规划及设计，以下为这项目概念设计的LEED™ 预评估，此预评估包括了一些已达到的可持续概念设计要求及一些将来深化设计要达到的要求。预评估的分数为52，可以达到LEED™ 评估的白金等级。

• 外形设计

采用低热存储量的围护结构建筑材料，建筑物形态力求防止热幅射聚集及令空气静止流动，选取冷屋顶材料，高密度种植草皮。

• 可再生能源

利用场地的自然资源条件，开发利用太阳能及通过热泵等先进技术取自浅层地下水、土壤等的能量，提供建筑一体化光伏电板于大楼屋面及地段内园景从而吸收太阳能。

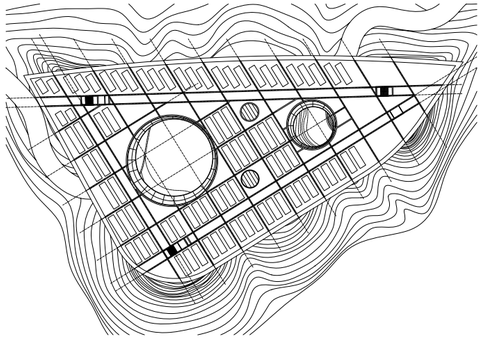
• 集中及分设机安排

假若系统分开设置会造成设备初始投资约增加20%—30%,机房面积约增加25%—35%。

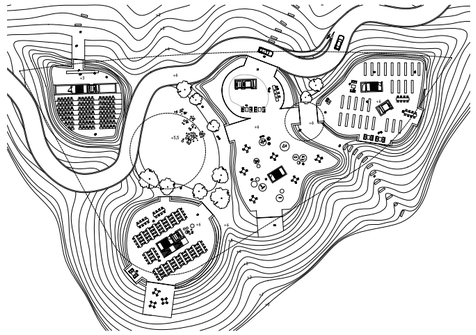
• 采暖空调及通风设计

大堂采用置换通风系统，对于总部及SOHO办公室，推荐采用地板变风量VAV系统配合冷冻梁装置，风机盘管（FCU System）机组主要的应用大多使用于酒店及服务式公寓。

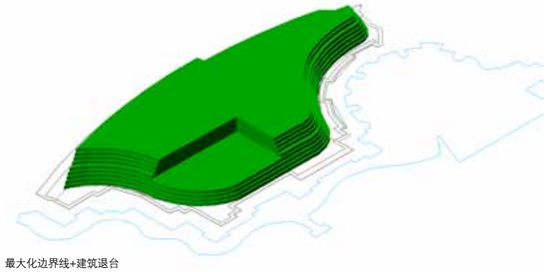
剖面
Section



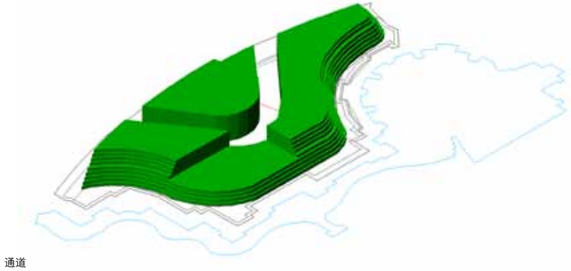
屋顶平面
Roof plan



地下一层平面
-1F plan



最大化边界线+建筑退台
Maximum outline curve + terraces



通道
Access

视线走廊
Views-access

中庭
Courtyards

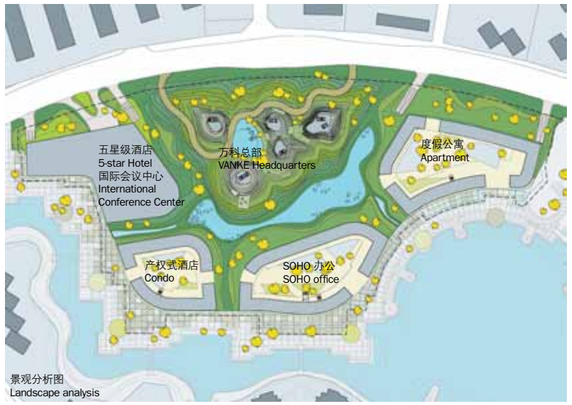
Design concept

• Urban layout

The general urban lay out of the Dameisha area can be described as highly undefined. The main site conditions—the mountain and the sea—have a strong presence, but the mono-functional urbanization of the area lacks focus-points. The new Headquarters project for Vanke could take this opportunity to create an icon in this area. The plot is situated along a small river and a pond which gives the apartments and the office building a pleasant view and offers the people in the area a reason to go outside for a walk along the water. On the northwest side of the plot is the main access road. It makes a transition from cityzone to leisure zone, from business to pleasure. This asymmetrical quality is the basis for the distribution of the requested program of headquarters, the hotel, SOHO and apartments. The optimum organization was selected in combination with views and vistas.

• Functional zoning

The hotel on the west side, the apartments on the east side (with the best direct views towards the water), the service apartments on the east of the hotel with a view to the river, the SOHO units on the west side of the apartments and the Headquarters in the center of this area on the road side.



景观分析图
Landscape analysis

In order to provide views from the offices, the volume of the Headquarters is elevated from the ground. The lifted Headquarter will also stand out from the rest of the urban area. By keeping the apartments lower than the maximum height, the view towards the water from the offices is kept. In that way visibility and view can be combined with the requested amount of square meters for apartments and other facilities.

All buildings are positioned around a central green area. This common green area can be imagined as an ecological corridor that could upgrade the water quality of the artificial bay. This central green area can bring in extra water to the site. By introducing two diagonal view lines from the road on the north, more vistas towards the water are created. The green area and the view lines divide the site into 5 plots. On each plot a building can be positioned. The 5 plots are corresponding with the 5 programmatically different typologies in the program: Headquarters, hotel/congress, service apartments, SOHO units and the individual apartments. Each building has a (semi) collective space, close to the central green space: a central lobby for the hotel, a partly covered water-garden for the Headquarters, and courtyard gardens for the 3 apartment blocks. The courtyards of the apartment blocks are connected to the waterfront by big openings in the façade.

Each building is accessable by lifts or stairs to the underground parking. The underground parking receives daylight through the sunken gardens in the courtyard. These openings in the parking deck will also make natural ventilation of the parking possible.

• The horizontal headquarters

The project of headquarters building can be divided into two major areas (each area covers 5 000 m^2). One is for the project development team and the other is for the R & D center. Both the two major component areas have a highly functional flexibility. Generally speaking, every floor in this office building will be divided according to the group-office area (Each group-office area is about 500 m^2).

After the completion, the office building project will be equipped with regular facilities such as dining hall, lounge, exhibition hall, archive/library and small meeting room. According to the sketch map of the office building project, the horizontal organizational structure of Vanke Group operation can be imagined. A lying-down office building is thus just suitable for the horizontal work team of Vanke. The horizontal design means more communication, more flexibility and more openness. In addition, the flat building can collect more rain and sunshine, both of which are main sustainable energy. The batteries of solar panels (5 000 m^2) can collect solar energy, and rainwater can be collected in the pond, which can be used to cool the building. The characteristic that water level in the pond is above the general surface makes it possible for the pond water to flow into the central green area and be filtered by the reeds.

In this way, the whole water quality of the artificial lake is improved, and at the same time the building itself can serve as a filter.

Sustainable design

• Sustainable design concept

Other than common demands of traditional buildings, Vanke Center also follows the principles of climate response building design, makes good use of natural resources and renewable energy , considerate the building life cycle, as well as the energy efficiency and building Environmental Assessment

• LEED assessment requirement

Based on the concept design of the site, a LEED™ pre-assessment has been done as below. The pre-assessment summaries some achieved sustainable design demands and some other standards that further development will require. The overall credit for the pre-assessment is 52, which can achieve Platinum grade of LEED™ rating

• Building form design

Construction materials of low heat storage capacity are used on vertical surfaces. Design of building geometry would not trap the radiation and create air stagnation, as well as the design with cool surface material and the high density of vegetation

• Renewable energy

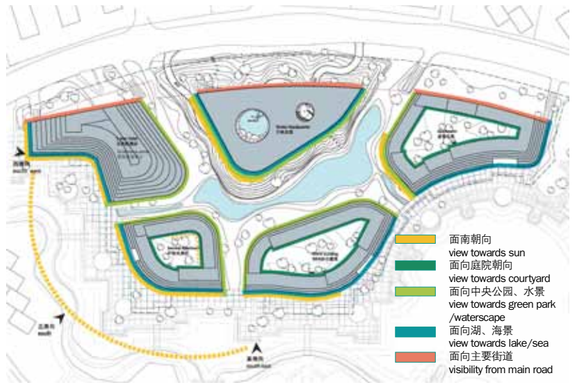
Considering the natural resources within the site, we adopt a renewable energy system such as photovoltaic and geothermal heat pump system, etc. Integrated photovoltaic panels are installed at roof and landscape areas within the site to absorb solar energy.

• Centralized plant system

If the separate plants are provided for respective areas, plant area will be increased by 25—35% while initial cost will be increased by 20—30%.

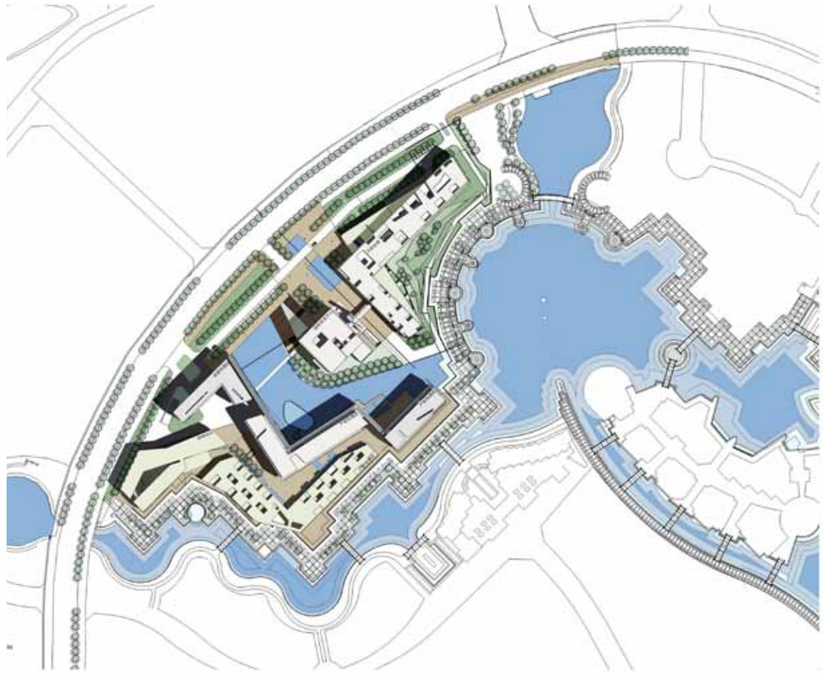
• Heating and ventilation

Displacement ventilation is suggested to be adopted in lobby while floor supply VAV system with Chilled Beam System is recommended in the Headquarters and SOHO office area. FCU System is mainly applied for hotel and services apartment



视线分析图
View analysis

交通动线分析图
Traffic analysis



总平面图
Master plan

对页：全景效果图。
Opposite page: Overall rendering.

华汇设计公司设计方案
Hua Hui Design Design Proposal

公司简介
华汇工程建筑设计有限公司（Hua Hui Design）是由中外合资，具有国家建筑甲级、规划乙级设计资质的综合性建筑设计单位，由曾经留学德国的周恺先生创建，并任总建筑师。周恺先生目前在国内外享有盛誉，所设计的作品多次获得国际和国内大奖，并在国内外专业期刊发表，被国内外同行称为“最具实力的中国当代建筑设计大师”。
华汇公司在上海、深圳、厦门设有分公司，总部在天津。最具影响的成果为2008年北京奥运场馆设计（与SASAKI合作）获得奥林匹克公园和网球馆国际竞赛两项第一，上海旗忠森林网球馆国际竞赛第二名，以及上海华东师范大学新校区竞赛第一名等。

Company Profile
Hua Hui Design (Huahui Engineering and Architectural Design Co., Ltd.) is a Sino-foreign comprehensive architectural design institute with the National Grade-A Qualifications for Architectural Design and Grade-B Qualifications for Planning Design.
Hua Hui Design was created by Mr. Zhou Kai, the Chief Architect having ever studied abroad in Germany. At present, Mr. Zhou Kai enjoys high reputation both at home and abroad, and has been titled as "Chinese Modern Architectural Design Master with the Most Strength" by domestic and overseas counterparts.
With the headquarters in Tianjin, HHD has established branch companies in Shanghai, Shenzhen and Xiamen. In the engineering operation. The firm has various experiences on working with other international design firms. The cooperated design projects including:Master Plan of Beijing 2008 Olympic Park, Songshanhu Hyatt Regency Hotel, Dongguan, Tianjin Hyatt Regency Hotel， and many more projects.

设计理念
本轮方案在设计愿景、整体空间环境等方面继续沿承上一轮的基本分析与理念，即包括：资源最优化配置；场所、功能、生态与人文的和谐统一；公共、半公共与私密的三层次空间划分等等。景观资源的优化配置成为规划结构发展演进的主线；将中心湖的水域引入基地内部，从而形成两个三面临水的半岛。各部分建筑充分顺应基地的形状，沿用地周边以一种开放、亲水的姿态布局展开，形成由道路坡向水岸的整体开放空间系统。

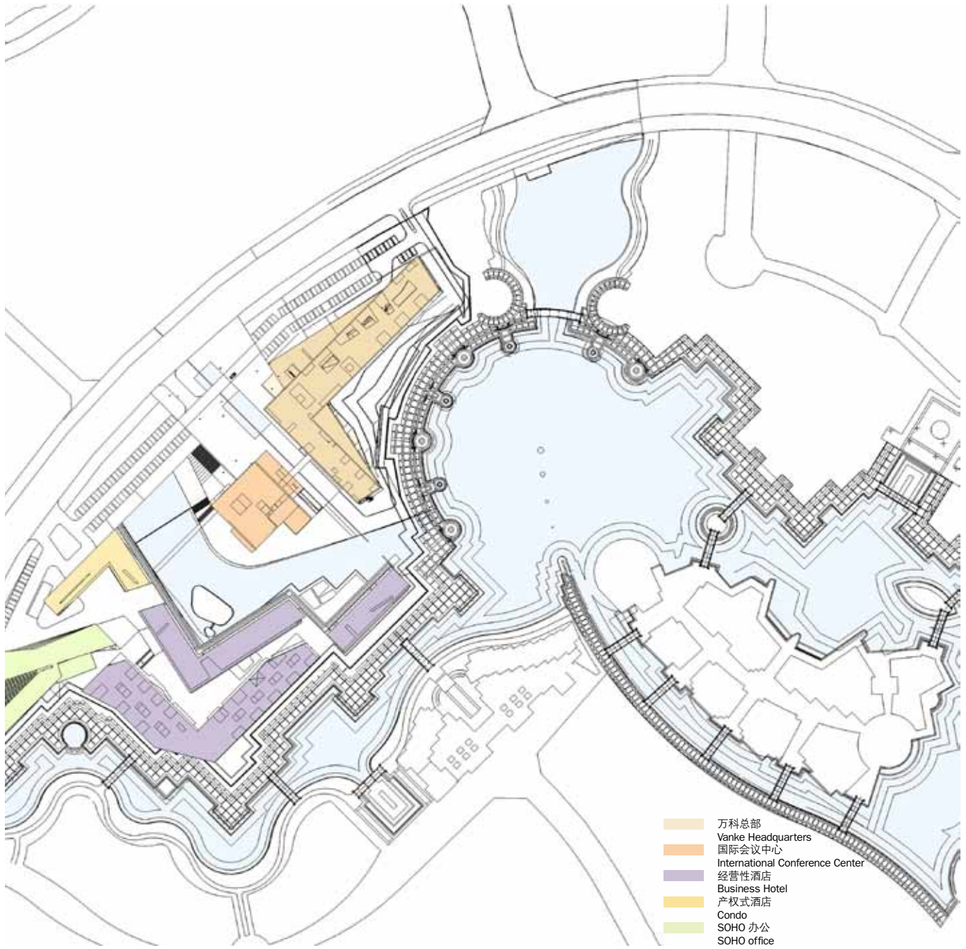
建筑空间形态
在整体规划的框架结构下的统一风格下，各部分建筑又根据各自使用功能分别各具特色地呈现在使用者眼前。
万科总部以水平的体量沿空间展开，建筑与环境地景形成无缝交融的拓扑关系，外部空间环境呈现为公园化的特色。国际会议中心则以相对集中、明确的体量与用地中心，外部空间呈现为广场的形态。酒店、灵活办公以线形体量和棋块化小体量两种形态组合而成，两者之间的外部空间呈现为干道的空间形态。

环境设计
“景意融合”——一方面充分实现对外部景观资源的利用及内外环境空间意境，在提供多样化的室外活动场所之外，提升环境设计的精神内涵，体现连续完整、朴拙自然的价值取向。

交通动线设计
设计强调高效性和资源共享，整体相连的地下停车库为此提供了基础。同时，充分利用地势的自然高差设计的停车空间与基地内的景观环境空间有机融合，从而优化了停车空间的自然采光、通风等物理环境。此外，地面景观系统中也为地面车流的组织提供了充分的条件。

可持续设计
场地通风：场地设计充分顺应了地势坡度，并使建筑沿湖岸形成开敞式的展开方式，从而使面水和面向夏季主导风达成一致。建筑设计通过采用底部架空、单廊式设计、设置中庭等方式，使由湖面吹来的凉爽空气充分吹过建筑并形成积极的气流循环，达到有效散热的效果。
节能措施：其中被动式节能设计包括：剖面设计通过底层架空、设置竖向通风井、空中花园等方式将凉爽的湖面风引入建筑内部；屋面和西立面采用被动式遮阳及通风系统,配合屋面绿化为建筑遮阳；隔热采用倒置式构造的屋面覆土层起到理想的隔热作用。主动式节能设计包括：采用自控式外墙通风装置；空气调节采用地源热泵作为辅助空调装置可节约30％的空调制冷能耗；热水则采用太阳能集热装置；另外建议适当采用光能发电装置。

对页：主广场透视图。
Opposite page: View of plaza.



功能分布
Function layout

Design concept

By carrying on the basic analyses and theories from the first round in the aspect of planning and space environment design, we continue to work on the following goals: the most optimized configuration of resources, the harmony and unity between functional rationality, natural ecology and human care; the separation of three layers such as the public layer, the semi-public layer and the private layer etc. The optimal configuration of landscape resources becomes the mainline of the development of structure planning; the plan introduces the center lake's water into base interior to form two peninsulas with three sides facing the water. Each building fully conforms to the shape of the base and stretches in an open and water-loving layout along the rim of area used , forming an overall open space system from road slope to water bank .

Building spatial form

Under the whole planning structure, each building being in organic connection with each other, has its own spatial form expression which corresponds to the functional logic of its own.

Vanke Headquarters is unfolded along the space in horizontal volumes. The building and the environment landscape form topological relationship and the environment of external space presents the features of parks. With relatively concentrated and specific volumes and land use, the outer space of International Convention Center presents a square form. The hotel and the flexible office are combined with two forms: linear volume and small volume of chess board pattern. And the outer space between them presents a spatial form of road.

Environmental design

"A fusion of sights and notion" — on one hand, it fully achieves the utilization of the external landscape resources and the artistic space concept of the internal and external environments, on the other hand, apart from providing diversified places for outdoor activities, it also promotes the spiritual connotations of environmental design and embodies the value of consecutiveness, completeness, simple and natural.

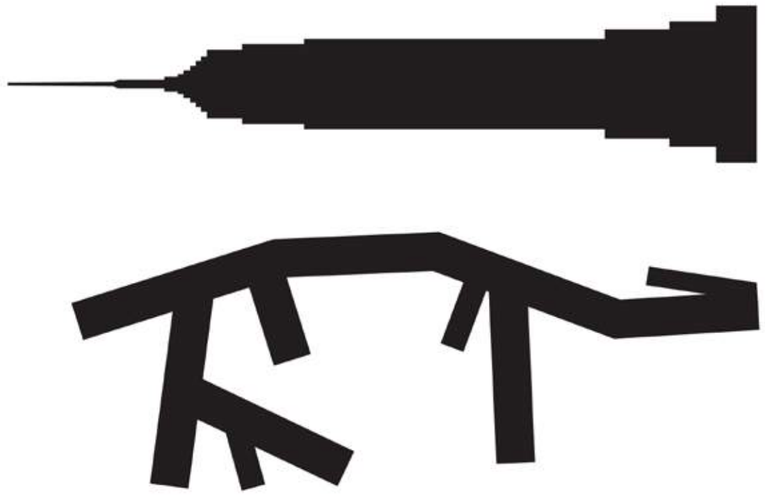
Traffic flow design

The design emphasizes on high efficiency and resource sharing, and the overall connected underground parking garage lays foundation for this. At the same time, the parking space, which is designed by taking full advantage of the natural terrain altitude difference, organically integrates with the landscape environment space in the base, thus optimizing the physical environment, such as natural lighting, ventilation and etc. Besides, the ground landscape system provides adequate conditions for the ground traffic organization.

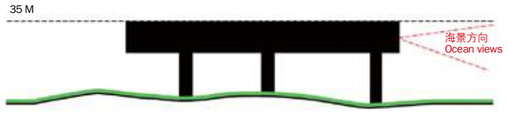
Sustainable design

Site ventilation: The site design fully conforms to the terrain slope and makes the building unfolding along the lakeside in an open way, thus achieving a harmony between sea breeze and the direction of summer prevailing wind. The architectural design enables the cool air from the lake to blow over the architectures fully and form good air circulation by adopting measures of cantilevered structure, single-hall design, atrium, etc., thus achieving effective cooling effect.

Energy-saving measures: The passive energy-saving design includes profile designs that use cantilevered structure, vertical ventilation shaft and hanging gardens to introduce the cool lake wind into the building; the roofing and west façade adopt passive shading and ventilation systems, along with roof greening to provide shade for the building; roof overlaying soil with inverted structure is used to achieve the desired heat insulation effect. Active energy saving design includes self-control outdoor wall ventilation device; using ground source heat pump as auxiliary air-conditioning device which can save 30% energy consumption of air-conditioner; using solar collectors to supply hot water. Besides, it is suggested to use some photovoltaic power generation devices.

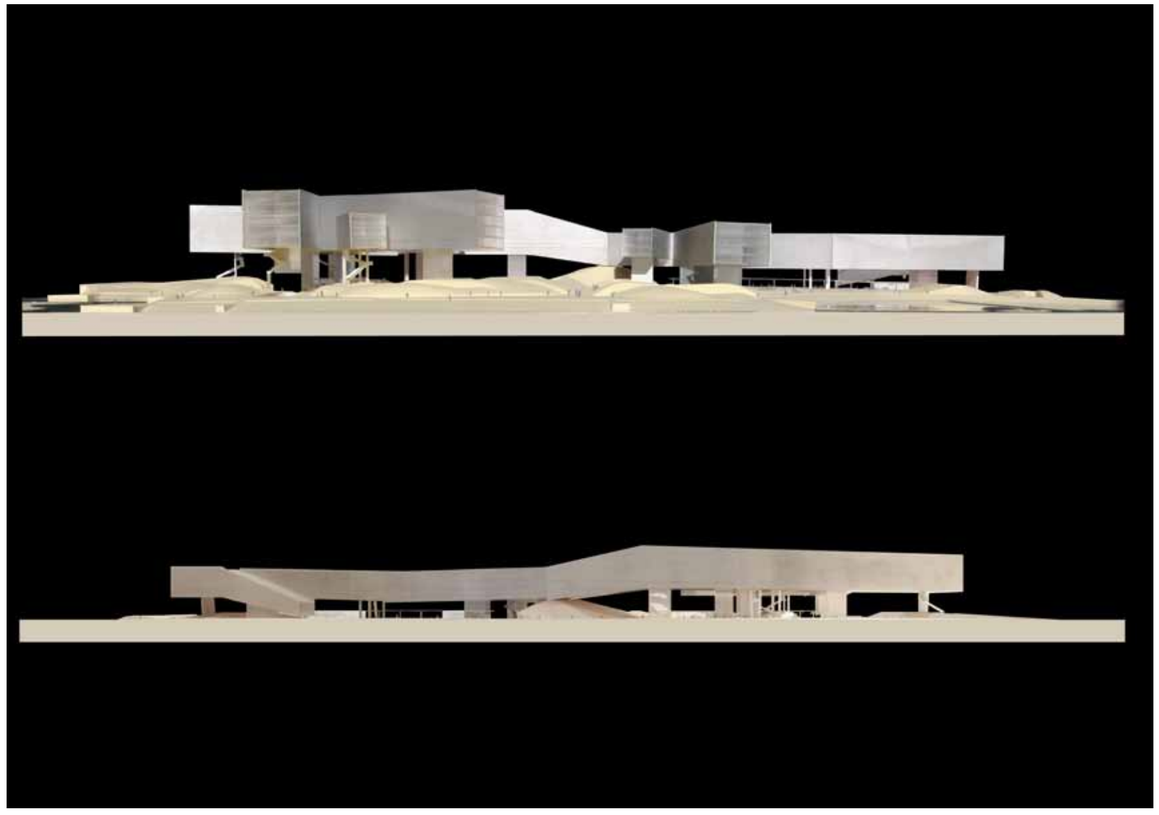


尺度对比分析
Size comparison



视图与景观最大化分析
Maximized views and landscape

对页：模型立面。
Opposite page: Elevation.



斯蒂文·霍尔事务所设计方案
Steven Holl Architects Design Proposal

公司简介
斯蒂文·霍尔事务所以创新性的建筑与城市设计为导向，分别在纽约和北京设有办公室，员工总数约40人。斯蒂文·霍尔与高级合伙人Chris McVoy和初级合伙人Noah Yaffe共同主持事务所。斯蒂文·霍尔事务所在国际享有盛誉，以设计的高质量而多次获奖、进行刊物出版并举办展览。最近建成的项目包括韩国大洋画廊及住宅、挪威哈姆生中心以及丹麦海宁艺术博物馆。

COMPANY PROFILE
Steven Holl Architects is a 40-person innovative architecture and urban design office working globally as one office from two locations; New York City and Beijing. Steven Holl leads the office with senior partner Chris McVoy and junior partner Noah Yaffe. Steven Holl Architects is internationally-honored with architecture's most prestigious awards, publications and exhibitions for excellence in design. Recently completed are the Daeyang Gallery and House (Seoul, Korea), the Knut Hamsun Center (Hamaroy, Norway), the Herning Museum of Contemporary Art (Herning, Denmark).

设计理念

与其建造出一系列单独的建筑形体，包括酒店、公寓、办公楼等，方案的构想是一个新的漂浮建筑……一个未来的构想，它的水平几何形态连贯在一起，犹如海平面将各种功能空间提升到更开阔的视野。万科的标志性形象可以随景观绿地的最大化而最大化。

作为深圳城市片段，此设计提出一个新的典范；漂浮的水平杆状空间，化解建筑形式和功能使用之间的直接关系，这带给地面层更多的活力。在这个项目中不需要设计各种不同功能来满足这城市片段的复杂需求，地面层多元的日常生活可以在功能单元中不断改变和演化。

这些单元和周遭活动之间的多孔穿透性是非常重要的。由于主楼漂浮在空中，这些地面出租的空间可以让租户使用当地的自然材料自己建造，例如竹子、茅草屋顶等，并且可以提供紧密多样的使用性，使其具备很大的可变性和灵活性。

盘旋在独创的“海水涂鸦”花园上空，办公室、公寓和酒店等，建筑物之间温和的碰撞，就好像他们一度曾漂浮在较高的海面上，如今那个海面已经退去，留下他们屹立在犹如玻璃或珊瑚般的基座上。这种项目是在中国从来没有出现过的（在任何地方都没有）。作为一个热带的、可持续的21世纪构想，它融合了几项新的可持续发展方向：漂浮的建筑体创造了自由、灵活有遮盖的景观绿地，并且让海风和陆风穿透基地。利用中水系统运作的矩形水景池将冷能向上辐射到彩色的铝制建筑底面再反射下去。可动式外遮阳表面使用特殊复合材料，保护内层玻璃减少太阳能负荷及风力冲击。可转动式悬挂立面外遮阳系统不会阻挡窗外的海景及山景。利用太阳能的除湿和冷却系统经由特殊的“屋顶阳伞”形成了有遮阳的屋顶景观。这个防海啸的盘旋式建筑创造了一个多孔的微型气候和庇荫自由景观绿地。

可持续设计

- 总目标

土地使用者在热工、视觉及声学舒适度上达到最优。
室内空气质量达到最佳。
能源与水资源消耗达到最小。
运行成本达到最低。

- 炎热潮湿性气候

夏季日照角高使得水平遮阳装置利用效率高，尤其是南向遮阳。
东西朝向较难处理，但仍可通过遮阳达到理想效果。
土壤温度不能实现完全自然降温，但可以通过二次冷却装置进行降温。
无采暖要求。
强风力主要来自西南与东北。
防风保护措施很重要。
除湿需要的潜在负荷不容忽视，建议通过一个换热器进行冷却补偿。保留有效的空中花园需要一定的条件，最好能利用排出的废气。

- 措施（针对当地气候）

通过高隔热性能的外墙与有效的室外遮阳措施减小外部负荷。
通过日光控制式照明措施减小内部负荷。
通过高效的换气系统与灵敏的热补偿系统减少风量损失。
通过辐射式空调系统减少空调需求量。
通过地热回冷提高冷却器效率。
通过低耗设备减少电能消耗。
太阳能产品的运用：通过屋顶与外墙的太阳能电池发电和通过由太阳能驱动的冷却器降温。

- 外部屏蔽作为气象防护包括的功能：

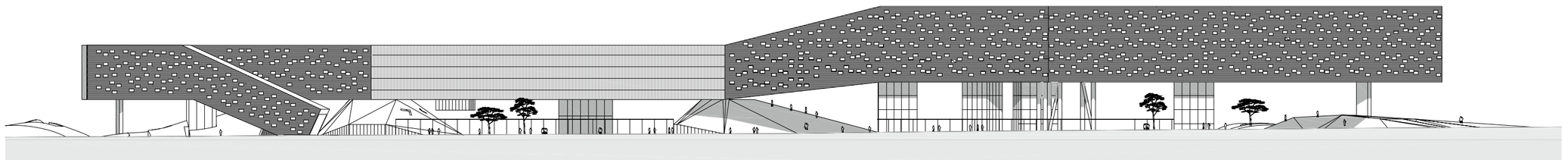
遮阳。
防风。
防雨。

- 内立面作为热层包括：

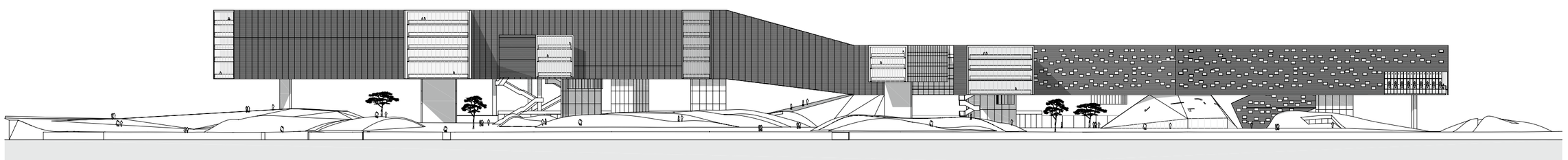
双层中空Low—E 玻璃（U值1.8 W/m^2 K）。
通风口。
起光扩散作用的磨砂玻璃。

- 全年光电输出量包括：

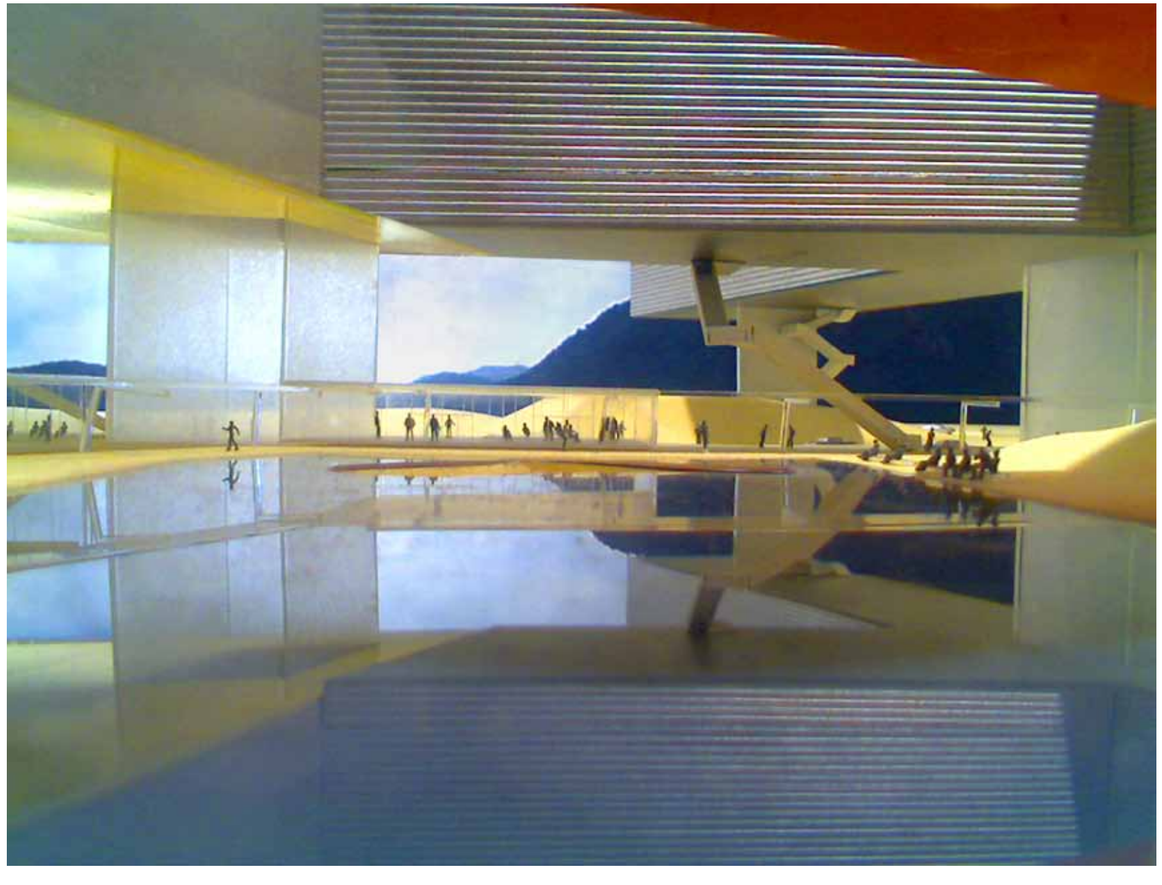
太阳辐射量为1 371千瓦时/平方米·年。
水平表面产生电量205千瓦时/平方米·年，节能15%。
屋面最大可利用面积14 000m^2。
可利用的最大太阳能发电量2.870兆瓦时/年。
外墙可利用面积：东南-南-西南向~6 400m^2。
可利用的最大太阳能发电量1.513兆瓦时/年。
全年总耗电量2 728兆瓦时。

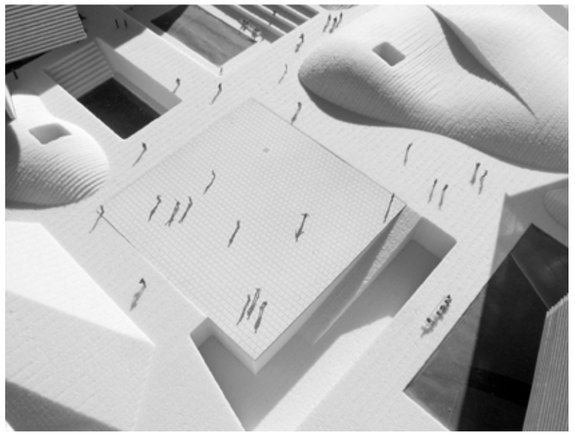


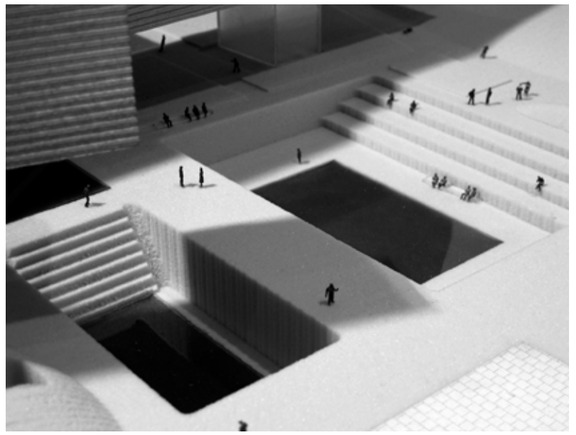
北立面
North elevation

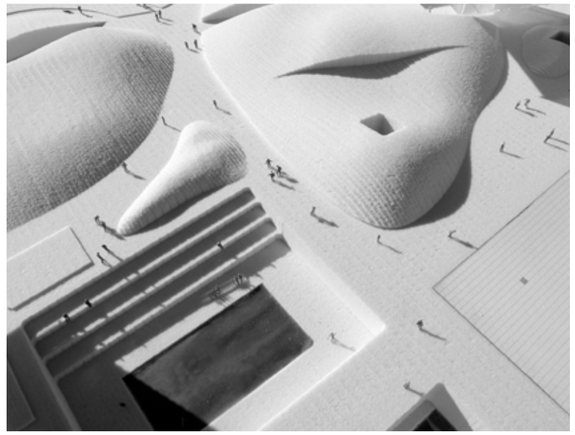


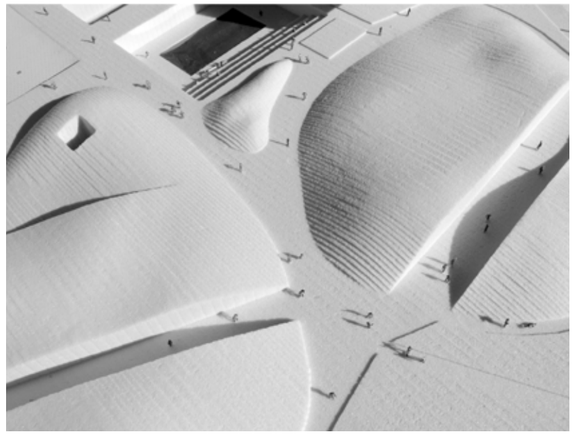
南立面
South elevation











对页，顺时针：万科中心酒吧模型试验；楼梯间模型实验；室外空间模型试验；室外空间模型试验。
本页：模型图。
Opposite page, clockwise: Vanke Center bar, model experiment; untie bowtie, model experiment; outside, model experiment; outside, model experiment.
This page: Models.

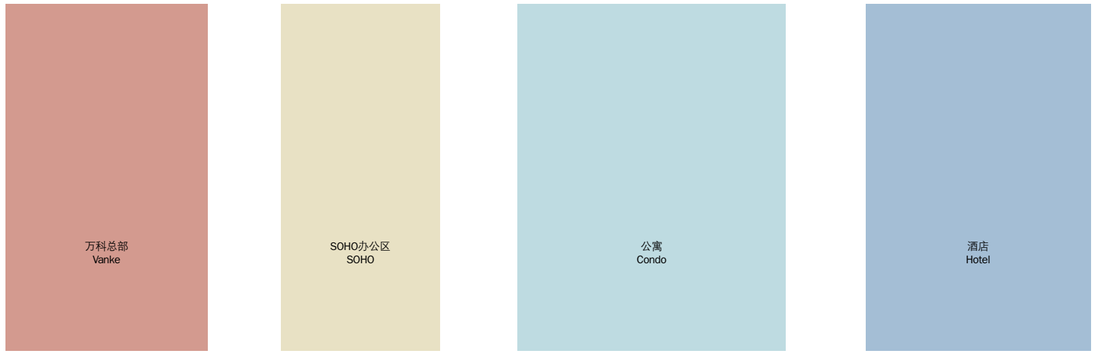
Design concept

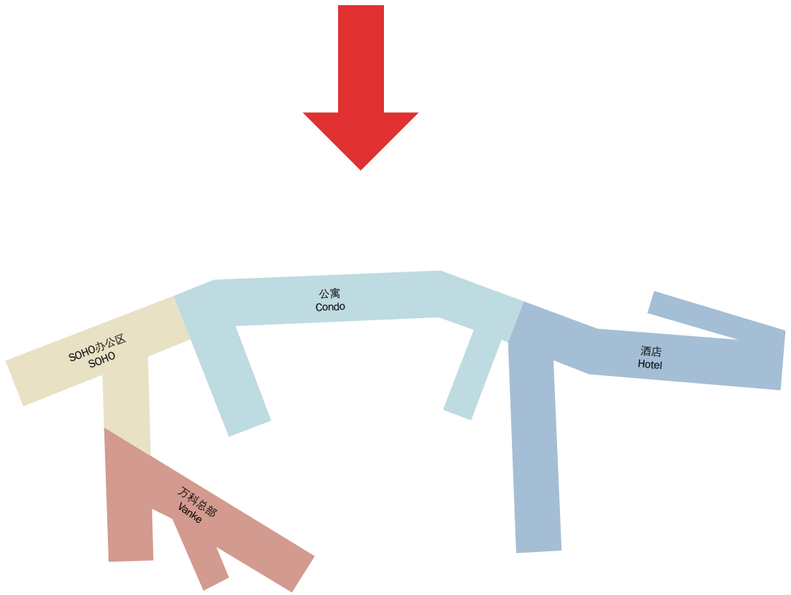
Steven Holl Architects is committed to visualizing new floating building, an idea of future, connected in a horizontal pattern of geometry, like a rising sea level to elevate various functional spaces to the open view, instead of building a series of single buildings including hotel, apartment, and office buildings. The symbolic image of Vanke can be maximized along with the large landscape green space.

As a part of Shenzhen, the design presents a new role model; a floating horizontal truss structure space, defusing a direct relationship between building forms and functional utilities as a way to add more vigor and vitality to the ground floor. We do not need to design different functions to meet the complex requirements of this area, while the fact is that the diversified daily life in the ground floor can be changed and evolved gradually in these functional units.

The perforated penetrability between these functional units and its surrounding activities is much important. Due to the main building is floated in the air, other spaces on the ground floor for rental can be used by leasee, who can use local national materials, for example, bamboo, thatch roof, to create their own space, together with the diversified functions of use, making the space with the possibility of variable and flexible.

Hovering over the garden with originality style of "sea scrawl", the collision between buildings including offices, apartments and hotel, likes they are at one time floating on the higher sea level. Nowadays, the sea water has receded, the left buildings stand on the glass and coral style basement. This project is the first of this kind in China (we never seen before, anywhere). As a tropical strategy and a sustainable idea in 21th century, it integrates new several sustainable development aspects: the floating building creates a covered landscape green space with free and flexible style, making the seal breeze and land breeze across, even penetrate the base. Rectangle waterscape pool equipped with reclaimed water system can make the cold energy radiate upward to the color aluminum building bottom, and then reflect it back. Special composite materials are applied to movable external sun-shading surface to protect the inner glasses from the solar load and wind impact. Rotated suspended elevation external sun-shading system can't obstruct the seascape and mountain views outside of window. The dehumidification and cooling system with solar panels via special "roof parasol" forms a sun-shading roof landscape. The building is a Tsunami proof hovering architecture that creates a porous micro climate and shading landscape green space.





功能分区图
Function layout

一层平面图
1st floor plan

二层平面图
2nd floor plan

Sustainable design

• Goal

Optimizing occupants thermal, visual and acoustical comfort

Optimizing indoor air quality

Minimizing of energy and water consumption

Minimizing operation costs

• Hot and humid climate

Very high sun positions in summer make fixed horizontal shading devices especially for South façade

East and West façades are most critical, but can work as well with a fixed shading

Soil temperature does not allow direct natural cooling but can work as a recooling device

No heating demand

High wind potential with main wind directions from SW and NE

Wind protected shading is important

Latent load for dehumidification is a big issue, and a heat recovery. the restauration of an efficient sky garden depends on certain conditions and it would be better is waste gas could be reused

• Measures: (reflecting the local climate)

Minimizing external loads through high insulated facade and efficient external shading

Minimizing internal loads through daylight controlled lighting

Reducing ventilation losses through displacement ventilation with high efficiency and sensible heat recovery systems

Minimizing air conditionner demand through radiant conditioning system

Optimizing chiller efficiency by optional geothermal recooling

Minimizing electricity demand by low consumption equipment

The use of solar energy products

Electricity by roof and facade integrated solar cells

Cooling through solar driven absorption chiller

• External screen is weather protection

Solar shade

Wind protection

Rain protection

• Inner facade is thermal layer

Double low.E glass (U-value 1.8 W/m^2K)

Ventilation openings

Light scattering by sand blasted glass

• Annual photovoltaic output

Solar radiation 1 371 kWh/m^2a

Electricity produced by horizontal surfaces: 205kWh/m^2a , saving 15% energy

Available roof area max. 14 000 m^2

Optional maximal solar electricity production 2.870 MWh/year

Available facade areas: SE - S - SW orientations ~ 6 400 m^2

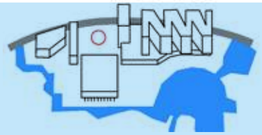
Optional solar electricity production: 1.513 MWh/year

Total electricity consumption 2 728 MWh

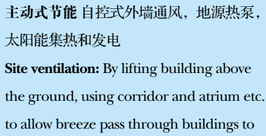
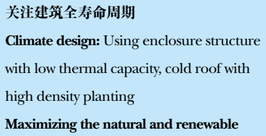
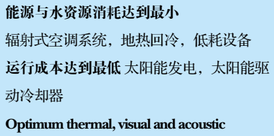
数据：

Data:

第一轮 First Round

设计公司 Bidding companies	HPP	华汇 Hua Hui Design	PES
公司位于 Design company from	德国 Germany	中国 China	芬兰 Finland
设计理念要点 Design concept	**标志性形态**“海崖”； **平衡工作/休闲关系** 两组建筑群； **生态建筑** 竹表皮 **Symbolic form** of "sea cliff" ; **Balancing the relationship between buildings for work and leisure;** **Sustainable architecture** with bamboo facade	各功能建筑**沿用地周边亲水展开**，形成“**道路—水岸**”开放空间系统 Buildings with various functions are **located around the site perimeter and towards waterfront**, forming an open **"path-waterfront"** space system	**用视觉平衡不同功能的体量** 突出体量较小的万科总部，与体量较大的酒店、SOHO和会议区分开来 **Visually balance volumes of different buildings**, emphasizing the relatively small Vanke Headquarters to separate it from hotel, SOHO and conference center
简图 Diagram			
规划布局 Planning concept	圆柱体为万科总部，两组线性建筑群为**其他功能位于总部两侧** The cylindrical building is Vanke Headquarters, while the **two linear building mass on both sides** contain other functions	万科总部、会议中心、酒店、SOHO办公各形成一座建筑，沿基地形成**半围合布局** Vanke Headquarters, conference center, hotel, SOHO office are in separate buildings that form **semi-enclosure** of the site.	基地沿路侧设立一个**圆形广场**，万科总部位于广场正面，酒店、SOHO和会议广场分立两侧 Design features a **round plaza** around the site, Vanke Headquarters is situated at the front of the plaza, whereas Hotel, SOHO and Conference Center are on the sides
分散或整体构图 Separate / integrated volume	**分散** **Separate**	**分散** **Separate**	**分散** **Separate**
建筑体量是否架空 Whether building is lifted above the ground	**不架空** **Entirely on the ground**	**万科总部架空，其他不架空** **Vanke Headquarters is lifted above the ground, others are on the ground**	**万科总部架空，其他不架空** **Vanke Headquarters is lifted above the ground, others are on the ground**
立面设计 Facade design	**万科总部** 玻璃幕墙+金属网 **其他建筑** 竖向竹竿表皮 **Vanke Headquarters:** glass curtain wall + metal net **Others:** vertical bamboo facade	**每座建筑不同**有花格、竖向格栅等 **Each building has different form** of lattices and vertical grille	**“竹细胞”花格**彩色混凝土，双层立面 **"Bamboo cell"** colored concrete with double facade
景观设计 Landscape design	**突出内向空间** “绿洲” **Emphasis on the inner** "oasis" space	**三个层次** 公共（中央广场、滨湖景观带），半公共（各建筑外部），私密（各建筑内部） **Three layers :** public (central plaza, waterfront landscape); semi-public (building exterior); private (building interior)	**营造广场与湖泊的连续性** 水作为景观设计的主题 **Create continuity between plaza and lake**, use water as the theme of the landscape design
可持续设计要点 Sustainable design strategies	**室外遮阳** 外廊/骑楼，悬挑楼板/屋顶，内院/冷巷 **热量控制** 热缓冲空间，高屋顶烟囱效应，绿色屋面，土壤蓄热，双层立面 **Exterior sun-shading:** outdoor corridor/ overhang, cantilever floor / roof, inner courtyard / lane **Thermal control:** thermal buffer space, stack effect of high ceiling, green roof, soil thermal storage, double facade	**优先采用被动式设计** 有效组织自然通风 **Prioritize passive design**, effectively utilized natural ventilation	**室内空气控制** 综合使用自然通风及太阳能供电的机械通风 **能源** 太阳能屋顶 **水的综合利用** 雨水作为景观水，灰水再利用 **Interior air quality control:** Integrate natural ventilation and solar powered mechanical ventilation. **Energy:** Solar power roof **Water recycle system:** Using rainwater as landscape water and recycling grey water

第二轮 Second Round

设计公司 Bidding companies	华汇 Hua Hui Design	MVRDV	斯蒂文·霍尔 Steven Holl
公司位于 Design company from	中国 China	荷兰 Netherland	美国 USA
设计理念要点 Design concept	各功能建筑**沿用地周边亲水展开**，形成“**道路—水岸**”开放空间系统 Buildings with various functions are **located around the site perimeter and towards waterfront**, forming an open **"path-waterfront"** space system	单一城市化区域中的**区域性标志建筑** 适合万科横向工作模式的**平躺式总部大楼** **Significant landmark building** of the monotonous neighborhood; creating a **horizontal headquarters building** suitable for the company structure of Vanke	**一个整体的漂浮建筑**，而非一系列单独的建筑形体 **One "floating" horizontal volume** instead of a series of individual building forms
简图 Diagram			
规划布局 Planning concept	进一步**将中心湖水域引入基地内部**，并重新整理了万科总部、会议中心、酒店、SOHO办公的建筑形态 Further **leading central lake area into the site**, and improved the design of Vanke Headquarters, conference center, hotel and SOHO office	所有建筑围绕中心绿地展开，每个功能一座建筑，**不对称布局** **All buildings are designed around central green area** with each building contains one function; **asymmetrical layout**	**漂浮的水平线性空间**，化解建筑形式和功能使用之间的直接关系，**带给地面更多活力** **"Floating" horizontal linear space**, avoids direct relationship of functions and forms, **bringing more vitality to the ground**
分散或整体构图 Separate / integrated volume	**分散** **Separate**	**分散** **Separate**	**整体** **Integrated**
建筑体量是否架空 Whether building is lifted above the ground	**万科总部架空，其他不架空** **Vanke Headquarters is lifted above the ground, others are on the ground**	**万科总部架空，其他不架空** **Vanke Headquarters is lifted above the ground, others are on the ground**	**完全架空** **Completely lifted**
立面设计 Facade design	**基本统一** 每座建筑略有变化 **Basically uniform**, with variation on each building	**山丘似的建筑** **Architectural forms resemble hills**	**双层立面** 内层玻璃+可动式悬挂外遮阳 **Double facade:** Inner glass + movable handing exterior shade
景观设计 Landscape design	**三个层次** 公共（中央水域、滨湖景观带），半公共（各建筑外部），私密（各建筑内部） **Three layers:** public (central plaza, waterfront landscape); semi-public (building exterior); private (building interior)	**中心绿地** **两条“视线—景观”**对角线 也是生态走廊 五座山丘 = 五座建筑 **Central green area with two "line of sight —landscape" connection,** which also act as ecological corridor; five hills = five buildings	**自由、灵活、有遮盖的景观绿地** **Free, flexible, covered green landscape**
可持续设计要点 Sustainable design strategies	**场地通风** 采用底部架空、单廊、中庭等，使湖面凉风吹过建筑，为之散热 **被动式节能** 通风井等引入自然通风，覆土屋面隔热 **主动式节能** 自控式外墙通风，地源热泵，太阳能集热和发电 **Site ventilation:** By lifting building above the ground, using corridor and atrium etc. to allow breeze pass through buildings to lower the temperature **Passive energy saving:** Ventilation shaft for natural ventilation, green roof for thermal insulation **Active energy saving:** Self-control exterior wall ventilation, geothermal heat pump, solar power	**气候环境学设计** 采用低热储存量的围护结构材料，冷屋顶，高种植密度 **善用自然资源及可再生能源** 太阳能，浅层地源热泵 **关注建筑全寿命周期** **Climate design:** Using enclosure structure with low thermal capacity, cold roof with high density planting **Maximizing the natural and renewable resources:** Solar power, geothermal heat pumps **Focusing on the entire life cycle of the building**	**热工、视觉及声学舒适度上达到最优** 高隔热性能外墙，室外遮阳，日光控制式照明 **室内空气质量达到最佳** 换气系统，热补偿系统 **能源与水资源消耗达到最小** 辐射式空调系统，地热回冷，低耗设备 **运行成本达到最低** 太阳能发电，太阳能驱动冷却器 **Optimum thermal, visual and acoustic comfort levels:** Highly insulated exterior wall, exterior shading, sunlight lighting control **Optimum indoor air quality:** Ventilation system and temperature compensation system **Minimize energy & water consumption** **Minimize operation cost:** Using solar energy and solar powered cooling machines

王　石，万科企业股份有限公司集团董事会主席
Steven Holl，斯蒂文·霍尔事务所主持建筑师
肖　楠，原万科企业股份有限公司执行副总裁
徐洪舸，原万科企业股份有限公司执行副总裁
朱建平，原万科企业股份有限公司总建筑师

Wang Shi, Chairman of the Board of Directors of China Vanke Co., Ltd.
Steven Holl, Principal of Steven Holl Architects
Xiao Nan, former Executive Vice President of China Vanke Co., Ltd.
Xu Hongge, former Executive Vice President of China Vanke Co., Ltd.
Zhu Jianping, former Chief Architect of China Vanke Co., Ltd.

Interview & Comments

Not Only a Matter of Architecture

不仅仅是一个建筑的抉择

第一轮设计竞赛时三个方案虽各有千秋，但万科给出的设计条件（面积、用地等）限制过多，严重限制设计方思维，引用评委当时的一句评语：三个参选方案仍停留在解决方案的层面，需要继续深化。第二轮设计竞赛中，万科允许设计方最大限度地自由发挥，Steven Holl事务所的方案被选中不仅因为它成功解决了几个困扰万科很久的矛盾与对立点，并且它更显现了一种建筑与自然的关系。

In the first round of design competition, even though the three proposals had their own merits, there were lots of restrictions in the design requirements (area and land, etc.), which limited the thinking of the designers. To quote the comment from a judge: the three proposals are all staying on the level of solutions and need to be deepened further. Vanke learnt a lesson in the second round of design competition and allowed the designers to create freely to the largest extent. Steven Holl Architects, scheme was chosen because it not only succeeded in solving some contradictions and opposite points which had troubled Vanke for a long time, but also ernbodies a relationship between architecture and nature.

Wang Shi: It is a signature, a symbol, and also a declaration, and it can be said as reserved, understated, modest, and open from the perspective of a symbolism; you can find that it is a quite modern architecture from the perspective of symbol. And its declaration is to convey Vanke's understanding towards nature and its relationship with nature, which means that we need to respect nature. We should try our best to maintain its original feature.

Steven Holl: It is cheering to see this project finished after lasting for years. What's more cheering is that it is built as we originally planned. **It is the most tremendous skyscraper built horizontally throughout history.**

Xiao Nan: Since it is such a large-scale building, Vanke Headquarters is not the only institution in it, For example, an international conference center will be built underground as well as a conference hotel with a considerable scale. In addition, we have other business goals within the original plan, so the most difficult part of the project is that each function module has its own requirements. Taking all the five functions together into consideration, this building is rather difficult to construct. The extended surface of this building may be several hundred meters, it has a very special horizontal traffic organization with multipoint distribution, which is quite reasonable for people to evacuate in a low storey building. Considering the huge volume of this building, if we do not take corresponding measures, there may be some countercheck to the airflow or **the heat island effect. Therefore, I think the statement of floating horizon is a concept not only of pure architectural design, but also of ecology.** Besides, the sun visors in office building are always solid and opaque. It looks very rigid because its color is black or white. Holl chose a piece of dead leaf there and the vein of leaves was applied in the interspace of shading louver boards.

王石：它是一个符号，是一个标志，也是一个宣言，从符号来讲是一种内敛的、不动声色的、谦虚的、包容的；从标志来讲：会发现它是一个很现代的建筑，它的宣言是通过**这个建筑表达了万科对自然的一个认识，与自然的关系，**就是要尊重自然。对自然尽可能保持它的原貌。

Steven Holl: 很高兴这个持续了多年的工程最终建成，更高兴的是它是按我们的最初计划建造的，它是**有史以来在平面上建造的最大的摩天楼。**

肖楠：因为这么大规模的一个建筑物，也不仅仅是万科总部一个机构在里面，比如在地下要建一个国际会议中心，以及有相当规模的一个会议酒店。此外我们在原计划内还有些商业目标，所以这个项目最难之处在于：每个功能模块都有自己的要求。五大功能放在一起来考虑的话，这个建筑是蛮难做的。这个楼展开面可能有几百米，横向的交通组织非常特别，采用多点分散，楼层又不高，对人流疏散来讲是非常合理的。考虑到我们这个建筑那么大，如果没有相应的措施可能会形成对气流的阻挡或“热岛效应”，所以**这个漂浮的地平线的说法，我理解它还不只是一个纯建筑设计的概念，它是一个生态的概念。**此外，在办公建筑中遮阳板通常都选用的是实心不透光的。它看上去比较死板，非黑即白，霍尔就在当地选择一片枯叶，树叶的肌理巧妙地用在了遮阳百叶板的空隙里。

徐洪舸：Steven Holl事务所的方案**最后采取了非常简单的办法，就是一根线拉过去是我的主体。你需要什么功能我就给你“长”出来，采取了非常简单的方式，最后形成非常复杂的功能简单化。**并且这个房子建造非常有意思，它是先封顶，再做中间的楼板。这个结构形式做办公楼建筑在全世界都没用过。

Xu Hongge: It adopted a very simple method finally, that is to arrange the principal parts in a single line. I will "grow" out any function you need and adopt a very simple way to simplify the very complex functions. The construction of the house is very interesting, because the cap is sealed before building the floor in the middle. This structure form of office building has never been used in the world before.

Zhu Jianping: When drafting the brief, Vanke had made general planning of the site. At the very beginning, several functions had been decided, including the Vanke Headquarters, the conference hotel and International Conference Center required by the government. Besides that, we considered building some apartments, but this caused doubts and raised discrepancy, for example, Vanke Headquarters, hotel and International Conference Center were all public spaces, and there might be conflicts if there were private apartments. **In the final design, there are flexible spaces in the building, which could be adapted as apartments or SOHO. This design perfectly meets our functional requirements.**

朱建平：万科中心的设计竞标的过程中，经过了几次竞赛，几次评选，共邀请了九家事务所进行设计。我们当时的一个核心要求是，我们不希望做一个放任何地理位置都可以的方案。这个场地背山面海，属于亚热带气候带，我们**希望建筑是基于场地和气候设计、形成的方案，这是最根本的概念。**在拟定任务书时，万科进行了大概的规划。最开始有几个功能已被确定，包括万科总部，以及政府要求的会议酒店和国际会议中心。除了这些要求，其他面积可以自己灵活处理。当时我们想做些公寓，但是这就会使项目出现了某种杂音，例如万科总部、酒店、国际会议中心都是公共性的，要是出现公寓，或许会有影响。**现在实施完的方案规划里有灵活的大空间，也可作为公寓及SOHO，可以说是最佳地满足了功能需求。**

Zhu Jianping: Steven Holl Architects designed a long, elevated building, which meant that the depth of building would not be too much and the spaces would be well-ventilated, if windows were open on both sides, its ventilation and lighting condition would be very good. This was proved true when we applied for LEED certification and these points achieved full marks easily. In fact, as soon as I saw the design, I felt that this proposal was the one to win. When we were still confined to whether certain parts of the building should be lifted up or not, this proposal turned the concept of "creating free ground space" to "floating", and people who work and live inside could enjoy the shade created at any time, while sea winds would pass through the building. **Most importantly, the design combined five functions together into one and lifted up the entire building, I think this is the most outstanding concept of Steven Holl Architects' design. It is the design of a mastermind; the architect expressed his design intentions to the extreme. Thus it was not unexpected that Steven Holl Architects won the final bidding.**

朱建平：最后一轮的竞赛包括了三家事务所，华汇、MVRDV与斯蒂文·霍尔。在深圳万科当时的梅林总部的一个大会议室里进行，王石也在座听取汇报，汇报结束方案被确定。

Steven Holl事务所的方案是一条长龙，这决定了建筑进深不会太大，它的通风会非常有利，假如两边的窗户都打开，通风、采光条件都会非常好。事实证明，后来我们申报LEED时，这几项很容易就拿到满分了。当时我看到方案，心里感觉基本上就是它了。方案把所谓的“架空”的概念变成“悬浮”的概念，而我们囿时还局限于建筑的某个部分是不是该架空；架空以后给地面带来阴影，建筑内办公、生活的人们随时都可以享受到阴凉，同时海风可以穿过去。最重要的是，**设计把五大功能变为一栋建筑，然后再整体悬浮，**我觉得这是Steven Holl事务所的方案比较厉害的地方。**大师就是大师，他把设计想法极致化了，所以他这一举中标也不算意外。**

MVRDV事务所虽然没有中标，但是我觉得他们的方案也不错。他们的设计是五个功能五栋楼，跟Steven Holl的方案正好相反（五个功能一栋楼）。MVRDV的方案基本是五个圈，他们设计方法有一个特点，根据数学模型进行推理、设计，我比较欣赏他们的设计过程。方案中五大功能各自独立，又彼此联系，五个圈之间会形成一个空间，边界外与另一个边界之间又会有一个空间，我把这个空间看成是街道，每一栋建筑都有“内”跟“外”，跟中国的空间比较像，这个“内”还有一个“空”。我特别喜欢他这个脉络跟中国空间的联系。当然万科中心本身不是一个圈，它是一个山体，按照他那个方案，我们进万科总部就是盘山路进的。虽然他的方案是数理逻辑分析得到的，但其实它是非常浪漫的一个方案，因为它还融合了一个巨大的漂浮在山顶的设计元素，为下面带来阴影，也算是不错的。但是平心而论，我还是更倾向于Steven Holl的方案，因为仅从当时万科要求的一个总部形象来说，MVRDV事务所的方案是万科总部放在中间，外面围合了四个体量，形象上确实没有Steven Holl方案的视觉冲击力大；而且他们的方案没有很深入，还只是比较浅显的一个想法，没有达到可以落地的程度。

华汇的方案实际也是在沿街有很长的一个体量，其中也有很多架空的部分，二楼三楼的平台，层层叠叠的，有屋顶的院、不同楼层的平台和架空的结构，做得比较灵活，也有不少可取的地方。

同期网上评论：

Online Comments:

@Microartisan: I like the concept of this building very much, touching the ground slightly :)
2012-8-14, 10:59 from weibo journal | report repost (2)| favorite| comment
@#ikuku selected#: the conceptual design of project can be interpreted as "floating horizontal skyscraper"; the architect has connected the multi-functional buildings in a horizontal pattern of geometry, and lifted up the whole construction. The design company has proposed the concept of "build a house on the cable-stayed bridge"-the first of its kind in the world. Beyond that, the building is a kind of Tsunami-proof frame structure, creating a public landscape with transparent microclimate.

@South China Sea nuclear submarine: two highlighted buildings in Dapeng Bay: Shenzhen Dameisha Kingkey Sheraton resort hotel; oriental gigantic dragon, standing on the coastal of South China Sea, Vanke Headquarters--- "floating horizontal skyscraper". Excellent architecture art!
Repost| favorite | comment 7-30, 10:02 from Sino microblog

@Terrippc: I have attended a forum in Vanke Headquarters Dameisha today. The new Vanke Headquarters is like a work of art, from my opinion, it looks like the framed musical notes,while the architect says: It's the floating structure, or horizontal skyscraper. The inside of building also makes people surprised. As Wang Shi puts it, the building reflects the attitude of nature, society and future as a whole.
@myour2012: The headquarters of Vanke is the modern architecture in my heart.
Repost| Favorite | Comment 2012-8-15, 11:07 from Sumsung GalaxyNote
@CEIBS-chiruhejiusuibian: the dark grey and dark green curtain wall house with strip shape behind the lake is the headquarter of Vanke; it makes me feel that, even though this building is located in the corner of this area, you can also feel very good and satisfied through experience peacefully and manage carefully.[Hehe]
2012-8-15, 15:56 from IPhone CPND Repost| Favorite| Comment
@Xiao P: various elements are used to its perfection, reflecting a kind of fickleness lacking of confidence. The key point for building is the integration between building outline and environment, to give people an intrinsic experience.
2010-10-31 14:00:17
@youzhixiong213: the connection of different building skins, it looks very good from far away.
2010-11-04 11:49:04

@microartisan: 很喜欢这个房子的理念，轻触地面 :)
2012年8月14日10:59 来自微刊 | 举报转发(2)| 收藏| 评论
@#ikuku精选#: 项目的设计概念被解释为“漂浮的地平线”，建筑师将总部多个功能体以水平几何形态连接在一起，并将整个建筑抬起。根据项目独特的建筑效果，设计公司提出了世界首创的“斜拉桥上盖房子”的理念。该建筑是一个海啸防悬停架构，创建了一个可渗透的微气候公共休憩景观。
2012年3月23日09:59 来自ikuku转发(16) | 评论(1)
@南海核潜艇: 大鹏湾的两大亮点建筑：深圳大梅沙京基喜来登度假酒店——“东方巨龙，翘首于南中国海之滨”；万科总部一“漂浮的地平线”。牛掰的建筑艺术！ 转发| 收藏| 评论 7月30日10:02 来自新浪微群-爱旅游
@Terrippc: 今天在大梅沙的万科总部参加了一个论坛。新的万科总部就像一个艺术品，我说是架起来的音符。他的设计师说是漂浮的地平线，躺着的摩天楼。里面也处处给人惊喜让人意外。正如王石所说，它体现了对自然对社会对未来的态度。
@myour2012: 万科的总部才是我心中的现代建筑。转发| 收藏| 评论 2012年8月15日 11:07 来自三星GalaxyNote
@CEIBS-吃肉喝酒随便: 湖后面的长条型的深灰墨绿幕墙房子是万科公司的总部；它让我觉得：那怕是旮旯的地方，只要沉心体会、精心打理，也是会得到令人满意的美好。[呵呵]2012年8月15日15:56 来自iPhone客户端 转发| 收藏| 评论
@小p: 真是各种元素无不用其极，体现了一种不自信的浮躁。建筑还是贵在外形与环境的融合，内在给人的体验。2010-10-31 14:00:17
@youzhixiong213: 不同表皮的交接，远看还蛮地道啊。2010-11-04 11:49:04

@Yuzhou xiao FIFI: master deserves to be master. 2010-06-26 23:25:28

@Misiyi: Modern architecture hardly makes people feel comfortable. 2010-06-26 22:20:40

@宇宙小FIFI： 大师不愧为大师。2010-06-26 23:25:28

@米四姨： 现代建筑少有让人觉得舒服的。2010-06-26 22:20:40

@阳阳阳： 水池的设计太美了。2010-06-26 22:04:51

@SENDOH： 建筑倒是没话说，很棒。2010-06-27 18:57:04

@苏樱： 很多新材料哈。2010-08-02 11:50:18

@艾苏尔： 精致是王道。一个好建筑师的成败全在后期施工上决定。2010-11-15 16:11:38

@埃及橘子猫： 不错，项目控制得很好，完成度很高，时间也控制得好。作为一个建筑师，设计只占30%。2010-06-26 22:39:04

@casawood: 还好，另一个世界。2010-07-01 18:31:43

@Ynagyangyang: the design of water pool is very beautiful. 2010-06-26 22:04:51

@SENDOH: the building is awesome. 2010-06-27 18:57:04

@Sunying: there are many new materials. 2010-08-02 11:50:18

@Aishuer: exquisite is the best way. The success or failure for a good architect depends on the construction stage. 2010-11-15 16:11:38

@Aijijuzimao: great, the project is controlled very well, it is completed in a good way with better-controlled time. The design only accounts up to 30% here. 2010-06-26 22:39:04

@casawood: Not bad it is, another world. 2010-07-01 18:31:43

@Zhangyang: it's very good generally, in 2008 when I went to Dameisha, it was still the construction site there. 2010-07-10 12:24:01

@heidi: is that light a part of the model of Vanke Headquarters? 2011-05-17 14:45:32

@ZEN: it feels not like the works of Holl, it looks like the works of Arata Isozaki. 2010-09-03 16:51:28

@pipiblues: the space is amazing ! 2010-06-26 23:47:51

@zerend: en, I have a little bit personal opinion, I think the people inside this building do not match the building, the key point is not Vanke, but architect and building itself. 2010-06-26 23:36:58

@Jiangqingqizhuo: I like the lattice door, it can put many books~ —— it can store many complete works. 2010-10-24 23:41:46

@dlh: it's perfect, I really want it. 2010-09-10 03:28:12

@Biege: I don't like it, but the color of the building makes me uncomfortable, if the color is changed to sandal wood color, dark red with disk style or coffee color, it will look much better. 2010-08-06 09:35:31

@Alison & Alison: it is not beautiful~! ? ? I think it's really amazing. 2010-06-27 11:26:26

@Shitou.luo: the night view is much more beautiful than daytime. 2010-11-13 11:33:09

@张烨： 总体感觉还不错，08年去大梅沙那里还是工地。2010-07-10 12:24:01

@heidi: 那个灯是这个万科总部的模型么？ 2011-05-17 14:45:32

@ZEN: 感觉这东西不像霍尔做出来的 像是矶崎新 哈哈。 2010-09-03 16:51:28

@pipiblues: 这个空间太棒了！ 2010-06-26 23:47:51

@zerend: 恩，我只是有点个人偏见，觉得里面的人和这个建筑不太搭配，重点不是万科 而是建筑师和这个建筑本身。2010-06-26 23:36:58

@将轻骑逐： 我喜欢这个格子门，可以放很多书——可以放很多全集。 2010-10-24 23:41:46

@dlh: 这个太完美了，就是我想要的。2010-09-10 03:28:12

@别歌: 我不喜欢，颜色看着不舒服，如果再淡些，如原木色，或圆盘豆那种偏深红或咖色更和谐点。2010-08-06 09:35:31

@Alison &Alison: 不好看？？我觉得不知多好看。 2010-06-27 11:26:26

@石头.烙: 晚上比白天好看。2010-11-13 11:33:09

第二章 Chapter 2

2.Design and Construction

设计与建造

2006年，斯蒂文·霍尔事务所的“水平摩天楼”方案中标；2009年9月22日，万科中心工程完成竣工验收。从设计概念到最终建成，这座十二万平方米的巨大建筑体从单纯的概念，深化至“悬浮+锚固”的建筑、以连续的“路径”及开放空间为主导的室内、以及“向公众开放”的景观为主题的完整设计；结构历经五轮方案，最终确立了斜拉索桥式的“混合框架+拉索结构体系”，并确定施工方案为“上部结构逆作法”；幕墙则使用了根据日照轨迹和角度精心定制的双层幕墙，由全玻璃幕墙、固定遮阳和电动遮阳相互搭配。

2010年8月14日，万科中心获得了美国绿色建筑委员会颁发的LEED铂金认证。美国绿色建筑委员会主席、执行总监兼创始人S. Richard Fedrizzi在信中写到，“深圳万科中心为可持续建筑的先进典型，……在建筑行业改革中起到了带头作用。”万科中心的设计建造自始至终关注着可持续问题，包含了可持续选址、水循环系统、自然通风及微气候调节、太阳能光伏系统、冰蓄冷系统、新风地板系统、节水措施、可再生材料等一系列绿色设计和技术应用。

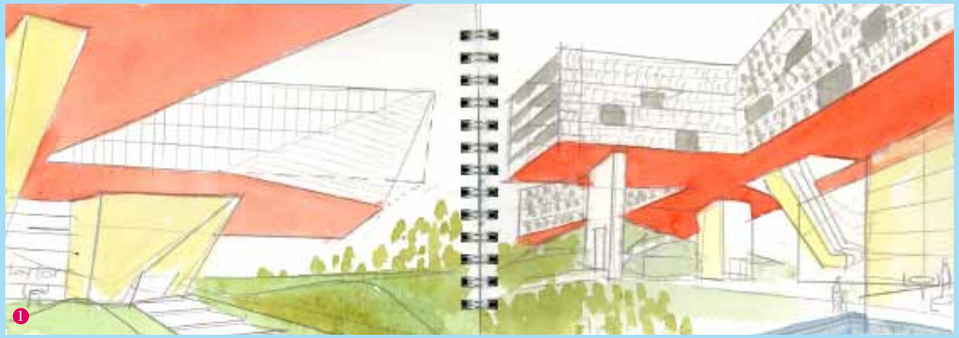
令人惊异的是，如此复杂的一个项目，从蓝图到建成仅仅三年，其中还包括不少国内乃至国际尚属首例的设计与实践——这不仅是“万科速度”“深圳速度”，更在某种意义上是“中国速度”。无论是设计方、施工方还是业主方，他们都付出了巨大的努力，圆满完成了这一挑战。

In 2006, "horizontal skyscraper" by Steven Holl Architects won the design competition of Vanke Center. On September 22nd 2009, Vanke Center was completed.

From design concept to completion, this 120 000 m² mega-scale project started from a simple concept to "floating + anchoring" architecture with interior featuring continuous "path" and open spaces, as well as landscape system open to the public. The structure design went through five stages and in the end innovatively used "mixed frame + cable-stay structure" with "reverse construction method for the upper building structure". The curtain wall used double facade design based on the sunlight condition of the site, and is consisted of fixed, operable and mechanically controlled louvers.

On August 14th 2010, Vanke Center received LEED Platinum certification from US Green Building Council. The president, CEO and Founding Chairman of USGBC S. Richard Fedrizzi wrote in his letter: "Vanke Center as a pioneering example of sustainable design…demonstrates leadership in transforming the building industry." The design of Vanke Center focused on sustainable issues from the beginning; incorporating strategies such as sustainable site, water recycling system, natural ventilation and micro-climate, solar system, ice storage system, underfloor AC with plenum supply system, water saving features, renewable resources and so on. Surprisingly, a project of such complexity only took three years from sketch to finish, along with many innovations unprecedented both in China and internationally, it is not only "Vanke speed" or "Shenzhen speed", it is indeed "China speed". Everyone involved including designers, contractors and client all devoted unimaginable efforts into the project that eventually achieved success.

1 斯蒂文·霍尔习惯于用水彩画演练自己的建筑构想。
Steven Holl is used to practice his architectural ideas with watercolor paintings.
2 万科中心结构设计的总负责人肖从真博士与模拟地震试验研究的振动台。
Chief Engineer Dr.Xiao Congzhen standing besides earthquake simulation test model.
3 幕墙1:1建造试验。
Curtain wall 1:1 mock-up.



4 万科中心通过研究和实践成功解决了清水混凝土在滨海环境中应用的障碍。
Vanke Center successfully applied high durable faire-faced concrete in coastal region.
5 建成的万科中心。
Vanke Center completed.
6 美国绿色建筑委员会LEED铂金认证奖章。
LEED platinum certification medal from USGBC.

城市语境：

Urban Context:

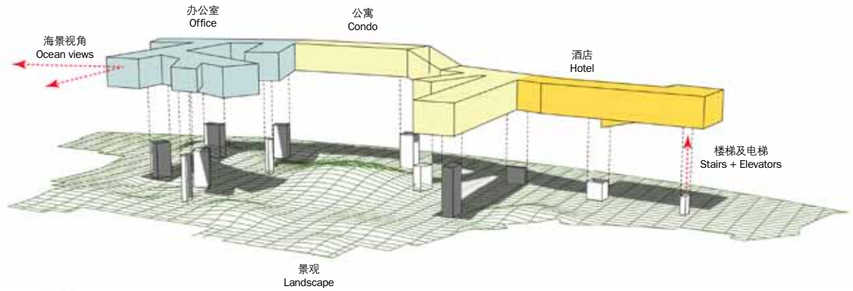
地理位置 Location
中国，深圳
盐田区，大梅沙
环梅路33号
No. 33 Huanmei
Yantian District,
Dameisha,
Shenzhen, China

视觉语言:

Visual Language:

这座建筑将主要的功能体量架空，以水平几何形态连接在一起，
并将整个建筑有如海平面升起，将基地最大程度地还原给自然

THE BUILDING APPEARS AS IF IT WERE ONCE FLOATING
ON A HIGHER SEA THAT HAS NOW SUBSIDED, LEAVING
THE STRUCTURE PROPPED UP HIGH ON EIGHT LEGS



功能图示
Function diagram

开篇：建筑将主要的功能体量架空，将基地最大程度地还原给自然。
本页上图：外附的一层磨砂玻璃，强化了“漂浮”效应。
本页左图及右图：建筑看似曾漂浮在海面上，如今海面已经退去，留下结构高高屹立在8个支撑腿上。
Opening page: The building in a horizontal pattern of geometry, returned the site to nature in largest degree.
This page, above: The frosted glass outside the concrete core tube strengthens the effect of "floating".
Left and right: The building appears as if it were once floating on a higher sea that has now subsided; leaving the structure propped up high on eight legs.

设计总述

在万科中心的项目中，甲方提到了除任务书上所罗列的指标之外的一个额外的要求：即不希望看到那种放在纽约、北京或者欧洲都可以的方案，设计应顾及到深圳的亚热带气候特点：一年中长达8个月左右的炎热季节，经常性的暴雨和曝晒、对于通风、采光和遮阳应给予充分考虑。最终，来自美国的斯蒂文·霍尔（Steven Holl）事务所因为将这种想法推向了极致而一举中标。

在深圳的万科总部大楼中斯蒂文·霍尔事务所将其一贯的场所实践与绿色建筑结合在了一起。这座“水平摩天楼”有着帝国大厦高度般的总长，是一个综合建筑群，其功能包括公寓，酒店，以及万科集团总部办公室。会议中心、水疗中心和停车场都位于热带花园绿地下方，景观特点包括土丘下的餐厅和五百人座的报告厅。建筑师将主要的功能体量架空，以水平几何形态连接在一起，并将整个建筑有如海平面升起，将基地最大程度地还原给自然。

其首要的特质可以理解为一种特殊的场所实践。无形的“海水”悄然褪去，留下建筑架空在开阔的场地之上，架空的建筑底部形成对流通风良好的微气候，吸引着人们在炎炎夏日再次驻足休憩；混凝土核心筒外附的一层磨砂玻璃，与上部结构在材质上的对比，强化了“漂浮”效应。建筑形态的弯转起落与零乱多变的周边环境形成戏剧性的空间拓扑关系，功能上复杂性也将在长久的使用之中进一步延伸场所体验上的多种可能性。

对于深圳这个在短短二十多年内迅速崛起的都市，斯蒂文·霍尔欣赏其“令人激动的繁华和混乱”，也指出这是一个“机会主义泛滥的地方”。他曾扬言：“新资本主义的入侵，把过去水平意义上的城市变成了高空与空地的混乱铺展。”

他希望继续赋予城市某种“水平意义”，不是简单的水平延展，而是从场所出发的某种意志。尽管霍尔本人很少理论化地描述自己的设计哲学，但却可以找出一堆文献阐明他的工作出发点“既不是社会学的也不是功能性，而是基于现象学的场所理论”，从他早年的作品集《锚固》（*Anchoring*，1989）之中，我们可以看到一段精辟描述：“建筑，作为一个（不可移动的）构筑体，受限于场所体验……通过与场所相融合并将场所精神凝聚，建造可以升华物质的和功能性的要求”。

斯蒂文·霍尔事务所的设计只遵循于预先设定的“概念”。在室内设计上，万科总部的电梯标示、门把手、灯具、餐桌……随处可见整座大楼的几何缩影，也暗示了一种图案化的精神再现。

在具体空间手法上，万科中心强调人们在“路径”上穿越空间的体验：建筑的抬起、转折、高低错落、场地起伏，刻意营造的“不确定性”暗示着建筑师对“运动”、“时间”、“片段”等多重语汇的策略化运用。微小的缓坡、室外悬挂的楼梯、室内“打开领结的空间”，使得到访者的体验如同“跳跃剪辑”一样，从一系列不连续的空间获得令人振奋的景观感受。

水平展开的枝状平面使整个建筑获得了景观视野的最大化：南向近看湖远看海，北向则可眺望连绵起伏的龟背山。整个万科中心的平面呈不规则的树枝状,东西向为其主干，其他方向为 “枝条”。这个看似随意的平面其实与周边环境有着某种隐性的联系，每一部分都分别对应山、湖、海、公园和周围的城市景观。而建筑整体“悬浮”之后为地面带来阴影的同时让海风自由穿过，使人们既可在阴凉里躲避阳光的灼烤又可尽情享受海风的吹拂。由于规划限高的原因，东半部高24米，西半部高35米，底部架空距地高度则分别为9米和15米。

这座建筑看似曾经一度漂浮在较高海面上，如今海面已经退去，留下结构高高屹立在8个支撑腿上。在35米限高下抬起一个整体的结构以取代数个小结构体分别满足特定功能，使绿化空间最大限度地敞向地面层公众。悬浮结构的下方成了它的主立面——第6个立面，在此提供了360° 的全景视野，鸟瞰下方苍翠繁茂的热带景观。一个起始于“龙头”的公共通道连接酒店，并由公寓楼划分出办公楼翼。

站在结构的角度，万科中心将建筑“抬起”和“悬挑”起来，其创新之处在于对受力关系的重新审视：从受力关系上看，相对于传统结构体系的“受压构件”，索结构的“受拉”传力更为清晰直接，在建构关系上也更为

本页及对页：悬浮结构的下方成了它的主立面——第6个立面，在此提供了360度的全景视野，鸟瞰下方苍翠繁茂的热带景观。

This page and opposite page: The underside of the floating structure becomes its main elevation – the sixth elevation – from which Shenzhen windows offer 360 degree views over the lush tropical landscape below.

明确。于是，一种大胆的“混合框架＋拉索结构体系”应运而生。这是一种在桥梁设计中有所采用的结构形式：由底层钢结构及预应力拉索将结构竖向重量传递到主要竖向支撑构件——核心筒及落地墙，侧向荷载通过水平楼板传递到核心筒和落地墙。由于建筑平面布置呈狭长且多分支，为加强各筒体之间的结构协同工作，保证重力作用下斜索拉力的有效传递，结构工程师还在底层和顶层楼屋面平面内设置了水平交叉斜撑，以此加强楼屋盖面内刚度，并兼作承重梁。在后期深化设计中，钢梁首层支承的混凝土柱改为钢管混凝土柱，拉索与筒体、墙、柱连接处，均埋入型钢梁、型钢柱，以适应施工过程中结构变形和索节点锚固要求。“像造桥梁一样地造房子”，万科中心以独特的结构形式诠释了建筑概念，不仅为使用空间提供了开阔的视野，也在最大程度上实现“还绿于公众”：如果算上屋顶的绿化，整个场地的绿化率大于100%，并完全向城市开放。

万科中心是荣获LEED绿色建筑评估体系铂金认证的建筑。由于是热带方案，建筑和景观融合了几个新的可持续发展方向。建筑屋面是绿化花园和太阳能板，材料使用为当地材料和可再生的竹材。大楼的玻璃幕墙能透过外在多孔百叶设计以阻挡强光及风力。该建筑是一个防海啸悬停架构，创建了一个可渗透的微气候公共休憩景观。此项目还利用了光伏电板、中水回收、雨水采集、绿色屋顶以及多功能可控制电动百叶来最大化地增加自然光，并提供被动式太阳能冷却效能。安装在建筑屋面的1 400平方米光伏电板可提供整个万科总部12.5%的电能要求。

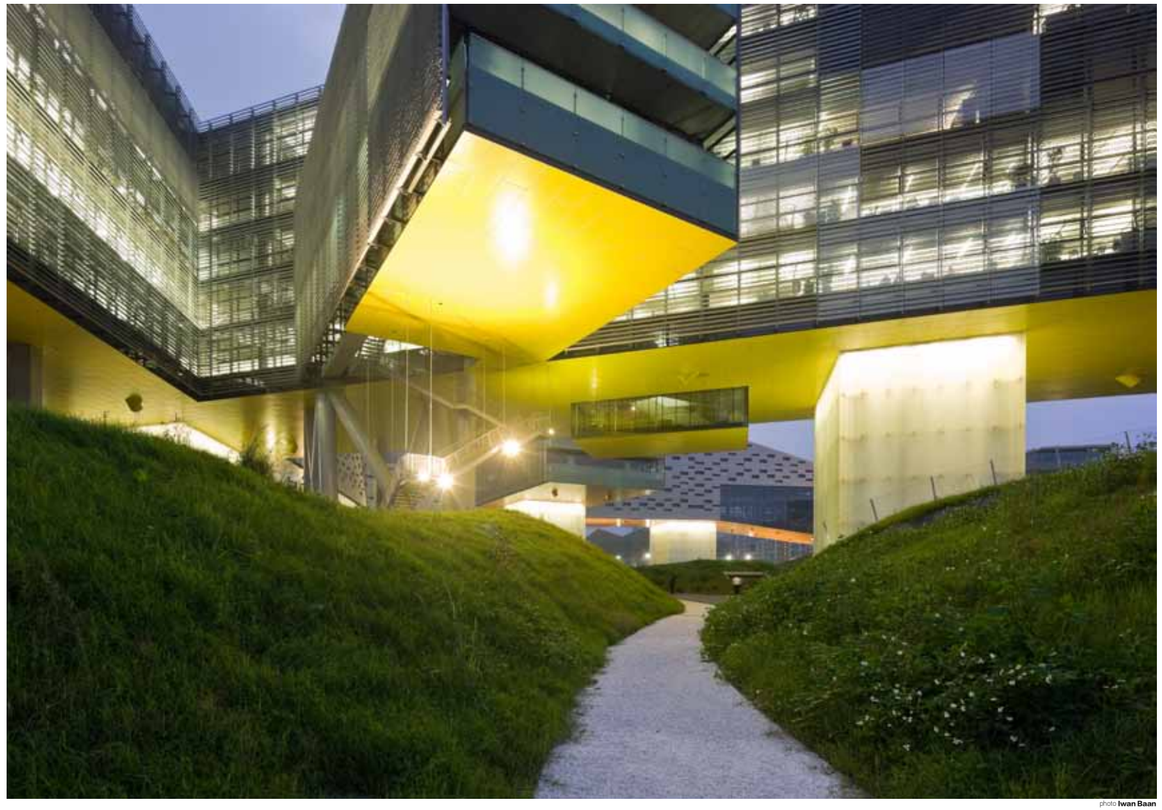
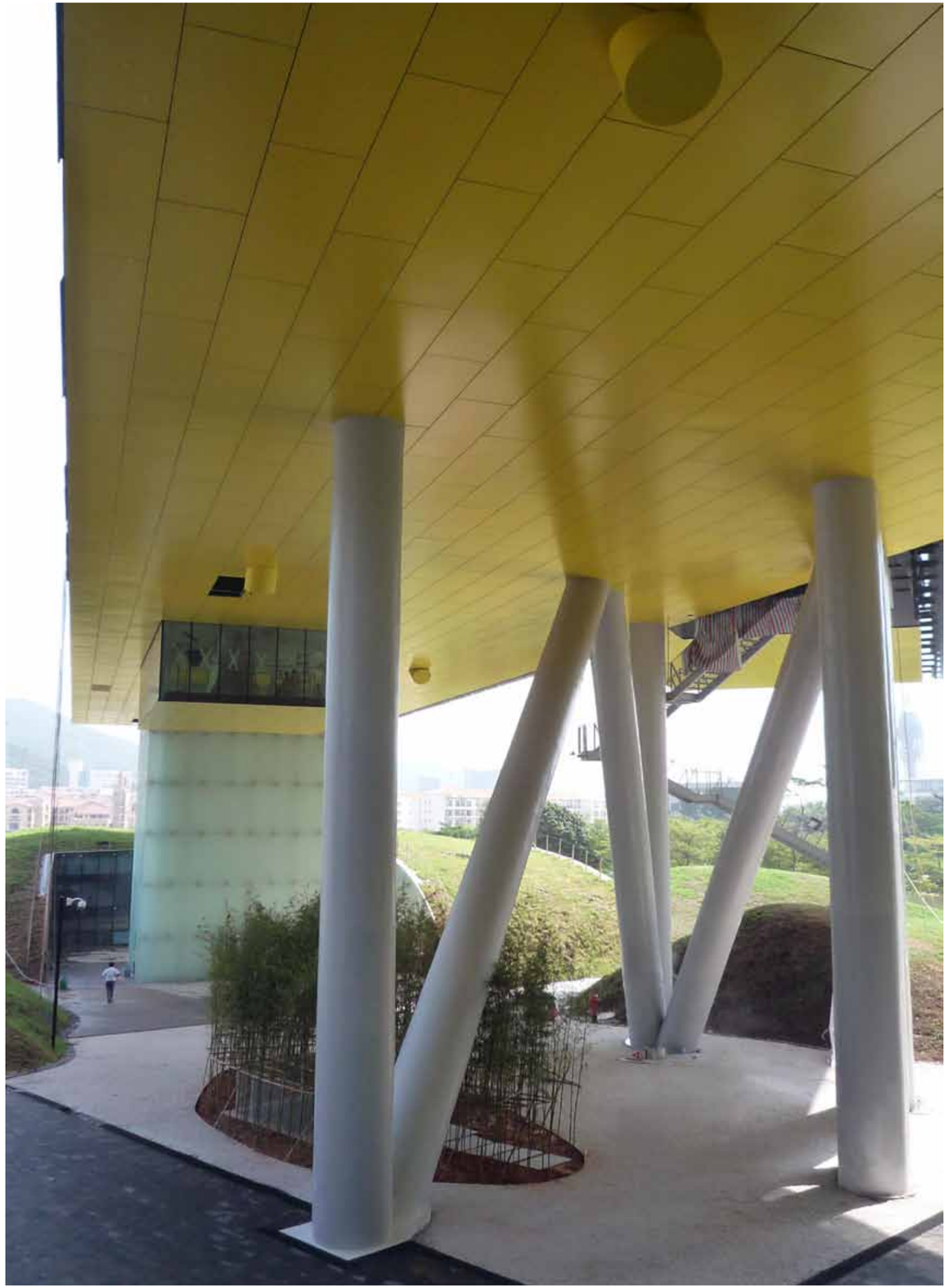


photo **Iwan Baan**



Overall Design Concept

In the design of Vanke Center in Shenzhen, American architect Steven Holl combined site with green architecture. Hovering over a public tropical garden, this "horizontal skyscraper" – as long as the Empire State Building is tall – is a hybrid building including apartments, a hotel, and offices for the headquarters for Vanke Co., ltd. A conference center, spa and parking are located under the large green, tropical landscape which is characterized by mounds containing restaurants and a 500-seat auditorium. The architect has connected the main function buildings in a horizontal pattern of geometry, and lifted up the whole structure like a rising sea level, returned the site to nature in the largest degree.

The design principal could be thought as a special site practice. The construction has been remained over the open site after the invisible "sea water" ebbed, and the space below the building forms a well-ventilated micro-climate, to attract people to stop and have a rest in summer; in contrast with the material of the upper structure, the frosted glass outside the concrete core strengthens the effect of 'floating'. The curving, rising or falling forms dramatically created space topology in relationship with the disordered and varied spaces of the surrounding environment, and during use, the multiple function of the construction will also further extend the diverse possibility in site experience.

Holl appreciates "the exciting flourish and chaos" of Shenzhen which has been rising rapidly in the latest decades, and also points out it is a "place with flooding opportunism". He once said that "the invasion of the new capitalism has made the city formerly in a horizontal pattern become a disorderly sprawl of tall buildings and open ground".

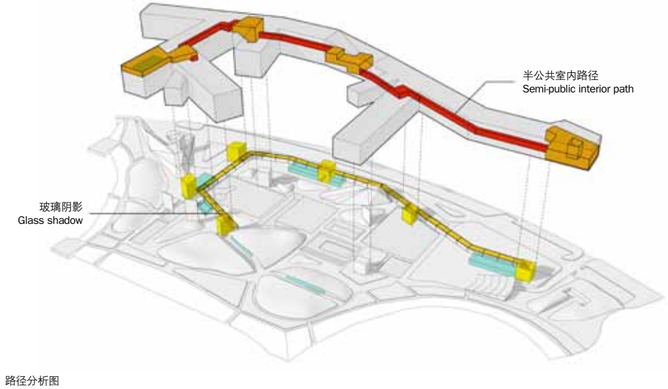
Holl hopes to continuously endow the city some "horizontal implication", not a simple horizontal extension, but a will set out from the site. He seldom describes theoretically his philosophy in design, however many documents has clarified his starting point is "not sociological or functional, but a site theory based on phenomenology". In his early design album Anchoring（1989）, one would see an incisive description, "architecture as an immovable construct is confined to the site experience through integrated with the site and cohering the spirit of the site, creates the requests that can be advanced in the aspects of material and function".

The design "simply follows" the "concept" of the architect. Another role of a watercolor painter brings his 'illustration' to perceivable artistry. The geometric image used on the interior design could be seen in the Headquarters of Vanke everywhere, such as the elevator indication, handles, lamps, dinning table, and so on, implies a patterned symbolism.

Regarding to specific spatial technique, the design for Vanke Center lays stress on the experience in passing through on the "path". The "uncertainty" created on purpose by the uplift, turning, high or low scattering and waving site, suggesting the architect's strategic use of concepts of "motion", "time", "fragment" etc. The gentle slope, staircase hanging outdoor and 'untied bow-tie" space indoor, provide visitors experience like "leaping montage", that they could feel the exciting landscape continuously.

The building appears as if it were once floating on a higher sea that has now subsided; leaving the structure propped up high on eight legs. The decision to float one large structure right under the 35 meter height limit, instead of several smaller structures each catering to a specific program, generates the largest possible green space open to the public on the ground level.

For the structural engineering, the Headquarters of Vanke "lift up" and "cantilevered" the construction, reconsider originally the force relationship. Compared to the "compression member" of traditional structural system, the "tensile" transmission is more distinct and direct, and more clear in the constructive relationship.



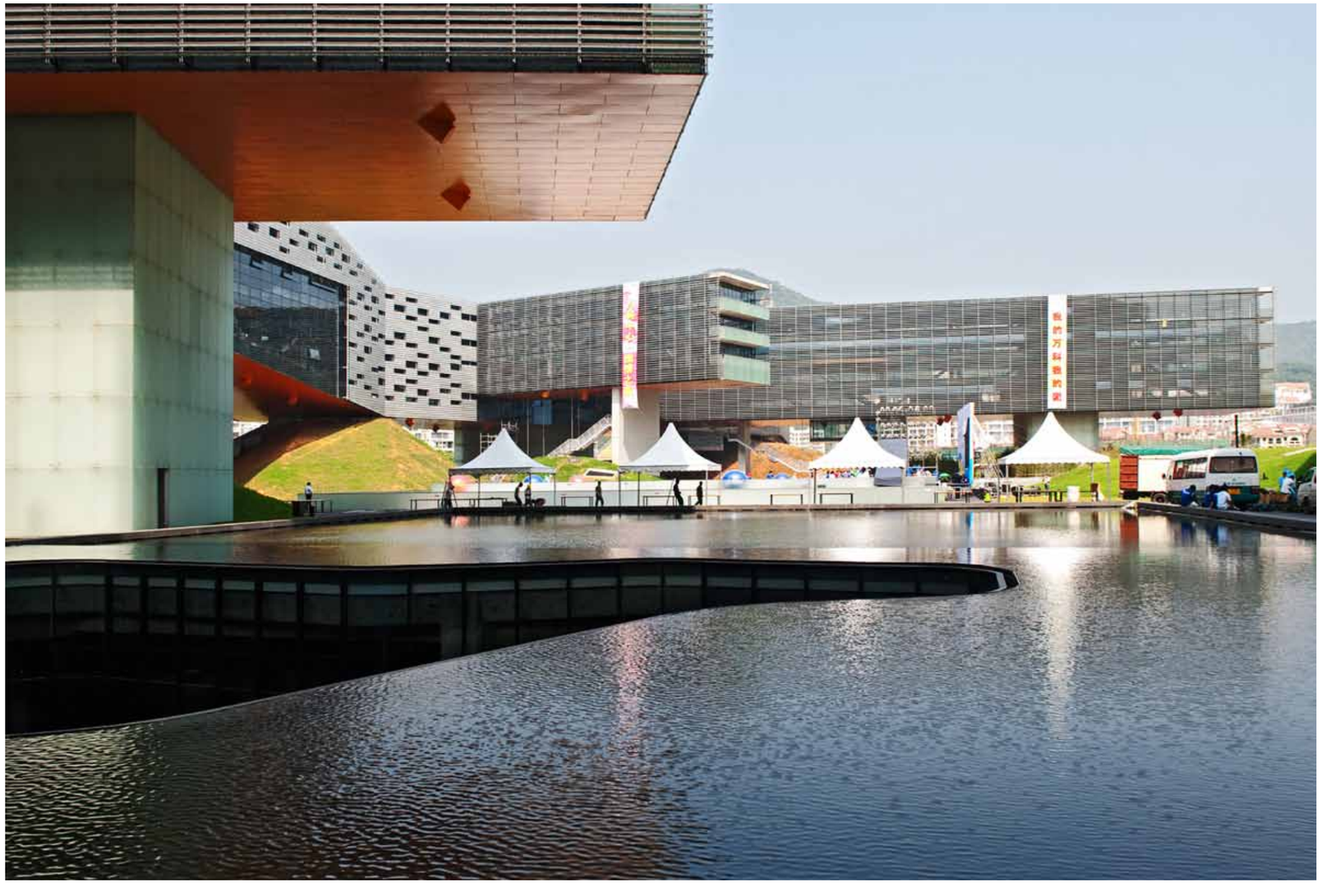
路径分析图
Path diagram

对页右图及本页左图：在具体的空间手法上，万科中心比较强调人们在“路径”上穿越空间的体验：建筑的抬起、转折、高低错落、场地起伏，刻意营造的“不确定性”暗示着建筑师对“运动”、“时间”、“片段”等多重语汇的策略化运用。

下图：微小的缓坡、室外悬挂的楼梯，使得到访者的体验如同“跳跃剪辑”一样，从一系列不连续的空间获得令人振奋的景观感受。

Opposite page right and this page left: On the specific spatial technique, the design for the Headquarters of Vanke lays stress on the experience in passing through on the "path". The "uncertainty" created on purpose by the uplift, turning, high or low scattering and waving site of the construction, suggests the architect's strategic use of the concept of "motion", "time", "fragment" etc.

Below: The gentle slope and staircase hanging outdoor give the visitors an experience like leaping montage, that they could feel the exciting landscape from the space successively.



Consequently a bold "system of mixed frameset plus cable structure" comes into being it is adopted in the design for bridge: the vertical weight of the structure will be delivered by the underlying structure and prestressed cable to the main vertical supporting components the core tube and floor wall, and the lateral load will be delivered to the core tube and floor wall through the horizontal floor.

The building layout is like a strip with many divisions, therefore in order to strengthen the structural coordination among the tubes and ensure the efficient delivery of the cable's tensile force under gravity, the structure engineers have set up horizontal cross-bracing in the plane of underlying floor and top floor roof with another use of spandrel girder to enhance the stiffness in the covering façade of the building. In the later design, the concrete column to prop up the ground floor is changed by the concrete column with steel tube, and steel beams and steel columns are embedded in the junctions of cable and the tube, wall or column, to accommodate the structural deformation and the anchoring of cable node during construction.

The underside of the floating structure becomes its main elevation – the sixth elevation – from which Shenzhen windows offer 360 degree views over the lush tropical landscape below. A public path beginning in the "dragon's head" connects through the hotel, and the apartment zones up to the office wings.

As a tropical strategy, the building and the landscape integrate several new sustainable aspects: a micro climate is created by cooling ponds fed by a grey water system. The building has a green roof with solar panels and uses local materials such as bamboo. The glass façade of the building will be protected against the sun and wind by perforated louvers. The building is a Tsunami proof hovering architecture that creates a porous micro climate of public open landscape.

Vanke Center is a LEED Platinum certified building in China. The project utilizes photovoltaics, grey water recycling, rain water harvesting, green roofs, and dynamically controlled operable louvers which maximize natural light and provides solar passive cooling. About 1 400m^2 of photovoltaic panels installed on the roof of the building provide 12.5% of the total electric energy demand for Vanke Headquarters.

本页上图：该建筑是一个防海啸悬停架构，创建了一个可渗透的微气候公共休憩景观。
本页下图及对页：大楼的玻璃幕墙能透过外在多孔百叶设计以阻挡强光及风力。
后页：室内的楼梯间。
This page above: The building is a Tsunami proof hovering architecture that creates a porous micro climate of public open landscape.
This page below and opposite page: The glass façade of the building will be protected against the sun and wind by perforated louvers.
Next page: The indoor stair room.

photo **Iwan Baan**

室内设计

• 路径

万科中心的各种功能由连续的路径空间联系起来，使公共空间成为漂浮结构内的 “社交孵化器”。建筑强调了人们在“路径”上穿越空间的体验，用户能够从一系列不连续的空间获得令人振奋的景观感受。

• 光与影

光影的无限可能性展示了不同空间的存在，仿佛交织的语汇，在光线中消失、重现。室内特别的公共、楼道、交通、空间的展示，几何平面使室内空间时刻变换方向，让用户获得无尽的室内外的体验，窗户光线能够指引用户的方向，在室内窗外的海滨景色不停变换。

• 变异空间

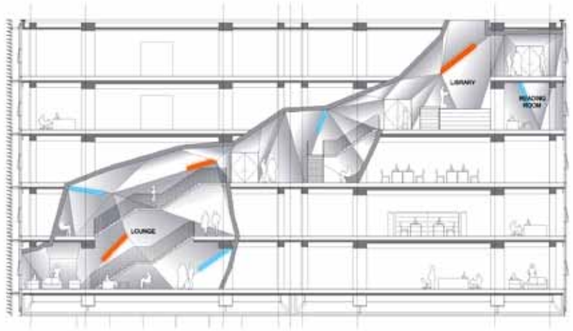
建筑师把公共能量用一个空间统领起来，在一个传统的模式化分层的均质空间里，创造了一个把所有空间联系在一起的垂直的“变异空间”，打破了狭长的矩形空间带来的沉闷和单调感。这就是万科总部内一处从二层斜向穿插至六层，被霍尔称为“打开的领结空间”。

• 打开的“领结”

空间中几乎所有墙体都与地面形成某种角度，从上到下高低、宽窄、明暗各不相同，各有小型阅览室、排演场地、休息区以及联系上下空间的折线性钢制楼梯，既可休息、放松和交流，也自然成为不使用电梯的一处交通空间，同时引入了自然光和竖向通风。

• 生活系统的构建

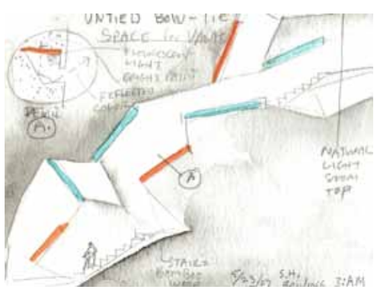
传统的办公室布置较暗，垂直空间能够将原本封闭的空间打开，做成连续的公共系统，为用户带来舒适感。如果没有这个空间，垂直层面都被割裂，会缺少一个空间的“灵魂”。建筑师对架构和空间的理解是去创造公共生活的场所。办公室虽然是公共场所，但是仍然可以去区分它为更公共和私密的层面，利用垂直空间统领公共能量，影响四周更为传统、普通的办公空间，构建成生活系统。



下图，从左至右：领结空间水彩概念图；建筑师把公共能量用一个空间统领起来，创造了一个把所有空间联系在一起的垂直的“变异空间”。

Below, from left to right: Watercolor concept drawing of "untied bow-tie space"; the architect collected public energy in one space, and created "untied bow-tie space" to connect all spaces together.

“领结空间”概念设计剖面图
Conceptual section of "untied bow-tie space"



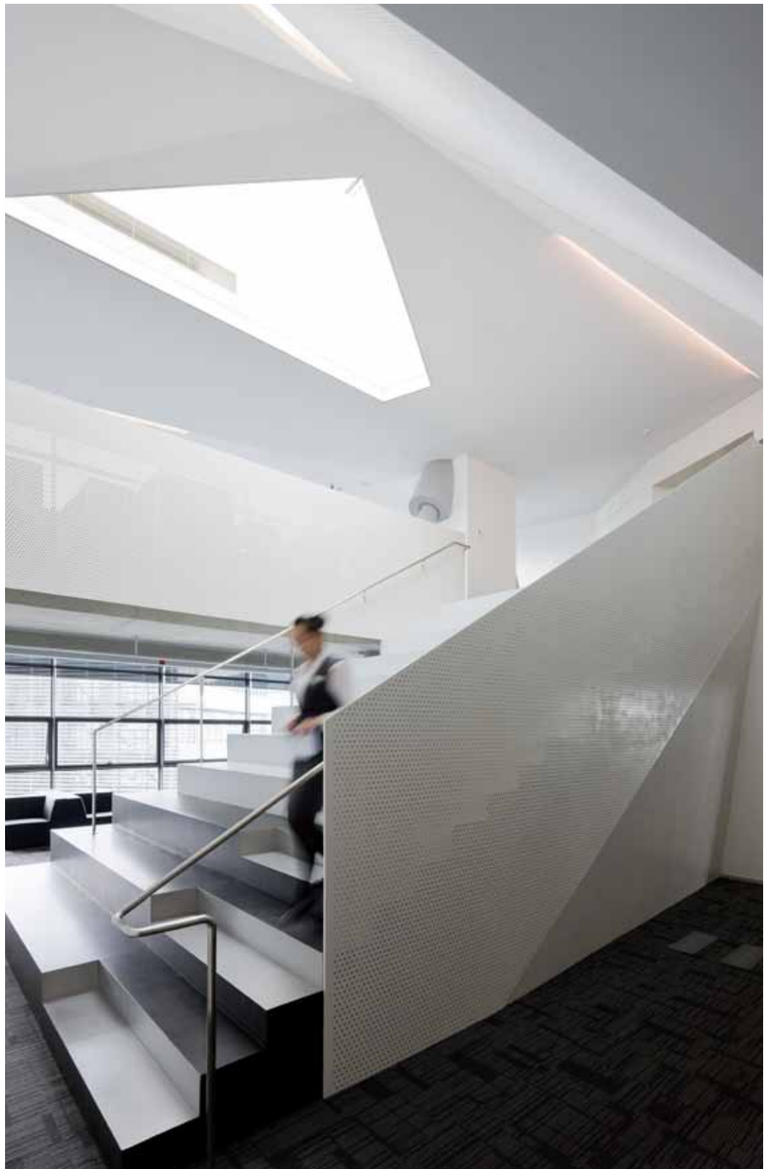


photo **Iwan Baan**

• 尊重与关怀

建筑语言的张力，是人生活的影响的根源，对使用的人的影响是最本质的。方案的吸引人之处，在于其出发点，都是很真实地跟人、使用者有关系。从社会责任感来讲，对业主与使用者的尊重和关怀，是建筑师设计的基本出发点和方向。

• 连续的空间布局

在这座尺度巨大、高度复杂的建筑内，室内空间不同寻常的开放性与连续性，为用户带来耳目一新的体验。绿色设计深植各个角落，精致构件是建筑的几何缩影，也暗示了一种图案化的精神再现。

万科中心的室内空间不同于传统办公建筑的单调统一。每个空间都与其他场所相连，连通空间中间设有磨砂玻璃围合而成的讨论区域。

• 材料

几种简单朴素的材料被反复使用。除个别会议室和独立办公室之外，绝大部分开放办公区结构梁、板、柱为暴露的清水混凝土，并没有所谓吊顶和饰面。几乎所有的室内门、办公桌、会议桌与局部地面、墙面和吊顶均采用不同形式（平板或穿孔板）、颜色和纹理的竹材，给人温暖、细腻而优雅。电梯厅地面墙面和顶部采用铝板，形成一个冷静的“箱形空间”。地毯只是用了一种灰黑色调，使地面简洁而深沉，

• 光线的处理

光线处理是建筑师比较重视的设计部分。人工照明上采用反射照明，强调漫射效果，既感觉到亮度又看不见光源。自然采光上采用直接与间接的混合使用，形成了自然、舒适、多变的光照效果。

• 图案化的细部设计

万科中心室内的细部设计基本上都由整体造型衍生而来。建筑师亲自设计了相当多的家具、灯具甚至门把手的细节，比如电梯厅墙面上的嵌入式照明和诸多门把手都是截取整个建筑的平面加以重新设计组合，独特而充满趣味性，可以充分体会到建筑师对于细节和形式感上所倾注的心血。

上图：万科中心的室内空间不同于传统办公建筑的单调统一，每个空间都与其他场所相连。

下图，顺时针：万科中心室内的细部设计基本上都由整体造型衍生而来；室内采用了不同形式、颜色和纹理的竹材，温暖、细腻而优雅；连续的公共系统，为用户带来舒适感。

Above: The interior space of Vanke Center is different from traditional office layout, each space is connected to others.

Below, clockwise: The detail design reflects the overall form of the building; the interior utilizes bamboos of different types and colours that exude warmth and elegance; continuous public space that provides comfortable zones for users.

photo **Iwan Baan**

景观设计

• 明亮的“地下世界”

万科中心绿色景观下覆盖着一个精彩的“地下世界”,容纳了包括地下国际会议中心、咖啡厅、会议室及停车场等功能空间。针对这一部分，万科曾经提出了一个特别的要求——空间要像地上一样明亮。建筑师通过设置一系列采光井、玻璃天窗以及下沉广场来巧妙而生动地予以应对。部分会议室的采光天窗位于景观水池中心的蒸汽池周围，光线被引入四周的会议室空间，从室内可以看到游动的鱼儿，而阳光穿过水面和玻璃天窗又会留下波动的水影，蒸汽池的143个喷雾器还会每天在水池底部制造出迷雾般的蒸汽，为地下的室内空间带来生动的场景。

• 特殊的声学设计

景观土丘下方是500座的报告厅和餐厅。其中的设计方案采用了特殊的材料——100%回收的泡沫铝，其多孔的材质满足了空间所需的声学效果，并且按照材质的吸声效果而设计，顶棚泡沫铝的孔间距最密，墙体材料的孔间距则较稀。报告厅通过地下的自动扶梯与地面景观及国际会议中心连接起来。

• 立体景观系统

漫步走过漂浮结构下的空间立体景观，通过一系列起伏的山坡、方形广场、 水池和为地下部分的国际会议中心设计的采光井、下沉空间等形成了一个复杂多变、极富立体感同时规则的几何直线与自由曲线不同形状对比强烈的景观系统，使万科中心的绿化率达到100%以上。这一切都对公众开放，成为城市的一部分，反映了万科一直秉持的开放精神。

• 公共公园

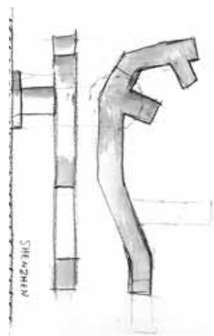
“我们的目标是在私人地产开发的土地之上建造公共公园”建筑师斯蒂文·霍尔在设计初期曾如此说过。这个52 000平方米热带景观设计方案中包含了复杂多样的空间、活动与植物，构建成多样性的城市状态。建筑架高之后，海风可以从底部自由穿过，这时水池似乎成为某种必需，使掠过的海风自然降温改善局部小气候，同时宁静的水池像镜面一般把彩色的建筑底部反映其中，构成一幅生动的立体景观画面。

对页，从上至下：精致构件是建筑的几何缩影，也暗示了一种图案化的精神再现；万科中心绿色景观下覆盖着一个精彩的“地下世界”。

本页，顺时针：门把手概念图；部分地下会议室的采光天窗位于景观水池中心的蒸汽池周围，光线被引入四周的会议室空间；地下会议中心内雕塑；万科总部户外平台。

Opposite page, from above to bottom: The architectural geometry appears inside the building; underneath the landscape is a brilliant "underworld".

This page, clockwise: Conceptual drawing of the door handle; underground meeting rooms with skylights around the vapour court, light is introduced into the interior; sculpture of the International Conference Centre; the outdoor balcony of the office area.



门把手概念图
Door handle conceptual sketch

• 汉白玉广场

汉白玉这一具有典型中国古典韵味的材料是建筑师的偏爱，在景观设计中方案用汉白玉打造了一个正方形小广场成为一个几何中心和视觉焦点，其中两个边突出地面50厘米，可供人们休憩小坐， 而广场则可以在傍晚举行各种健身和小型演出活动。

• 生态绿地

景观公园中有一系列高低起伏的山丘，覆盖着地下多功能空间。这些山丘没有采用传统种花铺草坪做法，而是播撒了原场地内的部分种类的草籽，由于亚热带气候的特点很短的时间内即长满了各种野花、狼尾草和芒类植物并绿意盎然。不用施肥、浇水和修剪等人工干预完全处于野生的状态，这种看似“无为而治”的做法实际上最大限度地恢复了场地内原有的生态系统同时，形成了一个自然的绿色城市公园。

种植之外,几种类型渗水铺装路面采用了包括嵌草砖、透水道路、碎石、透水砖等透水材料，在二级排水沟将雨水排到池塘和种植着沼泽草和莲花湿地之前，收集露天雨水。

万科集团董事会主席王石在万科25周年司庆时曾对万科中心作如下评价：“万科中心为什么是这个样子？因为它代表了万科对自然的一个态度， 对社会的一个态度。这栋楼是底层全部架空的，下面更多的用作了绿地公园，我们在屋顶铺的也是绿草坪，不仅对原来的草地没有破坏，而且提供了更多绿地，这就是我们对自然的一个态度。再一个，把它架空起来，提供一个公共场所不仅仅是万科的周年活动会在这里举行，平时可以作为市民自由来往的空间，给我们所在城市的市民提供一个公共活动空间，这也代表了万科对未来开放的态度。”

Interior design

• Path

The various functions of Vanke Center are linked by a continuous path, thus public space has become a social incubator in the floating structure. The building has stressed the experience of people passing through, during which users can have an exciting landscape experience from a continuous and distinctive space.

• Light and shadows

The infinite possibilities of light and shadows have shown the existence of different spaces, with interwoven vocabularies, vanishing and emerging in the light. Special spaces such as public corridor and other connecting spaces provide endless changeable spatial experience; lights from window signal the directions to the user and the view of the ocean continues to change.

• Space variation

The design used a public space to dominate all, it created a "space variation" that connects all other spaces between the traditional modeling of the floors by breaking the narrow rectangular dull and monotonous spaces.

• "Untied bow-tie" space

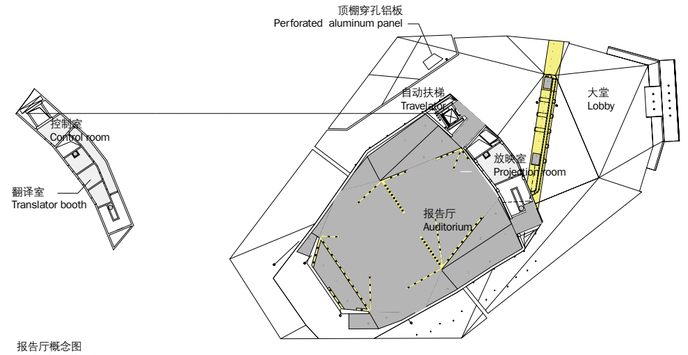
Almost all the walls are at different angles to the ground, with variation of height, width and shadow from top to bottom, inside the "Untied bow-tie" there are small reading rooms, rehearsal space, seating area and a connective rectilinear steel stair, in which the users can sit, relax and communicate, it not only function as a connection space but also introduce natural light and vertical ventilation into the inner space.

• Living system in the building

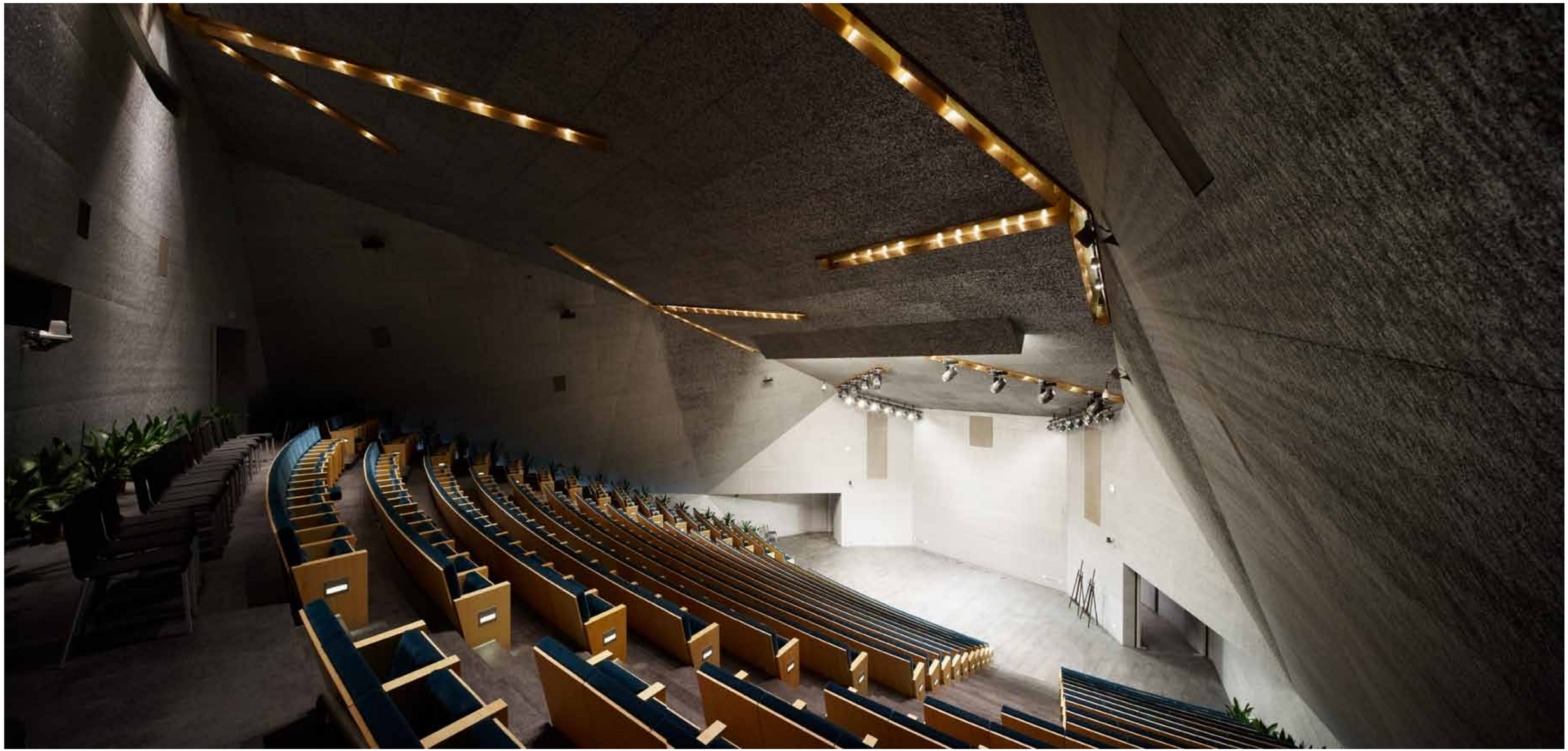
Traditional office space is always dark, the use of a vertical space could break the original enclosed space, changing it into a pubic system and making the users more comfortable. Without the vertical space, floors would be isolated from each other, in other words it will miss the "soul" of the space. The architect designed the space by creating public area. Although office spaces play public roles, we still can separate them by the public and privacy, using the vertical space to dominate the ordinary, traditional office space, thus building a better living system.

• Respect and care

The architecture language will have impact on human lives, and it is fundamental to affect the users in a positive way. The most outstanding quality of the design is its starting point, which is honestly connected to human, to the users. In terms of social responsibility, the respect and care to the client and users is not only the starting point but also the direction.



报告厅概念图
Auditorium diagram



前页，从上至下：报告厅概念图；景观土丘下方是500座的报告厅和餐厅。设计方案采用了100%可回收的泡沫铝，其多孔的材质满足了空间所需的声学效果。
对页：下沉广场。
本页，从上至下：明亮的地下会议空间；地下国际会议中心大会议厅。
Previous page, from top to bottom: Conceptual drawing of the auditorium; the underground 500-seat auditorium uses 100% recyclable foam aluminum, the material porosity provides the appropriate acoustics.
Opposite page: Conference rooms around the vapour court.
This page, from top to bottom: Natural sunlight is introduced into the conference rooms; underground conference hall.

• Continuous space

In this huge and highly complex building, the unusual interior spatial openness and continuity bring the users a brand new experience. Green design is everywhere in the building, exquisite detail is the reflection of architectural geometry; it also suggests the spirit of a symbolic representation.

The interior space of the Vanke Center is different from the monotonous traditional office space. Each space is connected to others, in the middle of the connecting space is a discussion area enclosed by frosted glass.

• Material

Several simple materials are repeatedly used. Except some meeting rooms and separated offices, in most of the open spaces, beams, plates and pillars are finished as exposed concrete; there is no so-called ceilings and finishes. Basically all the doors, desks and some of the ground material, walls also including ceilings use bamboos of different forms(panel or perforated), color and texture, bringing a warm, soft and elegant feeling. Walls and ceilings of the elevator hall use aluminum plate to create a quiet space. The carpet is dark grey, making the interior finish simple but elegant.

• Lighting

The lighting design is emphasized in Vanke Center. Taking full advantage of reflection, artificial lighting emphasizes the diffusion effect, by which users can feel the brightness but can't see the light source. Natural lighting takes both direct and indirect ways, creating natural, comfortable, varied lighting effects.

• Patterned detail

Interior detail design is basically derived from the overall building. Architect personally designed a lot of furniture, including lamp and door handles. For example, the embedded lighting in the wall of the elevator hall and most of the door handles design are from the entire building plan geometry, which are unique and also interesting, making people to fully appreciate the hard work of the architect on the detail treatment.

Landscape design

• Bright "underground world"

Below the Vanke Center green landscape is a wonderful "underground world" including functional spaces to accommodate the underground international conference center, café, meeting room and parking area. In terms of the underground part, the client has made a special request—same brightness as the ground. Steven Holl meets the request by designing lighting patio, glass sunroof and lower plaza. Some of the meeting room's glass sunroof is under the steam pond in the middle of the landscape water, thus light is introduced into the meeting room, swimming fish can be seen from the inside, fluctuating shadows appear on the roof when the sunlight passes through the water, 143 sprayer create frog-like steam every day, bringing vivid view to the interior space.

• Special acoustic design

Below the landscape mound are the 500-seat lecture hall and restaurant. The design uses a special material—100% recycled aluminum foam, the porous material meets the acoustic request, designed according to the sound-absorbing ability, ceiling material is much dense compared to the wall material. Lecture hall is connected to the ground landscape and the international conference center by escalator.

• Landscape system

Walking through the dimensional landscape under the floating structure, a series of mound, square, pool and lighting patio for the underground International Conference Center and the sunken plaza, together with both linear and free curve shapes create a great

photo **Iwan Baan**

landscape system, which make the greening rate of Vanke Center more than 100%. All of the landscape is open to the public, becoming part of the city, at the same time it suggests the open spirit of Vanke.

• Open park

"Our goal is to build an open park on a private real estate land" architect Steven Holl said that at the beginning of the design. The 52 000 m^2 tropic landscape design accommodates a variety of spaces, activities and plants, making it city state diversity. With the building overhead, sea breeze can freely pass through the bottom, in this term a pool seems necessary, it cools down the breeze, thus improving the local micro-climate, at the same time, quiet pool reflects the colorful bottom of the building as a mirror, which creates a vivid dimensional landscape view.

• White marble plaza

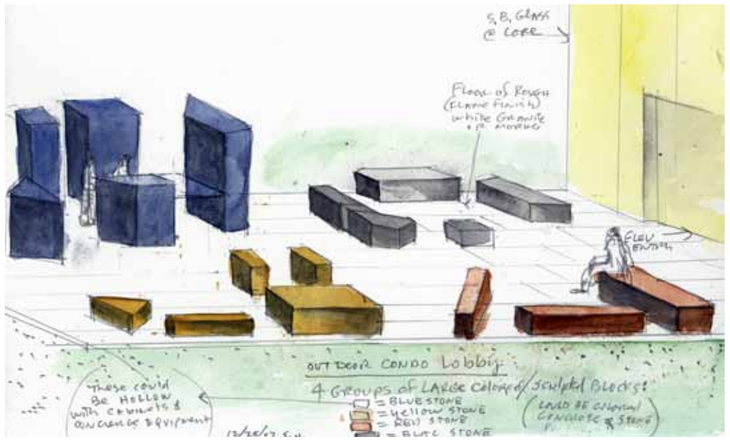
White marble, of a classical Chinese charm, is the architect's preference, in the landscape design architect creates a square in white marble as a geometric center and visual center, two of its sides are 50cm higher than ground, which can be seated on, and the square can accommodate lots of activities and small performances.

• Ecological greenbelt

There are lots of undulating hills in the landscape park, which covered the underground multi-functional space. Instead of traditional practice of flower and lawn, some kinds of grass seeds in the original venue were spread on the hills and in a very short time, plants boomed all over the area, such as wildflowers, pennisetum and natural plants thanks to the sub-tropical climate. Plants were put in a totally wild state, free of fertilization, watering, pruning and other manual intervention. The seemingly "inaction" practice actually create a natural green city park while maximum the recovery of the original ecosystem.

Other than planting, permeable materials such as embedded grass brick, permeable road and gravel are used in the several kinds of water seepage road pavements. They help to collect rain drops before they are discharged by the secondary drains into pond and wetland where mash grass and lotus are planted.

Chairman of the Board of Directors of Vanke, Wang Shi expressed his remarks on Vanke Center on the occasion of Vanke's 25th anniversary ceremony: "Why does Vanke Center look like this? Because it presents Vanke's attitude towards the nature and the society". The building is all lift up so that we can use the ground as park area, as well as the roof space which is covered with lawn. Instead of destroying the green, we actually offer more green space, and that is out attitude towards the nature. What's more, the open space created by lifting the building not only serves for Vanke's 25th anniversary ceremony but also offers a public space to citizens, which represents Vanke's open mind towards the future.



景观概念图
Landscape concept sketch

photo **Iwan Baan**

对页，从上至下：户外景观概念图；万科中心绿色景观。
本页，从上至下：万科中心的户外景观是一个“公共公园”；景观概念图。
Opposite page, from top to bottom: Watercolour drawing of outdoor landscape lobby area; landscape of Vanke center.
This page, from top to bottom: The landscape of Vanke Center is an open "public park"; landscape design concept.

草地
Fields

山丘
Mounds

路径和交通网络
Paths and networks

公共功能
Public programs

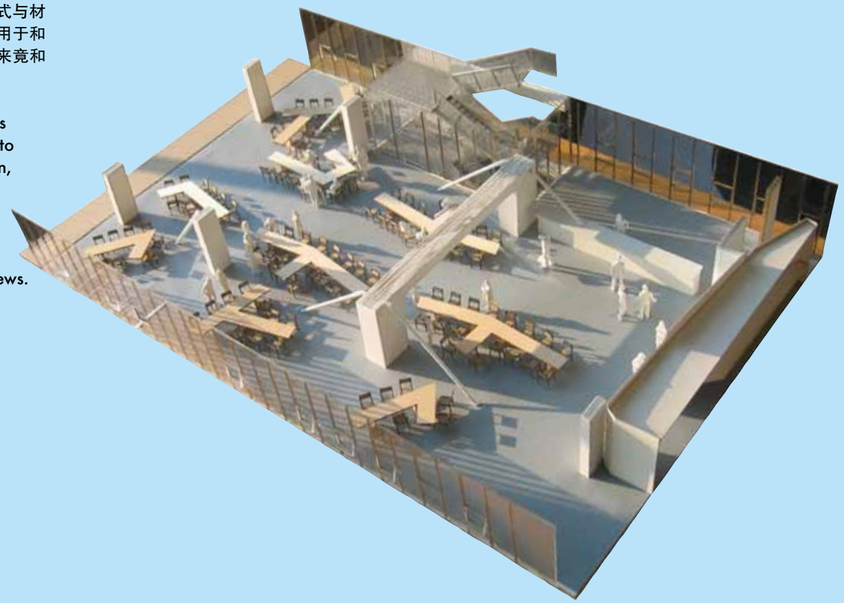
景观概念图
Landscape concept design

模型：

Models:

在万科中心的方案深化阶段，斯蒂文·霍尔事务所制作了大比尺模型，辅助推敲各个细节的尺度、形式与材质。令人惊异的是，这些当年用于和业主汇报的模型照片在今天看来竟和建成效果完全一致。

In further development of the scheme, Steven Holl Architects produced large scale models to help to evaluate the dimension, form and materials in details. Surprisingly, these model images which were used to report to owners are exactly the same as the completed views.



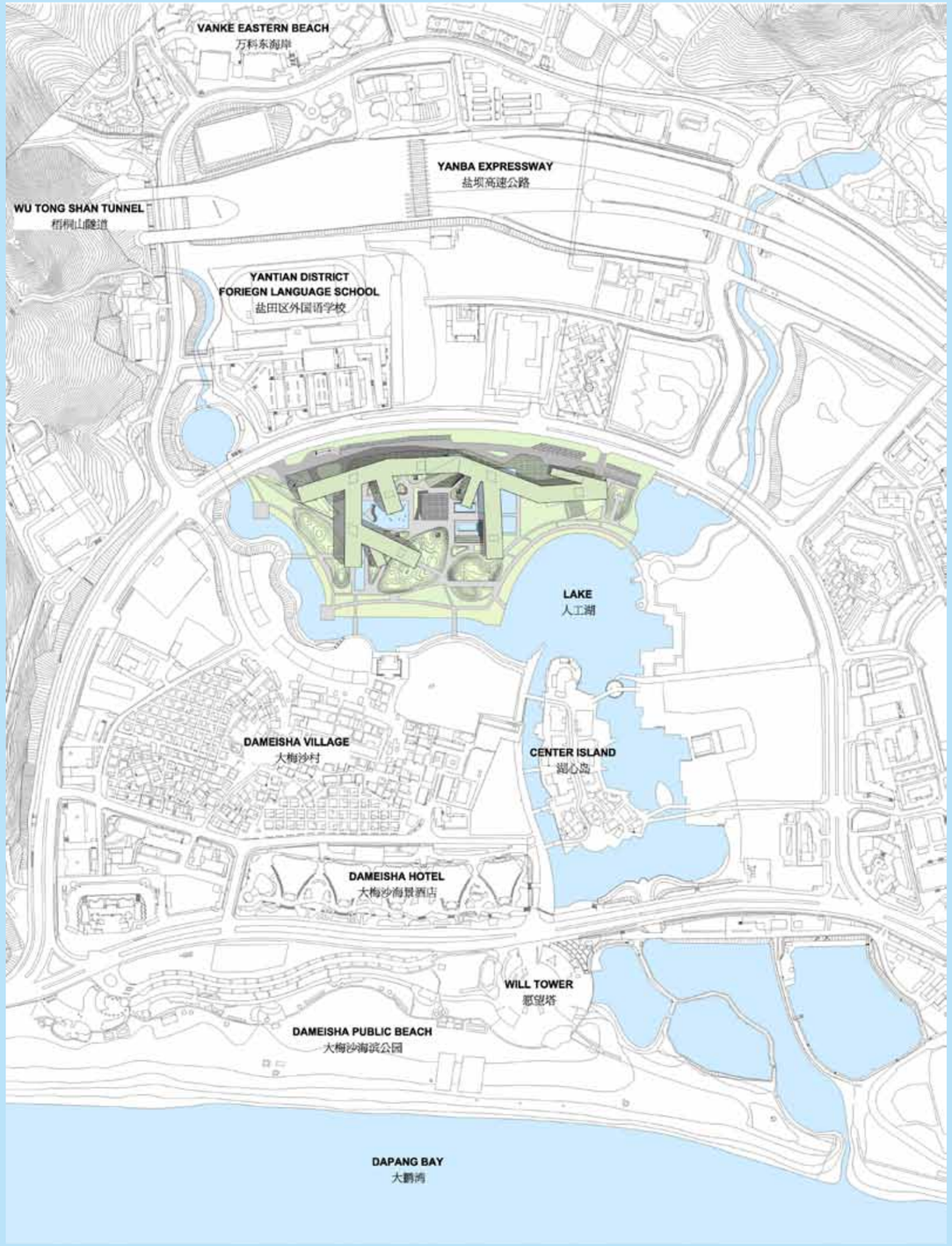
手绘：

Sketches:

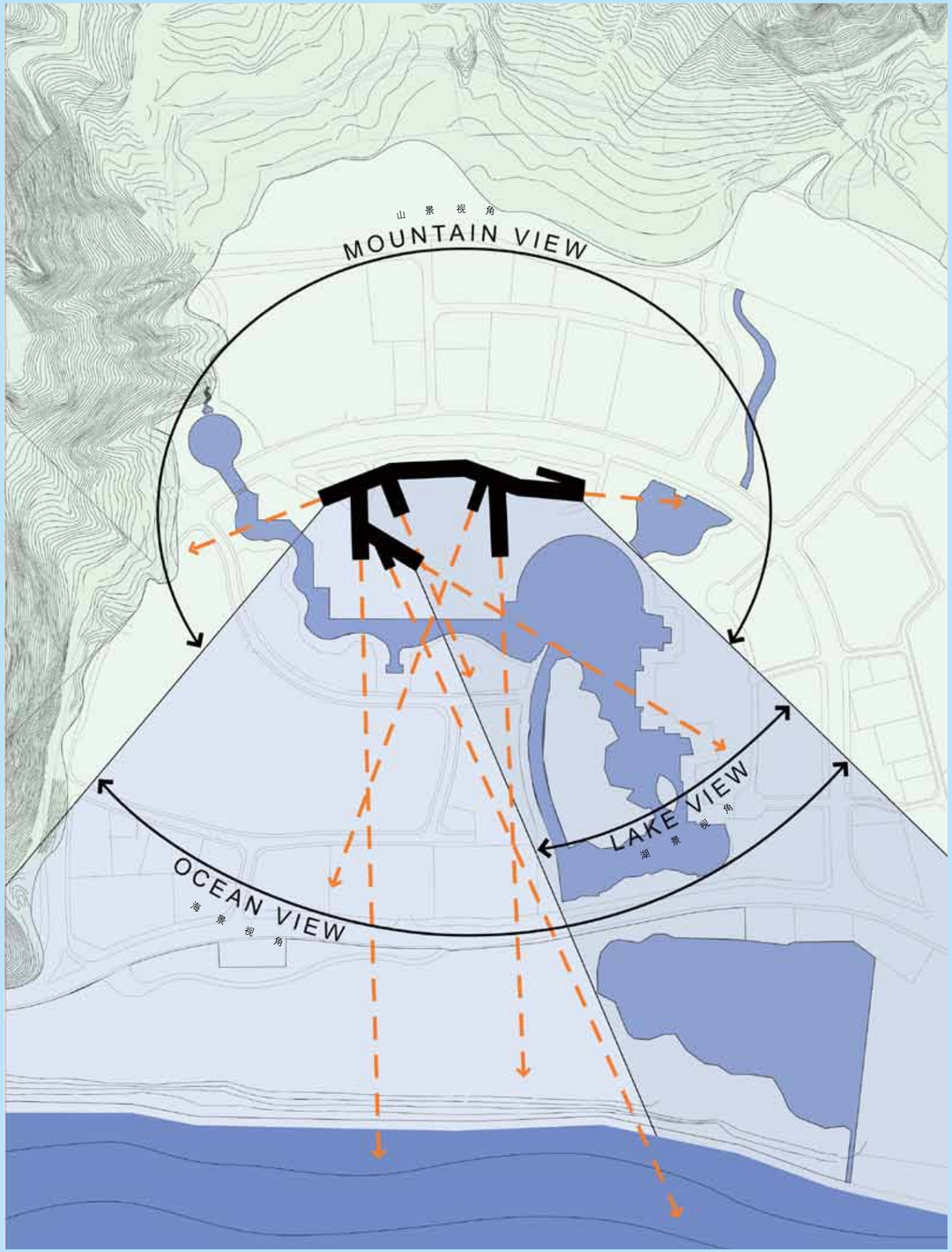
斯蒂文·霍尔习惯于用水彩画演练自己的建筑构想。据万科建研中心前总监朱建平回忆，“他有个习惯就是没事就画，我跟他坐过几次飞机，他没事就掏出本画画。方案还在设计过程时我去过一次他纽约的办公室，他专门拉着我去他自己的办公室，我刚开始以为是他的书架子，结果一看全是他几十年来的水彩画。”
Steven Holl is used to practice his architectural ideas with watercolor paintings. Former General Director of Construction and Research Center of Vanke Group Mr. Zhu Jianping recalls, "He gets a habit of drawing, I once took the plane with him for several times, he often takes out a notebook when he has nothing important to do. When the scheme was in the designing process, I went to his office in New York once, he specially asked me to visit his office, and there is a shelf, I thought his books are collected there at first, turns out they are all his paintings for decades."

图纸：

Drawings:



地区总平面图
Regional site plan



视角概念图
Site view diagram

公寓
Condo

商务交流厅
Business center

SOHO办公
SOHO

酒店
Hotel

酒店大堂
Hotel reception

健身房/活动室
Gym / Community space

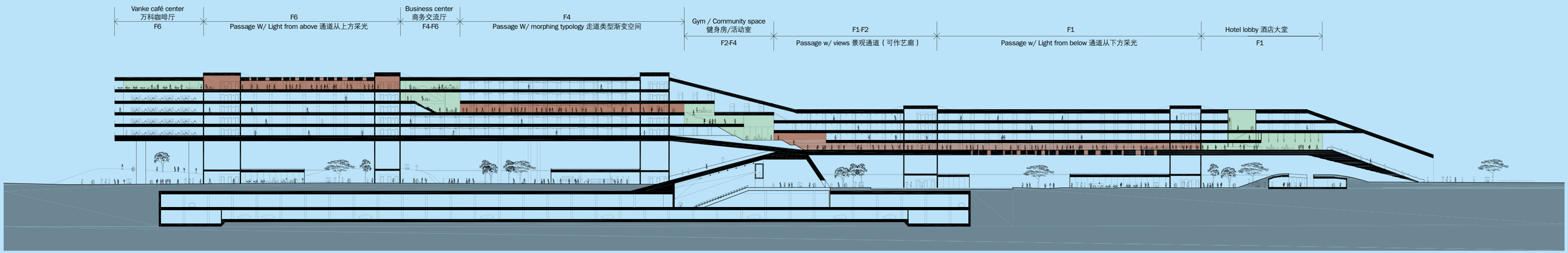
向上开采光井
Lens open to above

向下开透光井
Lens open to below

万科咖啡厅
Vanke café center

万科中心
Vanke Center

通道平面图
Path plan



通道剖面图
Path section

数据：

Data:

水平体量

斯蒂文·霍尔认为“新资本主义的入侵，把过去水平意义上的城市变成了高空与空地的混乱铺展。”他希望继续赋予城市某种“水平意义”，认为这是场所本身的某种意志。看似随意的平面与周边环境有着某种隐性的联系，每一部分都分别对应着山、湖、海、公园和周边城市景观。

Horizontal volume

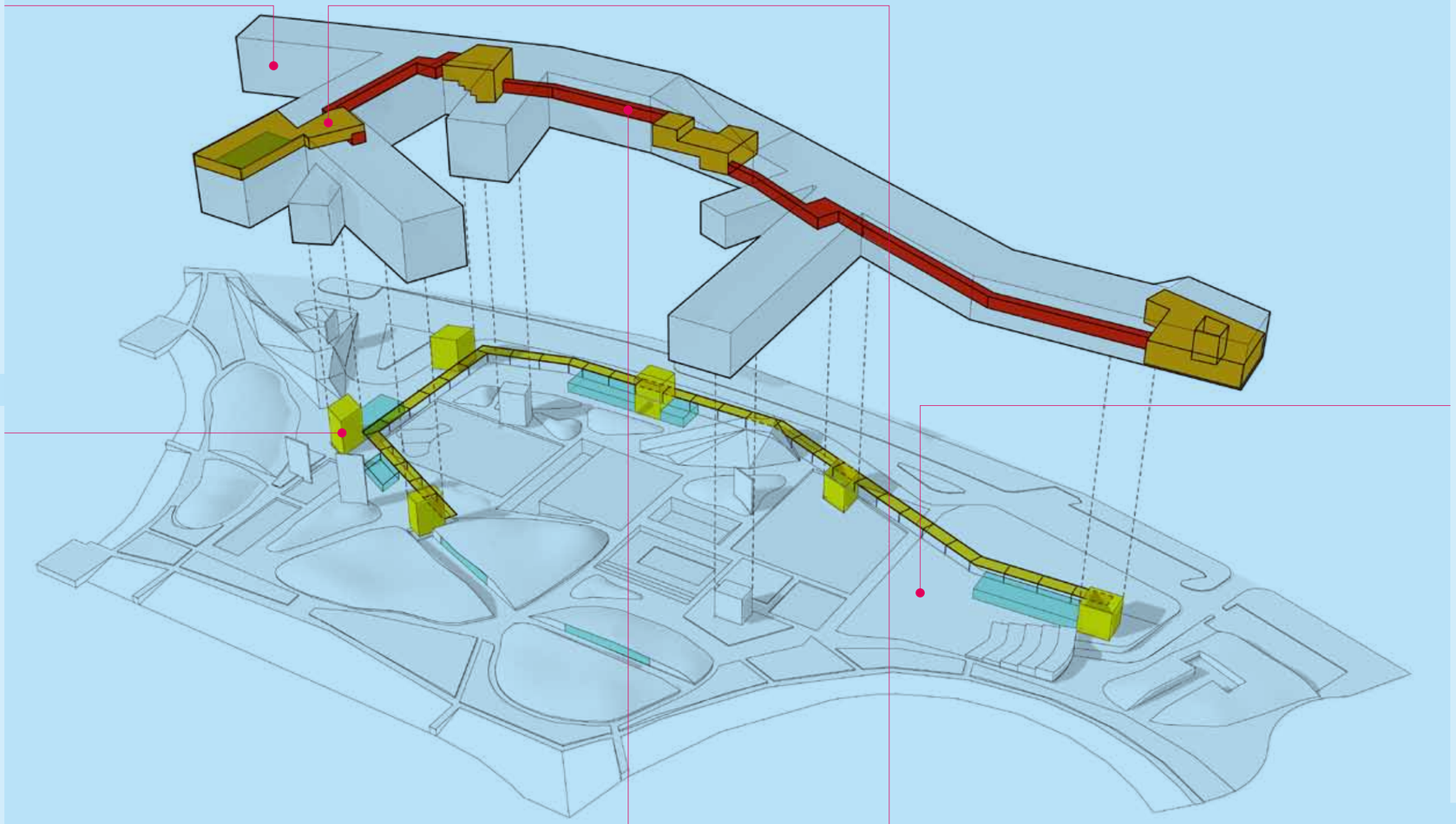
Steven Holl once said that "the invasion of the new capitalism has made the city formerly in a horizontal pattern become a disorderly sprawl of tall buildings and open ground". Holl hopes to continuously endow the city some "horizontal implication", not a simple horizontal extension, but a will set out from the site. The seemingly random plan is closely connected with the surrounding environment.

悬浮的建筑

万科中心看似一座海中建筑：一度漂浮在较高海面上，如今海水退去，露出了 8 个支撑腿。整体悬浮的建筑为地面带来阴影，同时让海风自由穿过，使人既可在阴凉里躲避阳光灼烤，又可尽情享受海风吹拂。绿化空间最大限度地敞向公众，悬浮结构的下方成了建筑的主立面——第六立面。

Floating architecture

The building appears as if it were once floating on a higher sea that has now subsided; leaving the structure propped up high on eight legs. The decision to float one large structure provides shading for the ground, allows sea breeze to pass through and generates the largest possible green space open to the public on the ground level, with the sixth being the underside.



由“路径”穿越空间

万科中心在空间手法上强调由“路径”穿越空间的体验，各种功能由连续的路径空间联系起来，使公共空间成为漂浮结构内的社交孵化器，同时使用者能够从一系列不断变化的空间中获得振奋的景观感受。

"Path" leading through space

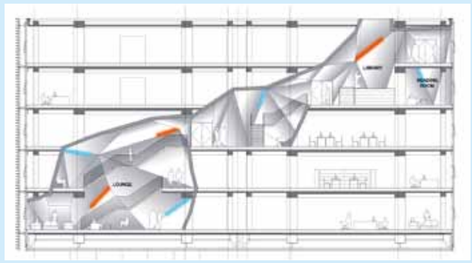
The various functions of Vanke Center are linked by a continuous path space, thus public space has become a social incubator in the floating structure. The building has stressed the experience of people passing through; during which users can have an exciting landscape experience from a continuous and distinctive space.

向公众开放的“自然”景观

斯蒂文·霍尔说，“我们的目标是在私人地产开发的土地之上建造公共公园”。万科中心 52 000 平方米的热带景观设计方案中包含了复杂多样的空间、活动与植物，在景观公园中的山丘上播撒了原场地内的部分种类的草籽，不加施肥、浇水和修剪等人工干预，完全处于野生的状态，力求最大限度地恢复场地内原有的生态系统。

"Natural" landscape open to the public

"Our goal is to build an open park on a private real estate land" Steven Holl once said. The 52 000 m^2 tropic landscape design accommodates a variety of spaces, activities and plants, making it city state diversity. Native seeds were spread on the hills of the landscape, without artificial intervention such as watering, fertilization and trimming etc. the park maximized the recovery of the original ecosystem.



“打开的领结”

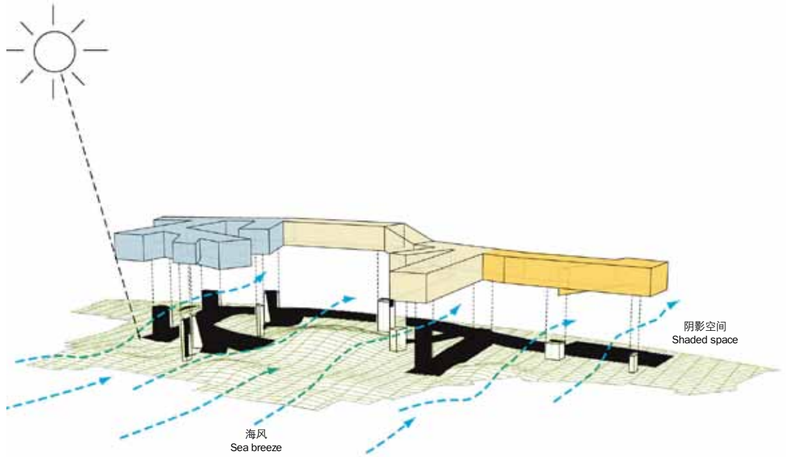
建筑师为路径空间设计了一个高潮：在万科总部办公区，他创造了一个把传统模式化分层空间联系在一起的垂直变异空间——“打开的领结”，从二层斜向穿插至六层，打破了狭长矩形空间带来的沉闷和单调感。空间中几乎所有墙体都与地面形成某种角度，从上到下高低、宽窄、明暗各不相同，包含了小型阅览室、排演场地、休息区以及联系上下空间的折线性钢制楼梯。

"Untied bow-tie" space

The architect designed a spatial highlight of inner path: In Vanke Headquarters, he created an "untied bow-tie" vertical space that connect the traditionally separately levels, linking from second to the sixth floor, almost all the walls are at different angles to the ground, with variations of height, width and shadow from top to bottom. Inside there are small reading rooms, rehearsal space, seating area and a connective rectilinear steel stair.

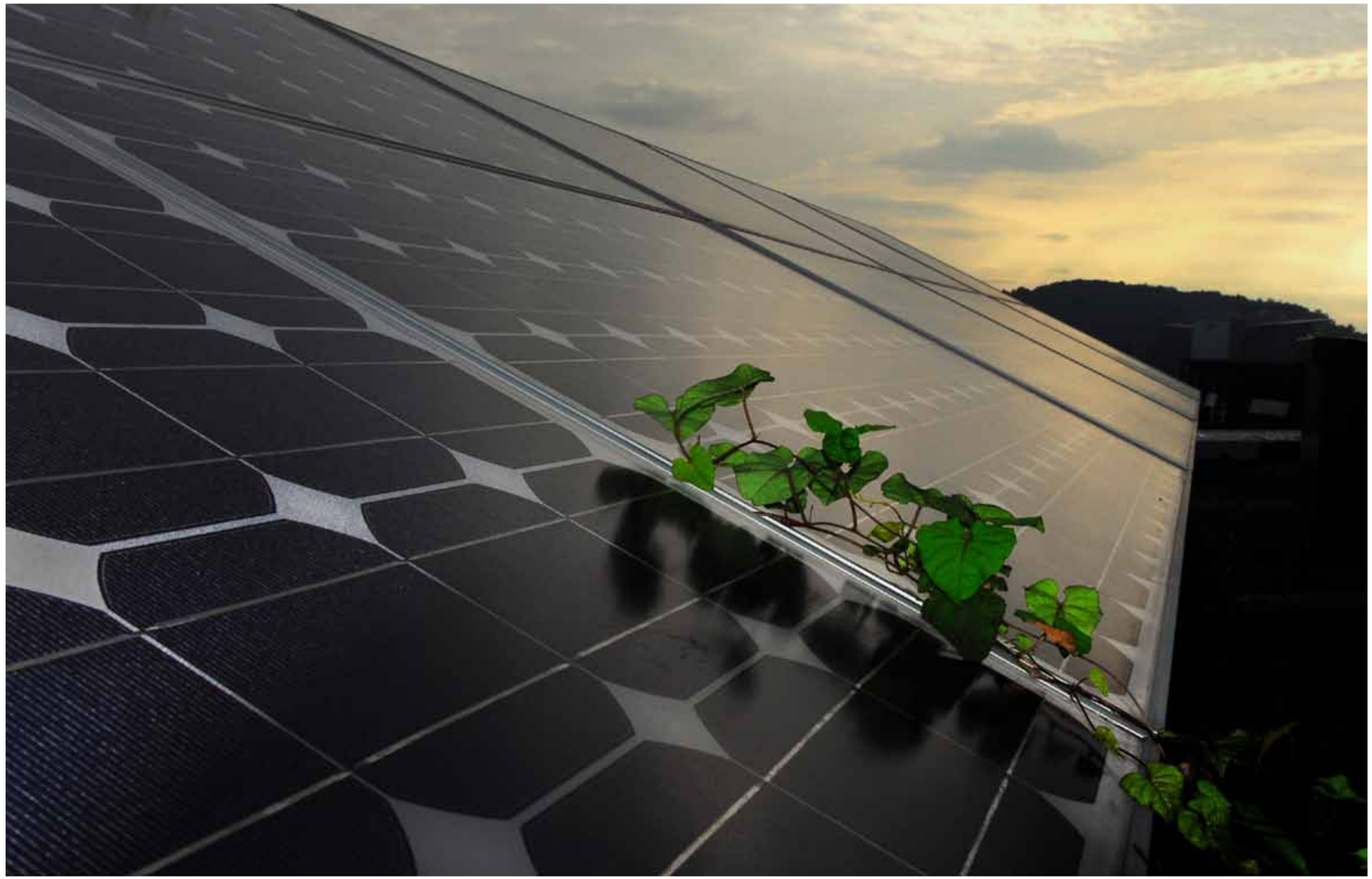
绿色设计: Sustainable Design:

对页：建筑屋面是绿化花园和太阳能板。
Opposite page : The green roof on Vanke Center is consisted of vegetation and solar panels.



万科中心底层抬高示意
Lifted volumn of Vanke Center

“我们关注的是如何建设未来。”——斯蒂文·霍尔
"WE ARE THINKING OF BUILDING THE FUTURE" ——STEVEN HOLL



万科中心的“绿色”概念来自于建筑设计本身。建筑从一个更大的范畴上建立了与场地的独特关系来应对气候所带来的挑战。建筑师斯蒂文·霍尔曾经这样说过：“对我来说，做生态建筑不需要特别的强调，它几乎已经成为我考虑设计问题时的一个本能。” 建筑屋面是绿化花园和太阳能板，材料使用为当地材料和可再生的竹材。大楼的玻璃幕墙能透过外在多孔百叶设计以阻挡强光及风力。该建筑是一个海啸防悬停架构，创建了一个可渗透的微气候公共休憩景观。

万科中心于2010年8月正式获得美国绿色建筑评估体系LEED最高奖——铂金认证，这是在建筑设计之初便确立的目标。万科在诸多协作团队的帮助下， 一丝不苟地完成了一个堪称全方位的立体的绿色建筑。其目的在于通过具有示范意义的一系列绿色技术应用来宣传和推广可持续发展的理念，增强人们的环保意识。

可持续选址

万科中心位于原本填海而得的大梅沙土地的生物洼地之上，建筑师重新设计了海滨挡墙，作为拥有植被的河口，建立了一个修复性的生态系统，最大限度地减少径流流失和环境破坏。

此项目的设计既是一座建筑的设计，也是一个景观设计。是复杂工程与自然环境精美的交织。通过将建筑由地面升起，一个开放、可公共进出的公园在一个其他方面都封闭和私有的社区内创造了新的社交空间。项目占地面积约有6万平方米，其中4.5万平方米被植被覆盖，加上主建筑植被绿化屋顶（约1.5万平方米），总绿化面积已与这片区域未开发前的面积大致相等。

水循环系统

万科中心通过下沉庭院、绿地、水体、湿地等形成丰富的立体景观，并创建了一个与景观设计紧密结合的可持续水环境体系。利用水质较好的雨水资源，以中水资源作为补充，实现了雨水、中水、景观水的最优化设计。

建筑将水系统的中水与雨水结合利用，在多雨季节，优先利用雨水补充水景；在少雨季节，待调蓄雨水用完时则用中水补充到景观水体。为控制项目总雨水排放量，万科中心建造了景观水池与地下雨水池，用于收集地表径流雨水，收集的雨水经湿地处理后回用于绿化、道路浇洒等。建筑屋面雨水采用虹吸雨水排水方式，并做截污处理，将屋顶雨水及污水亦全部回收，通过中水系统及多个人工湿地处理后用作景观水的补水、植物浇灌和洗涤地面使用，确保100%不使用自来水作为绿化及景观水的补水。

室外的景观空间尽量采用渗水铺装路面以加强雨水渗透。渗水铺装主要包括，嵌草砖、透水道路、碎石、透水砖。透水铺装对地面层渗透系数有一定要求，透水地面设施的蓄水能力不低于70毫米。透水面积占总面积的87%。

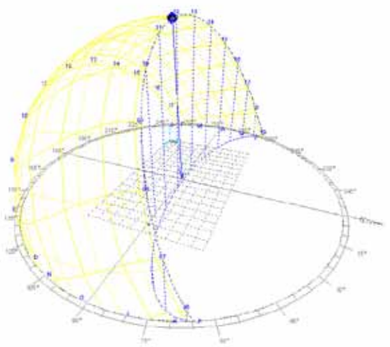
整个景观中的花园种植物种绝大部分采用耐旱和低维护的物种，并利用各种与景观相结合的措施，如植被浅沟，渗透沟渠，生物滞留等方式减低雨水冲刷，保持当地水土环境的同时又减少灌溉用水。花园的灌溉也全部利用雨水和中水。万科中心花园中设计的人工湿地实现了对污水的净化，充分体现了自然地形地貌在城市中的再生。

自然通风及局部微气候调节

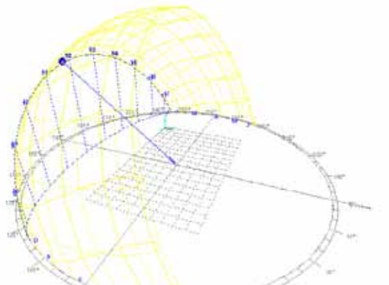
万科中心根据因地制宜的原则充分利用当地风向特点，使建筑主立面与主导风向交叉，有利于增大建筑背迎风面压差，创造良好的室内通风环境；底层被抬高，可以调节局部微气候。

建筑地处大梅沙旅游度假区，周围建筑环境对该建筑群体的遮挡影响较小，在主导风向的影响下，建筑群体周围的整体通风效果理想。

建筑群体周围人员活动高度1.5米处（以地形高度以上），大部分区域空气龄在300S 以下，能够保证人员活动舒适；人员主要活动区域的风速在1~3（米/秒），由于地面层建筑由一系列散落式的交通核、门厅等构成，以保证底层绿地的最大化，绿地采用草皮与灌木结合，景观水池亦分散布置，达到对小区的降温增湿效果。同时该架空设计可以保证建筑背风区域的空气新鲜。在个别风速较大区域，小型景观山包，种植灌木和乔木等组成的复合绿化带进行防风。



深圳六月日照轨迹图
Shenzhen June sun path



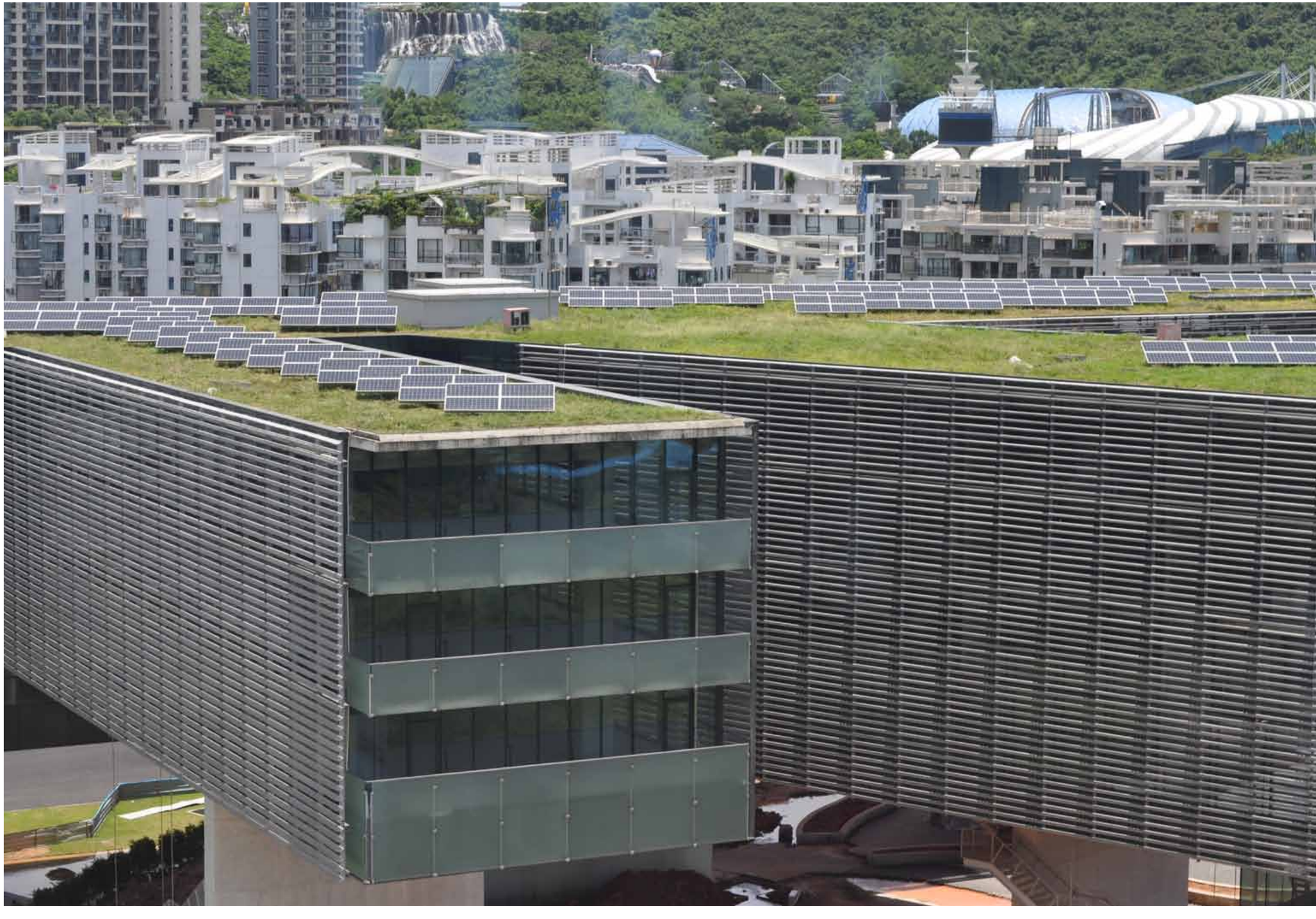
深圳十二月日照轨迹图
Shenzhen December sun path

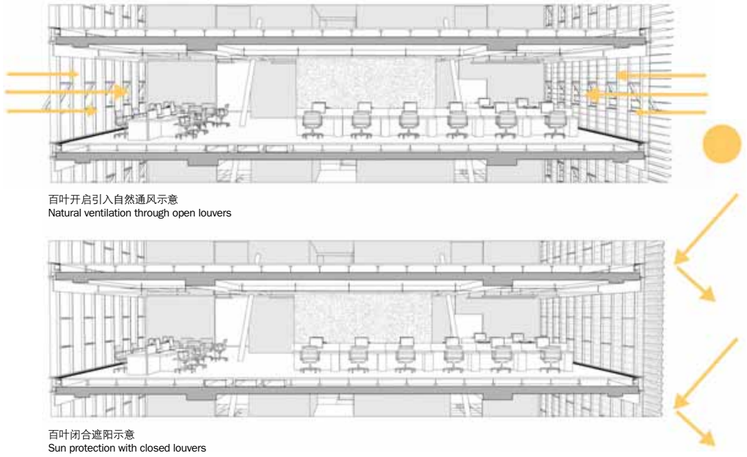
节能技术措施

设计利用最佳化的建筑体量吸热设计，大幅度降低了建筑能耗。建筑采用了全自动遮阳体系、带有中空镀膜Low-E玻璃与断热桥铝合金窗框的双层玻璃幕墙，以及种植屋面保温体系。经过模拟计算，参照建筑全年空调能耗为70.69千瓦时/平方米，采用上述节能方案，实际建筑全年空调能耗为56.47千瓦时/平方米，满足到公共建筑节能标准，节能率可达60%。

万科中心的26个立面的每一面都是依全年太阳能热量吸取为根据来计算。建筑的遮光百叶可随太阳光向调整。除此之外，百叶建立了双层外观，其中间隙的中空部分可以产生对流的烟囱效应，冷空气由建筑的下方流入，再通过建筑顶部靠近屋顶的地方排放出热空气。 多孔百叶在闭合状况下提供了主要的遮阳效果，它们在最大日晒下能减低70%的太阳能热量采集，而通过洞孔仍然能提供15%的透光率。由于拥有热带强烈的日照，现场测量计算出当百叶在闭合模式下，15%的透光度已可以提供充足的自然光线来满足办公室日常照明需求，大多数空间(75%)无需辅以人工照明。笔直的玻璃幕墙将日光引领渗入室内空间，最新锐的高性能玻璃涂层（双层银色中空镀膜Low-E玻璃）被使用于整个项目中，通过降低冷却负载进而达到节能效果。

在项目的办公室区，室外百叶、室内遮阳板、空气调节和照明系统的运行都由室内外感应器调度操作，从而平衡周围环境的照明度、太阳能热量采集和周围温度以达





百叶开启引入自然通风示意
Natural ventilation through open louvers

百叶闭合遮阳示意
Sun protection with closed louvers

前页：万科中心的1 400平方米光伏电板可提供整个万科总部约12.5%的电能要求。
本页：万科中心通过下沉庭院、绿地、水体、湿地等形成丰富的立体景观，并创建了一个与景观设计紧密结合的可持续水环境体系。
Previous page: The 1400 m^2 photovoltaic roof panels provide for12.5% of the building electricity.
This page: Vanke Center landscape design is consisted of sunken courtyard, green space, water feature and wetland, creating an efficient water recycling system integrated with landscape design.

photo **Iwan Baan**

到最大程度的节能。多数办公室都有照明和遮光的独立控制。个别的任务如聚光照明是用于下班时段或其他使用。两米宽的特殊大型可操控窗户可在一年较凉爽的期间为室内提供自然通风和大量的和煦微风。机械通风装置系统据估算在季节中，至少60%的时间可以是被关闭的，这样每年将减少每平方米5千瓦时的电能消耗。

太阳能光伏系统

深圳属南副热带季风气候。气温与日照率较高，全年约80%的白天具有采集太阳热能的条件，太阳能利用自然资源优越。年平均日照小时数(1 933.8小时)的日平均日照时数为5.30小时，每平方米水平面太阳辐射能量达到1 371千瓦时/平方米·年。根据深圳区域的日照优势，万科中心采用了大规模的太阳能光电利用，安装在建筑屋面的1 400平方米光伏电板可提供整个万科总部约12.5%的电能要求，核计太阳能发电量为266.7兆瓦时每年。

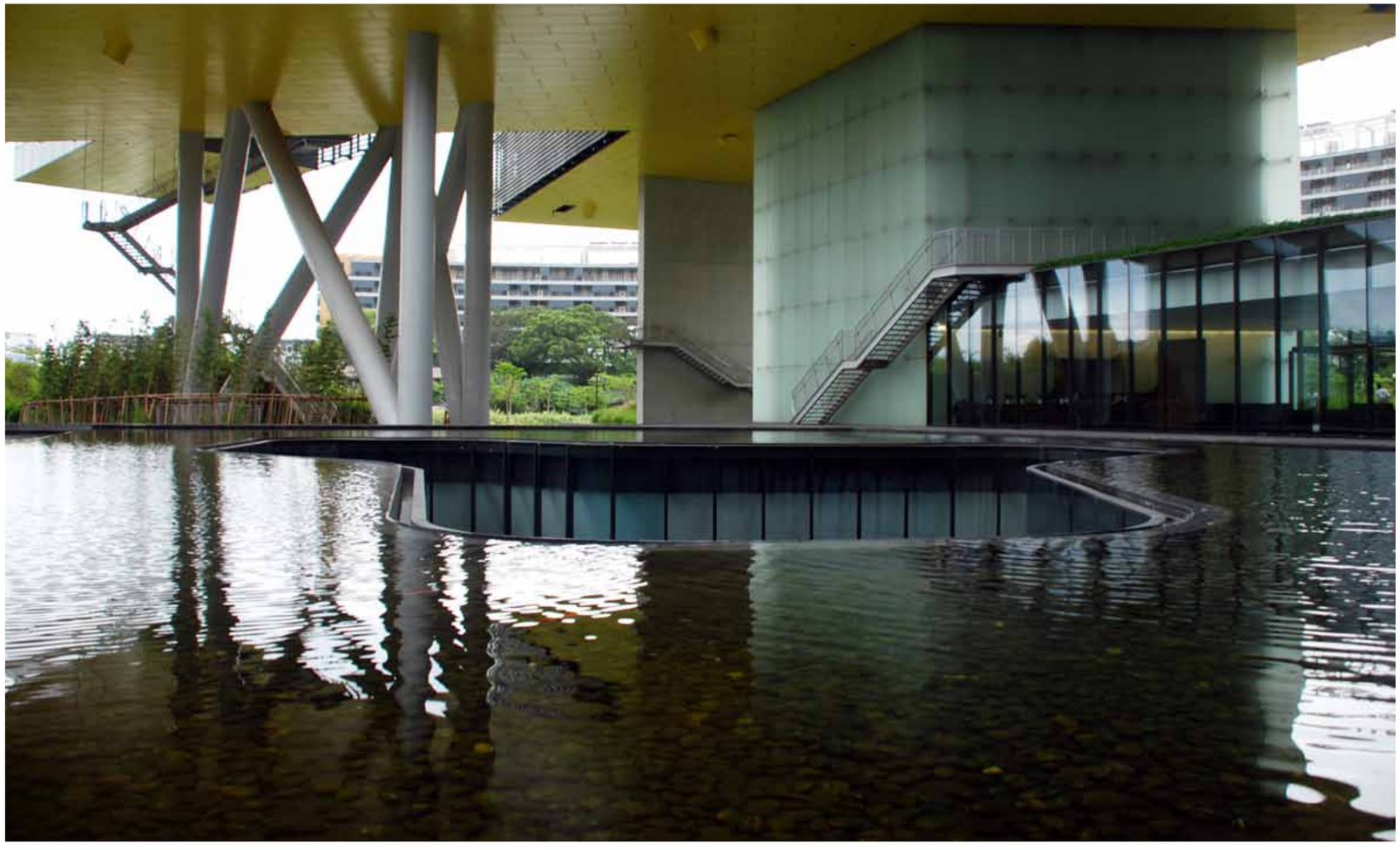
冰蓄冷系统

由于深圳市已经采用了峰谷电价差，因此为了降低万科中心空调系统的运转费用，并进一步提高建筑室内人体舒适度与室内空气质量，万科中心采用冰蓄冷供冷方案。

冰蓄冷系统，是在电力负荷很低的夜间用电低谷期,采用电制冷机制冰,将冷量以冰的方式储存起来。在电价较高的白天，也就是用电高峰期，把储存的冷量释放出来，以满足建筑物空调负荷的需要，充分利用峰谷电价差节省运行费用。

冰蓄冷供冷技术节能效果十分明显。空调制冷机组采用两台双工况螺杆主机，在额定制冷工况和规定条件下能效比可达4.8。冷水机组高负荷、高效率运行，同时利用电网的峰谷荷电价差，大大减少中央空调的年运行费用。

在冰蓄冷的基础上，由于供冷温度较低，可以实现大温差供冷，与普通供回水温差5℃相比，万科总部采用8 ℃温差，空调水泵的流量减少了37.5%。所以能够实现水泵电能节省37.5%以上。



新风地板送风变风量系统

大楼里所有空调的送风口藏在地板里，风从顶棚送出至少要覆盖到2.5米的高度，而从地板送出却只需要覆盖1.8米左右，人就会觉得凉爽。

节水措施

万科中心采用了最先进节水型器具，减少自来水用水量及管材用量。感应节水1.9 升/分钟的出水嘴，其用水量是国内的普通出水量的1/4 不到，大大节约用水。

可再生材料

竹材——本地速生可再生资源，环保且亲切的中国传统建筑材料，完全取代木材。

绿色地毯——万科中心内部的开放办公区域采用了InterfaceFLOR地毯。该地毯材料是一个“从摇篮到摇篮”(from cradle to cradle)的产品，不仅由回收材料制成，而且制造商同意回收利用损坏破旧的地毯以用于其他产品的制作。此地毯利用了GlasBac®底部，其材质中的55%由回收产品制成，以及不低于18%的材料是二次使用的产品。材料来自于回收地毯和生产余料。

无毒涂料——所有使用的油漆、木工活和胶合剂完全没有或仅含有少量的V.O.C(挥发性有机酚类化合物)，例如甲醛。

绿色遮阳材料——万科中心使用了Nysan绿色遮阳材料，这是一种不包含V.O.C的PVC产品。

虽然有些人质疑中国对可持续发展建设的承诺，斯蒂文·霍尔告诉我们，他所有的中国客户都要求建造“最绿色”的建筑。“在世界的其他地方，客户或许会认为可持续性是微不足道的，并对每笔费用都进行质疑。“中国的业主没有这样的考虑，”他说，“我们关注的是如何建设未来。”

The sustainable concept of Vanke Center originates from the architectural design itself. It establishes unique relation with site in a larger scope to deal with climate challenges. Steven Holl once said "for me, sustainability does not need to be emphasized; it almost became an instinct when I consider design issues". The building uses local materials and renewable bamboo. The glass curtain wall could block excessive sun glare and wind by porous blinds. Designed as a seismic structure, the architecture creates permeable microclimates within the public landscape.

Vanke Center was awarded the US Green Building Rating System LEED Platinum Certification in august, 2010, the first to receive this level of certification in south China. With help of collaborative teams, Vanke has accomplished meticulously a green architecture. Its purpose is to publicize and promote sustainable design and environmental awareness through a series of sustainable strategies.

Sustainable site

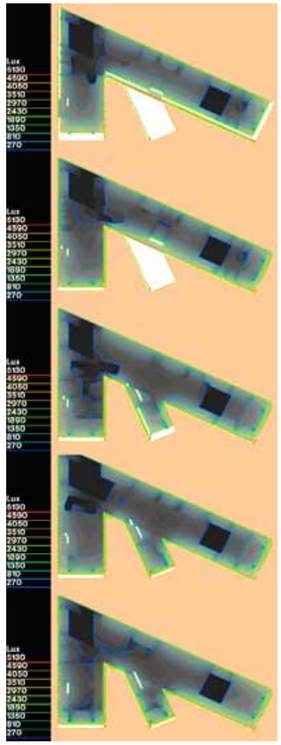
Vanke Center is located in reclaimed site in Dameisha area, Shenzhen. The architect redesigned retaining wall to restore and rehabilitate ecological systems, as well as minimizing runoff and environmental damage.

The project is both a building and a landscape, a delicate intertwining of architecture and natural environment. By elevating the building above the site, an open, public park is created in an area dominated by gated community and private properties. The project covers an area of appro. 60 000m^2, including 45 000m^2 landscape, plus the building green roof (15 000m^2), total green coverage is almost equal to that of the entire site prior to development.

Water recycling system

Vanke Center landscape elements such as sunken courtyard, green space, water feature and wetland, together form an efficient water recycling system integrated with landscape design. Using recycling rainwater with reclaimed water as supplement, it achieves optimized design of the water use.

The design combined utilization of rain and reclaimed water, in rainy season rain water is used to supplement landscape water; and in dry seasons reclaimed water is used after rainwater storage runs out. To control total rain discharge, it builds landscape and underground pool to collect surface runoff rainwater which is used for watering plants and roads after wetland treatment. The system adopts symphonic drainage and sewage interception for roof rainwater, recycles rainwater and sewage with reclaimed water system and artificial wetlands for replenishing landscape water, watering plants and washing the ground, to ensure that no portable water is used for plant and landscape.



室内光线分析图
Interior lighting condition analysis

The outdoor landscape utilizes permeable pavement including local river stones, crushed gravels, open joint stone pavers, grasscrete and compressed sand pavers. It is required that permeability rate of the ground must be at a certain level with water storage capacity no less than 70mm. The permeable area covers 87% of the total area.

Most plants are drought tolerant and easy to maintain, the garden adopts various strategies such as vegetation in shallow trench, infiltration ditch and bio-retention to reduce rainwater runoff, maintaining local soil and water environment meanwhile reducing the amount of irrigation water required. The irrigation for garden entirely uses rainwater and reclaimed water; artificial wetland is integrated with sewage purification. The design demonstrates natural topography regeneration in the urban context.

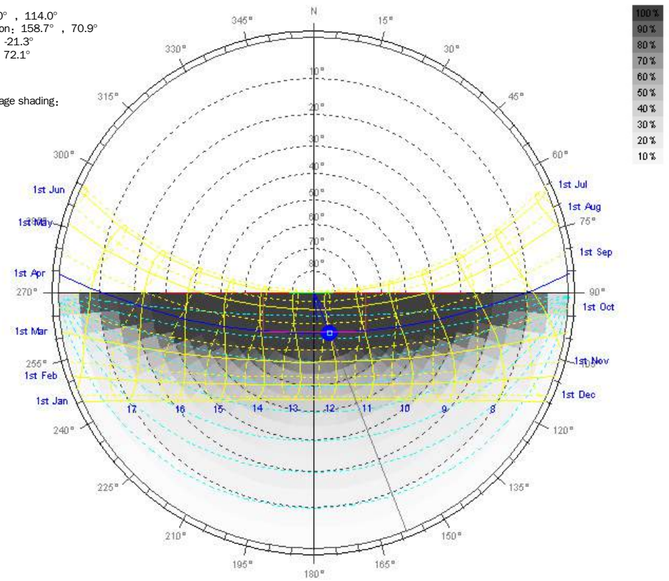
Natural ventilation and microclimate control

Taking advantage of the local wind direction, the main building façade of Vanke Center is perpendicular to dominant wind flow, in order to increase differential pressure on leeward and windward side of building, thus creating good indoor ventilation; the building is elevated, creating microclimate underneath. Located in an open area of Dameisha resort, the ventilation of dominant wind direction is ideal. At 1.5 meters (above terrain

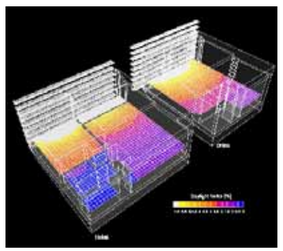
上图及左图：在项目的办公室区，室外百叶、室内遮阳板、空气调节和照明系统的运行都由室内外感应器调度操作，从而平衡周围环境的照明度、太阳能热量采集和周围温度以达到最大程度的节能。
下图：笔直的玻璃幕墙将日光引领渗入室内空间。
Above and left: In the office portion of the project the operation of the exterior louvers, interior shades, air conditioning and lighting systems are coordinated by a series of interior and exterior sensors which balance ambient light levels, solar heat gain and ambient temperatures for maximum energy efficiency.
Below: The louvers provide 15% of light transmittance through the perforations.

位置 Location：22.0°，114.0°
太阳位置 Sun position：158.7°，70.9°
水平阴影角度 HSA：21.3°
垂直阴影角度 VSA：72.1°

时间 Time：12:00
日期 Date：4月1日
阴影百分比 Percentage shading：100%



球极平面投影图
Stereographic diagram



主要功能房间采光系数分布图
Main area lighting coefficient distribution map

height) where people moving about around buildings, the age of air is under 300S, which is a comfortable level; wind speed in main area is around 1~3m/s. The ground floor is composed of scattered passages and doorways to ensure the maximum of ground green space with sward, shrub and water features for cooling and humidifying effect. The elevated design keeps air fresh in leeward area. In areas of greater wind speed, windbreak elements include small hills, shrub and trees.

Energy efficiency

Through optimized building volume endothermic design, the energy consumption is greatly reduced. The architecture adopts automatic shading system with double glass curtain wall consisted of low-E glass and aluminum alloy frame with thermal break bridge, and green roof insulation system. Compared to annual air conditioning energy consumption simulation of 70.69kWh/m^2, the actual consumption of the design is 56.47kWh/m^2, which satisfies energy efficiency requirement for public buildings, and energy saving is up to 60%.

Each face of the 26 facades of the building has been calculated based on solar heat gain throughout the year and its louvers are fine-tuned to the orientation of the sun. In addition, the louvers create a double skinned façade where the interstitial cavity creates a convective stack effect, drawing cool air in through the underside of the building and hot air out at the top of the structure near the roof. The perforated louvers provide extensive primary sun protection in closed condition. They reduce up to 70% of solar heat gain at its peak load, yet still provide 15% of light transmittance through the perforations. The full height glass curtain wall brings daylight deep into all interiors spaces. In the office portion of the project the operation of the exterior louvers, interior shades, air conditioning and lighting systems are coordinated by a series of interior and exterior sensors which balance ambient light levels, solar heat gain and ambient temperatures for maximum energy efficiency.

There are individual controls for lighting and shade operation in most offices. Individual task/spot lights are provided for off hour additional use. Exceptionally large operable windows of two meters wide provide natural ventilation and generous cross breezes for the interiors during the cooler months of the year. It is estimated that during this season mechanical ventilation systems can be switched off for at least 60% of the time. This will reduce electric energy consumption annually by 5 kWh per square meter.

Solar photovoltaic system

Shenzhen has a mild climate with plentiful sunshine and rainfall; solar heat can be collected around 80% time of a year. On average, solar radiation is available at 1933.8 hours per year and 5.30 hours per day; solar radiation energy per square meter is up to 1371 kWh/m^2a. Taking the advantage, Vanke Center makes full use of solar photovoltaic in large scale, with 1400 square meters photovoltaic roof panels providing 12.5% of the building electricity. The annual solar energy generation capacity is 266.7MWh/a.

Ice storage system

Due to electricity price difference in Shenzhen, Vanke Center utilizes ice storage cooling program to reduce the operating cost of air conditioning system and improve indoor human comfort and air quality.

Ice storage system makes ice by refrigerator and store ice at night when electricity consumption is low; during daytime when electricity price is high, the melted ice is utilized as chilled water, thus taking full advantage of price difference to save energy bill.

Ice storage system is highly efficient in energy saving. The refrigeration unit uses two duplex air conditioning machines whose energy efficiency ratio is up to 4.8 under specified conditions. The chilling unit is operated with high efficiency, the annual operating costs of central air conditioning is greatly reduced.

Based on ice storage, low cooling temperature could achieve cooling with large temperature difference. The temperature difference of water circulation is 8℃, compared to standard 5℃, the pump flow of air conditioning is decreased by 37.5%, so more than 37.5% pump energy would be saved.

Underfloor AC with plenum supply system

All the outlets of air conditioning are supplied from the floor plenum. If to supply from overhead vents, the air needs to reach a height of 2.5 meters at least to ensure user's comfort, whereas air from underfloor AC with plenum supply system only need to cover 1.8 meters for the same level of comfort.

Water efficiency

Vanke Center uses the most advanced water-saving appliances to reduce portable water consumption. The sensor fixture with 1.9 L/min is less then 1/4 of our domestic water consumption.

Renewable materials

Bamboo—This highly renewable material, which is easily available in China, is used for doors, floors, and furniture throughout the Vanke Headquarters instead of using raw materials or exotic woods.

Green Carpet—InterfaceFLOR Carpet tiles are used throughout the open office area. This carpet is a cradle-to-cradle product, meaning that it is not only produced from recycled materials, but that the manufacturer agrees to collect any damaged carpet and to recycle it into other carpet or products. This carpet contains a GlasBac® REbacking that has an average of 55% total recycled content with a minimum of 18% postconsumer recycled content. It uses recycled vinyl backing from reclaimed carpet tiles and manufacturing waste.

Non-toxic paint—All paint finishes, as well as the millwork and adhesives are to be low or free of V.O.C (Volatile Organic Compounds) – like phenols and formaldehyde。

Greenscreen shading—Vanke Center uses Greenscreen solar shading fabrics from Nysan—a PVC free product that contains no V.O.C.

While some people question China's commitment to sustainability, Holl says all of his Chinese clients have asked for the greenest buildings possible. "In other parts of the world, clients want to nickel-and-dime sustainability, questioning every expenditure," states the architect. "Chinese clients aren't thinking that way. They're thinking of building the future."

对页：万科中心创建了一个可渗透的微气候公共休憩景观。

本页，由上至下：室外的景观空间尽量采用渗水铺装路面以加强雨水渗透；整个景观中的花园种植物种绝大部分采用耐旱和低维护的物种。

Opposite page: Vanke Center created a public and permeable microclimate.

This page, from above to bottom: The outdoor landscape utilizes permeable pavement whenever possible; Most plants are drought tolerant and easy to maintain

绿色认证：

Green Certification:

深圳万科中心于2010年8月获得美国绿色建筑委员会LEED铂金认证证书
Shenzhen Vanke Center received LEED platinum certification from USGBC in August, 2010

美国绿色建筑委员会LEED铂金认证奖章
LEED platinum certification medal from USGBC

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August 25, 2010

Mr. Wang Shi
Chairman
China Vanke Co., Ltd
No. 27, Shuibei 2 Road
Shenzhen, China 518020

Dear Mr. Wang:

I am delighted to learn that the Vanke Headquarters in Shenzhen achieved LEED – NC 2.2 Platinum on August 14. On behalf of U.S. Green Building Council, I would like to offer you our congratulations and thank you for your leadership in China's green building development.

I enjoyed meeting you in Beijing earlier this year. The lunch meeting with other CURA green building leaders was a great opportunity for us to learn about your vision for sustainable development and your commitment to green buildings and we look forward to establishing a close relationship with CURA. As you may be aware, my staff is working on a plan to deliver a LEED training workshop in Beijing in mid-October in cooperation with CURA.

I would also like to thank you for your gracious acceptance of our invitation to lead a CURA delegation at the Greenbuild Conference in Chicago and to speak on a panel with Mr. Feng Lun at the International Forum on November 16. I look forward to seeing you in Chicago and discussing how we can strengthen our collaboration to provide stewardship in the cause of green building and climate change internationally.

We look forward to working closely with you on your future LEED projects. Please let me know how we can provide more effective support to your green building efforts.

Sincerely,

S. Richard Fedrizzi
President, CEO and Founding Chairman

2010年8月25日

中国·深圳·水贝二路27号
万科企业股份有限公司
董事长（应为董事会主席）
王石先生

尊敬的王先生：

很高兴得知深圳万科总部于8月14日获得LEED——NC2.2铂金证书。在此我代表美国绿色建筑委员会向您表示祝贺，并感谢您在中国绿色建筑行业发展中所发挥的带头作用。
今年年初和您在北京的会面很愉快。当时有其他中城联盟绿色建筑行业领导者出席的午餐会，给了我们一次很好的机会，来了解您对可持续发展的设想，以及您致力于绿色建筑的决心。非常期待能与中城联盟建立一个紧密的合作关系。可能您已得知，我们的工作人员正在和中城联盟一起，合作策划一个10月中旬在北京开设的LEED培训班。
此外，非常感谢您接受我们的邀请，并答应带领中城联盟代表团来参加芝加哥的绿色建筑大会，并在11月16日的国际论坛上与冯仑先生对话。我们期待与您在芝加哥见面，共同探讨如何在绿色建筑和全球气候变化的管理工作中进一步加强国际合作的问题。
同时，也希望能在您以后的LEED项目中，与您展开紧密合作。如果我们能在您的绿色建筑规划中提供更有效的支持，请尽管告知我方。
此致
敬礼

主席、执行总监兼创始人
S. Richard Fedrizzi

USGBC
2101 L STREET, NW
SUITE 500
WASHINGTON DC 20037
202 828-7422
WWW.USGBC.ORG

08/14/2010

Shi Wang
General Manager
Shenzhen Vanke Limited
Vanke Center No.33 Huanmei Road, Dameisha Yantian District
Shenzhen, China 518083
CN

Greetings,

On behalf of the U.S. Green Building Council, I would like to congratulate you on achieving Leadership in Energy and Environmental Design (LEED®) certification for SHENZHEN VANKE CENTER. Your project's final LEED rating reflects 57 documented and approved points, which corresponds to the platinum certification level under the LEED for New Construction rating system.

LEED certification identifies SHENZHEN VANKE CENTER as a pioneering example of sustainable design and demonstrates your leadership in transforming the building industry. In honor of this impressive achievement and in appreciation of your participation in LEED, we are pleased to present you with the enclosed certificates recognizing your accomplishment.

We encourage owners of certified projects to enroll in USGBC's Building Performance Partnership (BPP). BPP allows building owners to track and analyze operational performance relative to LEED credit achievement. USGBC's BPP participants are eligible for annual performance reports, report cards and real-time data interfaces to aid in their building performance goals. For information on BPP: www.usgbc.org/bpp. If you have any questions or comments, please contact us at www.usgbc.org or www.gbci.org.

Congratulations once again on earning LEED certification, and thank you for your commitment to our common goal of building a healthy, sustainable future.

Sincerely,

S. Richard Fedrizzi
President, CEO & Founding Chairman
U.S. Green Building Council

2010年8月14日

中国深圳盐田区大梅沙环美路33号万科中心
深圳万科房地产有限公司（应为万科企业股份有限公司）
总经理（应为董事会主席）
王石

您好！
我谨此代表美国绿色建筑委员会（USGBC），祝贺贵方的“深圳万科中心”获得能源与环境设计认证（LEED）。贵方项目在LEED新建筑评分系统中属于铂金证书等级，最终评分为57分。
经LEED认证体系鉴定，“深圳万科中心”为可持续建筑的先进典型，同时肯定了您在建筑行业改革中起到的带头作用。为对您的这一杰出贡献表示敬意，并感谢您参加LEED认证，特此颁发所附证书，以示表彰。
我们鼓励获得认证项目的业主参加USGBC的建筑运营效能组织（BPP）。BPP允许业主跟踪并分析LEED认证相关的运营效能。USGBC中BPP的成员有资格获得年度效能报告，报告卡和实时数据界面来帮助其提高建筑性能评分。有关BPP的信息请登陆：www.usgbc.org/bpp进行查询。如有其它疑问或意见，请登录www.usgbc.org或www.gbci.org与我们联系。
再次恭喜您获得LEED认证，感谢您对实现我们可持续发展共同目标的大力支持。
此致
敬礼

美国绿色建筑委员会
主席、执行总监兼创始人
S. Richard Fedrizzi

数据：

Data:

❶ **幕墙**

建筑采用了全自动遮阳体系、带有中空镀膜Low-E玻璃与断热桥铝合金窗框的双层玻璃幕墙。多孔百叶在闭合状况下提供了主要的遮阳效果，它们在最大日晒下能减低70%的太阳能热量采集，而通过洞孔仍然能提供15%的透光率。

Curtain wall

The architecture adopts automatic shading system with double glass curtain wall consisted of low-E glass and aluminum alloy frame with thermal break bridge. They reduce up to 70% of solar heat gain at its peak load, yet still provide 15% of light transmittance through the perforations.

❷ **光伏电板**

安装在建筑屋面的1 400平方米光伏电板可提供整个万科总部约12.5%的电能要求，核计太阳能发电量为266.7兆瓦时每年。

Solar photovoltaic system

About 1 400 m^2 photovoltaic roof panels provide for 12.5% of the building electricity. The annual solar energy generation capacity is 266.7MWh/a.

❸ **绿色屋顶**

1.5万平方米绿色植被

Green roof

15 000m^2 green roof area

❹ **自然通风**

百叶建立了双层外观，其中间隙的中空部分可以产生对流的烟囱效应，冷空气由建筑的下方流入，再通过建筑顶部靠近屋顶的地方排放出热空气。

Natural ventilation

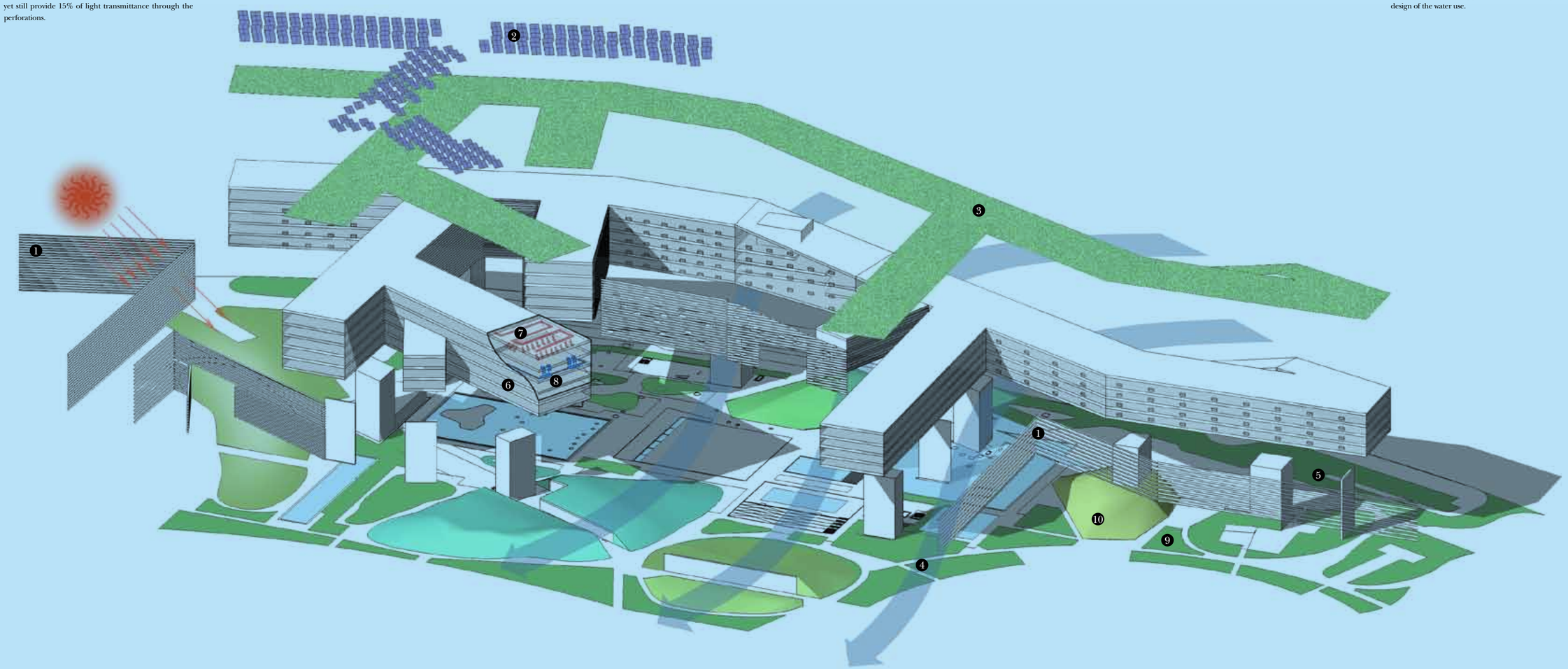
The louvers create a double skinned façade where the interstitial cavity creates a convective stack effect, drawing cool air in through the underside of the building and hot air out at the top of the structure near the roof.

❺ **水回收体系**

万科中心通过下沉庭院、绿地、水体、湿地等形成丰富的立体景观，并创建了一个与景观设计紧密结合的可持续水环境体系。利用水质较好的雨水资源，以中水资源作为补充，实现了雨水、中水、景观水的最优化设计。

Water recycling system

Vanke Center landscape elements such as sunken courtyard, green space, water feature and wetland, together form an efficient water recycling system integrated with landscape design. Through recycling rainwater while using reclaimed water as supplement, it achieves optimized design of the water use.



❻ **节水措施**

万科中心采用了最先进节水型器具，减少自来水用水量及管材用量。感应节水1.9 升/分钟的出水嘴，其用水量是国内的普通出水量的1/4 不到，大大节约用水。

Water efficiency

Vanke Center uses the most advanced water-saving appliances to reduce portable water consumption. The sensor fixture with 1.9 L/min is less then 1/4 of our domestic water consumption.

❼ **新风地板送风变风量系统**

大楼里所有空调的送风口藏在地板里，风从顶棚送出至少要覆盖到2.5米的高度，而从地板送出却只需要覆盖1.8米左右人就会觉得凉爽。

Underfloor AC with plenum supply system

All the outlets of air conditioning are supplied from the floor plenum. If to supply from overhead vents, the air needs to reach a height of 2.5m at least to ensure user's comfort, whereas air from underfloor AC with plenum supply system only need to cover 1.8m for the same level of comfort.

❽ **辐射楼板**

Radiation floor

❾ **可渗透气候公共空间**

万科中心根据因地制宜的原则充分利用当地风向特点，使建筑主立面与主导风向交叉，有利于增大建筑背迎风面压差，创造良好的室内通风环境；底层被抬高，可以调节局部微气候。

Permeable microclimate

Taking advantage of the local wind direction, the main building façade of Vanke Center is perpendicular to dominant wind flow, in order to increase differential pressure on leeward and windward side of building, thus creating good indoor ventilation; the building is elevated, creating microclimate underneath.

❿ **本地植物造景**

整个景观中的花园种植物种绝大部分采用耐旱和低维护的物种，并利用各种与景观相结合的措施，如植被浅沟，渗透沟渠，生物滞留等方式减低雨水冲刷，保持当地水土环境的同时又减少灌溉用水。

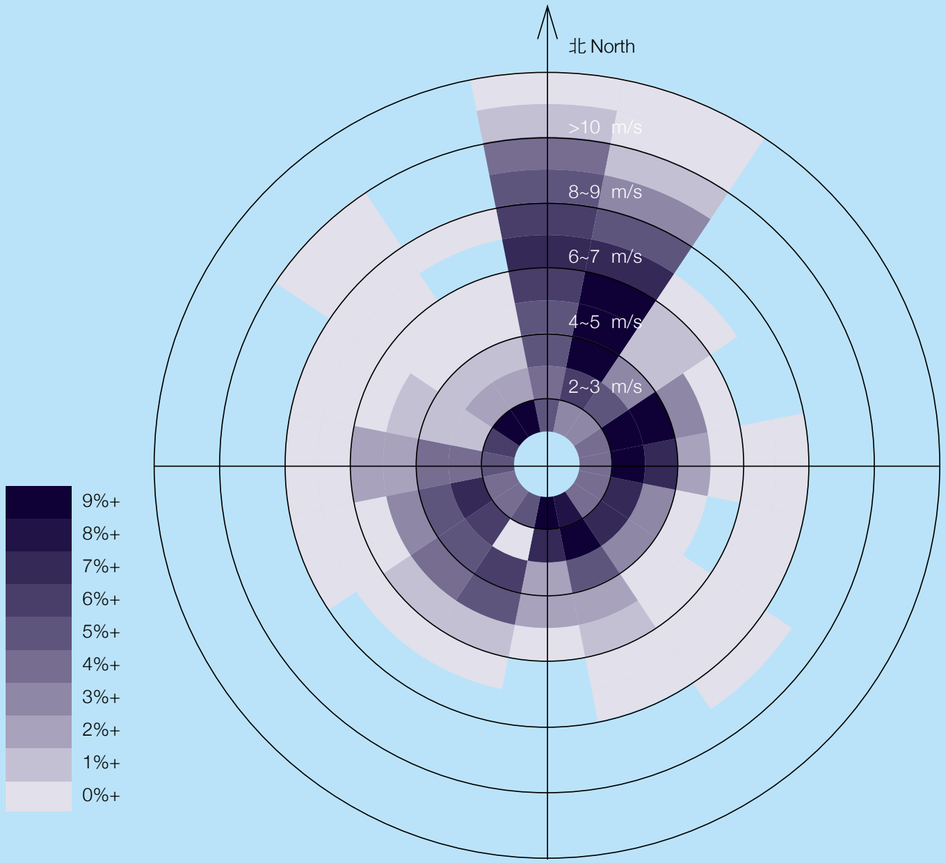
Local vegetation

Most plants are drought tolerant and easy to maintain, the garden adopts various strategies such as vegetation in shallow trench, infiltration ditch and bio-retention to reduce rainwater runoff, maintaining local soil and water environment meanwhile reducing the amount of irrigation water.

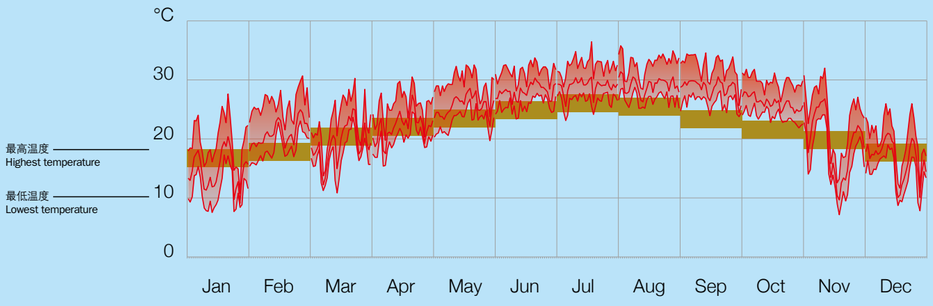
地点 Location
中国广东省深圳市大梅沙地区
Dameisha, Shenzhen, Guangdong, China
(22°39'11''N 114°17'47''E)

风向研究
Wind studies

时间 Time
00:00-24:00

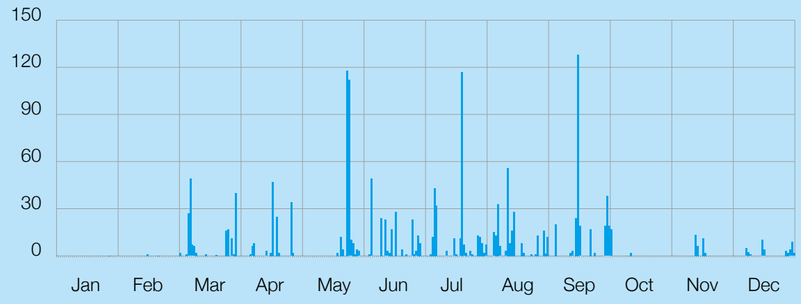


全年气温
Annual range of temperature



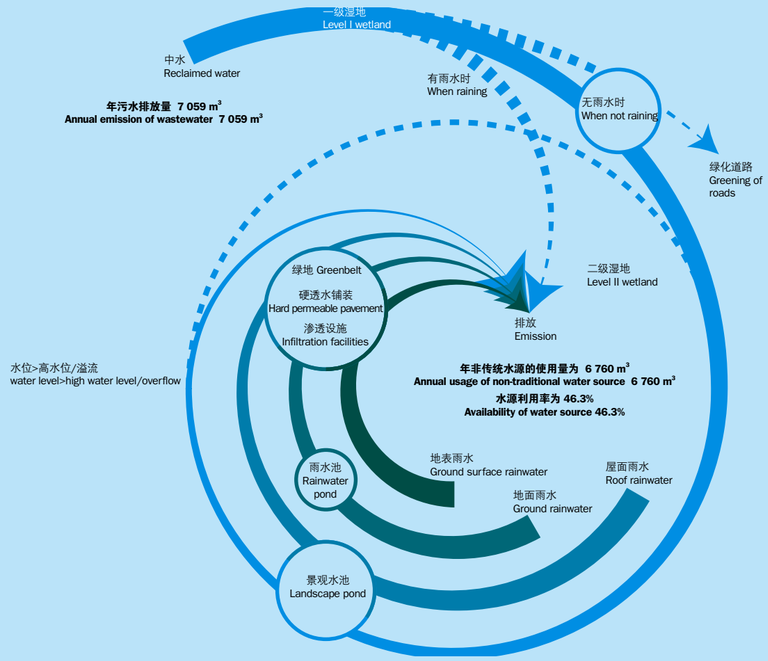
温度 (℃)
Temperature
热中性
Thermal neutrality

全年降水量
Annual precipitation

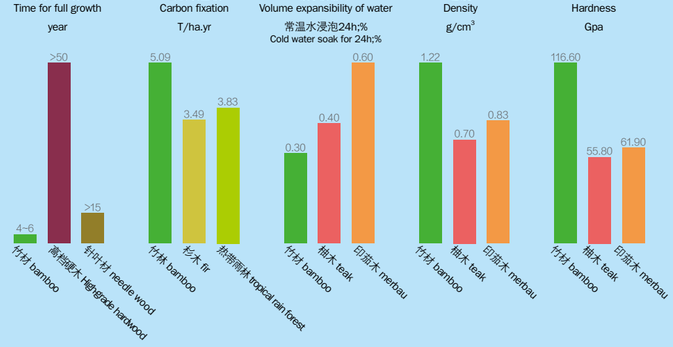


降水量 (mm)
Precipitation

水回收体系
Water recycling system



竹材性能
Characristics of bamboo



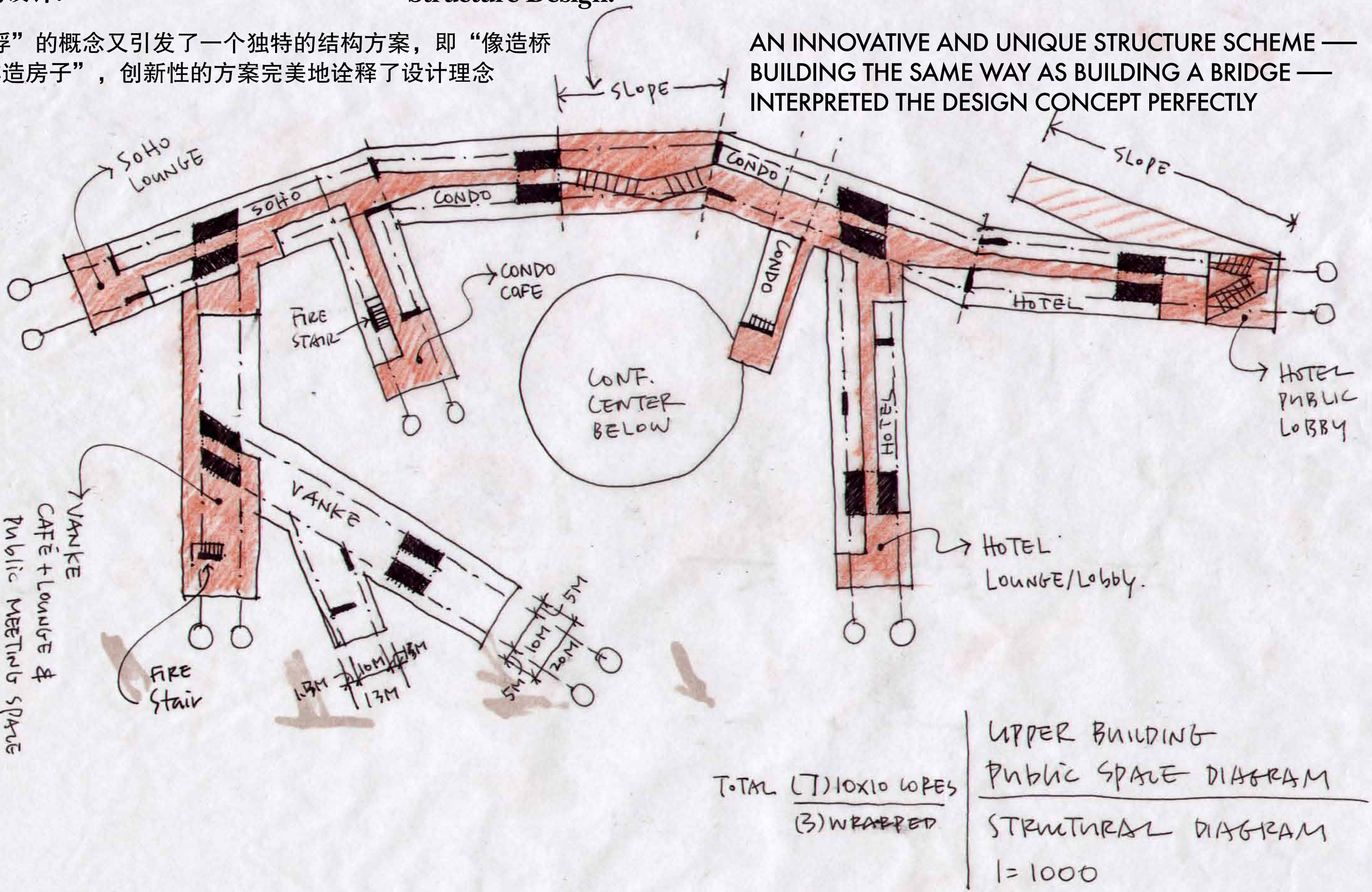
	工艺原理 Principle of the techniques	耐腐性能 Decay resistance performance	防霉性能 Antimycotic ability	稳定性 Stability	强度 Strength	抗白蚁性能 Termite resistance performance	防火等级 Fire rating	使用年限 Service life
未经处理硬木 Untreated hardwood	利用木材的硬度和天然油性 Make use of hardness and natural oil of the material							5-8年 5-8years
防腐木 Anticorrosive wood	利用高压容器将防腐液体浸注到木材细胞壁 Use high-pressure container to make Anticorrosive liquid permeates material's cell wall							3-5年 3-5years
碳化木 Carbonated wood	212℃以上高温处理，提高耐腐性、耐候性和稳定性 Improve the material's stability, decay and weather resistance via high temperature treatment							5-8年 5-8years
木塑复合材 WPC	利用户外胶粘剂把木屑与塑料粉末挤压而成 Squeeze Sawdust and plastic powder and bond them together by outdoor adhesive							3-5年 3-5years
竹材 Bamboo	利用物理性能，隔离竹材中的亲水基团 Make use of material's physical properties to isolate the hydrophilic group							20年以上 More than 20 years

结构设计：

"漂浮”的概念又引发了一个独特的结构方案，即“像造桥一样造房子”，创新性的方案完美地诠释了设计理念

Structure Design:

AN INNOVATIVE AND UNIQUE STRUCTURE SCHEME —— BUILDING THE SAME WAY AS BUILDING A BRIDGE —— INTERPRETED THE DESIGN CONCEPT PERFECTLY

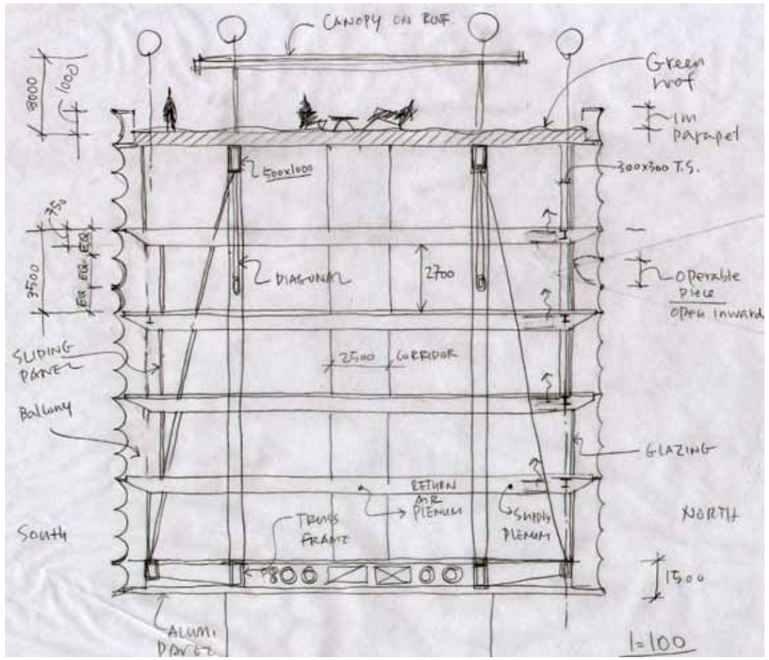


TOTAL (7) 10X10 CORES
(3) WRAPPED

UPPER BUILDING
PUBLIC SPACE DIAGRAM

STRUCTURAL DIAGRAM
1=1000

前页：万科中心结构及公共空间概念设计图。
本页：建筑结构剖面概念设计图。
Previous page: Structure and public space diagram of Vanke Center.
This page: Section diagram of a typical wall structure.



本页：万科中心结构模型。
This page: Project model with main structural supports indicated.

设计阶段：五轮结构方案

在竞赛阶段，万科中心“漂浮”的形态就已被确定：整个建筑“漂浮”在距地面10~15米的空中，最大跨度为50米，悬挑长度在10~20米之间，完全由大跨度、大悬挑结构组成，给结构设计提出了极大挑战：这么大体量的多功能空间如何被架空？

在投标阶段时，斯蒂文·霍尔事务所就已经与中国建筑设计研究院结构工程师一起对结构进行了专门的研究。他们首先考虑了通常大跨度建筑的首选——空腹钢桁架结构，却发现虽然这一结构体系保守成熟，施工难度低，但是造价昂贵且杆件截面偏大，影响视觉效果，与建筑的设计理念不符。

此时，桥的概念为结构设计师带来了灵感：桥梁能够跨越很大跨度，不但能够最佳表现建筑“漂浮”的形态，还能大大降低造价。设计师首先参照了连续钢桁架的桥梁结构，并试图将桥梁与钢桁架建筑结构相结合，设计出第二轮结构方案——带有斜撑的预应力钢桁架结构。这一轮结构方案虽然受力性能良好，但大面积的斜撑对建筑使用功能影响较大。于是设计师针对斜撑结构进行了简化，在第三次的方案中大幅度地减少了斜撑的面积。然而这又带来了新的问题，因为简化后的斜撑传力途径单一，无斜撑处易错动，所以必须大幅度增加钢桁架的体量确保结构的稳定性，这同样影响了建筑的使用。这时，设计师大胆地加入了预应力斜拉结构，利用斜拉桥索塔靠拉索斜拉的结构原理，设计出第四轮方案——“预应力斜拉结构＋简化斜撑钢桁架”。由于斜拉结构能够使结构变形、杆件弯矩、杆件剪力大幅减少，能够大量减少材料用量。

设计师将方案继续深化，力图最大化地利用斜拉结构的优越性，并进行了大量的可行性研究。最终的结构方案中，主体结构采用了国内较少采用的“混合框架＋拉索结构体系”。这是一种在桥梁设计中有所采用的结构形式——由底层钢结构及预应力拉索将结构竖向重量传递到主要竖向支撑构件（核心筒及落地墙），侧向荷载通过水平楼板传递到核心筒和落地墙。由于建筑平面狭长且多分支，为加强各筒体之间的结构协同工作，保证重力作用下斜索拉力的有效传递，结构工程师还在底层和顶层楼屋面平面内设置了水平交叉斜撑，以此加强楼屋盖面内刚度，并兼作承重梁。在后期深化设计中，钢梁首层支承的混凝土柱改为钢管混凝土柱，拉索与筒体、墙、柱连接处，均埋入型钢梁、型钢柱，以适应施工过程中结构变形和索节点锚固要求。从受力关系上看，相对于传统结构体系的“受压构件”，索结构的“受拉”传力更为清晰直接，在建构关系上也更为明确；从结构工程来看，建筑被“抬起”和“悬挑”起来，极具创新地对受力关系进行了重新审视。

方案不仅充分利用索的抗拉能力与混凝土的抗压能力，解决了结构的难题，而且比传统巨型钢支撑结构节约投资约8 000万元。

针对最终的结构方案，斯蒂文·霍尔如此解释了当时自己选择该结构的原因：“它使建筑的立面更神秘”。的确，拉索结构与混合框架的结合最大化地释放出自由空间，完全没有视觉上的阻碍，确保了建筑内部空间的连续性和流通性，完美地诠释了设计理念。

深入：一个从未被建造过的创新结构

然而，这个创新性的结构还从未被建造过，无论从设计方面还是施工过程都存在巨大的挑战。结构需要满足建筑舒适度的要求，而斜拉桥的标准也不能够直接被用于室内的建筑。由于没有可参照的成熟结构体系，万科中心结构的设计过程与方法也必须进行创新，结构计算需要使用的软件、所需关注的节点、拉索和柱子连接的方式都与常规不同。在设计的过程中，结构工程师多次跟拉索、钢结构等制造厂商讨论研究构造形式，并针对拉索结构建筑在国内并没有明确的建造标准的难题，与建筑师的团队每周定期对方案深化讨论，同时在整个过程中与全国的顶尖专家进行研讨，最终的结构方案通过了全国“超限审查委员会”的审核。整体设计用了大约一年多的时间。

为了使建筑的安全性得到最大化的保证，结构方案经过了严格的模型试验。结构工程师制作出利用砂浆制成的建筑主体、用铜拉索模拟预应力拉索的整体结构模型，进行了风洞试验研究和模型振动台模拟地震试验研究，并制造了1:9的重要钢铸结构节点，进行节点的受力实验，对结构进行了大量分析工作包括弹性时程分析、弹塑性时程分析、温度应力分析、舒适度分析、防连续倒塌分析等，充分保证结构的安全性、经济性和和舒适性。在经过严谨的实验与大量的计算后，结构方案终于被确定。

但这只是实现“漂浮”大楼的第一步。针对具体施工方案，万科请来了各个专业的结构专家、设计师、工程师、施工方与建筑师及结构工程师从各个能够想象到的方面进行大量论证，包括钢索如何张拉、安装及运输。对于建筑材料的确定，也是经过反复斟酌，尤其是拉索的设计与制作。拉索结构起初被设计成由钢管制成的全钢结构，但是经研究，钢索结构的强度更高，虽然施工难度更大，钢索承受变形的能力更强，在强度范围内不会开裂变形，更胜于钢管结构。这时，钢索结构的设计出现了两种不同的方案：一种是采用大体量成品钢索，另一种则是使用多根细索组成的拉索结构。细索的好处是更换比较容易，重量比较轻，张拉小所以只需小体积的设备就可完成张拉，但是其质量完全依赖施工的工艺；成品索的质量更有保证，但是其体量大、施工难度更高。经过多番讨论，最后基于对拉索质量的重要性及张拉、锚固质量检测的可靠性的考虑，结构决定采用成品索。最终的预应力拉索采用了直径为7毫米、抗拉强度为1670MPa的低松驰高强度镀锌钢丝。分别使用了PES（C）7×265、PES（C）7×409和PES（C）7×499三种规格的成品钢拉索，共计120根，总重达290吨。最长索长为29.48米，单根最大重量7.5吨，其中7×499是国内最大规格的成品钢索。

施工：顺序与监控

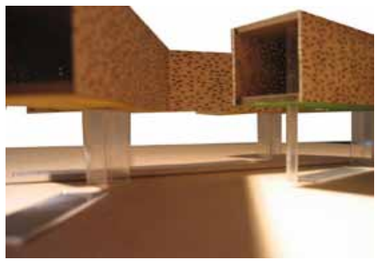
施工建造是最具有挑战性性且最重要的环节，选择合理的施工顺序不仅能够保证结构的安全，而且能够节约造价和工期。为防止斜拉钢索在应力张拉时竖向结构上端变形过大，建筑采用了“上部结构逆作法”的施工顺序：在上部结构先进行竖向结构及屋盖结构施工。将混凝土结构框架柱施工至顶层，搭设满堂架对顶层结构进行施工。在混凝土达到强度后拆除架体，进行斜拉钢索安装及预应力张拉，然后施工中间楼层水平结构。在上部结构逆作法施工过程中，除核心筒结构外，地下室结构与上部结构没有支撑和联系。

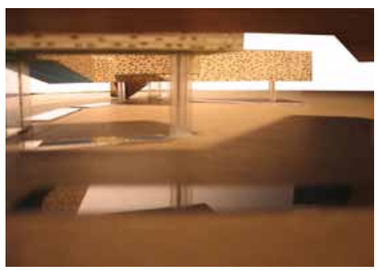
在施工的过程中，“斜拉桥”的特殊结构利用拉索承载上部结构，从而大幅度地节省了工程所需钢支撑架的用量。在国内大跨度且很高的结构施工中，钢支撑的用量甚至时常会超过建筑本身的钢量，极大地增加成本，而且万科中心的下部是地下室的顶板，若使用支撑架还需大面积加固地下室，加大工程量。设计师巧妙地借助索拉住上部结构，最大化的节约了钢材料与工程量。临时支撑架在预应力索未受力前搭设。上部楼层的荷载通过混凝土柱、钢柱传递到二层主钢梁的铸钢节点处，因此在主钢梁的节点处设置钢支撑。不过铸钢节点位置被投影到地下室顶板后并不能与地下室柱顶位置重合，因此临时支撑台架的布置需要根据地下室柱以及支撑点的位置变化，工程地下室的32个支撑点的支撑架形式均不相同。

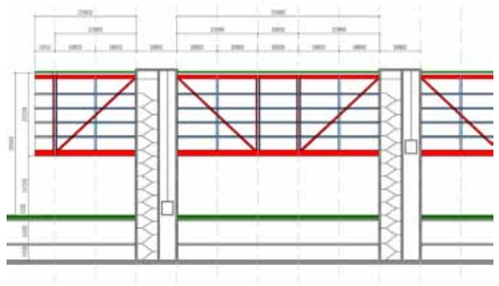
整个工程最大的挑战是完成预应力拉索张拉，以及在张拉预应力作用下索结构、钢结构及混凝土结构共同工作的协调变形控制。此类大直径预应力成品钢索作为主要受力构件在建筑结构中的应用，当时在国内外均无可借鉴的案例。万科中心结构创新性的设计决定了斜拉顿结构在安装之后，将会影响到整个施工的过程，所以拉索的受力状态的准确分析至关重要。钢结构比混凝土的适应能力会强，盖的时候会往下走，张的时候会往上走。施工顺序和步骤必须得到精确的计算和设计，控制形状，张拉的拉索变化不能太大，任何一点点误差都可能导致整栋大楼的变形和坍塌。施工全程都进行了拉索的监测，指导对拉索张力的调整，以保证结构安全。解决方法是在每根智能索索体内布置2根光纤光栅应变筋和1根光纤光栅温度筋。通过智能筋波长变化来监测实际索力，从而比较实际索力和理论索力的误差。变形监测采用瑞士徕卡TCA1800全站仪，全站仪棱镜的布设位置为索的上锚固点和下锚固点，对结构和构件进行全过程监控，保证这些构件在施工过程中的安全。

竣工

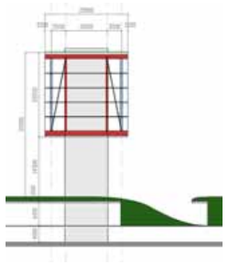
2009年9月22日，万科工程完成竣工验收。在短短的两年之内，世界首创“混合框架＋拉索结构体系”的多功能大型建筑“漂浮”在深圳大梅沙的地面上，将绿色空间最大化地回归给自然。 万科中心结构设计负责人，中国建筑设计研究院的肖从真博士说：“这个项目能够实现，最大原因是万科的鼎力支持。因为建筑结构非常特殊，需要大胆创新，如果没有业主的热情与支持，如此具有挑战性的结构不可能得到实现。”







建筑结构纵剖面
Longitudinal section of the building structure



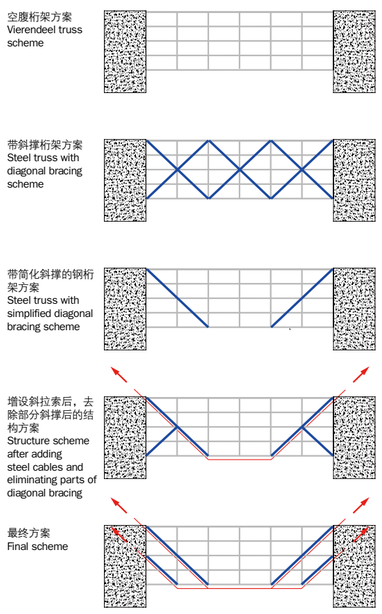
建筑结构横剖面
Cross section of the building structure

对页，上图：万科中心结构设计的总负责人、中国建筑设计研究院的肖从真博士站在模拟地震试验研究的振动台旁。
对页，下图：模型风洞试验。
Opposite page, above: Chief Engineer Dr.Xiao Congzhen is standing besides earthquake simulation test model.
Opposite page, below: Wind-tunnel test.

Design phase: five structure proposals

In the competition stage, the "floating" form of Vanke Center had been determined. The entire building "floats" in the air 10 to 15m above the ground, which is composed of large span and cantilever structures with the largest span being 50m and the length of cantilever between 10m and 20m. Thus it posed a great challenge to the structure design — how could this large scale multi-functional space be elevated?

In the bidding stage, Steven Holl Architects had carried out structure research in cooperation with the structural engineers of China Academy of Building Research. First they considered large span Vierendeel truss structure. Although it is a mature and conservative structure system with simple construction, the cost is high with large section of steel bars which would greatly affect the visual image of the building, thus the structure is not in conformity with the design philosophy.



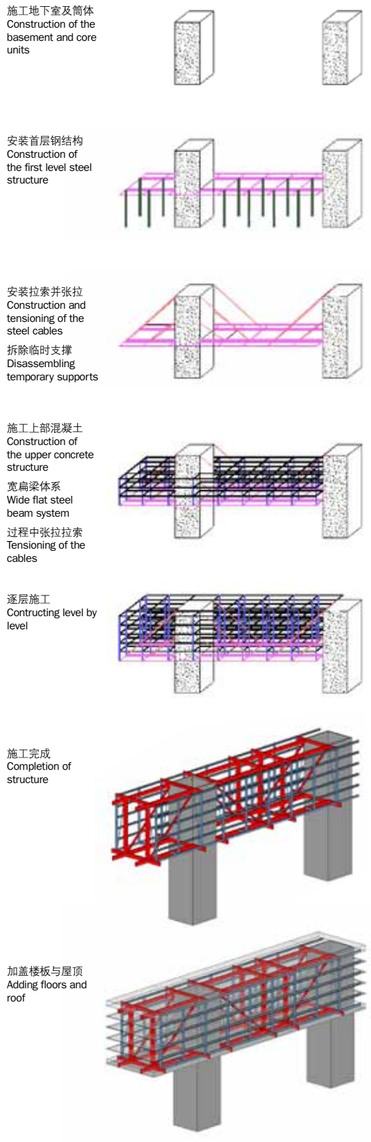
五轮结构方案
Five structural design schemes

Then, the concept of bridge provided inspiration for the structural engineers. Bridge can be of large span, demonstrating "floating" architecture and reducing the cost of construction to a large extent. The designers considered continued steel truss bridge structure at first and tried to combine bridge with steel truss structures, which led to the second structure proposal — pre-stressed steel truss with diagonal bracing. Although its load-bearing ability was sufficient, large amount of diagonal bracing would affect building functions. Therefore, the designers simplified the diagonal bracing structure. The third proposal substantially reduced the amount of diagonal bracing. However, this brought new issues. The simplified structure force was one-way transfer and elements without diagonal bracing could be easily disjointed, thus the size of steel truss had to be substantially enlarged to ensure the structural stability, which affected the use of building as well. At this moment, the designers innovatively proposed a combination of cable-stay bridge technology merged with steel truss frame as the third proposal — "pre-stress cable-stayed bridge structure + simplified diagonal bracing steel truss". Since the cable-stayed structure can reduce structure deformation, bending moment and shear force substantially, resulting in the reduction of material to a large extent.

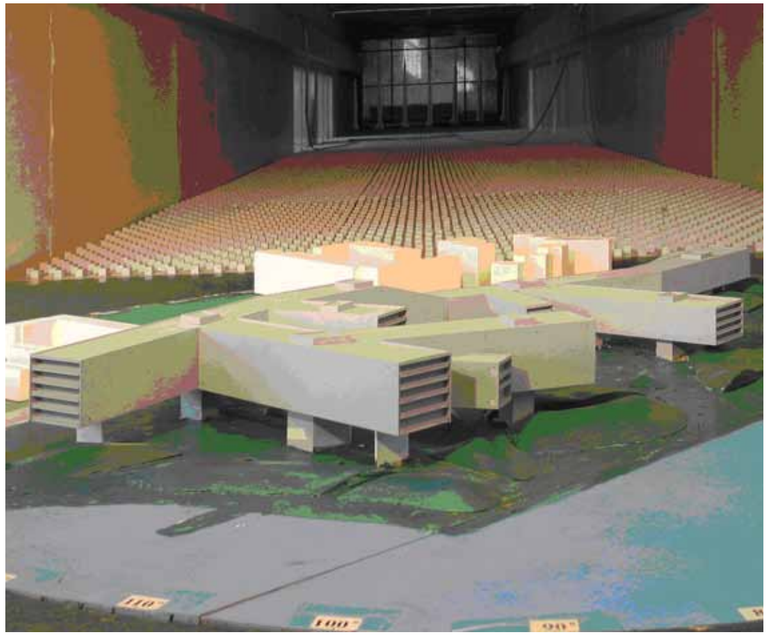
During design development stage, the designers strived to take advantages of cable-stayed structure and carried out a large amount of feasibility researches. In the final structural proposal, the main structure used "mixed framework + cable-stay structural system", one of its first in China. It is a structure in bridge design — transmitting the structural vertical weight to the main vertical supporting components (core areas and wall from ceiling to ground) through bottom steel structure and pre-stressed cable, whereas the lateral load would be transferred to the core areas and landing wall through the horizontal floor slabs. Due to the long and narrow architectural plan with spaces branching out, in order to intensify the structural cooperation of core areas and ensure the effective transmission of tension under gravity, the structural engineers set up horizontal cross bracing in the bottom floor and the roofing of top floor so as to intensify the inner stiffness of the cover and double as the bearing beam. In the further development design stage, the concrete column supporting in the first layer of the steel beam is changed into steel tube concrete column and the joints between the cable, core areas, wall and column are embedded into the steel beam and column in order to adapt to the structural transformation during construction and meet the requirements of cable node anchoring. Compared with the "compression member" of the traditional structural system, the tensioned force transmission of the cable structure is more distinct and direct with clear construction relations. In terms of structural engineering, the architecture is "lifted up" and "cantilevered", providing a review for the force relations in an innovative way.

The proposal not only takes full advantage of the anti-tension ability of the cable and the anti-compression capacity of the concrete, which solve the difficult structure problems and save an investment of nearly 80 million RMB than the traditional mega-steel supporting structure.

Steven Holl gave such an explanation of his reason to select the final structure proposal, "it makes the building façade looking mysterious." Indeed, the combination of cable and mixed framework freed up space without any visual obstacle, ensuring the continuity of the inner space of the building and interpreting the design concept perfectly.



结构施工过程示意图
Structure construction process diagram



Development: an unprecedented innovative structure

However, the innovative structure had never been built. There were huge challenges in terms of design and construction. The structure must meet the demands of comfort, and the standards of cable-stayed bridge shall not be used directly for architecture. Owing to the lack of mature structural system for reference, the design process and methods of the Vanke Center had to break new ground. The needed software for structural calculation and the connection ways of nodes, cables and columns are different from the common practice. During the design, the structural engineers went through repeated discussions with the manufacturers of cable and steel structure on structural forms, and made further discussions with the architects on a weekly basis given that there was no definite domestic construction standard for the buildings of cable structure. Meanwhile, they held seminars with the top national experts during the entire process; finally the structure proposal was approved by the national "Expert Panel Review Committee". The whole design phase lasted over one year.

In order to guarantee the maximum safety, the structure proposal went through rigid model trials. The structural engineers of China Architecture Design Institute created the structure model made by mortar and copper cable (to simulate pre-stress cable), carried out the wind tunnel experiments and simulated earthquake tests, as well as produced 1:9 steel casting nodes and launched node force experiment. They conducted many structure analysis include elastoplastic time-procedure analysis, temperature stress analysis, comfort level analysis and continuous collapse prevention analysis, in order to ensure the structure safety, economy and comfort. Through rigid experiments and largr amount of calculation, the structure design was finalized.

However, this was only the first step to make the "floating" building come true. Vanke Group invited many other professional structure experts, architects, engineers and construction experts in cooperation with the professionals of Steven Holl Architect and the engineers of China Academy of Building Research, to carry out many discussions on each imaginable aspect including the tensioning, installment and transportation methods of steel cable. The selection of architecture material also went through lots of studies, especially the design and manufacturing of cable. At first, the cable structure was designed into a steel structure made of steel tubes, but research showed that the steel cable is of higher intensity and greater ability of bearing the deformation, which is superior to the steel tube. Although harder for construction, it is free from cracking and deformation within the intensity limit. At this point, the design of steel cables had two different proposals—one was to adopt pre-made steel cable of large size, the other one is cable structure made of many thin cables. The benefits of thin cables lie in its easy changeability, light weight and small tension; but the quality of the cables depends on the

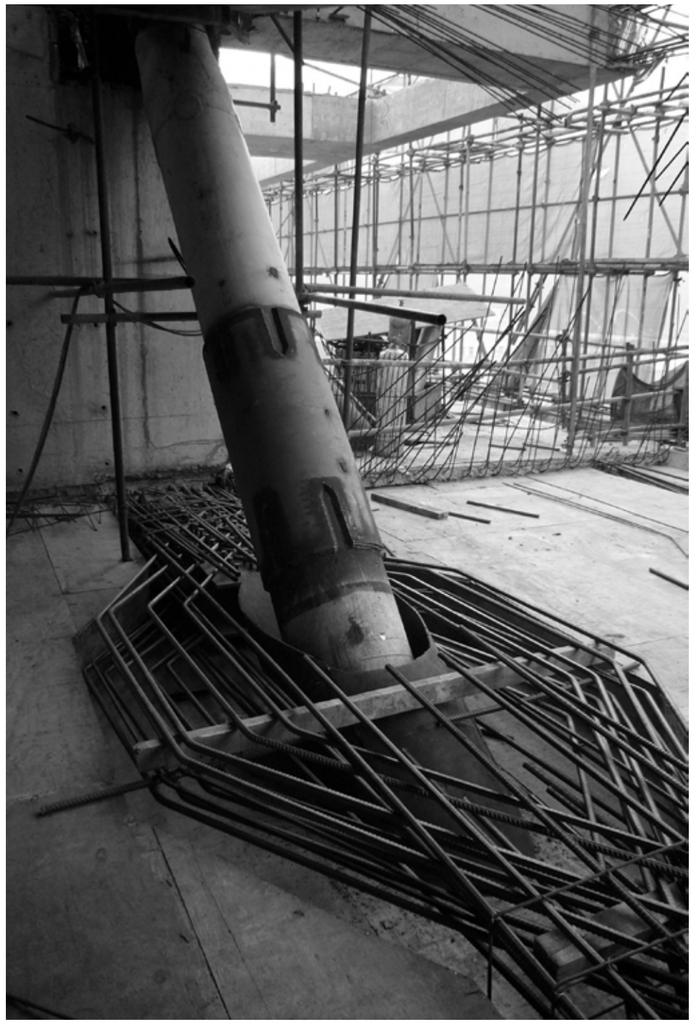


photo **Iwan Baan**

对页，从上至下：地下会议中心的“雾之井”在施工阶段；结构连接节点

本页，从左至右，从上至下：施工中的万科中心的外立面幕墙；景观“土丘”下的报告厅初见外形；“斜拉桥”的特殊结构利用拉索承载上部结构；建筑共使用了120根成品索，最长索长为29.48米，单根最大重量7.5吨；核心筒的连接钢节点；建筑主体采用了“上部结构逆作法”的施工顺序。

Opposite page, from top to bottom: Vapour court under construction; construction connection node.

This page, from left to right, from above to bottom: Curtain wall façade under construction; the concrete structure of the auditorium under the "hill"; the structure uses cable-stay structure to support the upper building; Vanke Center used 122 integrated cables in the building. The longest cable is 29.48 m, and the heaviest single cable is 7.5 t; Intermediate steel tensioning knuckle at core; "reverse construction sequence for the upper building structure" was applied.

photo **Iwan Baan**

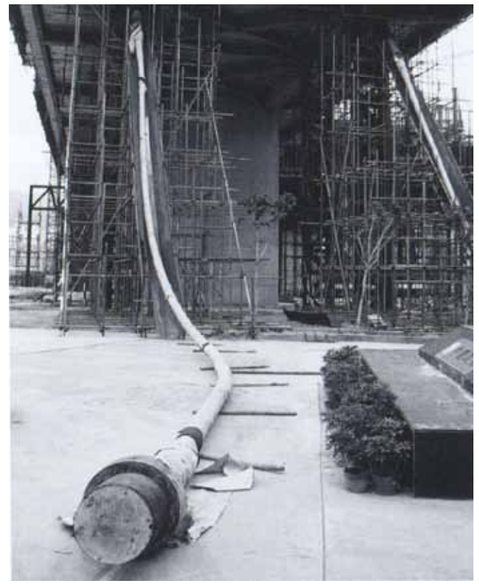


photo **Iwan Baan**

construction entirely. The pre-made cable is of high quality, but the size is large and construction is difficult. Through many discussions, pre-made cable was employed to ensure cable quality and reliability of tensioning and anchoring. Finally pre-stress cable used galvanized steel wire of high intensity with diameter of 7mm and anti-tensioning intensity 1670 MPa. Three pre-made steel cables were employed — PES（C）7×265、PES（C）7×40 and PES（C）7×499, 120 bunches in total with the overall weight of 290 M/T. The longest cable is 29.48 m，the heaviest one is 7.5 t，among which 7×499 is the largest steel cable used in China.

Construction: sequence, supervision and control

Construction is the most challenging and important part. Correct construction sequence would not only ensure the structure safety but also save the cost and time of construction. In order to prevent over-deformation of the upper part of the vertical structure at the time of pre-stressing of steel cable, "Reverse Construction Method" of the upper structure was applied for the architecture. This means carrying out the construction of vertical structure and roofing of the upper building at first by constructing the concrete framework columns to the top storey and setting up supports to construct the top floor structures. Once the concrete is ready, builders removed the frame, installed the cables and carried out cable pre-stressing process, then built the horizontal structures of the middle floors. During the "Reverse Construction Method" of the upper structure, the basement structure did not have any support with the upper structure except core area structures.

During construction, cables of the "cable-stayed bridge" structure would be used to support the upper structure, substantially reducing the amount of steel frames needed. In China, for structures of large span and height, the amount of steel supporting frames often exceed the amount of steel used for the architecture itself, which leads to a sharp increase in cost. What's more, the bottom part of the Vanke Center is the basement top plate. If supporting frame were adopted, the basement had to be strengthened to a large scale, which would increase the amount of work. The designer wisely took advantage of the cable to support the upper structure, reduced the steel and construction. The temporary frame would be set up before the pre-stressed cable was installed. The loads of upper floors were transferred from the concrete columns and steel columns to the cast steel joints of the steel beams. Therefore, the steel support would be set up in the main steel beams. However, since the joint projection on the basement top plate cannot overlap with the top of column of basement, the arrangement of temporary supporting frame varied with the location of basement columns and supporting points to the extent that the forms of 32 supports of the basement were different as a result.

The biggest challenge of the project is the pre-stressing of the cables, as well as deformation control of cable, steel and concrete structure under pre-stressing. The use of large pre-stressed steel cables in the building structure as the main supporting components was unprecedented in China and overseas at the time. The innovative design of Vanke Center features cable-stayed structure as the main element of construction; therefore, it is crucial to accurately analyze cable stress condition. The steel structure is of higher adaptability than the concrete. The construction sequence and procedure must take accurate calculation and design and keep the structure shape under control without deformation of the cable, for a slight error is enough to result in the deformation and collapse of the whole building. Beyond that, the entire construction process was under cable supervision which guided the adjustment of cable pre-stressing as a way to ensure the structure safety. The solution is to set up two FBG (fibber bragg grating) strain rebar and one FBG temperature rebar inside each intelligent cable. The wavelength variation of the intelligent rebar was used to supervise the actual cable force, so as to make a comparison of the errors of actual cable force and theoretical force. The deformation was monitored by Swedish Leica TCA1800 station, the prism of which located in the upper and lower anchoring point of the cable, supervising the structure and component on the whole so as to guarantee the construction safety of these components.

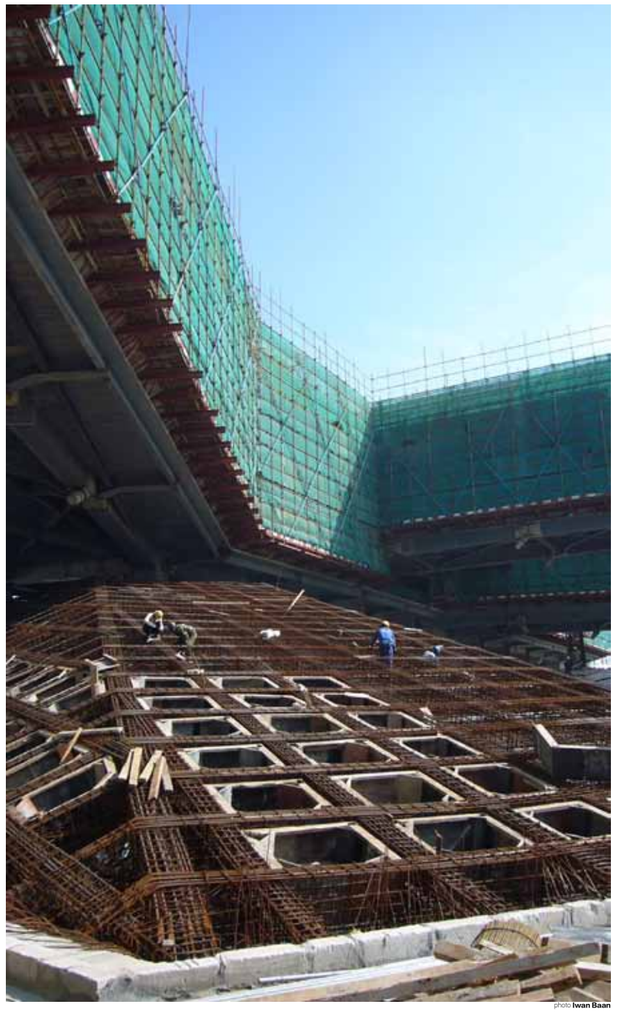


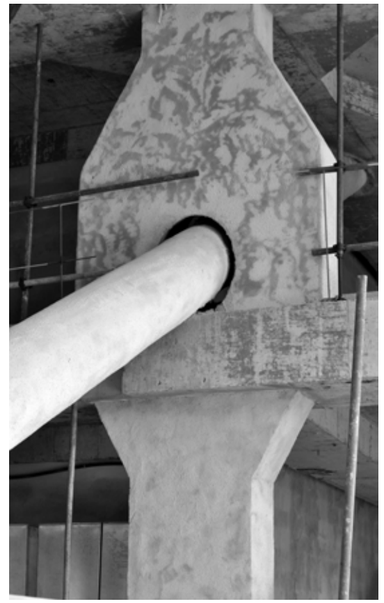
photo **Iwan Baan**

对页，从上至下：景观公园中的建筑结构；报告厅顶部正在进行施工。

本页，从左至右，从上至下：1:1的幕墙结构模型；总裁办公室的墙面施工；室内索柱结构；拉索穿过支撑结构；报告厅接近完成施工；室内的支撑柱体。

Opposite page, from top to bottom: Concrete structure intertwined with landscape; the top of the auditorium during construction.

This page, from left to right, from top to bottom: 1:1 curtain wall structure model; the interior wall of the president's office; large cable structure on the inside of the building; the auditorium near completion; supporting columns.



Completion

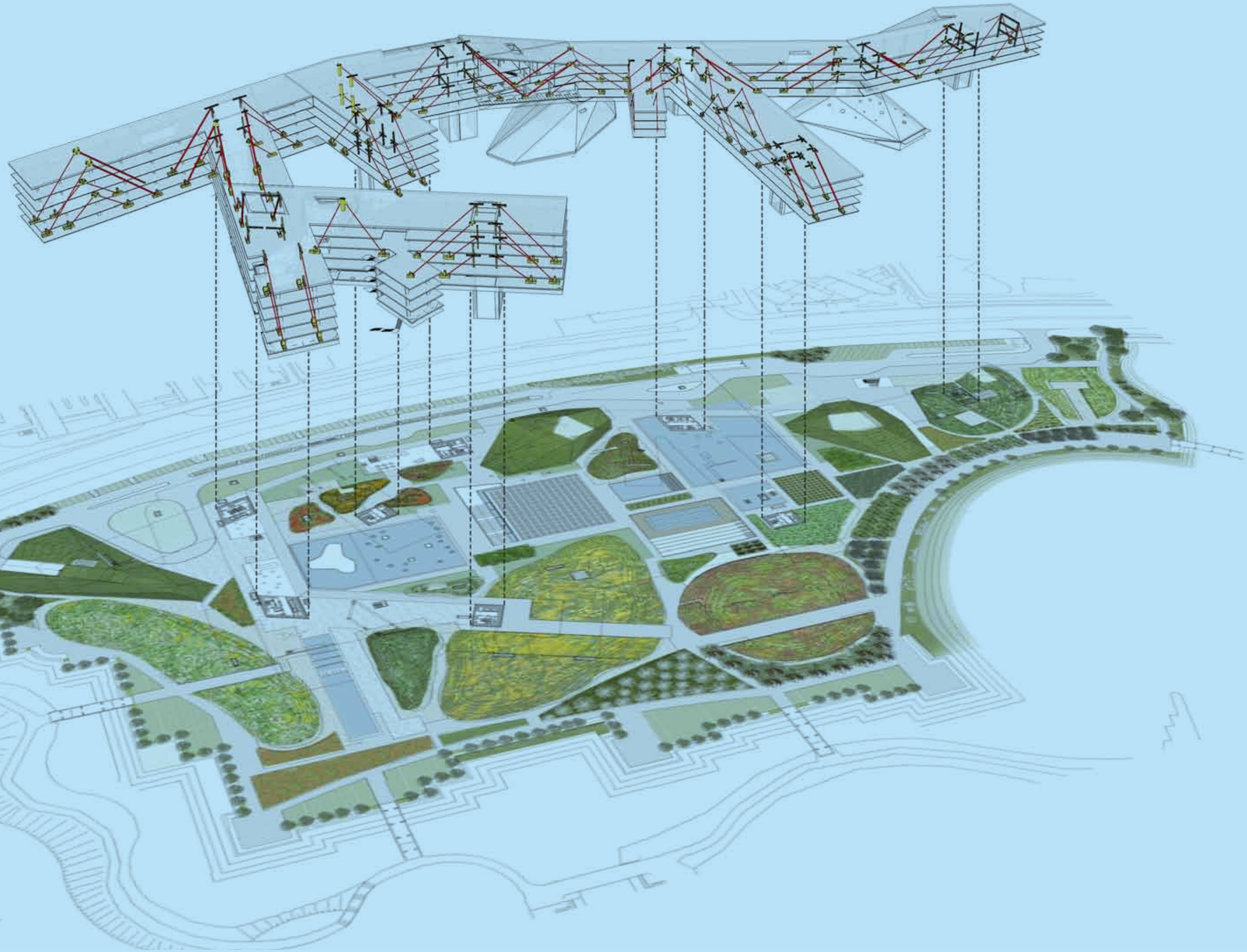
On September 22nd, 2009, Vanke Center project completed the final inspection. Within only two years, the first multifunctional large architecture of "mixed framework + cable-stay structure system" is "floating" on the ground of Shenzhen Dameisha, returning green area to the nature. Xiao Congzhen, chief structure designer of Vanke Center, Deputy Chief Engineer of China Academy of Building Research told us "The most important reason for the successful completion of the project is the support of Vanke Group. The structure is immensely unique and only the most innovative design can achieve the result. Without the enthusiasm and support from the client, this challenging structure would not be able to come true."

结构图纸：

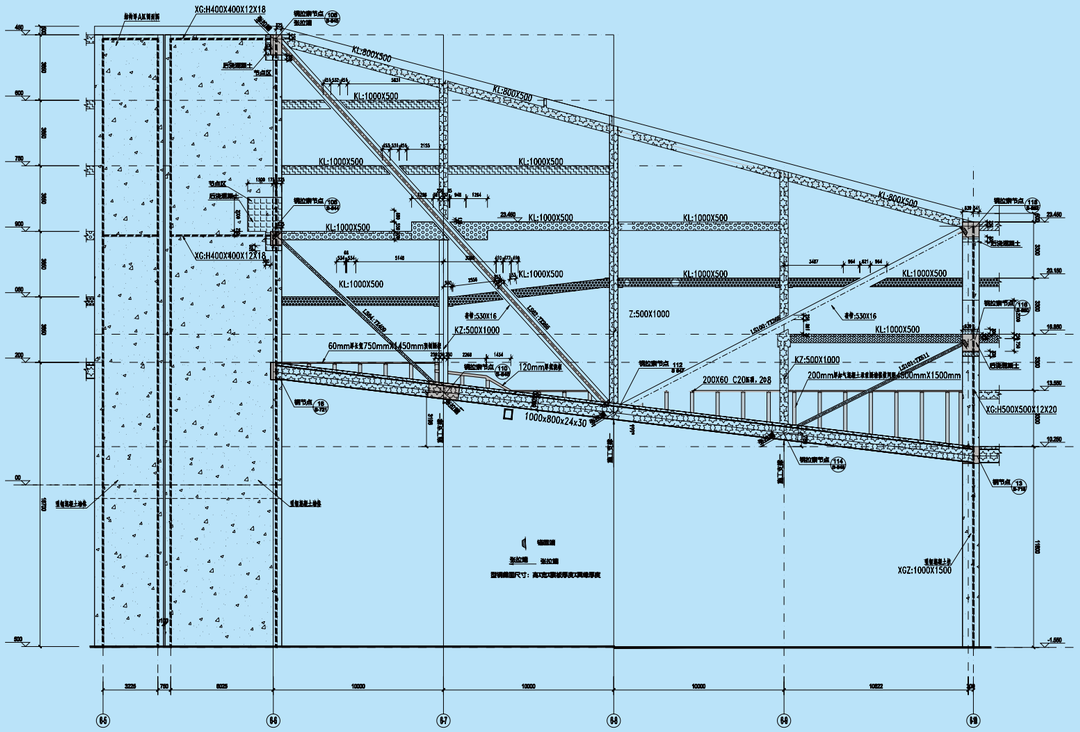
Structure Drawings:

万科中心的主体结构采用了国内较少采用的“混合框架+拉索结构体系”。这是一种在桥梁设计中有所采用的结构形式，由底层钢结构及预应力拉索将结构竖向重量传递到主要竖向支撑构件（核心筒及落地墙），侧向荷载通过水平楼板传递到核心筒和落地墙。

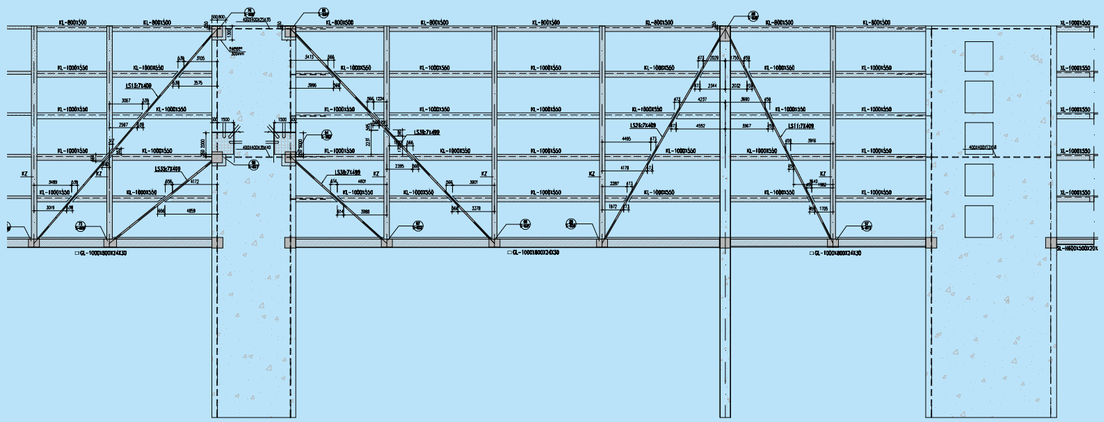
Vanke Center used "mixed frame with cable stay technology": the vertical weight of the structure is distributed to the underlying structure and pre-stressed cables to the main vertical supporting components — the core tube and floor wall, and the lateral load will be distributed to the core tube and floor wall through the horizontal floor. In order to strengthen the structural coordination among the tubes and ensure the efficient distribution of the cable's tensile force under gravity, the structural engineers have set up horizontal cross bracing in the plane of underlying floor and top floor roof with another use of spandrel girders to enhance the stiffness in the covering façade of the building.



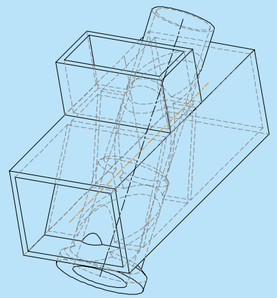
结构示意图
Structural scheme

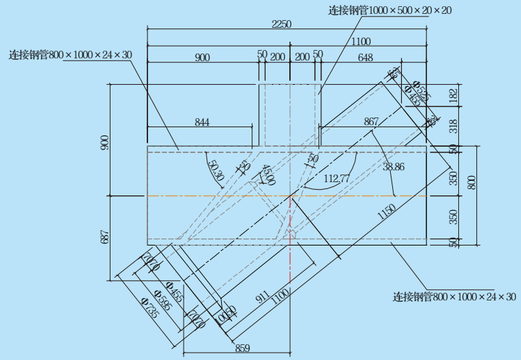


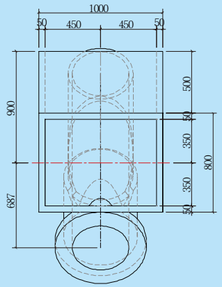
建筑横剖面施工图
Cross section construction drawing



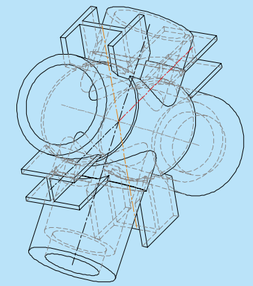
建筑纵剖面施工图
Longitudinal section construction drawing

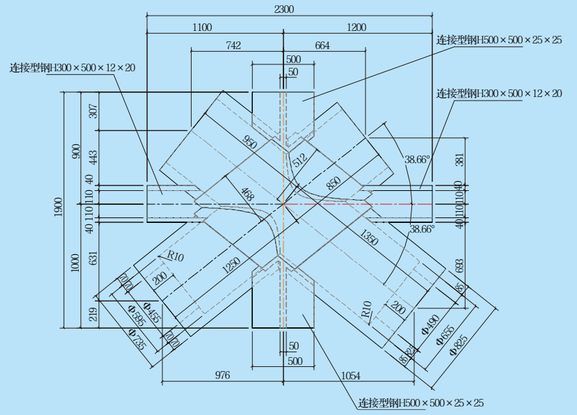


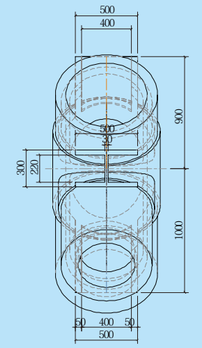




拉索铸钢节点I
Cast steel joint of inhaul cable I







拉索铸钢节点II
Cast steel joint of inhaul cable II

幕墙设计：

Curtain Wall Design:

幕墙独特的设计，是对建筑师“建筑于基地之情景意义”的又一次诠释

THE UNIQUE CURTAIN WALL DESIGN IS ONCE AGAIN AN INTERPRETATION OF THE ARCHITECT' S DESIGN PHILOSOPHY "THE SITE AND THE CIRCUMSTANCE SET UP A REALITY THAT BECOMES UNIQUE"

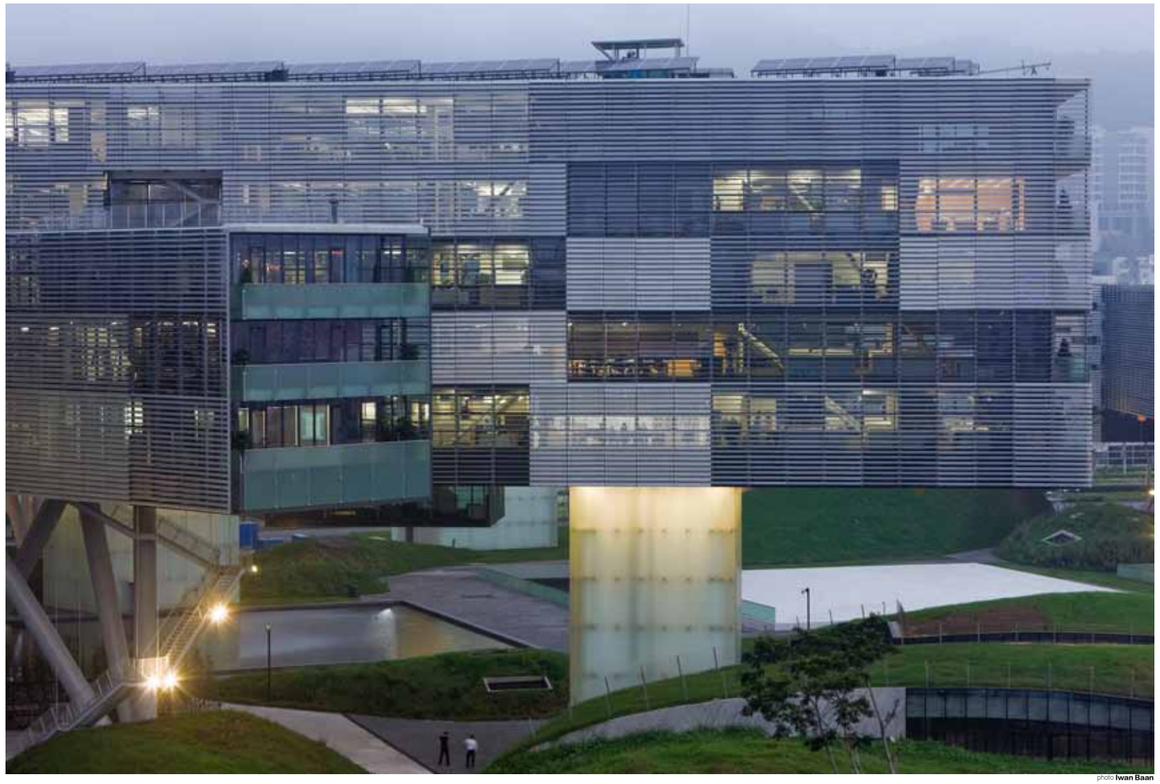


photo Iwan Baan

回溯建筑师的设计哲学，有两点不能不提及。其一，强调建筑与基地之间的关系交互。在建筑师看来，建筑的基地不仅仅是在设计初期为概念提供指引，更实质的应该是建筑的物质意义和抽象意义得以存在的基础。其二，强调光线、材料和细节。在一个已经锚固于基地的建筑中，光线、材料和细节直接造就了对建筑空间维度和时间维度的体验。在这样的基础上，方案中这座位于深圳亚热带气候区的房屋应可以在一年中长达8个月左右的炎热季节里，在经常性的暴雨以及曝晒中，具有极佳的独具特色的通风、采光和遮阳功能。

建筑的“皮肤”

想要实现建筑的设计理念，万科中心幕墙的形式，可以说是所有设计环节中的重中之重。

幕墙，即万科中心的建筑表皮，是作为建筑外部围护界面的物质系统；其设计的科学与否，直接决定着建筑与场所基地能否实现空气及光线的良性交互。在传统热带民居（例如云南傣家热带雨林竹楼）中，人们常常使用竹条搭接编制的多空墙来充当建筑墙体，这种布满洞隙的轻薄墙体既保护了室内使用者受到太阳眩光的强烈照射，同时保证了房屋内部的通风。为了达到类似的目的，在现代建筑里，建筑师常常采用预制穿孔铝板，通过调节铝板的厚度与孔径的关系，引导建筑表皮在在不同时段的不同的阳光角度下 “遮挡阳光”或者“导入光线”。遵循着类似的思路，建筑师有了关于建筑表皮的初步设想。

“椰树叶”的灵感

在第一次勘察地块时，斯蒂文·霍尔曾随手捡起了一片散落于基地中椰子树的树叶。叶子长长的弧形的叶面、窄窄的条状纹理给予了霍尔瞬间的灵感。霍尔随手画下草图，在他的草图中，万科中心的遮阳板已初具雏形。遮阳板剖面是弧线，布满或长或短的方形孔洞。可以设想得到，当亚热带的阳光透过孔洞洒入室内时，人们享受到的将是一片斑驳的清凉。

要想把这样浪漫的构思应用于平面呈树枝状、各个房间朝向不同的万科中心，很明显，还有更精准的技术要求需要考虑。

技术与结构

此时，根据事务所的要求，德国著名的Transolar公司介入了方案。他们根据万科中心不同功能区的不同朝向，结合深圳全年太阳运行的高度角，搭建了对应的建筑模型。在他们的精细化处理下，万科中心的幕墙最终主要采取了全玻璃幕墙、固定遮阳和电动遮阳的形式。

万科中心的26个面向的每一面都是依全年太阳能热量吸取为根据来计算。建筑的遮光百叶可随太阳光向调整。其中，属于全玻璃幕墙的T型钢隐框玻璃幕墙没有使用遮阳百叶，采用两种不同厚度的Low-E钢化中空玻璃实现隔热透光。可更换系统的玻璃板块在打胶房进行施工，固化后直接运至现场安装，避免了现场可能导致的隐患。

两种固定遮阳百叶玻璃幕墙及电动遮阳百叶玻璃幕墙构成了万科中心的大部分立面肌理。这些幕墙内侧均使用T

对页：幕墙设计的“灵感”来自于椰子树叶长长的弧形的叶面及其条状纹理。霍尔随手画下草图，在他的草图中，万科中心的遮阳板已初具雏形。

本页：万科中心幕墙金属的光泽、半透明玻璃的反射，还有自然光线。它们交织在一种互补的关系中，共同构成了一个场地的独特经验。

下页：幕墙1：1建造试验。

下页对页：幕墙连接结构。

Opposite page: On his visit to the site, Steven Holl was inspired by the form and texture of coconut leaves. He made a sketch of Vanke Center façade.

This page: The metallic surface of the curtain wall, reflection of translucent glass and direct sunlight intertwined together, creating a unique experience of the site.

Following page: Curtain wall 1:1 mock-up.

Opposite following page: Curtain wall connections.

型钢隐框玻璃，外侧百叶为铝合金型材，表面进行过阳极氧化处理后呈银白色，具有很好的抗腐蚀性能。在太阳光的照射下，百叶的颜色略有变化，给建筑物带来了微妙的美感。夏季，通过电动百叶覆盖，幕墙可以阻挡进入室内的阳光，减少太阳辐射，有效地降低室温；冬季，电动百叶水平展开，小的阻挡面可以让阳光充分地进入室内。同时，电动百叶的开启角度不同，可以引导控制风向和风力，满足不同季节的室内通风要求。而这一切都通过电脑程序控制自动实现。此外，为了实现平稳旋转，每片叶片的旋转轴都安装在其对应的固定座上，这样每两片叶片的传动形式为平面四杆机构，整个叶片的传动形式也构成了平面四杆机构，这种机构运动平稳、受力均匀、结构简单、外表美观、零部件的寿命久远。

独特体验

安装好幕墙后的万科中心，静谧而恢弘。百叶透出的太阳光影，抑或大斜度的晕光，抑或立体的明光，这让人有一丝联想起中国的古建，那些晨晖或夕阳下的窗棂、窗花，随着自然界呼吸的变化，流露出丰富的表情，斑驳迷离、似隐还现。金属的光泽、半透明玻璃的反射，还有一缕直射的阳光。它们交织在一种互补的关系中，共同构成了一个场地的独特经验。

这，可能是对建筑师的“建筑于基地之情景意义”的又一次阐释。

Looking back on the design philosophy of the architect, two points must be mentioned. The first is the relationship between architecture and site. For Holl, site not only provides guidance for design, furthermore it is substantially the basis on which architecture exists physically and philosophically. Secondly, light, material and detail are emphasized. They directly create architectural experience in spatial and time dimensions. On this basis buildings in Shenzhen, a subtropical climate zone, should possess excellent and unique ventilation, lighting and shading functions under frequent rainstorm and exposure to the sun, during hot seasons as long as eight months in a year.

The building "skin"

In Vanke Center, curtain wall is one of the most important design elements.

Curtain wall is the physical enclosure of the space; the design would determine the quality of interaction of air and light between architecture and site. In traditional tropical house, people usually use woven bamboo strips as walls, porous and thin, they keep user from strong sunshine as well as provide natural ventilation. For similar purpose, in modern architecture, precast perforated aluminum sheet is often used to "shield off sunshine" or "lead in light" through adjusting sheet thickness and perforation size. Steven Holl's initial concept of the architecture skin was perceived in a similar way.

Inspiration

On his visit to the site, Holl was inspired by the form and texture of coconut leaves. He made a sketch of Vanke Center façade. In that sketch, the façade is consisted of slightly curved louvers perforated with tiny square holes; subtropical sunshine would be filtered into the interior.

To implement this romantic concept of elongated leaf-shape design with building facades facing different directions, it was obvious that to implement the design, innovative technology must take place.

Technology and structure

The project invited renowned German company Transolar per architect's request. Transolar established building models of functional areas at different orientations with different angles of the sun throughout the year. Through careful calculation, curtain wall design was finalized with the majority consisted of glass, fixed louver and motor-driven louvers.

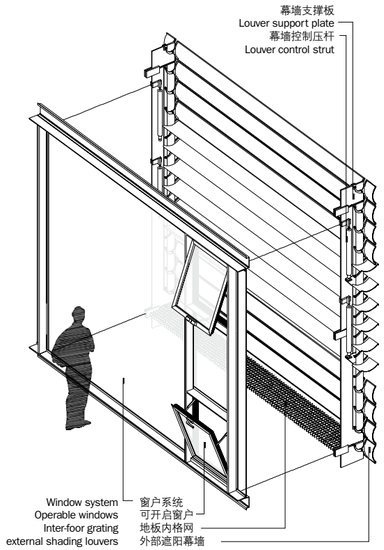
Each of the 26 orientations of building had been calculated according to solar heat absorption. The louvers can be adjusted with sun direction. Fixed glass curtain wall utilizes double Low-E glass in different thickness to achieve heat insulation and light transmission. Glass plate with interchangeable system were processed and made prior to installation on site to ensure safety.

The fixed and motor-driven louvers constitute the texture of Vanke Center. The glass used T-shaped hidden steel frame for the inner side and aluminum alloy for exterior which appears silvery white after anodic oxidation treatment on the surface, making it corrosion resistant. The colors change subtly in sunlight, bringing beauty to building. In summer, motor-driven louvers block excessive sunshine out of room, reducing solar radiation and room temperature; in winter, motor-driven louvers open up horizontally, allowing sunlight going into room with small amount of shading. Meanwhile different opening angles of louvers control wind flow to meet ventilation requirements. All of these are automatically controlled through computer program. The rotation axis of each blade is installed on a corresponding bracket, each pair of blades and thus the entire structure is operated in four bar mechanism. This type of mechanism is smooth in motion with simple structure, beautiful appearance and good endurance.

Unique experience

Vanke Center appears peaceful and magnificent with curtain walls as unique elements. The interplay of light and shadow, brightness and halo of sunlight, all remind people of ancient Chinese architecture— window frames and grilles revealing a wealth of expressions with nature changing. The metallic surface of the curtain wall, reflection of translucent glass and direct sunlight intertwined together, creating a unique experience of the site.

This might be another way of interpretation on Holl's design philosophy "the site and the circumstance set up a reality that becomes unique."

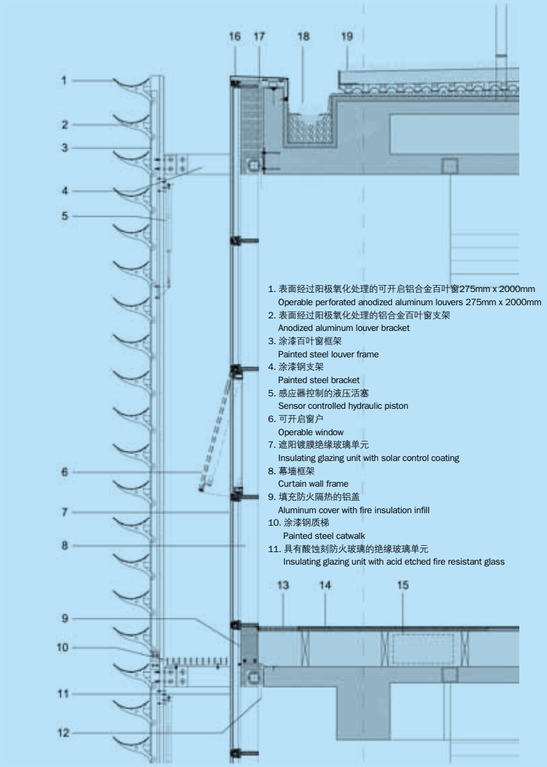


幕墙构造
Curtain wall detail

幕墙图纸:

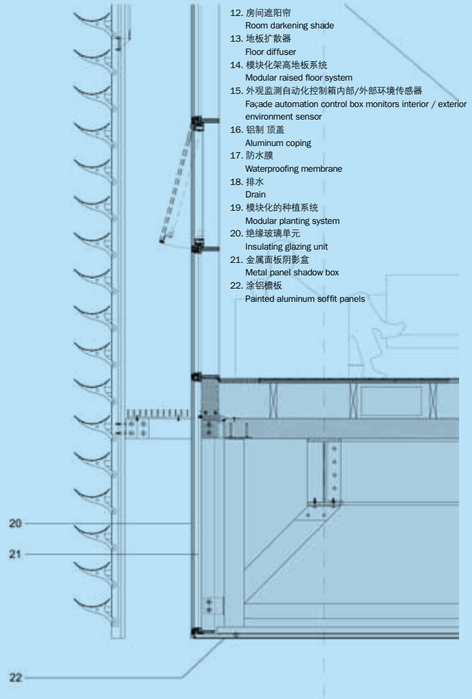
Curtain Wall Drawings:

万科办公室墙体女儿墙剖面细部
Vanke office wall section

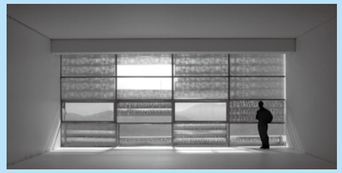


1. 表面经过阳极氧化处理的可开启铝合金百叶窗275mm x 2000mm
   Operable perforated anodized aluminum louvers 275mm x 2000mm
2. 表面经过阳极氧化处理的铝合金百叶窗支架
   Anodized aluminum louver bracket
3. 涂漆百叶窗框架
   Painted steel louver frame
4. 涂漆钢支架
   Painted steel bracket
5. 感应器控制的液压活塞
   Sensor controlled hydraulic piston
6. 可开启窗户
   Operable window
7. 遮阳镀膜绝缘玻璃单元
   Insulating glazing unit with solar control coating
8. 幕墙框架
   Curtain wall frame
9. 填充防火隔热的铝盖
   Aluminum cover with fire insulation infill
10. 涂漆钢质梯
    Painted steel catwalk
11. 具有酸蚀刻防火玻璃的绝缘玻璃单元
    Insulating glazing unit with acid etched fire resistant glass

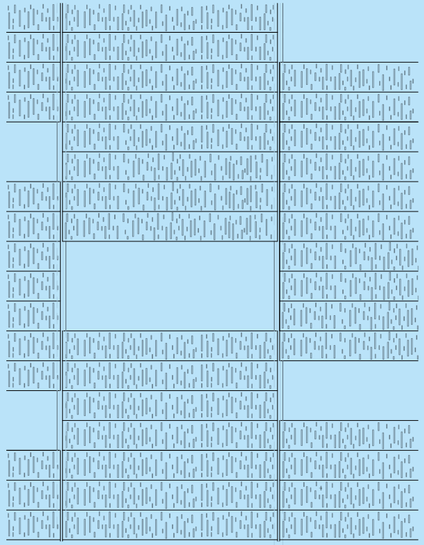
万科办公室墙体剖面细部
Vanke office wall section

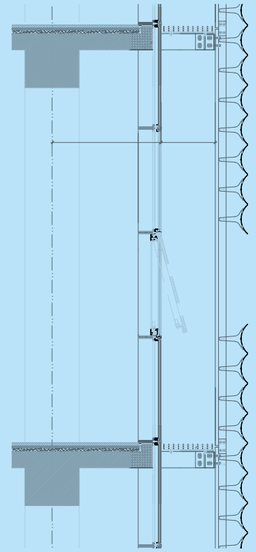


12. 房间遮阳帘
    Room darkening shade
13. 地板扩散器
    Floor diffuser
14. 模块化架高地板系统
    Modular raised floor system
15. 外观监测自动化控制箱内部/外部环境传感器
    Façade automation control box monitors interior / exterior environment sensor
16. 铝制 顶盖
    Aluminum coping
17. 防水膜
    Waterproofing membrane
18. 排水
    Drain
19. 模块化的种植系统
    Modular planting system
20. 绝缘玻璃单元
    Insulating glazing unit
21. 金属面板阴影盒
    Metal panel shadow box
22. 涂铝檐板
    Painted aluminum soffit panels

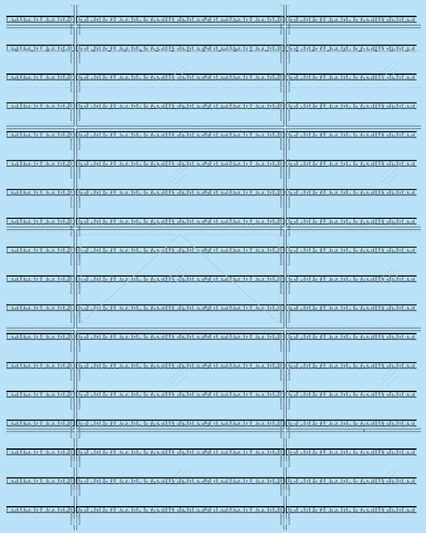


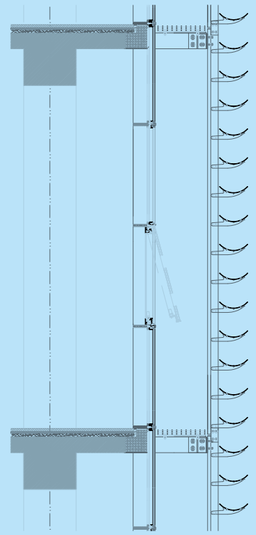
闭合固定百叶窗玻璃结构
Louvre Design I: Fixed closed louver with structural glazing





开启固定百叶窗玻璃结构
Louvre Design II: Fixed open louver with structural glazing





材料研究：

Materials Research:

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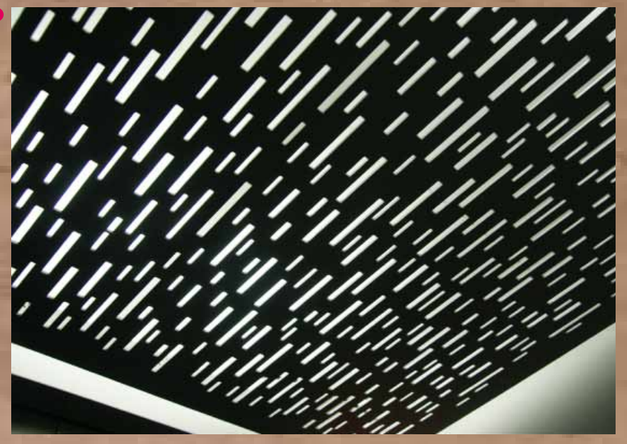

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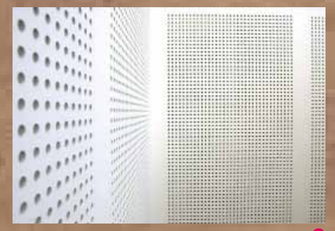

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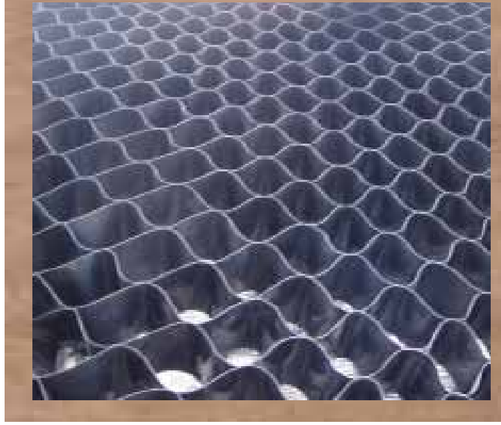

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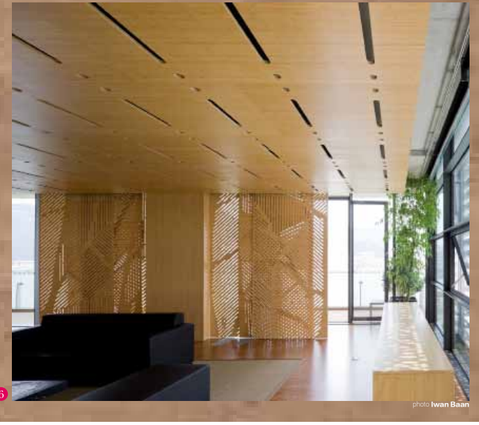

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photo Iwan Baan

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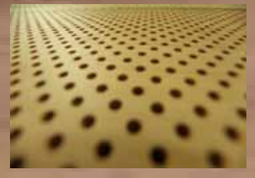
photo Iwan Baan



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12

photo Iwan Baan

1 **泡沫铝** 多孔的泡沫铝为会议中心带来了最佳的声学效果。该材料同样被运用于斯蒂文·霍尔的办公室中。由于中国尚未有这种材料，材料从加拿大进口。

2 **高耐久性清水混凝土** 通过分析滨海环境作用下影响混凝土结构耐久性的主要因素，所研发的高耐久性清水混凝土。

3 **拉法基丽声板** 在同样的吸声系数值的条件下，丽声板可提供针对人声更好的吸声效果。

4 **遮阳铝板** 多孔百叶在闭合状况下提供了主要的遮阳效果，它们在最大日晒下能减低70%的太阳能热量采集，而通过洞孔仍然能提供15%的透光率。

5 **土工格室**

6 **镂空竹墙面** 整个墙面的竹板采用了CNC数控技术进行镂空。

7 **穿孔竹材** 具有良好吸声效果的穿孔竹材。

8 **竹模板混凝土** 广东、广西等地区盛产竹材，竹板材就地取材，完成表面的饱满度较好，表现出竹材的自然纹理。

9 **室外竹材** 经过特殊技术加工的户外防腐竹材。

10 **竹材家具**

11 **刷白穿孔钢板**

12 **黑水磨石**

1 **Foam aluminum** porous stabilized foam aluminum brings the best acoustics effect to the conference center. Inside the conference center, the material is used in Steven Holl's office as well. It is imported from Canada since it is not produced in China yet.

2 **High durability water concrete** the development of this material is based on the analysis of main elements which influence the durability of concrete structures in littoral environment

3 **Lafarge acoustic board** in the same sound absorption coefficient condition, Lafarge acoustic board can provide a better sound absorption effect.

4 **Shading aluminium board** closed porous shutter provides the majority of shading effect. It can reduce 70% of the solar energy heat collection in the maximum sunlight exposure, but can still provide 15% of the light transmittance through the holes.

5 **Geotechnical lattice room**

6 **Hollowed-out bamboo wall** CNC numerical control technology is adopted for hollowing out the facade of the whole wall.

7 **Perforated bamboo** excellent sound-absorbing effect of perforated bamboo is in use.

8 **Bamboo template concrete** Guangxi and other regions are rich in bamboo, bamboo board uses local material and the plumpness of completed surface is better, showing bamboo's natural texture.

9 **Outdoor bamboo** outdoor anticorrosive bamboo processed with special technology

10 **Bamboo furniture**

11 **Whitened perforated steel**

12 **Black water grindstone**

竹材与万科中心

竹材是一种优质的建筑材料，色泽柔和、纹理 清晰、手感光滑、富有弹性，给使用者以良好的视觉、嗅觉和触觉感受;它重量轻、韧性好、强度高，可以被做成桁架来解决建筑中的大跨度问题。同时，竹材又是一种生态环保的绿色建材。它成材快，从竹笋到成材只需两三个月，生长周期是松木的 1/120。在使用期过后，材料可以100%被回收并再次利用。竹材是一种低能耗的建筑材料，当建造相同面积的建筑时，竹材与混凝土的能耗比1：8，与钢材的能耗比为 1：50 。

万科中心与浙江大庄实业集团有限公司(DASSO)合作，在建筑中大量运用竹材料取代木材，包括室内的地板、办公家具、墙面装饰以及室外阳台，并且利用数字化加工技术，进行了创新性的特殊加工。

从设计到实现

在深圳万科中心竹材元素的设计过程中。竹材设计师在方案初期就与万科和建筑师进行沟通协作，设计师需要在满足设计要求的同时，确保产品质量的稳定性。整个设计过程超过一年。

为了达到设计效果与生产加工完美结合，设计师对施工过程中的难题进行多次实验与论证。在万科中心的总裁办公室中需建造一个长达4米，却仅用4个钢角进行固定的长桌。原设计中桌面的内龙骨采用的是钢龙骨，但是加工实验中，采用钢龙骨的桌面加上500斤的力后，桌面会下沉而不会回弹。经过多次讨论与实验，设计师发现采用高强度竹材做龙内，这样不但可以解决回弹问题，而且不会影响外观。最终长桌的结构采用了竹材设计师的方案。

各种竹材的运用

在万科中心，仅是墙面就运用了多种不同的竹材。总裁办公室的竹墙面是非常特殊的，它是采用CNC数控技术，将整个墙面的竹板进行镂空，达到设计需要的效果。但在各会议室和地下空间的会议中心，墙面的效果基本采用穿孔竹材，因为在这些空间需要达到一定的吸声效果。在办公区的墙面则采用了普通的竹板进行装饰。

同样地，万科中心的家具也是根据各区域有不同的要求，如会议室大多采用了各种异形加工，表面也区别于传统竹材颜色的运用. 如万科中心前台的桌子，3mm的穿孔竹材，不但要染成黑色，还有与LED灯的结合，染黑色在竹材加工中是一项非常高的技术；而在室外阳台，由于是室外空间，对材料的防腐防霉性能要求很高，尤其是在深圳大梅沙，由于靠近大海，在抗盐碱性方面对材料也有很大的要求，普通的竹材是达不到要求的，故在阳台采用了特殊技术加工的户外防腐竹材。

数字化加工

万科中心在竹材的运用中跳出了传统竹材的加工范畴，在曲线外形和特殊加工方面，创新性的设计在竹材行业中未有先例，具有很大的挑战性。针对特殊切割，设计师全程采用数字化加工技术，利用CNC数控加工将设计图纸精确实现。

中国制造

万科中心采用的竹材，均为中国本土竹材。因为中国是最大的产竹国，最先进的加工工艺也在中国。万科中心对材料的选择充分体现了对自然和使用者的尊重。

上页：万科中心的建造运用了大量的竹材料，包括室内的地板、办公家具、墙面装饰以及室外阳台，并且利用数字化技术，进行了创新性的特殊加工。
本页：建筑采用了原生态且非常环保的竹模板饰面混凝土施工技术。
Previous page: Vanke Center utilized bamboo for many areas of construction, such as indoor flooring, office furniture, wall decorations, as well as outdoor balcony. The project also applied innovative processing technique to the material using digital technology.
This page: The building used ecological bamboo formwork finished concrete construction technology.

Bamboo is a high quality architectural material with soft color, distinct texture, smooth and elastic, which creates great visual image and sense of smell and touch to users. It is light weight, tough and dense; it can be made into a truss so as to solve the problem of large span. Meanwhile, bamboo is also a kind of green material with ecological and environment-friendly features. It only takes two or three months for bamboo shoots to grow up, the life cycle is 1/120 of that of the pine. After being used, the material can be 100% recycled again. Beyond that, bamboo remains an architectural material with low energy consumption. In terms of constructing the building of the same area, the consumed energy of bamboo is 1/8 of the concrete and 1/50 of the steel.
Vanke Center cooperated with Zhejiang Dasso Industrial Group Co. Ltd (DASSO), extensively used bamboo instead of wood in the building, including indoor flooring, office furniture, wall decoration and outdoor balcony. The designers developed innovative special processing technique by taking advantage of the digital processing technology.

From design to completion
During the design of bamboo elements for Shenzhen Vanke Center, the bamboo designers have communicated and cooperated with the architects and Vanke cooperation in the preliminary design stage. The designers needed to meet the design requirements as well as ensuring the stability of product quality. The entire design process lasted more than one year.
In order to achieve the perfect combination of design performance and production processing, the architects went through many experiments and discussions in regard to the construction. There is a four-meter-long desk fixed with only four steel angles in the president's office of Vanke Center. In the original design proposal, the keelson of the desk surface was steel keel; however, during the processing tests, the desk surface sunk permanently when a weight of 250 kg was imposed on the surface with steel keels. Through repeated discussions and experiments, the designer found out that the bamboo keelson of high intensity could solve the rebounding problem without changing the appearance. Finally, the design proposed by the bamboo designer was implemented.

Application of various bamboo materials
For Vanke Center, a variety of bamboo materials are used for the wall. The bamboo wall in the president's office is very unique, the bamboo plates of the entire wall is hollowed out through Computerized Numerical Control (CNC) technology. Whereas for various meeting rooms and underground conference center, perforated bamboo is used for the wall in order to absorb the sound. Beyond that, walls of the office areas are decorated by ordinary bamboo boards.
Likewise, the furniture of Vanke Center varies with the different requirements of each area. For instance, various profiled processing was applied for meeting room. Besides that, the surface color is also different from the traditional bamboo color. For example, the reception desk is made of 3mm-perforated bamboo dyed in black, with LED light installed, the dying technique is highly complex process. As for the outdoor balcony, the material must be anti-corrosion and mildew-proof, especially for Shenzhen Dameish area by the sea, it requires high saline-alkali resistance materials, which is impossible for the ordinary bamboo; therefore, outdoor anticorrosion bamboo materials with special technological processing were used for the outdoor balcony.

Digital processing
In terms of the application of bamboo materials, Vanke Center stepped out of the traditional scope. The innovative design in Vanke Center was unprecedented in the bamboo material industry, which was of great challenge. As for special cutting, architects have accurately realized the design drawings by applying digital processing technology in the whole process and CNC technology.

Made in China
The bamboo materials applied in Vanke Center are native materials in China. As the biggest bamboo producing country, China also has the advanced processing techniques.

建造大事记：
Construction Memorabilia:

预应力斜拉索安装-2008年3月。
December 2008, Installation of cables.

首次张拉中，施工人员用千斤顶拉紧拉索。
December 2008, the lifting jack is straining cables.

压力最大的环节
在完成预应力拉索张拉，以及在张拉预应力作用下索结构、钢结构及混凝土结构共同工作的协调变形控制中，采用此类大直径预应力成品钢索作为主要受力构件在房建结构中的应用，当时在国内外均无可借鉴的案例。
The biggest pressure
In the project, the pre-stress cable tension, the coordinated deformation control of the structure, steel structure and concrete structure under the influence of tensioning are of the biggest pressure. The pre-stress cable supporting building structure of the Vanke center used innovative construction technique.

2008年3月，上部结构逆作法。
March 2008, Reverse construction method was carried out.

2008年3月，上部结构临时支撑。
March 2008, temporary support of upper structure.

逆作法施工

中建三局采用了“上部结构逆作法”的施工顺序，在上部结构先进行竖向结构及屋盖结构施工，将混凝土结构框架柱施工至顶层，搭设清堂架施工顶层结构。在混凝土达到强度后拆除架体，进行斜拉钢索安装及预应力张拉，然后施工中间楼层水平结构。

Reverse construction method

The construction order of “reverse construction method of the upper structure” is adopted. In the upper structure, the constructions of the vertical structure and roof structure were carried out first. The concrete structure frame columns are constructed to the top layer with the full frame top layer structure set up. If the concrete has reached certain intensity, the frame shall be dismantled, the cable was installed and the pre-stress tensioning carried out, then the horizontal structure of the intermediate floors was constructed.

2009年11月，工程竣工后的全景。
November 2009, the panoramic view of the completed project.

2008年12月，清水混凝土饰面效果。
December 2008, Fair-faced concred finish .

氯盐环境的清水混凝土

滨海环境普通混凝土结构受海水以及海雾等氯盐环境“荷载”作用比较大，性能劣化影响严重，直接影响到结构耐用年限。同时本工程核心筒体、实腹厚墙及万科总部梁板柱部分对混凝土结构要求为清水混凝土饰面。针对以上问题，项目开展了研制能够在滨海地区推广应用的高耐久性清水混凝土的技术研究，成功解决了清水混凝土在滨海环境中推广应用的障碍，以利在滨海地区推广。

The fair-faced concrete in the coastal environment

The technological research of the high durable faire-faced concrete applied in the coastal region is carried out. Under the influence of the littoral environment, the main factor and other influential factors that have a bearing on the structure durability were analyzed and worked out. Based on all kinds of factors, the structure durability in the littoral environment is redesigned.

2007年7月地下室底板。
July 2007, Basement floor .

2007年12月地下室结构封面顶。
December 2007, structural roof-sealing of the basement.

各不相同的支撑架
这项工程中临时支撑胎架的布置需要根据地下室柱以及支撑点的位置变化，以至于本工程地下室的92个支撑点的支撑架形式均不相同，堪称为施工中的独特体验。

Different forms of support frame
The arrangement of the temporary support frame in this project varies with the location of the basement column and the supportive point. That is why the support frames of 92 supportive points of the basement in this project are of different forms, which can be recognized as the unique experience of construction.

斯蒂文·霍尔，斯蒂文·霍尔建筑事务所主持建筑师

Steven Holl, Principal Architect of Steven Holl Architects

Essay by Steven Holl

Horizontal Skyscraper

水平的摩天楼·斯蒂文·霍尔

深圳是中国，甚至是世界范围内发展最快的城市之一。1980年，深圳大约有8 000–9 000人，如今它的人口已达一千四百万，并且仍在持续增长。在历史上，深圳曾是一个小渔村，但在1980年5月，它被邓小平正式提名为“特别经济区”，这是目前中国经济复苏的开篇之笔。

与其所在的垂直的山地结构不同，深圳的城市结构正在向水平方向蔓延水平。有很多的公园和绿化。从市区向东走，穿过一条隧道，你就可以看到坐落在深圳大梅沙海滨公园的“水平摩天楼”正俯瞰着眼前浩渺的大海。

万科公司最初组织了一次设计竞标，很多设计单位都有参与。事实上一共有两次竞标，我们没有参与第一次竞标。设计任务包括写字楼、酒店、独立产权的公寓、会议厅和餐厅，很多参与竞标的设计单位都递交了不止一种建筑提案。

我们的方案是在一座热带公园上建造一座悬浮的水平摩天楼，竖起来可与帝国大厦媲美。作为一个混合型建筑，它囊括了公寓、酒店、写字楼、万科总部、一个会议中心，一个水疗中心，一间餐厅和一座可容纳500人的剧院。

我们建议把所有的功能都集中在一座建筑上，让甲方可以灵活改变酒店和公寓的空间比例，从而不同区域的功能也会相应发生变化。截至2009年12月，建筑外形部分完工，办公区也装修配备完毕，随后租户入驻，但当时甲方仍旧没有最终确定酒店和公寓的区域分配比例。

这将是中国南方第一个得到LEED白金认证的建筑。该项目占地6万平方米。在SWA的总体规划中，仅留有28 000平方米的景观面积。而在我们的规划设计中，通过在景观上增加建筑，我们将原有的6万平方米地块拓宽成7.5万平方米的绿色空间。由此我们实现了绿色空间的最大化，并将其开放成为城市主要的公共空间之一。目前，已经有来自附近社区的居民在这里聚集活动。

除了绿化面积，景观部分还采用了很多其他的元素，比如不同类型的透水路面，当地出产的鹅卵石、碎砾石、张开型节理、石子路、草坪和压缩细沙地面。这些材料可在二次排水前尽可能多地收集降水。同时，水池上的直接溢水装置掩藏在湿地草和莲花之中。整个系统可作为一个生物废料过滤器，同时满足景观区域对通风和灌溉的要求。灌溉系统不采用饮用水或市政用水。

建筑外表皮共有26个立面，每一面都基于全年可收集的太阳辐射进行了精密的设计。外墙的百叶窗可根据太阳的方位进行自动微调。有些百叶是水平固定的，有些百叶上的留有大小不一的开孔，而有些是由传感器进行动态控制，根据光照灵活开闭。百叶的设计草图是我在墨西哥的时候完成的。记得当时我正看着窗外的一片棕榈叶，我注意到了棕榈叶的形状，然后我就在想，能不能把百叶窗也设计成这种形状呢？这种形状的百叶可根据日照来调整闭合的方式，将进入室内的阳光剪裁成十分有意思的图案，就好像太匠的碎片。

通高的玻璃幕墙最大程度地满足了室内的光照，整个项目都使用了最新的高性能双层LOW-E玻璃外墙。和传统的外墙相比，这种外墙具有诸多的优点。90%的室内空间可以直接看到室外。我们在楼顶上安装了太阳能发电设备。在此之前，我从来没有安装过这么大的太阳能电池板，它能够提供大楼所需全部电力的12.5%。

在景观区域，我们也对可能的室外活动进行了不同的设想。电梯由巨型混凝土核心筒支撑，但为了满足所有的功能，我们不得不将所有的管道置于核心筒之外。我们使用喷砂玻璃覆盖在混凝土芯表面，中间安装了灯管，所以在夜间，混凝土芯也可充当照明设施。

我总是说，盖一幢楼有25%的钱要花在结构上，一个具有真正意义的建筑概念必然少不了对结构的精准诠释。

在悬浮的建筑主体之下，我们创造了具有360度视角的“深圳之窗”。大多数建筑物都有4个立面和一个屋顶——该项目的正面即是它第6个立面，而这一立面直接朝向地面的。对于一座水平摩天楼来说，这个立面才是最重要的。在深圳之窗，你就可以从这里步行沿着走廊向下走，然后从这里观看整块场地的360度全景。

该建筑的分支形式遵循了当地的风水。建筑整体坐北朝南，背靠山丘，视野开阔。你可以看到中国的南海就在不远处。周围大多都是较低的建筑物，所以在建筑35米的跟高以上你完

全可以尽览南海和环海的山峦。
对于这个项目来说，景观也是非常重要的部分。起初，我们计划把它设计成“海上涂鸦”式的风格，然而发展到后来，它更偏向于布雷·马克斯（Roberto Burle Marx）设计的花园风格。我们对这部分花园景观做了大量的研究。在不同的土丘上栽种不同种类的植物。绿化空间里都是我们悉心筛选的植物，但同时，我们在土丘下方也开辟了诸多的功能。如果展开一个山丘的纵截面，你可以看到里面有玻璃墙、餐厅、一个地下咖啡厅，通过加入城市公共空间的元素，我们可以看到景观内部设计的别具匠心。人们可以从所有的办公室、公寓和酒店中看到室外的景观。

我们不希望只是简单搭建一座面向海平面的建筑，我们希望建筑周围有足够宽敞的公共空间。按照我们的设想，11万平方米的空间可以分为地下和悬空两部分。这样一来，所有人都能够欣赏到海景，而所有的景观都可以成为公共空间，因而就形成了一个非常积极的氛围。
该建筑有20米高，当你站在这里时，它似乎就要消失了。建筑物的阴影总是在随着日照不断变化。再加上徐徐吹来的海风，建筑下方的景观区域就形成了一个小范围的气候带。与此同时，第六个立面的倒影投射在建筑下方的水池中，发出熠熠的光彩。
中标之后，我有些震惊。我们的方案设计队伍信心倍增。在竞标的过程中，我们遇到的问题之一就是桁架和早期出现的跨度问题。肖从真工程师，也是我们在中国建筑科学研究院的同事，建议将拉索技术与刚性混凝土框架融合起来，从而最大限度地增加张力，尽量减少钢材的使用，而建筑其余的部分则采用混凝土结构。这种概念从来没有被实现过，它完全可以被看作建筑界的一个难题。
我们使用的最大的电缆是7511。它是由直径为7毫米的511电缆交织捆绑而成的。抗拉强度为3 280吨，在中国目前的建筑施工中，这是第一次使用直径如此之大且带有最大抗拉强度的钢索。
我们还面对很多不可预见的问题，主要包括如何将建筑主体的拉伸负荷转移到混凝土结构上。要做到这一点，简单的钢材料是不够的，需要巨型铸铁进行多重连结才有可能实现。
框架结构完成之后，即开始浇筑楼层。因为在整个室内空间布置完缆绳后，需要通过缆绳来支撑悬空的底层楼面，然后才能够陆续增加其他的楼层。在这个过程中，我们使用巨型液压千斤顶来绷紧这些缆绳。在整座建筑中，四处遍布着这些有意思的大型可拉伸结构，它们穿过刚性混凝土框架，直到工程结束，我们都可以在开放的室内空间中看到这些细小的拉索。
当我知道提拉钢索需要穿过核心筒的中轴线时，我已明白这是一个非常与众不同的项目。

中标之后，我有些震惊。我们的方案设计队伍信心倍增。在竞标的过程中，我们遇到的问题之一就是桁架，和早期出现的跨度问题。最终，方案将拉索技术与刚性混凝土框架融合起来，这种概念从来没有被实现过，它完全可以被看作建筑界的一个难题

When we won the competition, I was kind of shocked. The scheme felt very ambitious. In the period of the competition, one of the problems was the problem of trusses, and, being haunted by those earlier spans. In the end, the design merged cable stay technology with a rigid concrete frame. This has never been done before; this is actually one of the most difficult architecfural problems in the world

Shenzhen is the fastest growing cities in China and possibly in the world. In Shenzhen in 1980 there were about 8 000 to 9 000 people, today the population is 14 million and continues to grow. Shenzhen was historically a fishing village, but in May 1980 it was formally nominated a "special economic zone" under the direction of Deng Xiaoping. This was the opening up of China's ongoing economic revival.
Shenzhen's urban fabric is spreading horizontally against a mountain backdrop. There are a lot of parks, planning with greenery. Moving east after you pass through a tunnel on a bay you arrive at the site of the "Horizontal Skyscraper" overlooking the sea at Dameisha.
The Vanke Corporation originally organized a competition with many different entries. In fact, there were two competitions, and we weren't involved in the first competition. The program is, offices, a hotel, condominiums, a convention meeting hall, restaurants, etc. Many of the competition entries proposed several buildings.
Our scheme, hovering over a public tropical garden, the horizontal skyscraper, as long as the Empire State Building is tall, is a hybrid building, including apartments, a hotel, offices, for the headquarters of Vanke, a conference center, a spa, and restaurants, a 500 seat theater.
We proposed all functions in one building, allowing the possibility to change how much hotel they want, versus how much condominium, so these functions can be moved according to how it develops. By December 2009 the entire shell was completed, and everything in the offices is complete and they moved in yet they still haven't fixed the amount of area that they want for a hotel, versus condominium.
This will be the first certified LEED platinum building in Southern China. The site is 60 000 square meters. The SWA master plan shows building it out and only having 28 000 square meters of landscape remaining. Our design, on 60 000 square meters, has our building above the landscape, and as a result we have 75 000 square meters of green space. We maximized the green space, and open this as a major urban public space. Already people in the surrounding community push baby buggies there, walk their dogs and play.
In addition to the planting area, several types of permeable pavement, local river stones, crushed gravels, open joint, stone pavers, grass, crete, and compressed sand pavers are being used. These materials retain a lot of the rainfall before secondary gutters. Direct overflow over the ponds is planted with marsh grasses and lotus. The systems function, collectively, as a biowaste filter, it aerates and irrigates the landscape. No potable or municipal water will be used for maintenance of the irrigation.
Each face of the 26 faces of the building has been calculated, based on a solar heat gain throughout the year, and its louvers are fine tuned to the orientation of the sun. Some louvers are fixed horizontally, some have apertures of different sizes, and some are dynamically controlled by sensors, opening and closing, according to the sun. The louvers are designed from sketches I made in Mexico. I was looking at a palm leaf on a window, and I noticed the palm frond’ s shape, and I thought why don’ t we reverse that shape and cut it into the louvers? These operate and open according to the sun, and then, it throws a very interesting pattern on the interior, that’ s really part of the sun.
The full height of the glass curtain wall brings daylight deep into all interior spaces, and the latest high performance glass coatings, double silver, low E, are used throughout the project. These coatings have several different advantages over conventional coatings. 90% of the interior spaces have direct views to the exterior. We have solar power on the roof. I’ ve never been able to build such a big solar array. That provides 12.5% of all the electricity needs in the building.
For nighttime, we're envisioning different activities happening in the landscape. These are enormous concrete cores that hold the elevators, but in order to pull down all the services, the pipes, the plumbing, and all that, we had to place them outside the cores. We use the glowing cores as night lighting. We used sandblasted glass and put the pipes between the concrete core and glass. They can service and access this space, which also becomes the night light of the project.
I always say that, 25% of the cost of a building is in its structure—so in a meaningful integrated idea, some structure has to be expressed.
We invented a "Shenzhen Window" a 360° window, which hangs below the soffit. Most buildings have four elevations and a roof—this project's face is in the sixth elevation, the sixth elevation being the underside. For a Horizontal Skyscraper, that's the primary elevation, the sixth elevation. In the Shenzhen windows, we drop below, you can just be walking along the corridor and drop down and get a 360° view around the site from here.
The building's branching form is about Feng Shui. The mountains are in the back, so the building is facing south and branching out to the better views, with the mountain skyline in the back. You can see the South China Sea in the distance. There are a lot of lower buildings, so if you go up to the 35 meter height limit, you can see over all these to the South China Sea and the mountains are around the back.
The landscape is very important to this project. At first, there was going to be what I called "a sea scribble," but that developed into something more akin to Roberto Burle Marx garden. We have many studies for the garden. The different mounds are articulated in different kinds of plantings. We sculpted the green space, it is all planted, but it is sculpted to contain functions below. When the mound is sliced, there is a glass wall, and there's a restaurant inside. There's a café underneath, so the way the whole landscape works is just below it, there are urban and public functions. The landscape can be viewed from all the offices, and apartments, and hotel.
We did not want to design with only some things looking at the ocean horizon and not very much public space left surrounding the building. With 1.1 million square meter, our idea was to have part of it underground, and part of it floating above. This way, everyone gets an ocean view, and all of the landscape becomes public space, and you create a very positive microclimate.
The building, 20 meters up, seems to disappear when you arrive at the site. With sun shining, the shadow is always changing. The sea breezes come under, and you have a real microclimate landscape below. The water gardens reflect the colored "6th elevation" of the building floating above.
When we won the competition, I was kind of shocked. The scheme felt very ambitious. In the period of the competition, one of the problems was the problem of trusses, and, being haunted by those earlier spans. The engineer, Dr. Xiao Congzhen, who we were working with at CABR, proposed to merge cable stay technology with a rigid concrete frame, thereby maximizing the tension, minimizing the steel, and putting the rest of the building in a concrete frame. This has never been done before, this is actually an architectural first.
The largest cable is called 7511. It's composed of 511 seven millimeter diameter cables woven together. The maximum failure load is 3 280 tons in tension, which is the largest diameter cable with a maximum failure loading ever used in China's building construction.
There were unforeseen problems that we faced, primarily how to transfer the enormous tension load back to the concrete frame. It couldn’ t just do be done with little pieces of steel. They became enormous joints of cast iron.
The whole frame was built, and then the floors were filled in afterwards. This was done because after putting the cables in, they have to pass through the whole interior space, and hold the bottom floor up first, and then we could insert the other floors. They used gigantic hydraulic jacks for tensioning the cables.
When I was told that the tension lines had to pass through the center line of the columns, I knew there was going to be something surprising, so this very interesting column condition that's happening all over the project, wherever these large tensile stresses have to pass through the rigid concrete frame. The final interior spaces are very free and open with these little force lines.

李虎，OPEN建筑事务所创始合伙人，曾任美国斯蒂文·霍尔建筑事务所合伙人。

Li Hu, founding principal of OPEN Architecture and former partner of Steven Holl Architects.

Essay by Li Hu

Return the Space to the Public

把空间还给公众·李虎

地上、地面与地下这样的空间处理划分，使得不同的事件在这里互不干扰，和谐共生成为可能，这种戏剧性已经在发生。由此，深圳的万科总部将和周围的社区乃至与深圳这座城市一起生长，一起演绎更多的可能性

The spatial division of over-ground, ground surface and underground makes different affairs coexist in harmony, which has already taken place. Therefore, , it will develop together with the surrounding community and Shenzhen to make more achievements

源自电话中的构想

让万科总部漂浮起来的构想，某种程度上应该说构思的形成在一个电话里。当时作为Steven Holl的合伙人，我应邀到现场进行考察，看到基地是一个近海的海滩，被周围开发的大小住宅及各类地产项目所包围，我当时的直接设想就是把这块地能留下给公众，而业主也有这种开放空间给公众的想法。所以在与Steven Holl沟通的过程中，一个漂起来的初步想法就这样自然而然地产生了。在大约一个月左右的时间里北京和纽约两地的反复推敲和研究下，我们的设计形成了初步方案，它就是这座水平漂浮的摩天大厦。

以开放姿态把更多空间留给公众的设计思想对Steven Holl事务所的设计来讲，不是第一次，其实已经在很多我们之前的作品里都有过体现。比如Linked Hybrid（北京当代MOMA）等；但从没有像万科总部的设计这样来得如此彻底。我们有这样的设计方案部分原因也源自对中国城市过度私有化的观察，这里的私有化不是单指个人拥有的私人财产，更多地反映为城市被分割为各个封闭社区，每个区块都是不同集团利益的集中体现。在城市的肌理上拆毁，在复制仿造中统一成某些模式，对公众都是以拒绝接纳的姿态出现。而万科的决策者愿意做这样与众不同的事，愿意把这块地毫无保留地开放给公众，这一点是难能可贵的，这个漂浮建筑和完整保留基地留给公众的构思也终于彻底地由一种愿望变为了现实。

起初的设想是把建筑像一个托盘一样吊起来，最后演变成了类似悬拉索桥与桥梁上的房子之间的关系。这种设计使得靠近海岸的万科总部悬挑起来面对大海，不仅可以看得见海景，而且有利于抵御台风等不良气候的侵蚀，另外，Steven Holl事务所的设计与其他方案相比一个很大的区别在于：其他的设计还处在规划一个地区，围绕着代表不同功能区域的几座建筑如何摆放的模式里，我们的设计是一个大体量的整体，使用者不必按惯例因各个分别建成的建筑其体块大小而纠结于如何划分各区域功能的矛盾与冲突，在这一过程里，我们的方案更关心的是建筑在今后的适应性，而不仅仅局限于建筑的本身和目前业主的要求，随着时间的推移与企业的发展，业主对功能会提出更多要求和改造，这种多个几何形体组合一体的整体设计将能提供更多可塑造的、可赋予新功能的余地。

互不干扰的戏剧性

在这个项目实施前，原来的基地是一片海滩，除了到海边享受可游泳季节的乐趣外，一无所有。而项目建成后，为这个地域带来的变化是为公众提供了一片有着丰富空间变化的公共空间，这里可以成为上演娱乐节目的舞台；可以成为体育运动的活动场所；也可以成为儿童的乐园。此外，值得一提的是：这里的国际会议中心也将是一个提供各种接待功能的对国内外开放的场所，这样多元化共存的社区形态对周围地域的开发也会带来深刻而长远的联动效应。另外综上所述，地上、地面与地下这样的空间处理划分，使得不同的事件在这里互不干扰，和谐共生成为可能，这种戏剧性已经在发生。由此，深圳的万科总部已不仅仅是一个企业的总部，它将和周围的社区乃至与深圳这座城市一起生长，一起演绎更多的可能性。

读者也许会感到惊讶，万科总部是我们设计得最顺利的一个项目。之所以这样说，是因为在中国，它是少有的，建筑师在业主给予设计过程以相对恰当的时间来完成的。并且，建筑设计中一个好的想法往往在表决中是不被大多数人所认可的，这在中外著名案例中并不罕见，即使国外目前也是如此。何况深圳万科总部是这样一个体量庞大的项目。而王石的坚持，支持了设计整体构思的实现。

万科这样做了，它要表达的更大意义在于告诉人们：一个企业总部原来可以这样做，在城市中，作为一个私营企业能做到的，更多其他的、更有公众意义的建筑为什么却不可以？这是一个值得思考的问题。

Concept from a phone call

To some extent, the concept of floating Vanke Headquarter came from a phone call. At that time, as a partner of Steven Holl Architects, I was invited to the site visit. The base is a beach surrounded by all kinds of residence and real estate projects. The first idea coming to my mind was to reserve this plot of land to the public, and luckily the developer shared the same idea with me. Therefore, during the communication with Steven Holl, a preliminary concept was conceived. What's more, through the scrupulous researches in Beijing and New York, the preliminary design proposal came into being after a month or so. It was a floating horizontal skyscraper.

Actually, it is not the first time for Steven Holl Architects to resort to the concept of returning more space to the public in an open manner. It is reflected in many previous works, such as the Raffles City in Chengdu. However, there is no design comparable to Vanke Headquarter, which gives full play to the concept. The reasons for us to come up with such a design proposal come partially from the attitude towards the over-privatization of Chinese cities. The privatization here doesn't only mean the personal property, but refers to plots of land divided in the city, which embodies the interests of different small groups. It demolishes the outdated and generates some patterns in duplication, pushing the public away. However, the decision makers of Vanke would like to do something different, making this plot of land available to the public without reservation. It is rare and commendable. Finally, the floating architecture came true with the concept of reserving the base for the public.

The preliminary assumption was to suspend the architecture like a tray. Eventually, it turned out to resemble a bridge supported by piers with houses on it. The design enabled the Vanke Headquarters to "float" nearby the sea. It can not only catch the beautiful view of the sea, but also prevent the damage of typhoon and other harmful climates. Besides, the proposal from Steven Holl Architects is different from other proposals which focuses on the planning of a certain area and try to arrange several architectures that represent different functional zones. Our design is an integration of large scale. The users can get rid of the conflict of dividing the function of each zone according to the general rules and the sizes of the separate architectures. We pay more attention to the adaptability of the architecture in the future without the limitation of the architecture itself and the requirements of the proprietor. With the development of the enterprise, the proprietor will put forward more requirements and ask for transformation in terms of the functions. This integrated design with several geometrical shapes will provide more room for flexibility and new functions.

Non-interfering dramas

Before the implementation of this project, the original base was a beach with nothing in particular except the fun of swimming in the seaside. Once the project is established, it offers a public space with rich spatial variation, acting as the stage for entertainment shows, the athletic field and the playground for children. Besides, the international conference center will serve as a place available domestically and overseas to provide all kinds of reception service. The community will bring about the far-reaching chain effect for the development of the surrounding areas.

To sum up, the spatial division of over-ground, ground surface and underground makes different elements coexist in harmony, which has already taken place. Therefore, the Vanke Headquarters in Shenzhen is not only the Headquarters, but it will develop together with the surrounding community and Shenzhen to make more achievements.

You may feel surprised that Vanke Headquarters is regarded as the most successful project that we have designed. This is because it is exceptional in China and the architect finished the job wonderfully within the time limit. In addition, as for the design of the architecture, a good idea usually fails to be recognized by most of the people involves, which is quite common in the famous domestic and overseas cases. In view of the large scale project of Vanke Headquarters, this is inevitable. However, Wang Shi, the chairman of the board of Vanke, stuck to the overall concept of the design.

More importantly, Vanke intends to tell us that if an enterprise can return the space to the public, why not other architectures with more public meaning do so? It seems that this question calls for public concern.

傅学怡，中建国际设计公司，董事总工程师
朱志荣，原万科中心项目经理部副经理

Fu Xueyi, Chief Engineer Director of China State Construction International Co.
Zhu Zhirong, Former Deputy Manager of Vanke Center Project Management Department

Interview with Fu Xueyi & Zhu Zhirong

Unprecedented Structure & Construction

创新性的结构与建造 · 傅学怡/朱志荣

请问您是在什么阶段介入项目方案中的？作为中建国际的结构设计总负责人，请您介绍一下当时您个人如何看待万科中心“漂浮”的创新性结构，并且最终方案是如何被确定的？

傅学怡：我在方案后期、初步设计阶段参与到万科中心的项目中。我加入时，方案后期的结构设计还采用的是巨型钢桁架结构跨越的方案。如果整个方案做下来，全部工程大约需要用到两万吨的钢材。10万平方米的建筑面积，大约是200公斤/平方米用钢。钢结构的造价大约为每平方米3 000元，且不包括混凝土结构、幕墙、机电及其他。业主提出费用较高，希望在保留建筑设计理念的情况下，将结构进行优化。

在这种情况下，我把项目看作一个挑战和机遇。当时考虑到如果不用钢桁架，跨越结构用斜拉桥吊起来，上部用混凝土结构，由于钢结构的造价是混凝土的很多倍，一定可以节省造价。

在设计的过程中，我们总共比较了四个方案：全部钢桁架结构、斜拉索配合上部钢结构、斜拉索配合上部首层钢结构和混凝土结构，以及斜拉索搭配混凝土结构。最后采用的方案是首层钢梁、斜拉索、上部是混凝土框架的结构。因为这个方案最为安全、经济和合理。整个项目的用钢量是6000吨，和原来2万吨相比，大幅度地节约了钢用量。最后方案大概节约了8千万元。

万科中心的结构为世界首创，其结构的设计与传统工程项目相比，都有哪些特点？

傅学怡：万科中心的结构和传统的一般工程有本质的不同。第一，其计算分析工作量特别大；第二，因为项目采用的是创新结构，所以需要经过一系列的审查，为了保证其安全性，还经过了风洞实验、震动实验和节点实验等多项试验。和一般的工程相比，投入的时间、精力和代价都不一样。计算量大约是同等规模工程的十倍左右，图纸也是大约十倍左右。光是索头节点就将近有一千张图纸，所以可以说工作量非常大。

设计完毕后的施工过程基本遵循了结构设计的方案，没对结构方案进行任何核心修改，算是比较顺利。

您认为该项目中最关键的部分是什么？

傅学怡：整个项目最关键的部分是工程的计算分析。结构创新性地把斜拉桥和土建建筑结构相结合，这里的斜拉桥和传统意义的并不一样，并非简单地搬用斜拉桥结构就可以盖房子。项目采用了很多结合自身要求的创新技术，包括建筑结构的平衡与配重、主动预应力的控制和分析，以及施工全过程的模拟、控制和分析，这些都是比较关键的，没有这些思想理念和技术，建筑也盖不起来。万科中心的施工过程是全程控制的，当然同时也需和施工单位、业主反复协调，包括工期和施工方法，但是大的原则是施工的每一步是在设计阶段就控制好，按照计划进行施工。因此最后的建造结果和我们期望的完全相符。

万科中心的结构最终成功地“漂浮”起来，您认为其中最值得借鉴的是哪个方面？

傅学怡：总结整个项目的设计，我认为最值得借鉴的是其大胆创新、细致科学的工作方法。建筑物像一个生命，必须结合身体的各个部分才能够做好。万科中心中的设计创新的理念和思想都非常值得学习。万科创新性的结构设计的论文还在美国ASCE结构工程学报、《建筑设计》等专业期刊进行了发表。项目告诉我们，科学技术的发展没有止境，科学知识的各个学科可以互补。

At which stage did you participate in the project? And how did you think of the design concept ? Please describe the process of structural design.

Fu Xueyi: I started in the Vanke Centre project between the late stage of schematic design and the early stage of architecture design. When I first joined the program, the structural design of the project used one mega steel truss structure. If the whole project was completed this way, an estimate of 20 000 tons of steel would be used. The construction area is appro. 100 000 square meters, and the consumption of steel per square meter is around 200 kilograms. The cost of steel structure is about RMB 3 000 per square meter, not including the costs of concrete structure, curtain walls and so on. The owners pointed out that the cost of the project is too high and hoped to optimize the structure based on the design concept.

In that case, I saw the project both a challenge and an opportunity. At that time I considered if cable-stayed bridge structure was used instead of the traditional steel truss structure to with concrete structure for its upper body, a huge amount of the cost could be saved as steel structure is many times more expensive than the concrete structure.

During the design process we compared four structure schemes in total: steel frames and mega steel-transfer structure; steel frames and cable structures; concrete frames and cable structures; composite frames and cable structures. The scheme selected a system consisting of inclined pre-stressed cables and rigid composite floor systems, as it is the safest, most economical and reasonable choice. The amount of steel used was 6 000 tons in total, saving a great deal compared with the 20 000 tons expected before. And the final schemesaved about RMB 80 million altogether.

The structure is unique and unprecedented, how does its design process differ from other projects ?

Fu Xueyi: The structural scheme design of Vanke Center started at the end of 2006 and finished at the end of 2007, lasting about one year. The structure of Vanke Center is essentially different from traditional design and engineering. First of all, the workload of its calculation and analysis was especially heavy; secondly, as an innovative structure it needed to go through a series of examinations as well as other tests, such as wind tunnel test, vibration test and node experiment, to ensure its safety. Compared with other projects, the time, efforts and costs invested in this project were all very different. The calculation work was about ten times of that of those general projects of the same scale; so was the amount of drawings required. The number of drawings we did for steel tensioning knuckles alone was approximately one thousand; therefore it' s reasonble to say that the workload is considerably heavy.

The construction process followed the structural design with basically no critical modification made, thus it went quite smoothly.

What do you think is the most critical part of the project?

Fu Xueyi: The most important part of this program is the calculation and analysis for the structure design and construction process. The structure creatively combines cable-stayed bridge and architecture construction. The cable-stayed bridge here is different from the traditional one; we can not simply take a cable-stayed bridge structure and build a house. The project employed many innovative technologies, including structural balance and counter weight of architectural construction, control and analysis of active pre-stress process of the cables, as well as the simulation, control and analysis of the entire construction process, without those critical ideas and technologies, the building can't be constructed. The construction process of Vanke Center was fully controlled. Of course, it was necessary to repeatedly coordinate with the construction units and the owners during the process for issues including construction time and methods. But the basic principle was that each step was well scheduled at the design stage, and carried out according to the plan. Therefore, the final construction results conformed exactly to our expectation.

The structure of Vanke Center successfully became "floating"in Dameisha, so what do you think is the most valuable lesson of this project?

Fu Xueyi: Looking back at the project now, I think the most valuable lesson is that to create a memorable and monumental architecture, bold and innovative spirit, as well as scientific working methods is fundamental. A building is like a living being, we must perceive it combining all of its parts to successfully build it. Vanke Center's design concepts and innovation are worth learning. The project showed us that the development of science and technology has no limit and scientific knowledge of various disciplines is complementary.

请问您何时介入万科中心的项目？作为当时项目经理部负责人，请您介绍一下在设计与建造的过程中，项目组织运作的的方式

朱志荣：我是在2006年8月份，方案竞标刚刚结束、项目进入设计阶段时加入了到万科中心项目中。当时，万科总部的运营核心为项目设置了关键时间点，包括方案具体建造周期、交付时间等等。除了建筑师、设计师团队和万科团队的内部资源外，鉴于项目方案的创新性和复杂性，万科还调动了多方专家资源，组织了大量的专题、专家论证会。

我们与各方的设计团队的沟通非常紧密。2007年5月份总包进场，我们就在现场设立了一个办公室，当时在工地办公室开会的频率非常高，所有团队都非常积极地推动项目进程。项目的建筑体系、绿色节能等方案采用了创新性的设计，同时经过针对超限、幕墙、防雷、LEED认证的专项评审，我们根据课题跟多方单位逐个进行沟通协作。在建造过程之中，现场还制作了大量的研究性的样板，进行了很多实践。

在项目实施的过程中，是否对原始方案进行了任何的修改？万科中心的建造过程有哪些特点？

朱志荣：万科中心最初方案中采用还是传统的建造理念，后来这个想法被颠覆了，项目创新性地采用了“逆作法”的建造手法。起因是我们在勘察工地、开始建造地下室时发现，如果利用传统建造模式，地下室的结构需要支撑上部5层的所有建造体量，这意味着地下室的承重荷载会非常大，并且也需利用大量的钢支架作为支撑体系。为了获得最优化的建造方案，设计团队进行了结构的计算分析和实验，万科也组织了多次专家论证会，对施工方法进行了研讨，最后的方案尊重了设计师的意见，采用了“逆作法”的建造方式。

然而对于工期和施工组织来讲，新的施工的方式带来了很大挑战。“逆作法”的建造方式包含了很多新的技术，并且增加了建造成本。施工中我们还遇到了很多意想不到的问题。例如，万科中心外部的幕墙系统材质非常“刚性”，如何做出解决方案以确保结构适应幕墙的变形，避免渗露等问题的出现，当时的设计工作也是非常紧张。

相对其他项目而言，万科中心的工作

量很大。无论是设计方、总包、还是建造团队，各个单位都最大化地做出投入，面对新的挑战，大家都积极想办法，在克服困难的同时，保证了建造品质。项目中协作团队很多，但是合作的过程都比较顺利。

您认为在整个过程中，项目压力最大的是什么阶段?

朱志荣：整个建造过程中压力最大的阶段，应该算是即将交付项目的这段时间，也就是最后的一两个月（2009年8－9月）。面对全新的结构和建造方式，工期带来的压力很大。后来万科的设计团队也都来支援这个项目，集团也支援了很多人力。最后的几个月基本都没有周末。我还记得当时上海来了一个同事，晚上加班的时候鞋子被水泡了，他没顾得上洗脚，第二天继续投入工作。

您个人如何看待万科中心？现在项目已经建成近三年的时间，您的看法是否发生过转变?

朱志荣：万科中心的设计独一无二，拥有很多标志性的理念。我在万科工作了11年，能够有机会参与这个项目，感到非常自豪。我记得2009年9月总部集团来进行了最后一次工程验证，完成后大家都非常激动。搬进万科中心后，除了感到很自豪，我还觉得建筑的设计从不同角度看都非常美，尤其是结合外面的湖水和自然景观，感觉非常好。2010年国际会议中心完成建造，2011年深圳万科入驻，我目睹了项目一步步的成长，也看到很多人来到万科中心参观。这座建筑本身是一个标志，其中有很多精心设计的细节，在工期要求下达到了建造效果，是非常好的结果。

As the project manager, at which phase did you participate in the project? How did the project operate ?

Zhu Zhirong: I joined the project in August 2006 when the bidding was just finalized and the project was entering into the design phase. Vanke Headquarters set the operational schedule including construction dates and delivery time etc. for the project. In view of the innovation and complexity of this project, besides the architects, designer teams and internal resources of Vanke team, the project also utilized many expert resources and organized a great number of professional meetings.

We maintained close communication with all of the design teams. In May 2007, the main contractor entered the construction site and we set an office on site. The frequency of meetings held in that office was extremely high, and everyone was quite proactive in promoting the project. This project's building system and sustainability design and so on are all unique; we communicated and cooperated with multiple units one by one according to each subject, such as curtain wall details, lighting protection and LEED certification. During the process of construction, a number of samples for researches were made on the site and put into practice for many times. Compared with other projects, the workload for Vanke Center was quite heavy.

Did the project completely carry out in accordance with the original scheme?

Zhu Zhirong: The initial construction scheme for Vanke Center still adopted traditional method, but this concept was overruled later, and the project innovatively employed ''reverse construction method ". The reason is that at the beginning, when we were investigating the construction site and starting to build basement, if we utilized the traditional building method, the structure of basement needed to support all building volumes of the five stories above, which means the load of the basement would be quite heavy and it would need a large amount of steel brackets as the supporting system. In order to optimize building scheme, the design team made calculation, analysis and experiments of the structure. Vanke also organized several expert discussion meetings to discuss the construction method. The final scheme respected the designer's opinion and adopted the reverse construction method. The new method changed the sequence of construction, after the vertical elements (i.e. load bearing columns and walls) and the first level steel structure completed, the concrete columns within the building and the roof structure were built, then cables were installed. However, the new construction method posed great challenge for construction schedule. The "reverse construction method" included a lot of new technologies, and increases construction costs. We came across many unexpected problems in the construction. For example, the outside curtain wall system of Vanke Center was very "solid", so the problem was how to propose solutions to ensure that the structure could adapt to the distortion of the curtain wall and issues such as leakage were prevented when we were already busy with the design at that time.

The designers, main contractors and construction team all put their maximum effort. All of them were actively searching ways when faced with new challenges; while overcoming the difficulties we also guaranteed the quality of construction. There were many collaborative teams in the project, but the process of collaboration was smooth.

What do you think is the most difficult stage of the process?

Zhu Zhirong: The most stressful stage is just before the completion i.e. the last one or two months (from August to October 2009). Faced with innovative structure and construction methods, we felt enormous pressure within the limited time. The design team in Vanke supported this project too. The Group also offered staff support. There were no weekends in the last few months. I still remember that one colleague from Shanghai had his shoes soaked when working overtime one night, but he didn't have time to wash his feet and continued to work the next day.

Personally, how do you think of Vanke Center? Have you changed your opinion on this project over these three years?

Zhu Zhirong: The design of Vanke Center is unique, and it owns many symbolic concepts. I have worked in Vanke for 11 years. I am proud of having this opportunity to take part in the project. I remember the headquarters inspected the project for the last time in September 2009, after which we were all excited. After moving into Vanke Center, except feeling proud, I also think the project great in reality, especially combining the lake and natural landscape outside, it feels so pleasant. The construction of International Conference Center was finished in 2010, and Shenzhen Vanke settled in it in 2011. I witnessed the growth of this project and also saw many people coming to visit. The building itself is a symbol that embodied many design details and achieved good results within the time limit.

朱建平，原万科企业股份有限公司总建筑师

Zhu Jianping, former Chief Architect of China Vanke Co., Ltd.

Essay by Zhu Jianping

An Unofficial Journal

万科中心的记忆·朱建平

造访建筑师的纽约办公室

霍尔有个习惯就是没事就画画。我跟他坐过几次飞机，他没事就掏出本子作画。

当方案还在设计阶段时，我去过一次他纽约的办公室，他专门拉着我去他的个人办公室看他的作品。我进去后，刚开始以为看到的是他的一个普通书架，结果走近一看，这些“书”全是他厚厚的水彩画本！我随便抽出一个来看，当时还装傻说“哦，这是送给我的吧，谢谢啊！”霍尔急忙说“no, no, no!”（笑，那可都是原作啊！）

当时霍尔还是挺重视我们的意见的。我当时在他办公室看见一个门，我当时问他“这是什么材料啊？”因为门的材料看上去挺软，一摸却是非常硬，边缘还很容易划伤。这就是现在国际会议中心墙面上用的材料——泡沫铝。报告厅墙面采用的是泡沫铝板，即把铝溶解后往里面充气形成多孔的形态。材料的外形就像海绵一样，但材质很是坚硬，具有吸声板的作用。

“脑袋能钻进去的模型”

在霍尔事务所最大的会议室的桌上，看到了非常巨大的万科中心的模型。他为什么会做这个模型？原来他是想要做一个“脑袋可以钻进去的模型”，可以观察设计的实际效果。

国外建筑师通常会制作出大比例的模型，做好后可以拿小摄像机沿着他所设想的人的视点走一遍，拍完后播放动画，通过人的视点拍摄的角度去观察建筑，会非常接近建筑师所希望的尺度和空间造型感觉。

霍尔事务所对所有的公共空间都这样进行研究，很令人佩服！

令人肃然起敬的建筑

说到方案，当年学建筑史的时候，现代建筑刚开始是形式追随功能，后来查尔斯·柯里亚（Charles Correa）提出形式追随气候。我参加过一次印度的朝圣之旅，对印度建筑师很敬佩，他们的建筑并不是让人特别崇拜的感觉，而是让人肃然起敬的感觉，建筑都不是特别精美华丽，甚至有些粗糙（但往往它的大思路是对的），它的每个建筑都是根据印度的气候设计，但是基本没有一栋建筑是一样或模仿他人的设计。这与万科中心有不少相似之处。

切磋桌球

霍尔还是位“桌球爱好者”。他第一次来万科看场地，我们去机场接他，转完场地之后他想去深圳城中村看看，看见一个桌球厅，他问：“行么？”我谦虚地回答说：“不太会，偶尔玩玩。”他说：“好啊，走！”最后，他一局没赢。他后来还跟我们感叹：“我觉得年轻时在纽约也算是一号啊！”后来他写的日记登在《世界建筑》杂志上，他说，“当时接待我们的万科建筑师挺年轻的，估计他可能在三十岁左右（其实我当时都已经四十多了），台球打得不错。估计不是什么好建筑师”。最后一句没被刊登在世界建筑上，但这句话在原始的日记里有。

霍尔在施工阶段中多次来勘察现场，每次都特别兴奋。施工完成的没完成的，他都看得特别仔细，疯狂拍照。实际上，他来的次数仅次于国内设计院下工地的次数了。

开放与“诚实”

我们其实跟霍尔有过一个争论，起因是万科中心下面有大层吊顶用不同颜色的铝板（红、橘黄、蓝、淡黄）铺设，他不想挞边（不是镶边），我们则认为不行。最后我告诉施工方“挞边，施工”。这几乎是我们唯一没达成共识就开始施工的设计部分。因为我认为，我们要照顾到中国的施工工艺，挞了边之后会比较干净整齐，因此现在这个吊顶就比较妥帖。施工后，霍尔还专门为这个事上脚手架去仔细审视，觉得没问题，也就接受了。

霍尔其实并不是反感“边”本身，他的设计思路是希望所有部分都是开放的，不仅限于空间的开放。霍尔创造出了一个“大家都能来”的公共空间，其设计手法也是开放式的——各种材料没有包边，都是直接碰撞；如果有些元素无法避免，非要有“边”不可，也会将之弱化。不知你们有没有注意到，万科中心有一个会议室的桌子是典型的“开放”，桌边是把竹板直接劈开，可以直接看到内部结构，很漂亮。这就是比较“诚实”的感觉。

竹材的情结

我本身就喜欢竹子，它能体现中国文化，这个不用想，它已经在你的血液里了，一看见山上竹海心里就“腾”的一下，觉得真的是好看！西方的针叶林，比如德国的黑森林，它不会唤起你的某种情结，而竹子会唤起某种中国独有的诗情画意的情结。

万科中心所有的室内空间都用了竹板，我们家地面用的也是这个。我们基本把各种竹子都研究了一遍，包括毛竹、小叶龙竹、翠竹、紫竹、观音竹……竹子产量大，是一个劳动密集型的产业。竹子不光是就地取材、环保，还能够解决当地的就业问题，若当地山区比较贫困，有这个一个产业就可能“直奔小康”。

在整个万科中心项目的实施过程中，各个施工单位及国内外设计配合单位，克服了环境及设计创新所带来的种种困难，付出了超乎寻常的热情和努力用短短三年即建成使用并具有优良的建筑品质，这不能不说是一个奇迹！希望在此向他们表示诚挚的谢意。

万科中心的设计思路是希望所有元素和设计手法都是开放的，而不仅限于空间的开放；室内有些元素甚至可以直接看到内部结构，这就是比较“诚实”的感觉

The design concept is "open" for all elements and design strategies, not only limited to space; internal structures of certain interior elements are even visible. Vanke Center is a truly "open and honest" design

Visiting the architect's office in New York

Steven Holl has a habit of sketch painting. I sat next to him on the flight on several occasions, and he painted whenever he was free.

While the project was still in the design phase, I visited Steven Holl Architects office in New York. Holl specifically took me to see his works. At first, I thought it was an ordinary bookcase, but when looked closer, I realized all "books" were his sketch books! I pulled out one and joked: "This is for me? Thank you!" Holl hastily said, "no, no, no!" (laugh.These are all the originals!)

Steven Holl respected our opinions. I noticed a door in his office and asked, "What is this material?" For the material looks soft, but when you touch it, it is quite rough, and the edge is very sharp. This material - aluminum foam- is now used for the wall of international conference center. Foam aluminum is made of dissolved aluminum filled with air to form a porous morphology, it looks like sponge, but the material is very tough and sound-absorbing.

Models for to a person to dig his head in and observe

In the largest conference table in Steven Holl Architects, we saw an enormous model of Vanke Center. Why would they do this? He wanted to create a model large enough for a person to dig his head in and observe the design to detail. Foreign architects usually produce gigantic models and use a small camera inside to record viewpoints envisaged. Animation recorded is able to capture views of the desired scale and spatial quality that architects hope to create. Steven Holl Architects carried research using this technique for all public space in this way, very impressive!

Architecture of respect

Speaking of the program, when I studied the history of architecture, modern architecture began with "form follows function", and then Charles Correa raised the idea "form follows climate". I once participated in a pilgrimage in India and admired India architects. Their buildings are not so grandeur, but rather respectable. The architecture is even a little bit rough (but often the design direction is right), and every design is based on India's climate. Basically there are no imitations, and this has a lot of similarities with Vanke Center.

Billiards games

Steven Holl is also a "billiard enthusiast". The first time he came to Vanke Center in Shenzhen, we picked him up at the airport. After visiting the site, he wanted to take a look at villages in Shenzhen. When he saw a billiard gaming center, he asked, "Do you play?" I humbly replied, "I can, but not very good at it." He said, "Let's go." In the end, he did not win at all. Later he told us, "I was the no.1 player in New York when I was young!" (laugh). Afterwards his diary was published in World Architecture magazine, he wrote, "The architect from Vanke is very young, probably around 30 (actually I was already over 40), he is a good billiards player, but might not be a good architect (laugh)." The last sentence was not published, but it was in the original diary.

Holl visited site several times during the construction phase and was extremely excited each time. He examined everything- both completed and under construction- carefully and took a huge amount of pictures. In fact, the number of times he came is very close to that of a China design institution.

Open and "honest"

Actually we had one disagreement with Steven Holl--for large suspended ceiling with different colors (red, orange, blue, yellow) underneath the main structure of Vanke Center, Steven Holl didn't want crimping (not inlay) the edge, but we disagreed. Finally, I told the construction team, "crimping the edge." This is almost the only issue we did not reach an agreement before construction. I insisted because I thought we have to accommodate to construction technology in China, crimping would be more reliable after construction; Holl examined structures carefully and accepted the result.

In fact, Steven Holl does not object "edge" itself, his idea was to design everything open, not only limited to space. Holl created “a public space for everyone” , where all elements connect into each other directly; If edge could not be avoided, it would be weakened. I wonder if you have noticed the conference room table in Vanke Center which is very "open"——the table edge shows bamboo panel cutoff, and the internal structure is visible and beautiful. This is the feeling of "honesty". You can also find out that Vanke Center has neither door frame nor solid wood covered edge. In fact, this requires higher craftsmanship.

Passion for Bamboo

I like bamboo because it reflects Chinese culture, and it is in our blood. Seeing bamboo forest in a mountain, I feel my heart beating —it is so beautiful! Coniferous forests in the West, such as the Black Forest in Germany can not touch your heart, while bamboo can evoke your passion linked to poetry of our culture.

All indoor spaces in Vanke Center used bamboo and my own house used it too. We studied almost all kinds of bamboos, including moso bamboo, Dendrocalamus barbatus, green bamboo, black bamboo, and rhapis excelsa etc.. I thought it was easy to plant bamboo at first. Later I learnt that it must be planted after transplanted for a while. The bamboo we planted had been grown in plastic bag for 3 months. Bamboo production is a labor-intensive industry. Bamboo is a local, green material which can also solve the problem of local employment. The industry can lead a poor mountainous community to a better future.

In the entire phase of Vanke Center project, all construction teams and design departments in China and abroad had overcome unimaginable difficulties brought about by design and climate. Everyone worked with extraordinary enthusiasm and efforts for the excellent construction quality. It is a miracle to finish it within just three years! I hope to express sincere thanks to all.

彭兴宇，中建三局一公司万科中心项目经理

Peng Xingyu, Project manager of the Vanke center, the First Construction Engineering Limited Company of China Construction Third Engineering Bureau

Essay by Peng Xingyu

The Construction of Vanke Center

万科中心的建造·彭兴宇

万科中心这座综合性的建筑设计一举打破常规，其体量堪比世界上任何著名的超高层建筑，它独特的设计思路开启了人们想象的空间，同时给施工方带来了全新的考验与尝试，完成了一次自我审视。也为今后类似沿海地区的项目的设计实现取得了很多值得借鉴的第一手资料。

压力最大的环节

在项目中，压力最大的应该是完成预应力拉索张拉，以及在张拉预应力作用下索结构、钢结构及混凝土结构共同工作的协调变形控制。三种规格的成品钢拉索最长索长为29.48 m，单根最大重量7.5 t。此类大直径预应力成品钢索作为主要受力构件在房建结构中的应用，当时在国内外均无可借鉴的案例。国外的实施经验多为桥梁或屋面预应力钢索技术应用与施工。所以万科中心预应力斜拉索房建结构施工属于一项名副其实的创新的施工技术。

斜拉索建筑结构独特，需要通过模拟计算，确定结构施工顺序、拉索张拉工况和张拉顺序，确定结构允许变形值、拉索分级张拉分配值以及超张拉值。此外我们在张拉加工时制作好与索力、索具相配套的张拉工装系统。由于现场原因及对拉的斜拉索有一定的结构相关性，索力会互相影响，所以调索时也需要保证张拉同步和索力协调。

逆作法施工

如同外界评论所言，这个建筑有人形容是在桥上造房子，大直径预应力成品钢索作为主要受力构件在房建结构中的应用在国内外尚属首例。为防止斜拉钢索在应力张拉时竖向结构上端变形过大，我们采用了“上部结构逆作法”的施工顺序。在上部结构先进行竖向结构及屋盖结构施工。将混凝土结构框架柱施工至顶层，搭设满堂架施工顶层结构。在混凝土达到强度后拆除架体，进行斜拉钢索安装及预应力张拉，然后施工中间楼层水平结构。另外，这项工程中临时支撑胎架的布置需要根据地下室柱以及支撑点的位置变化，以至于本工程地下室的32个支撑点的支撑架形式均不相同。堪称为施工中的独特体验。

氯盐环境的清水混凝土

万科中心地处滨海环境，滨海环境普通混凝土结构受海水以及海雾等氯盐环境“荷载”作用比较大，性能劣化影响严重，直接影响到结构耐用年限。同时本工程核心筒体、实腹厚墙及万科总部梁板柱部分对混凝土结构要求为清水混凝土饰面。针对以上问题，项目开展了研制能够在滨海地区推广应用的高耐久性清水混凝土的技术研究，分析确定滨海环境作用下影响结构耐久性的主要因素和其它影响因素，并针对各种因素进行滨海环境结构耐久性再设计，研发并总结出以高耐久性清水混凝土配制和施工为核心技术的工法，成功解决了清水混凝土在滨海环境中推广应用的障碍，这种经验值得在滨海地区推广。

由于工程创新的结构形式和复杂的施工技术特点，项目在启动之初，建设方、各专业设计单位及总承包方就工程施工关键技术方案及重难点进行了多次研讨论证，同时由中建三局一公司牵头，联合清华大学、深圳大学、哈尔滨工业大学、中国建筑科学研究院深圳分院也针对各关键技术进行了一系列研发应用。因此，工程初期制定的整体部署和施工方案在具体实施过程中反而均较为顺利，施工过程没有太大调整。

深圳万科中心从自2007年5月15日正式开工；到2007年12月地下室结构完成；再到2008年12月上部结构完成；至2009年8月万科中心整体及室外的幕墙工程、万科总部室内精装修、光伏发电系统、燃气工程全部完工，直至2009年9月22日工程完成竣工验收；万科中心得以建成。有网络评论称万科中心为少有的、完成度很高的项目。也许这是对参与施工的全体团队最好的褒奖。值得一提的是同时它也实现了多项技术创新，包括多层框架房建结构预应力斜拉索施工技术研究与应用、滨海地区高性能清水混凝土研究与应用、应力拉索钢结构综合施工技术、竹模饰面混凝土施工技术、大管径厚壁斜钢管混凝土柱施工，以及大型公共建筑绿色施工及LEED认证实施技术等多项技术成果，它还被列入了广东省建筑业新技术应用示范工程和可再生能源利用示范基地。相信未来在滨海地区以及更多类似规划与建筑项目中，我们依然会欣慰地看到万科总部其设计与施工的诸多经验的影子闪耀其间。

国际上目前实施经验多为桥梁或屋面预应力钢索技术应用与施工，所以万科中心房建结构施工属于一项名副其实的创新施工技术

The use of large pre-stressed steel cables in the building structure as the main supporting component was unprecedented in China and overseas at the time. Most overseas projects only built with bridge and pre-stressed roof cable construction techniques

The design of Vanke Center breaks away from convention with its dimension comparable to the scales of renowned skyscrapers in the world. Its unique design ideas offered room for imagination; meanwhile, brand new challenges were created for the designers and builders, who had faced challenge with innovative thinking and practice, providing many valuable lessons for coastal projects of similar scale in the future.

The biggest challenge

In the project, the biggest challenge include pre-stressing of the cables, as well as the deformation control of the cable structure, steel structure and concrete structure. Three types of pre-stressed steel cables were used with the longest at 29.48 m and the heaviest being 7.5 t. The use of large pre-stressed steel cables in the building structure as the main supporting components was unprecedented in China and overseas at the time. Most overseas projects only built with bridge and pre-stressed roof cable construction techniques. Therefore, pre-stressed cable-stayed building structure of Vanke Center is an innovative structure with equally innovative construction techniques.

The stayed cable steel structure is very unique. It required calculations to determine the construction sequence, tension of the cable, the structurally allowable deformation value, the value of cable grading tension and over-tension. Besides, during the pre-stressing process, we made the system compatible with cable force and rigging. Due to site condition and structural connection of the stayed cables, the cable force might interfere with each other, thus pre-stressing synchronization and cable force coordination were required during cable force adjustment.

Reverse construction method

As stated, the construction can be described as "building houses on the bridge". The large diameter pre-stressed steel cables were applied in the building structure as the main force support components and the design is unprecedented. In order to prevent over-deformation of the upper parts of the vertical structure during stayed cable pre-stressing, "Reverse Construction Method of the Upper Structure" was adopted. In the upper structure, the construction of the vertical structure and roof structure were carried out first, the concrete structure frame columns were constructed to the roof level with roof structure built next. Once concrete had reached certain intensity, temporary supports were dismantled, then pre-stressing of the stayed cables was carried out, finally the horizontal structure of the intermediate floors were constructed. Besides the building structure, the arrangement of the temporary ground supports of this project varied with the position of the basement columns. As a result, 32 support frames in the basement were of different forms, which could be recognized as the unique experience of construction.

Fair-faced concrete

Vanke Center is located in a coastal environment. The concrete structure is under great influence of the saline environment from seawater and sea fog, which could cause serious degradation of performance, directly affecting structure durability. Meanwhile, the concrete structure of the core elements, such as walls and the beams, floor plates and columns of the Vanke Head Office required fair-faced concrete finish. In view of the problems above, the technological research of the high durability faire-faced concrete for coastal region was carried out. Under the influence of the saline environment, the main factor and other influential factors that had a bearing on the structure durability were analyzed and worked out. Based on these factors, the design was adjusted to achieve structure durability in the coastal environment. Moreover, the preparation and construction techniques of high durability fair-faced concrete had been researched and developed for the application and popularization of the material in the coastal environment. This experience provided valuable lessons.

Vanke Center came into operation from May 15th, 2007, the basement structure was completed in December, 2007; the upper structure was built in December 2008; finally in August 2009, the entire building structure, exterior curtain wall, interior of the Vanke Head Office, the photovoltaic system and gas engineering were finished. It was officially completed on September 22nd, 2009. A number of internet articles recognized Vanke Center a unique building with great execution, which is the best reward for the construction group. What's more, many technological innovations were achieved, including the research and application of the pre-stressed stayed cable construction technology of multi-level building structure, high-performance fair-faced concrete in the coastal region, the comprehensive construction technology of pre-stressed cable steel structure, construction technology of concrete with bamboo formwork, construction technology of large-diameter steel tube concrete column, green construction of large public buildings and many other technological achievements verified and recognized by LEED certification. It is listed as a new technology application demonstration project and an outstanding sustainable architecture in Guangdong province. It is firmly believed that the design and construction experience of Vanke Center will be widely applied in the coastal regions and in other architecture projects.

第三章 Chapter 3

3.Use and Future

使用与未来

建筑大师伊利尔·沙里宁说过："让我看看你的城市，我就能说出城市居民在文化上追求的是什么。"这句话对建筑也不例外。作为企业总部，万科中心不仅是企业形象和重大活动的展示平台，更是与员工朝夕相处的物理和心理空间，还承载着万科的未来。

本章不仅记录了万科中心投入使用后迎来的一系列重大企业活动，也以第一手资料记录了作为最有发言权的入住者——来自万科的员工们对于使用细节各抒己见的真切心声，正是基于这种务实的、尊重本真的态度，万科中心开始了岗亭、室内外泳池，整体景观乃至邻近湖区等一系列改造。万科中心以这样一种开放、自由、平等的姿态出现在深圳，也预示着它的未来将带给周围社区乃至深圳这座城市许多不确定的，更令人期待的变化。

Renowned architect Eliel Saarinen once said: "let me see your city, and then I can tell what the urban residents are pursuing in the culture aspect." This sentence is also suitable to architecture. As an enterprise's headquarters, Vanke Center is not only the platform for showing enterprise image and conducting major activities, but also the physical and psychological space for staff to work together to create a bright future of Vanke Group.

This chapter records a series of major activities after Vanke Center went into service, and the experiences from the users as the first-hand data – the direct feedback from employees of Vanke. Based on the practical, nature-respected attitude, Vanke Center began a series of transformation and renovation, such as the sentry box, indoor and outdoor swimming pool, for the overall landscape and the lake area nearby. Vanke Center turned up in Shenzhen with the open, free and equal gesture, which implies that it will bring more uncertainties and more exciting changes in future for the surrounding communities and the city of Shenzhen.

1 2009年12月7日，万科总部迎来首个大师展览——"都市主义：斯蒂文·霍尔 + 李虎"。
December 7th, 2009, the first architectural exhibition was held in Vanke Headquarter ——"Urbanism: Steven Holl + Li Hu".
2 Vtalk 02的主讲嘉宾英国著名建筑师Thomas Heatherwick。
Thomas Heatherwick delivering Vtalk 02.
3 万科中心是万科人梦开始的地方。
Vanke Center is where Vanke begin her dreams.

1


2


3

黄何明：办公位感觉很好，很舒适。厕所隔间里没有挂钩。另外一楼的玻璃门把手容易夹手。还有厕所门那个插锁把墙撞得难看。楼层间可以加些楼梯吗？有助于锻炼身体。电梯实在麻烦，哈哈。
2012-7-30 (星期一) 15:50
Huang Heming: The working place is very good and comfortable. There is no hook in the compartments of the toilets. Hands will be easily nipped by the glass door handle in the other building. Besides, the mortise lock of the toilet door knocks the wall seriously, making it looks terrible. Can more stairs be added between floors? It will be good for taking exercises while the lift is really annoying. Haha. 2012-7-30 (Monday) 15:50
4


5

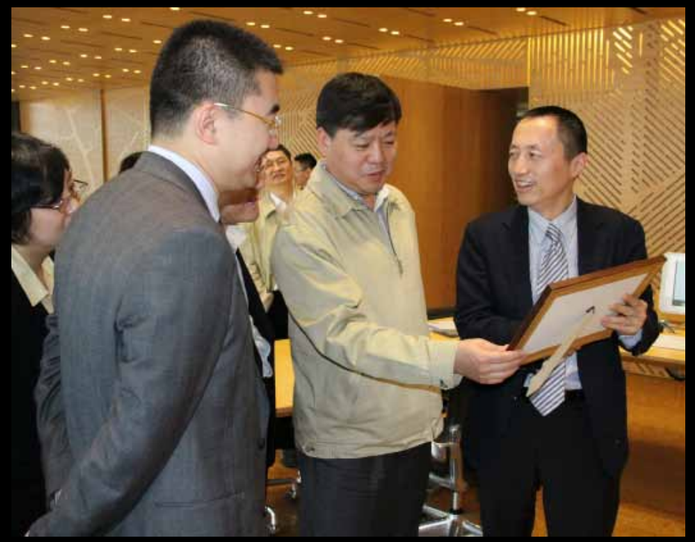
4 使用者评论。
User's comments.
5 万科中心如同一座博物馆。
Vanke Center is like a museum.

使用者:

Users:

2009年9月28日下午2点，集团总裁郁亮带领总部员工，徒步经过建设路、和平路、水贝、梅林路等万科历次总部所在地，并在29日早上8点45分，到达大梅沙万科中心。
Yu Liang, the chairman of Vanke led their staffs to walk through the previous locations of headquarters including Jianshe Road, Heping Road, Shuibei, Meilin Road from 2 pm on September 28th, 2009, and arrived at Dameisha Vanke Center at 8:45am on 29th of September.

2012年2月10日，中国工程院相关领导来访。
The leaders of the Chinese Academy of Engineering paid a visit on February 10th 2012.



2012年3月8日，上海市建交委一行来访。
Representatives from Shanghai Urban Construction and Communications Commission came to visit on March 8th 2012.

2010年4月21日，日本著名企业家出井伸之访问万科总部。
On April 21th, 2010, Nobuyuki Idei, the famous Japanese entrepreneur paid a visit to Vanke Headquarters.

2009年12月7日，万科总部迎来首个大师展览——“都市主义：斯蒂文·霍尔 + 李虎”。
December 7th, 2009, the first architectural exhibition was held in Vanke Headquarter ——"Urbanism: **Steven Holl + Li Hu".**

18点30分，斯蒂文·霍尔事务所的名为“都市主义：斯蒂文·霍尔 + 李虎”的建筑设计展在万科中心正式开幕。
At 18:30, December 7th, 2009, the architectural design exhibition named "Urbanism: Steven Holl + Li Hu" was officially unveiled in Vanke Center.

2012年5月18日，国务院参事室陈进玉主任一行来访。
The Director of General Office of the State Council Chen Jinyu came to visit on May 18th 2012.

2011年10月27日，英国约克公爵安德鲁王子殿下访问万科总部。
October 27th, 2011, British York Duke Prince Andrew paid a visit to Vanke Headquarters.

2011年6月4日，万科国际会议中心迎来了著名建筑师、V-talk 01的主讲人安藤忠雄。
June 4th, 2011, Vanke International Convention Center welcomed Tadao Ando, a famous architect and the guest speaker of V-talk 01.

2011年6月15日，V-talk 02的观众们。
Audience of V-talk 02 on June 15th, 2011.

2012年12月10日，V-talk04主讲嘉宾、著名建筑师丹尼尔·李博斯金。
The famous architect Daniel Libeskind was giving a speech at V-talk04 on December 12th 2012.

2011年6月15日，V-talk 02的观众们。
Audience of V-talk 02 on June 15th, 2011.

2011年9月23日，员工在万科广场进行趣味竞赛。
A competition was held in Vanke Square on Sep 23st 2011.

2012年7月31日，万科集团与联通举行合作签约仪式。
Vanke held a signing ceremony in cooperation with Unicom on July 31st 2012.

2011年6月15日，V-talk 02的主讲嘉宾英国著名建筑师Thomas Heatherwick。
The famous architect Thomas Heatherwick was giving a speech at V-talk 02 on June 15th, 2011.

使用反馈:

Users' Feedback:

随着万科总部的投入使用，员工的心声也正在成为设计改进的原动力，其反映出的问题正逐步接纳到目前正在改进的设计中

As the headquarters of vanke is put into service, the inner voice of the employees is becoming the motive power to improve the design. The reflected problems are being accepted into the improving design at present

黄何明: 办公位感觉很好，很舒适。厕所隔间里没有挂钩。另外一楼的玻璃门把手容易夹手。还有厕所门那个插锁把墙撞得难看。楼层间可以加些楼梯吗? 有助于锻炼身体。电梯实在麻烦，哈哈。2012-7-30 (星期一) 15:50

Huang Heming: The working place is very good and comfortable. There is no hook in the compartments of the toilets. Hands will be easily nipped by the glass door handle in the other building. Besides, the mortise lock of the toilet door knocks the wall seriously, making it looks terrible. Can more stairs be added between floors? It will be good for taking exercises while the lift is really annoying. Haha. 2012-7-30 (Monday) 15:50

吴良: 除了楼下的两点，其余都很贴心。一是地面棱角极分明的碎石子铺成的路，毁掉了女同事无数高跟鞋。二是厕所毫无隐私感。这种隐私包括视觉和听觉。视觉上，你可以清晰地看到隔壁蹲马桶者的鞋子，从而判断是哪位熟悉的同事正与你一起“啥啥啥”……听觉上，更是非但不隔声反而有扩音效果；导致我本人如非迫不得已，基本不会在公司洗手间上厕所……另外园林应该加点色彩。现在放眼望去全是绿色…… 2012-7-30 (星期一) 15:41

Wu Liang: Except for the two aspects on the first floor, the others are very considerate. Firstly, the path paved by rubbles which are sharp in edges has ruined numerous high-heeled shoes of the women colleagues. Secondly, the toilets have no sense of privacy, both visually and acoustically. Visually, you can clearly see the shoes of the person who is using the toilet next door so that you can recognize who is doing the same thing with you… Acoustically, the sound insulation system of the toilet is so bad that the sound is even amplified; so, I basically don't use the toilets in the company unless I am forced to… on top of that, we should add some other colors to the garden, for what we can see is only green at present… 2012-7-30 (Monday) 15:41

孙宇明: 面向海景，大大的阳台和全开阔的玻璃幕墙，使外部的自然风光与室内办公环境融为一体，每天上班都有好心情。只是为啥每层楼的男女厕所位置会不同? 总闻听有同事“误入歧途”。2012-7-30 (星期一) 16:05

Sun Yuming: We can see the seascape since we have big balcony and fully open glass curtain wall, both of which mix the natural scenery outside with the working environment inside together. In this way, I always go to work in a good mood. But why are the positions of women's toilet and men's toilet on each floor different? It is often heard that some colleagues go to the wrong toilet by mistake. 2012-7-30 (Monday) 16:05

彭学运: 一是有冲凉房（历任万科总部从来都没有）；二是不愁找不到停车位（当年水贝的办公楼和梅林的办公楼的停车位极少，是硬伤、软肋）。至于缺陷，一是公共区域坐式马桶不合适；二是办公室冷气不足（也许是冰制冷的缘故）；三是地面上的汉白玉广场是光污染，日光下极度刺眼，平时的利用价值也很小，倒是清洁起来费用不低。此外，办公区、午餐区都由冷色构成，给人一种冷漠、压抑感，配合前些年总部实施的“180”，可谓配合得天衣无缝了。幸好还有点花花草草和盆景植物，否则，时间呆久了会有人得抑郁症。建议有的地方增加点暖色的装饰，也许会让员工的心情更阳光、更温馨。2012-7-30 (星期一) 15:58

Peng Xueyun: Firstly, there is a showering room which didn't exist in all the former headquarters of Vanke; secondly, there is no worry to find a parking place (the office buildings in Shuibei and Meilin had few parking space lots, which is viewed as a weak point). As to the cons, firstly, squat toilets are not suitable for public places; secondly, the air-conditioner in the office is not efficient enough (maybe because of the ice refrigerant); thirdly, the white marble square on the ground causes light pollution, which is extremely dazzling in the sunshine. What's more, it is hardly used in ordinary days but costs a lot in cleaning. Beyond that, the color in office area and lunch area is cool, making people feel cold and compressed, which coordinates perfectly with the "180 Plan" implemented several years ago in the headquarters. It is lucky we still have some flowers, grass and bonsai, or people would slowly get depressed. I suggest adding some warm-looking decorations, which may make employees feel brighter. 2012-7-30 (Monday) 15:58

李晓: 洗手间不错。可五、六层的空调温度实在是“高”，夏天很热……冬天没空调，又很冷……另外每个楼层的钢制平面示意图应该有一个方向指引（比如，标记N或S）；初次来的会很晕……还有地库入楼部分的头顶式门禁刷卡器，最近被拆了……有那个会方便一些（手拎重物的时候），不用直接用手开门。餐厅的桌子形状尽管有寓意，但很多部分无法使用，浪费了……是否可以拿出来部分空间做专门的员工交流区（现有的色调、装饰太正式了）？2012-7-30 (星期一) 15:53

Li Yao: The toilets are pretty good, but the fifth and sixth floor are really too "hot"in summer… And the winter is too cold without air-conditioners… Besides, the steel schematic plan of each floor should have direction guidance (e.g. N or S), or people who come for the first time will be confused… The overhead access card reader at the entrance of the basement has been dismounted recently… It was more convenient because we could open the door without using hands when we were lifting heavy things. The shapes of the tables in the dining room do have implied meanings, but some parts of them can't be used, which become a big waste… Can some space be dedicated to colleagues' communication (the current color and decoration are too serious)? 2012-7-30 (Monday) 15:53

吴铮: 有4方面我觉得不错。第一，进深浅，采光通风好；第二，地板送风，环境比较舒适；第三，室外遮阳片，遮阳不遮光，节能环保；第四，端头宽阔的大阳台，提供办公间隙放松远眺的场所。而会议室设置不完善是最大的问题。另外卫生间的设置比较不方便，单层的卫生间男女位置在双层对调，这样熟悉了本层卫生间位置后到上下楼层容易搞错。个人感觉总部会议室的布置不如深圳公司好，经常找不到合适的有大投影的地方开会，部分会议室够大，但竟然没有投影，部分有投影但是一个壁挂电视，无法用激光笔指点，还有部分会议室没有白板，需要讨论的时候无法书写，会议室内缺乏白板笔和激光笔，这些强烈建议能有所改进。2012-7-30 16:24

Wu Zhen: I think it is doing well in four aspects. Firstly, the depth is shallow so the lighting and ventilation are good; secondly, the floor supplies air, making the environment comfortable; thirdly, the sunshade outside the room blocks the heat but not the light, which is good for energy saving and environmental protection; fourthly, big balcony with broad ends provides place for overlooking during the working intervals. The biggest problem is that the settings in the meeting room are not perfect. Besides, the positions of toilets are not convenient, neither: women's toilet and men's toilet on the singular floor are opposite to those on the double floor. People who are familiar with their working floor will easily make mistakes if they go upstairs or downstairs. Personally, I think the arrangement of the meeting room in the Headquarter is worse than that in Shenzhen. We often can't find a suitable place with big projector for meeting. Some meeting rooms are big enough but there are no projectors while some have projectors but there is only a wall hung TV so that the laser pointers can't be used. Some meeting rooms have no white boards, so we can't write during the discussion. The meeting rooms are lack of whiteboard markers and laser pointers. We strongly suggest making some improvement for meeting rooms. 2012-7-30 16:24

Jorin: 光线充足，视野开阔。节能环保，真心为之骄傲。为了装修风格或视觉效果降低了实用性，比如饮水机的位置，不能多放几个吗? 另外，二楼男女洗手间的位置与其他楼层不同，很容易进错，是很不方便的一个地方。另外整体感觉太过商务，冷冰冰的感觉。能否再增加一些活泼、热情、休闲风格的空间? 2012-7-30 16:14

Jorin: There is enough light and open view. I'm really proud of the energy conservation and environmental protection. However, practical applicability has been reduced in favor of decoration style or visual effect, like the place of water dispenser. Can more water dispensers be placed here? Beyond that, the position of the women's toilet and men's toilet on the second floor are different from other floors, so many people easily go to the wrong toilet, which is really inconvenient. In the whole, it feels too business and cold here. will some active, passionate and relaxing space be added here? 2012-7-30 16:14

殷大勇: 景观的角度很棒，阳台的栏杆太低，稍微个子高点的都会感觉重心很容易“飘”出阳台栏杆，很危险。建议把楼顶改造一下，建成天台花园，安装一些运动器械，鼓励大家随时随地运动一下，冬天在楼顶上那才叫惬意呢! 2012-7-30 (星期一) 15:56

Yin Dayong: The angle for people to enjoy the landscape view is awesome but the handrails on the balcony are too low that a tall person may feel like "floating" out of the balcony, which is rather dangerous. I suggest transforming the roof into a garden and installing some sports equipment which encourage people to exercise at anytime. It will be rather comfortable on the roof in winter! 2012-7-30 (Monday) 15:56

黎平.Lucy: 感到贴心的是台灯、遮阳帘、茶水间的各式饮品，感到别扭的是周一的空调不冷、洗手间的坐厕板经常有水渍；希望增加一点休息区并开设阅览室。2012-7-30 (星期一) 16:09

Li Ping. Lucy: The most considerate things are the lamps, sunshade and various drinks in the pantry. What makes me uncomfortable is that the air-conditioner is not cooling the room enough on Monday and the seats in the toilets often have water stains on them; I hope more resting space will be added as well as reading room. 2012-7-30 (Monday) 16:09

史晓云: 最感到贴心的是洗手间设施（女士用品、手机格等……）。但不方便也在这里，比如水龙头出水量过小。2012-7-30 16:38

Shi Xiaoyun: The most considerate thing is the facilities in the toilets (products for women, storage boxes for cell phones and so on…). But the inconvenience lies here too, for example, the water flow of the taps is too small. 2012-7-30 16:38

李立远： 洗手间的手机存放盒很方便。但洗手间的水量太小，要花很多时间。建议有让人可以在中午补觉的卧躺沙发，人性关怀啊~ 2012-7-31 (星期二) 15:59
Li Liyuan: The storage boxes for cell phones in the toilets are very convenient. But it takes too much time since the water volume is so small. I suggest adding some couches for people who want to take a nap in the afternoon, which will shows company's concern of humanity~ 2012-7-31 (Tuesday) 15:59

欧阳会祥： 地下车库有采光井，而且很方便到办公区，阳台根据景观设置很好，楼梯间很炫，健身房的洗浴功能，前台很大气，最主要是整个楼的气场很足，每次上班都感觉非常兴奋，茶水间很温馨。室内装修显得太严肃，太生硬，局部地方应该有些柔性色彩鲜艳的东西，比如万创自己改造的图书角，人力资源部摆满了小玩偶。健身房没有地方晾晒毛巾，让洗浴就很不舒服，或者设置个烘干机之类的。食堂有些浪费，可以划出一片地方作为休闲聊天开会的地点长时间开放；厕所下围挡太高了，每次洗手间会看到鞋，有些尴尬。可以给晚上加班的同志设置集中加班的地方，可以促进大家的认识了解，节约能源，再设个可以午睡的地方，反正还空不少地方，简单地设置一点点午睡空间和打电话的空间。很好的屋顶空间与很炫的楼梯利用的都还不够，可能简单地放一点点家具就很牛了。2012年7月31日 15:48
Ouyang Huixiang: There is a light shaft in the underground garage and it is also convenient to go to the office area. The balcony is set well for sceneries and the staircase is awesome. The gym is equipped with showering room and the reception is in good taste. The most important is the whole building has enough power and every time I go to work I feel excited. The pantry is much comfortable. The interior decoration is too serious and too hard. Some places should add warming things and bright colors, like the book corner transformed by Vantran and the HR department which is full of little dolls. There is no place for drying towels in the fitness center, which makes showering uncomfortable. Maybe something like a drier can be placed there. The dining room is a kind of waste, some space should be used for chattering, relaxing and meeting, and open longer; the bottom door stop in the toilets is too high, it is rather embarrassing to see shoes in the toilets. I also suggest making some space for people working overtime at night to work together, which can improve understanding among each other and saving energy. Make some space for taking afternoon naps, since there is much space left, as well as a little space for afternoon nap and making phone calls. It is not enough to have good roof space and awesome utilization of staircases. It's better to place some furniture there. 2012-7-31 15:48

张志恒： 采光很好。会议室太少。空调不能局部开。快把上述问题解决了。2012年8月1日16:03
Zhang Zhihen: The lighting is good but there are few meeting rooms. The air-conditioners can't be turned on partly. The above problems need to be solved as soon as possible. 2012-8-1 16:03

前台： 认为一楼如能加个洗手间更为佳，应可避免很多来访客户异样的眼光哦~ 2012年8月2日14:44
The reception: It would be better if one toilet can be added on the ground floor, which can avoid strange looks from visitors~ 2012-8-2 14:44

柯薇： 近期，停车位不设置特供了，女洗手间的台子备有梳子、发卡、润手霜等很方便，冷气脚底出风，温度也不好控制（我办公位旁的出风口打不开调整），吹冷风膝盖疼。会议室没有玻璃门，外边的人如想知道里边是否有人、有哪些人，必须得推开门，不是很方便。如有磨砂玻璃门会好些。会议室不够用，玻璃会议室形同虚设。办公区洗手间空间小、位置不够，往往要走到较远处的会客区那里使用。茶水间远、分布少，忙起来连水都喝不上；等热水器热水太久。如能再打印室多布置饮水机，会方便离茶水间远的同事喝水。食堂桌子摆布过于追求形式、奇形怪状，其实造成聚餐不变，有些地方甚至出入困难或是死角。包括上面提到的打印室安置饮水机，会议室增加磨砂玻璃墙及增加会议室，改造玻璃会议室为实用会议室还有食堂桌子摆布适当调整。2012年8月1日16:03
Ke Wei: Recently, there is no special offer for parking space. It is very convenient to have combs, hairpins and hand cream on the table in the women's toilets. The cooling air comes out from the bottom and the temperature is not easy to control (the air outlet near my seat can't be opened and adjusted), so the cooling air makes knees hurt. There is no glass door in the meeting room, so when people outside want to know whether there are people inside and who are inside, they have to open the door. It would be better if there is a frosted glass door. There are not enough meeting rooms and the glass in meeting rooms are useless even though they exist. The space of toilets in office areas is small and the seats are not enough. People have to go to the reception area far away. The pantry is far and the quantity is small. If you are busy, it is impossible to get a drink since it takes too much time to wait for hot water. If more water dispensers can be placed in the printing room, it will be convenient for colleagues far away from pantry to drink. The arrangement of the tables in the dining room is grotesque in shape, pursuing form too much, which actually brings inconvenience to dinner party. In some parts, it is difficult for coming in and going out and some parts even become dead space. As mentioned above, I suggest placing water dispensers in the printing room, adding frosted glass wall in the meeting rooms, adding meeting rooms, transforming glass meeting rooms into practical ones and doing some adjustment to the arrangement of the tables in the canteen. 2012-8-1 16:03

唐知芬： 办公位宽敞了，窗外的风景美了，停车也方便多了。但是六楼太热；并且可以堆放物资的库房太少。每年春节过后的三、四个月里空气太潮，连办公位上的小饰品都长了霉斑，是否能想点办法除除湿？ 2012-7-31 9:41
Tang Zhifen: The office place is broader; the sceneries outside the window are more beautiful; and the parking place is more convenient. But it is too hot on the sixth floor; there are just a few of storehouses for storing. In the following 3 or 4 months after Spring Festival every year, the air is too humid here, even the small accessories on the working place have mildew stains on them. Are there any ideas for getting rid of humidity? 2012-7-31 9:41

索大为： 茶水间和健身房的设计最好，最不方便的是地下车库的流线设计，楼内未考虑足够的储藏空间，各部门的物资存放是很大的问题，应增加储藏室。2012年8月2日 15:01
Suo Dawei: The designs of the pantry and the fitness center are the best. The most inconvenient thing is the streamline design of the underground garage. There is no enough storing space in the building, so the storage of goods in various departments becomes a big problem. Consider to add more storerooms in the building. 2012-8-2 15:01

白雪铭： 健身房与茶水间很给力。不足之处是总部食堂地下操作间与三楼餐厅距离较远，且只能通过一台电梯上下运送，容易造成饭菜变凉等现象。大楼门禁系统从外到内有门禁呼叫器，但从内出外却未设计，建议可考虑增加，既能保证楼内的安全性，又可避免许多来访客人临时无法出门的尴尬。2012年8月2日 17:26
Bai Xueming: The fitness center and the pantry are pretty good. What is not good is that the underground operation room of the canteen in the Headquarters is far from the canteen on the third floor, and there is only one lift to transport upwards and downwards, in this way, dishes will easily go cold. The access control system of the building has beepers from outside to inside, but none from inside to outside, which is suggested to add to ensure safety of the inner building and avoid the embarrassment that many visitors can't go out temporarily. 2012-8-2 17:26

杨高飞： 灯光设计比较舒服。办公区斜插出来的钢梁，占用空间，而且还容易碰头绊脚。2012年7月31日 17:23
Yang Gaofei: The design of lighting is very comfortable. The steel girder protruding from the office area takes up space and people easily have their heads or feet hurt. 2012-7-31 17:23

李墨馨： 茶水间设施比较好，车位充足好用。空调出风口容易卡鞋跟，我已经有四4－5双鞋子遭殃，损失惨重。六楼空调不给力，不冷。布局太长条，办公分散，效率有点低。空调出风口必须改善。办公空间绿化系统必须改善，不能再像现在随便搞几盆花草就算“绿化”了。2012年8月1日 15:41
Li Moxin: The facilities in the pantry are good and the parking space is enough for use. The outlets of the air-conditioners will easily block heels. I have had terrible loss that 4 or 5 pairs of shoes are broken. The air-conditioners on the sixth floor are not efficient enough. The overall arrangement is too long and the office areas are too scattered, which caused low working efficiency. The outlets of the air-conditioners must be improved. The greening system in the office area must be improved, too. Several flowers and grass like plants can't be viewed as "greening". 2012-8-1 15:41

刘玉龙： 形状最有个性！其他都还好，只是有些地方偶尔会撞到头，懵了！要是在加上点空中花园的感觉就更好了！呵呵！ 2012年8月2日 15:09
Liu Yulong: The shape of the building has unique features but others are just so so. In some places, we will have head knocked occasionally! It will be better if a hanging garden can be designed! Hehe! 2012-8-2 15:09

马子凌： 各楼层的窗外景观最吸引人。不足之处包括：会议室门把手非常容易致伤，大楼冷暖气夏热冬冷，一楼无洗手间，仓储空间少，空间浪费太大。强烈建议整改以上部分。
2012年8月6日14:16
Ma Ziling: Thing need improvement include: handles in the meeting room will easily cause wounds; the air-conditioners in the buildings are hot in summer but cold in winter; there is no toilet on the ground floor; there is a huge waste of space. It is strongly suggested to improve the above parts. 2012-8-6 14:16

单崇山： 卫生间的各项设备很不错。但是冬季总有那么几天，感觉很冷，再加点升温保暖设施就好了。2012年8月1日 15:42
Shan Chongshan: The facilities in the toilets are good, but it is always cold in some days in winter. It would be better if some heating and warming facilities are installed here. 2012-8-1 15:42

束旻力： 架空的首层空间非常开放，运动设施的设置和建筑结合很好，首层的洗手间设置不够。
2012年8月1日15:58
Shu Minli: The space of the first overhead floor is open and the arrangement of the sports facilities and architecture are well combined. There are not enough toilets on the ground floor. 2012-8-1 15:58

梦想画卷：

万科中心是万科人梦开始的地方，它可以是动物园、社区中心或是运动场，友好、宽容、多样化的景观为万科社区带来了无限活力！

Dream Pictures:

VANKE CENTER IS WHERE VANKE BEGINS HER DREAMS. IT CAN BE A ZOO, COMMUNITY CENTER OR EVEN A PLAYGROUND. ITS FRIENDLY, OPEN AND DIVERSIFIED LANDSCAPE BRINGS INFINITE ENERGY TO VANKE!

万科中心有很多演讲厅, 可以变成一个国际会议中心, 也是城市级的文化平台!

PLENTY OF LECTURE HALLS TURN VANKE CENTER INTO AN INTERNATIONAL CONFERENCE CENTER, AS WELL AS A CULTURAL PLATFORM OF THE CITY!

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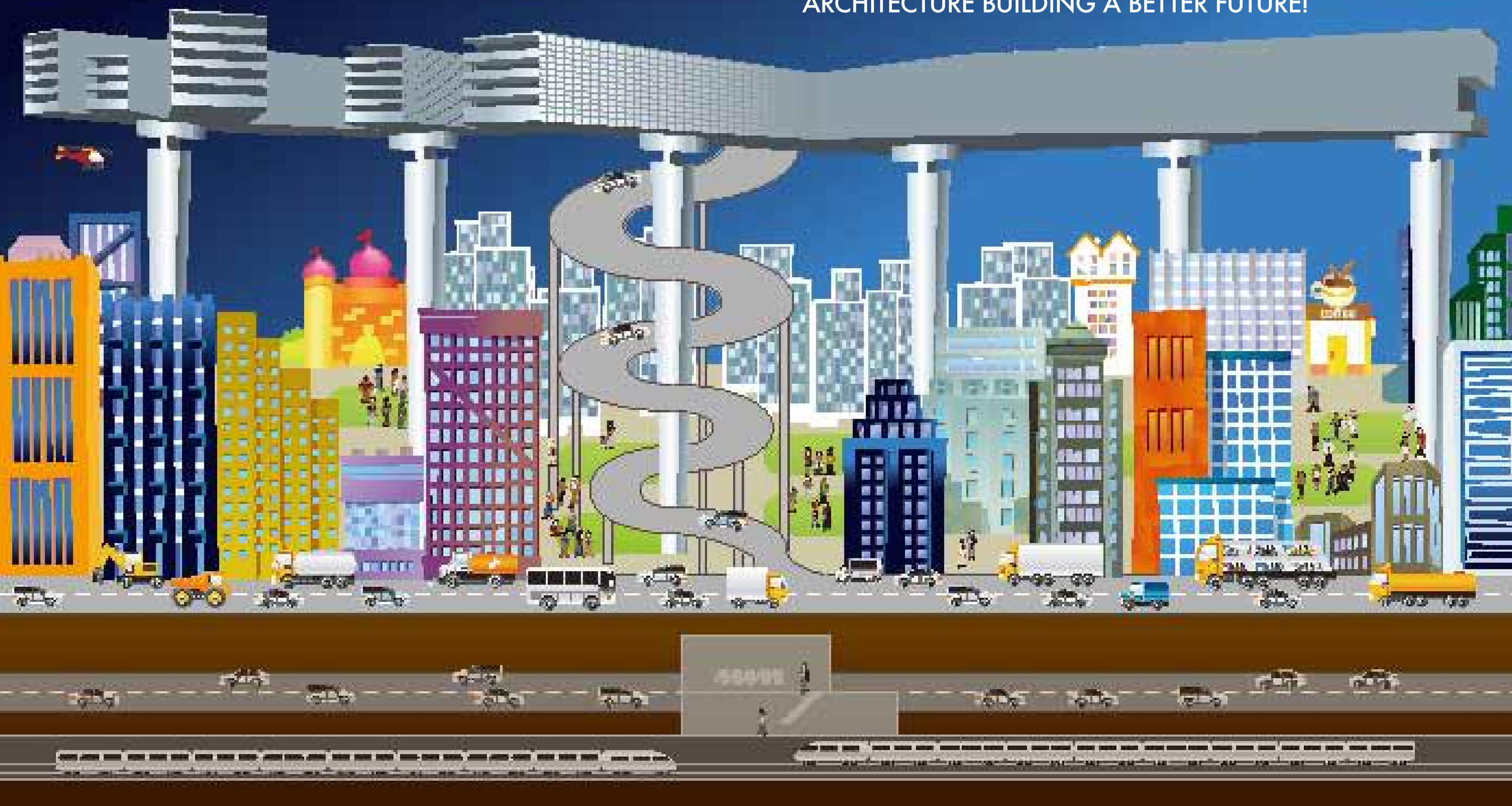
VANKE EXPERIENCE CENTER EXHIBITS SPACES THAT ALLOW PEOPLE TO THINK AND START FEELING THEIR NATURAL SENSES AGAIN. IT BRINGS INSPIRATION AND LEADS BRAND NEW LIFESTYLES FOR A BETTER FUTURE!

万科中心如同一座博物馆，见证了近三十年中国企业发展的足迹；
这也是一座不断变化的建筑，努力与城市共同创造美好的未来！

VANKE CENTER IS LIKE A MUSEUM, EXHIBITING CHINESE ENTERPRISE DEVELOPMENT IN THE LATEST THREE DECADES; IT IS ALSO AN EVER-CHANGING ARCHITECTURE BUILDING A BETTER FUTURE!



玛莎·舒瓦茨，玛莎·舒瓦茨及合伙人有限公司
首席设计师

Martha Schwartz, Martha Schwartz Partners
Principal

Interview with Martha Schwartz

Passive Green Thinking of Landscape

景观的被动绿色思维·玛莎·舒瓦茨

万科中心的景观改造在设计之前有什么困难吗?

玛莎·舒瓦茨： 最开始的阻碍几乎都是植物问题。植物选用的色调太复杂了，植物之间不能和谐共生，看上去像是还没完成，不够吸引人。所以我们采取了斯蒂文·霍尔当时的理念，对某些土丘进行了重新调整并探寻了许多种植方法以期待能够找出那些在某些极端环境下仍能成活的植物，甚至移除了部分现存的植物。

我们的首要工作是去实地检测种植为什么会失败，并且做视觉分析，找出失败的原因以及如何确保下次种植能成功。有趣的是，问题的根源在于土丘的复杂性并没有被完全理解，以至于它们被设计成浪漫而又“自然”的景观。要知道，设计没有完成的土丘，土壤的质量没法让植物生长。供水系统也不够完善，水滴无法滴下。所以我们重新设计了斜坡，让它更加稳定以便于植被的附着。

另一方面是关于如何使用建筑的问题，例如希望我们响应酒店的功能。我们加入了许多不同类型的户外空间来更好地反映出酒店的需求，例如可以让人们欣赏到花园的聚会场所、私人空间以及儿童游戏区等等。我们植入上述的空间，并设法将它们整合到设计理念中。

我们的种植策略是简化栽培，选择更加有活力以及高度织构化的植物，并确保植物的种类会吸引鸟类、蜜蜂和其他昆虫。总之，我们试着找出既是我们所需要的，同时又环保、实用和美观的东西。

请跟我们谈谈您的景观“被动绿色思维”。

玛莎·舒瓦茨： 中国的可持续和绿色发展往往没有把景观包含在内。这是因为建造一座建筑物需要更密集的碳、资金和资源，所以更多的公司会把资金投入到发展相关的技术中去。很多环境问题是由于建造和运营建筑物过程中使用了60%–80%的资源，这也是为什么现在很多建筑师试图去定义“绿色建筑”的原因。

景观并不是一个使用各种新科技的平台，而是以生态的方式的干预和设计来组织、规划生态系统和社会系统。它的真正价值不在于装饰，而在于怎样规划一个环境、社会和经济持续发展的城市。这一方法应用于城市规划时最为有效，但目前还处在规划水平，需要政策支持和经济投资。人们都还没清楚地意识到城市景观可以产生巨大的经济收益并且改善生活质量。这正是现在我们迫切需要进行这次讨论的原因。

我知道这有点激进，不过景观是组织健康社区和城市的关键；仅仅盯着如何建造“绿色”建筑无法构建一个可持续发展的未来。我们需要做的是支持社区、市民生活以及加强两者的沟通，从而培养健康的市民并营造健康的环境——这就是我关于“被动绿色思维”的想法。

景观可以通过鼓励混合用途、设计人性街道、支持城市绿化、开立自行车专用道和为人们提供多选择的绿色开放空间等方式来创造活跃的街道生活。这是一个可以支持未来发展的活系统，而不只是个装饰。景观能够给居民们提供美的视觉享受，也可以作为休闲娱乐的场所。在中国，人们所注重的装饰性景观往往并不能促进市民/社区生活。街道应该适于步行并将人们引领到商店、饭店和工作区域来创造社区生活，而非将人们引向孤岛。目前，中国正在不断建造住房，但是这不等于建造城市。要建造一个城市，我们需要把各种景观系统结合起来，比如说社会和生态系统，因为景观的基本作用是创造多层次的联系。但是目前，没有人意识到基于景观进行规划的重要性。景观设计和社区发展是彼此分离的行业。所以，对景观的认知从单纯的装饰到多重系统，再到一种相互联系的方式，这种观念的改变是非常重要的。

作为一个景观设计师，您是怎么和建筑师和规划者，以及政府官员和开发商合作工作的呢?

玛莎·舒瓦茨： 我们的工作团队很大，而建筑师是众多重要的顾问之一。首先，我们尝试弄清楚土地的整体“容纳”能力。我们需要知道土地的密度，以及怎样在保护自然系统、土地的使用性和土地与自然的联系性的前提下平衡各因素。我们需要设计出能使各因素都持续发展的方案。我们不仅能帮助决定城市该如何发展，还可以设计街道结构、人行道连接点、公共交通、露天场所，并保护重要的生态系统。然后我们就有了疑问，该给市民提供一种什么样的景观呢?

当我们着手处理一处场所的具体设计时，都将它视作独一无二的。我们和环境工程师一起进行这种分析：于规划建筑物——先确定一座建筑物的位置，然后再在其周围设置停车场，称之为“景观”。一个可持续项目的实现必须基于工程学和景观学的设计。墨尔本、温哥华和新加坡等城市都将景观视为规划整个城市的重要基础，然后才建造建筑物。

与万科的合作如何?

玛莎·舒瓦茨：很棒，他们很乐于接受各种想法，并且可以给出很好的建议。我们是一个非常好的团队，总是不断交换意见。

最有趣的事情之一是认识了王石先生。我很好奇为何他能进入哈佛大学神学院，因为作为一个母语非英语的人，研究对哲学基础要求如此之高的课题是很有难度的。我对他怀有很高的敬意，因为很明显他不止是一个成功的商人，领导了万科这种大企业，还是一位富有远见的思想家。他的思维方式领先于当前的思想界。我知道他对环境以及科技都很感兴趣，同时也关注人们的内心、灵魂和人类价值。他认为，除金钱之外的其他衡量成功的标准不应被忘记，成功不只是挣钱，保持平衡很重要。他回答这个问题时的思考令我非常感动，因为他关心着中国的未来，并想引领中国以健康和可持续的方式发展，这个过程就包含了人类价值。我非常同意他的观点。

我们也提到了万科有关住房类型的研究。他们正通过万科自己的研究来探索正确的发展方式。这令人印象很深刻。

万科对于万科中心的未来有几个设想：如大学、会议中心等等。您认为万科中心的未来将会是什么样子的?

玛莎·舒瓦茨： 我认为万科中心具有成为一个教育和研究地点的潜力，在这里，万科将会继续为中国社区的发展作贡献。或许它可以将自己转变成一所大学的分支机构，或者甚至和我所在大学——美国哈佛大学建立和发展关系，因为中国和美国有许多相同点和可分享的不同点。也许，我们可以将双方的智力资源相互连接，一起交流和共享信息、历史、人物、头脑和智慧。我们不仅能在中国和美国，而且也可以在世界的其他地方进行项目研究。不论如何，这是我的想象，我是一个喜欢幻想的设计师，不是一个开发商……（大笑）

如果中国想通过城市和社区规划为未来发展做准备，而现在的发展模式显然不可能突然停止，那么您认为我们能做些什么来帮助中国成功进行这次转变呢?

玛莎·舒瓦茨： 在中国问题上我不是一个专家，我只能根据我有限的经验和印象来说。

中国有一个中央集权的、由上而下组织的政府，并且希望在很短的时间内建成许多城市。你们很幸运，因为在你们的政治体制的带领下，这个庞大的国家能够很迅速地做出转变，甚至比美国还要迅速。而我们的民主体系就跟其他许多民主体系一样，所依赖的进程可能会很慢很慢。所以从这个意义上来说，我们把中国看成是一个能快速做出转变的地方。中国政府可以利用人们的住房需求来推行有助于城市建设的规划与发展法律。但是现在有机会尝试缓解住房压力和社区发展，所以中国能够建造这些新的可持续的城市。这项工作的完成需要政府投资和私人部门投资在基础设施建设上进行合作。但它确实有效，并且如果中国要实现在未来20年内建造400座城市的目标，这是必不可少的。否则在未来的20–30年间，今日所建造的住房大楼将不得不被拆毁，因为人们的经济条件将允许他们选择到更和谐、更便捷的地方居住。但我们希望中国能够避免这种发展模式。既然世界正在变得更加城市化，那么它需要关于如何建造新城市的正例。而中国在这方面可以成为领军者。

万科也许能参加这次讨论，比如它可以谈论如何利用住宅需求建造城市，因为在目前的情况下，高层建筑并未连在一起——这种方式建造不出社区，世界上许多其他文化已经证实此种类型不起作用。这一论述，出于必要，将会通过学术和商业领导者引入。我希望开发者、规划者、建筑师和景观建筑师能带给人们好的事物，以改善人们的生活质量。我们需要让领导者认识到这样的观念，并把它们融入到我们的法律法规中去，这样我们才能为广大人民建造一个可持续发展的未来。但是要做到这些很困难。

我知道，中国的变化很快。但我希望，将来的城市发展能够以一种更为可持续的方式进行。中国发展社区应该看得更长远一些，因为几代人之后，当人们有了更多的钱，可以对自己希望居住的地方有更多的选择时，很多人不会选择住在现在居住的地方——特别是初次拥有家庭的人和从农村搬出来的人。所以我们必须考虑建造人们乐意世代居住下去的社区；这是需要深思熟虑和负责可靠的计划才能完成的事情。

总之，我们所能做的就是：竭尽所能去传授，去学习，去分享并尽力使人信服。

既然世界正在变得更加城市化，那么它需要关于如何建造新城市的正例。而中国在这方面可以成为领军者。
万科也许能参加这个议程中，比如它可以谈论如何利用住宅需求建造城市
The world needs positive examples of how to build new cities now that the world is becoming more urban. China could be a leader in this, and there may be a role for Vanke in this discussion, like having a discourse on how to use the demand of housing to build cities

For the landscape renovation of Vanke Center, what was the problem before the design?

Martha Schwartz: The issues at the very start were mostly planting failure. The planting palette was overly-complex, and the plants were fighting each other. It looked unattractive, and unfinished. So we took the existing concepts of Steven Holl, and re-adjusted some mounds and explored planting approaches to find the exact plantings that would work, given some of the extreme circumstance and to even cut remove some of the existing planting.

Our first job was to go there and find out why the planting didn't succeed, and did a visual analysis to see what was failing and how to insure that this next round of planting would be successful. An interesting thing was that the complexity of the mounds, design as a romantic and "natural" landscape—was not fully understood. The mounds was under-engineered, and the soil quality really couldn't allow plants to grow. The water system was not adequate, that it couldn't drip down. So we re-engineer the slope and make it more stable for the plants to stay.

The other thing is there are other issues involving how the buildings are used, such as a hotel that they hoped us to respond to. We inserted a number of different types of outdoors spaces to better respond to the needs of the hotel, such as places for parties, where crowds can enjoy the gardens, or areas for privacy, or play area for children, etc. We were asked to insert they spaces out there and try to figure out how to integrate them into the concept.

Our planting strategy was to simplify the planting and choose plants that were more robust and highly textured. We also made sure the plant species welcomed birds and bees and other insects. In all, we tried to respond to what wes needed and what works both environmentally, practically and aesthetically.

Please tell us about your "passive green thinking" of landscape.

Martha Schwartz: The landscape, in terms of green and sustainability, is often not included in Chinese development. This is because a building requires much more intense carbon, money and resource, so there are more companies investing in the development and creation of its technology, and the topic is much more supported in industry. A lot of environmental issues are generated by 60-80% of resources spent in building and operating buildings, and that's why the architects are trying to define "green building".

The landscape is not a platform for technological but for ecological interventions and different approaches of organization and planning ecological and social systems. It' s real value, other than decorative, is in planning for how to create environmentally, socially and economically sustainable cities. It is most effective when applied to urban-scaled planning. But this approach, which happens at a planning level, needs political will and investment. People are not yet aware of the large economic gains and improvement in the quality of life the urban landscape can play. This lack of awareness is why this discussion is so urgent.

I know it is radical, but the landscape is the key to organizing healthy communities and cities; simply looking at how to build "green" buildings will alone, not evolve a sustainable future—we need to support community, civic life and connectivity to each other on the groundplane to make healthy people and a healthy environment—that's my thinking about "passive green thinking". Landscape can help to create support active street-life through encouraging mixed use, design human-scaled streets, and encourage urban greening, bike lanes and a wide choice of green and open spaces for people to enjoy. It is a living system, rather than just decoration, that will support future growth. Landscape can offer a beautiful vision to inhabitants, as well as places that people can rest and enjoy themselves. In China, people are making beautiful decorative landscapes, but they don't support civic/community life, and streets that are walkable and connect people to shops, restaurants and places of work—all of which create a community rather than disconnected islands of housing. Right now China is building housing, but the housing is not building future cities. To build a city, the incorporation of landscape systems, such as social and ecological system, is a requirement, as the fundamental role for the landscape is to create connectivity on multiple levels. But right now, there is not an awareness of the importance of landscape-based planning. The profession of landscape architecture and the development community are separated from one and another. It's important to understand landscape not as decoration but as multiple systems, and a way of connecting to each other.

As a landscape architect, you need to work with a lot of people, not just architects and planners, but also government officials and developers. So how do you collaborate with them?

Martha Schwartz: We work in large groups where architects are one of many important consultants. To begin we try to figure out what the "holding"capacity of the land is as a whole. We need to know what the densities are and how to balance this with the protection of natural systems and access and connectivity. We need to design developments that can sustain themselves. We can help to determine where should cities go but also how to design a structure of streets, pedestrian connections, public transport, open spaces and protect important ecological system. Then we ask, what types of landscape need to be provided for the citizens?

When we approach the specific design for a site, we view every site as unique. We like to approach this kind of analysis in conjunction with environmental engineers; they collect information and find out the system. We want to understand the hydrology—how to integrate the landscape so that it can clean the water so that water can naturally filter through the soil so cleaned water can replenish the aquifer or flow back, cleaned, to rivers or other water bodies. We study, how to use the wind to cool, how to build a road system that are not so big and busy that they disconnect people, but are human scale and can be safely crossed , Also, we need to strategize how to integrate public transportation to cut down on car us, and how to integrate parking. We need all the fundamental issues to be sorted out correctly- at the beginning.

But now the development community here in China still approach planning building-first you first put a building on the site and then make parking around it, which is called "landscape". A sustainable project must be accomplish through an engineering and landscape-based approach. Cities like Melbourne, Vancouver and Singapore all think of landscape as an important basis on which to plan their cities, and then build the buildings.

How was the collaboration with Vanke?

Martha Schwartz: It was great; they were very open to ideas, and able to give good direction. We were a very good team and we continue to be in dialogue.

One of the most interesting outcomes has been meeting Mr. Wang Shi. I was very curious why he is attending the Harvard Divinity School, and that someone who is not a native English speaker, it is very difficult to engage such highly philosophical-based topic. I have tremendous respect for him as it is clear that not only is he a successful businessman and leader of such a large company as Vanke, he is also a thinker and a visionary. He's thinking way ahead of the current thought.. I know that he's interested in the environment as well as technology, but also interested in peoples' hearts, souls, and in human values. He feels that it is important that other measures of success, other than money, must not be forgotten, and that success is not just about making money- there must be a balance. I found his search for answers to this question very moving, as he is concerned for the future of China and wants to lead development in a healthy and sustainable direction- that included human values. I agree very much with his point of view.

We also mentioned Vanke's research of housing typologies; they are exploring the right way to do development through Vanke's own research. That was very impressive.

Vanke has several versions of the future of Vanke Center: university, conference center, etc. What do you think can be the future of Vanke Center?

Martha Schwartz: I think it has the potential as a place of education and research where Vanke will continue to contribute to the development community in China. Perhaps it can turn itself into a branch of a university, perhaps even develop a relationship with my university, Harvard, in United States, because China and United States have a lot in common and many differences which can be shared. Our collective intellectual resources could, potentially, be connected to each other so to exchange and share our information, history, people, brains and intelligence. We can do research projects not only in China and the US, but in other places in the world. Anyway, that is my fantasy, I am a visionary designer - not a developer… (laugh)

If China wants to prepare for her future by city and community planning, but obviously the temporary development mode can't be stopped suddenly, do you think there is anything we can do to help to pass the shift?

Martha Schwartz: I am not an expert on China; I can only speak based on my limited experience and impressions.

China has a centralized, a top-down government, and wishes to build many of your cities in very short time. Because of your governmental structure, you are lucky in that this huge country can make changes very quickly, faster than the United States. Our system of democracy, like many democracies, relies on a process which can be very, very slow. So in that sense, we view China as being a place where change can happen very quickly. Chinese government can help to push planning and development laws that would support the building of cities by using the need for housing to achieve this. but for now, the opportunity exists to try to harness the pressure for housing and the development community, so China can build these new and sustainable cities. This would also require collaboration between the government' s investment in infrastructure as well as private-sector investment, to make this work. But it could work and if China is going to accomplish this goal-to build 400 cities in 20 years, this should happen. Otherwise there will be a crisis in 20-30 years where the housing towers built today will have to be torn down as people become more economically empowered and will choose to live in places that are more convenient, not so car oriented and where people don' t feel so isolated. But we are hoping that China will be able to avoid this development typology. The world needs positive examples of how to build new cities now that the world is becoming more urban. China could be a leader in this.

There may be a role for Vanke in this discussion, like having a discourse on how to use the demand of housing to build cities, because the situation right now—the high-rises don' t connect to each other—this does not work to build communties. Many other cultures in the world have proved that typology doesn' t work. This discourse, out of necessity, will be lead through academics and business leader. I hope is that developers, planners, architects and landscape architects could bring the good things to people and improve their quality of life. We need to educate our leaders to this point of view is integrated into our laws and regulations so we can develop a sustainable future for our citizens. But it' s difficult.

I know that things change quickly in China and hope that urban development can, in the future, be done in a more sustainable manner. The Chinese development community must look forward, because after a few generations, and as people have more money and more choices regarding where and how they wish to live, many will not choose to live in places where they are living now-especially the first-time home owners and people moving from the agricultural areas. So we have to think of building communities where people will choose to live generation after generation; these are things that thoughtful and responsible planning can create. Anyway, if there is anything one can do, it would be to try to teach, to learn, to share and to try to be convincing.

钱源，万科企业股份有限公司万创设计管理中心
研发总监

Qian Yuan, Research & Development
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Essay by Qian Yuan

Transformation Caused by Respect

由尊重引发的改造 · 钱源

第一眼看到万科中心就是震撼，从市区需要穿过若干隧道，正当一个人开始觉得乏味的时候，高速出口的右手边出现一长条语言极纯粹的立面。这条立面的周围是风格各异的度假感强的小建筑，它冷静的坐落在那里，极具设计感，甚至有点儿来自未来的感觉。从高速上转下来，来到房子近前，第一个印象是不知道要从哪里下车，不知道入口在哪里。均质地水平展开，面朝大海，城市界面完全架空，若干草坡在眼前，让人不易判断从何处走进它。

第一眼看到万科中心至今已近三年，当时也是万科总部刚刚搬入。总部占据了这座建筑地上面积的1/4，一万三千平方米吧。这一万三千平方米运营一年下来，从设计初衷到各项运营指标都达到了LEED白金建筑的标准。有些建筑杂志上说万科中心是地球上最大的LEED白金建筑，这种说法是不科学的，因为评级时只有1/4的地上面积被使用，客观地说这是一个局部白金的LEED建筑，当然不是最大的。

在这里工作总是遇到各色人来参观。有政府官员、年轻学生、各国建筑师、摄影师、电影团队、记者、各行各业，这是一件有趣的事，他们各不相同，但都因为一个建筑走进万科。有一次张永和老师带着七、八个外国人来参观建筑，大家走走停停也待了1个小时，直到离开也没有交换名片。他们是今年普利兹克奖的评委们，除了Zaha，所有评委都来了，低调而谦逊地看了一圈。原本以为Steven Holl将会拿奖，没想到今年花落王澍。也是这是唯一一个比Holl得奖更让我们开心的候选人吧。

每次接待都会回答很多问题，其中最有趣的是万科中心有那么多竹子，那最不适合养的动物是不是熊猫啊？最难回答的是，如果有70%的面积空置着，难道这不是最大的不环保吗？我们带着这个问题，一直努力地工作着，希望可以找到答案。

王石说，这个建筑很有意思，就好像现在的中国，充满不确定，由事件驱动，一点点找到自己。

其实很多事我们都没有确定的答案，因为这栋建筑已经超越商业，我们没有打算用经济账来衡量它的意义。但是它有明确的思想：开放、自由、平等、万科人的社区。在这里发生的所有事，但凡尊重了这些思想，都会被鼓励。与之违背的，则不会再发生。还是用“事件”来描述它正在发生的变化吧。

事件1：白鹭鸶和蜜蜂

当一只蝴蝶从眼前飞过的时候我们通常不会想太多，蝴蝶应该没有太多深刻含义吧，可对于古代圣贤可能就意味着哲学！对于一个地上面积六万余平方米，地下面积超过四万平方米的大型建筑，在它的公共景观区域出现十余只白鹭鸶到底意味着什么呢？在商业社会，我们总是希望用逻辑和精确的数字描述事件或成就，但显然自然界有它自己的解释标准。在万科中心运营时，某个季节中每天都有白鹭鸶栖息在景观中就是最好的对于环保理念的描述。我们无形中创造了一个生物多样性有可能实现的环境，而不是仅仅为了观景而创造看上去还不错的环境。所以在万科中心景观改造的过程中，可以吸引动物的到来变成景观设计的重要指标。后来，万科中心引进了一个蜂农，同事们可以喝万科自己生产的蜂蜜了。还有各种蝴蝶，各种海鸟，各种我们不知道名字的动物从万科中心的客人变成主人。

事件2：开放的公园，可很少人来

记得在《美国大城市的生与死》中曾经描述过美国某城市的四个公园，建城时四个大小、形状完全一样的四个公园经历了200年，各自状态差异极大。有的变成了城市交通圆盘，面积大大减小；有的变成城市最邪恶的角落；而有的却成为商业中心最有价值的绿地。这是说明原本的初衷相同且资源也相同的事物也会因为时间、环境和管理者的思路发生截然不同的结果。当年Steven Holl架空整个建筑，为了给大梅沙这个几乎连沙滩都私有化的地方创造一个城市公园。这个公园是友好的，开放的，甚至能在四季如夏的深圳创造足够多的阴影和海风对流，让空间尽量适于人们停留。可是为什么这里很少有人使用呢？这就勾勒出万科中心景观改造的第二个原则，创造让人停留的理由和设施。过分追求野生环境，刻意打造原生态环境会让人望而却步。七八万平方米的景观里没有一个让人坐下的友好空间，所有的元素都独立并自大地存在着，不友好，也不让人快乐。所以我们正在景观里加入多样元素：运动空间、广场和可以坐下聊天的花园以及可以参与的生产性景观。作为万科人自己的社区，我们尽量创造各种运动的可能给使用者带来健康；作为万科对外的窗口，广场使户外大型集会变得有可能；作为生活在大梅沙的邻里单位，花园和生产性景观给周围邻居一个每天来坐坐，随时来聊天儿的空间。在这些空间里，增加户外的洗手间、自助的咖啡屋等服务性单元，让空间不只是空的，而是友好的、宽容的、多样的。

事件3：V-Talk

2012年6月4日，安藤忠雄来到万科中心做公开演讲。那天除了安藤，我们还迎来了1 500位慕名而来的人。这是一场免费的活动，并且无条件地对任何人开放。在稍微有些敏感的日子里，这对万科中心产生了更多的要求。那么多人的疏散、停车、接待、秩序，所有的一切都提出了新的要求。而这些要求变成了审视建筑空间的尺子。在那次的活动中，我们得到了一致正面的评价，也发现了无数在建筑功能上可以变的更好的可能性。20天之后，我们又迎来了世博英国馆的设计师托马斯·赫塞维克先生，又是一场成功的演讲，又提出了一系列空间改造的要求。作为深圳这个城市很重要的建筑作品，实际上它也可以扮演一个公共知识传播平台的作用。它接纳过一千五百人，它也有潜力接待五千，甚至一万人。在建筑里做过大师讲坛，在国际会议中心里它可以做“达沃斯”论坛，在室外空间它也有可能做大学生露天电影节。因为它不只是企业总部，它还是必须在城市中扮演角色的大房子。它可以承载的远远比一个商业建筑多，因为它和万科都有社会诉求。在更大的活动来临前，万科中心对内外流线做出一系列调整，为了给城市提供一个有价值的文化平台。

事件4：培训

2011年，全国有1 308个由社会招聘进入万科的新员工，226个校园招聘的新职员，以及上千人次的各种培训在万科中心发生。这意味着什么呢？意味着有超过20 000人次在万科中心及周围的社区待了24小时。而这个数字是一个极克制的结果，其实占全体员工80%的物业同事并没有在万科中心培训。但是，无论如何这是每个万科人梦开始的地方，也是每个即将承担更多责任的中层管理者履新前必须参加学习的地方，来总部是一种体验、荣耀，也是一种责任。但是从某种角度说，万科中心并没有扮演好学习平台的角色。所以，做个大学吧，打造一个重回校园的体验，让每个来到总部学习的同事们找到一些深埋心里、无比重要的东西，找到梦想。这不禁让人想起那些世界著名的企业总部，比如Google，那是一个让人们可以自由交流并快乐工作的地方，更像大学而不是政府吧。

事件5：哈佛企业伦理论坛

王石远渡重洋对于这个企业意味了太多，这是一个无法用数字明确表述的问题。但是有些有趣的事件在发生，比如哈佛企业伦理论坛。其实并不是说一个高端论坛有多么重要，但是这样小众而高端的论坛对万科中心提出了更高的要求。作为这个企业的总部，万科中心呈现出的是万科人生活和工作的地方，但是和国际对话的接口是单一的，也是不顺畅的。从体验的角度说，每个来参加论坛的人并不能感受到全球最大开发商在居住体验上的创造性，他们都住在周遭的度假酒店里。这些周期性出现的高端居住诉求也同时影响着大梅沙高端度假人群的居住品质，因为容量总是有限的。万科中心的存在不应该给周遭带来负面影响，并且应该给客人更好的参会体验吧。所以这里还应该有一个客房数不多，但是以居住体验和设计导向的酒店。它一定不是最奢侈的，但是一定有趣，一定新颖，一定是一些对于未来居住有益的尝试。很多在普通住宅里无法实现的尝试都可以在这里试验。一个精致的小酒店，在万科人的社区里，有这样的一些客房，让人宾至如归。

其实还有很多很多事件：

2014年9月，万科将迎来自己30岁的生日。而立之年，也是中国经济发展过程中波澜壮阔的30年。万科中心里应该有一个记录脚步的博物馆，它一定不很大，但可以对所有人，所有对企业好奇或有感情的人讲述故事的地方。从多元化到专业化，从杀伐四方到让建筑赞美生命，万科有自己的看法、角度和视野，有独立的价值观和实现它的努力，所以万科中心里还应该有一个体验中心，它也不会太大，它讲述的更多是未来，是普世价值，是那些触及人们深思，让人们找回触觉、味觉、听觉、感觉的空间，把我们的角度放慢，让灵魂跟上脚步的体验中心。

第一眼看到万科中心至今已经三年，再穿过最后一个隧道从高速上往右看，会看到一个依旧让我激动但又非常熟悉的一条纯粹的遮阳百叶立面。从高速上转下来，这个建筑一点点呈现在眼前，脑子里想到很多很多画面。在一个台风肆虐的夜，我们和工人一起想方设法保护好刚刚种下的蓝花楹；在跑道边一遍又一遍的试样；在体验中心的方案上一改再改；在泳池和四季花园的铺地材料上和工人一起尝试如何做才会更好；在玻璃上尝试不同的膜以达到各种色彩斑斓；在安藤忠雄到来的时候，忙碌了许久的同事昏睡在国际会议中心；每个优秀的企业总部一定充满故事，也饱含企业的价值观。这就是一个漂浮的地平线，因为我们让节约出来的空间变成公园，公共、开放、自由、平等。

在这栋建筑发生的所有事，但凡尊重了开放、自由、平等这些思想，都会被鼓励。与之违背的，则不会再发生

All things happening here will be encouraged if they follow the following ideas: an open, free and equal community, otherwise, they won't happen again

When you see Vanke Center for the first time, you may be astonished. After driving through several tunnels through the city and you start to get bored, there comes a long elevation with pure architectural language at the right side of the existing highway. Around the elevation, there are small buildings in different styles with a strong sense of resort. The architecture sits there calmly, with a strong sense of design, perhaps even with a feeling of coming from the future. Driving off the highway, when coming to the front of the building, your first impression will be that you can not be sure where to get off or where the entrance is. Facing the sea, the building spreads out evenly and horizontally with urban volume completely lifted up, there are green slops at the front, making people not sure how to approach.

It has been three years since I visited Vanke for the first time. At that time, the headquarter has just moved in. The building takes up one fourth of the ground floor area, nearly 13 000 square meters. After one year, it has met the standards of LEED Platinum Certification both in its original design and its operational indicators. Some architecture magazines have ranked Vanke Center as the largest LEED Platinum building in the world, which is not entirely true, since only 1/4 of the land on the ground has been used during the ranking. Technically speaking, it is partial LEED, and certainly not the largest.

Working in here, you can come across people from all walks of life coming to visit, including government officials, young students, architects from many countries, photographers, film production teams and journalists. It is fascinating to see them come to Vanke for its architecture despite of all the differences. Once, seven of eight foreigners accompanied by Mr. Zhang Yonghe came to visit. They spent nearly an hour walking around and did not exchange cards until leaving. They are judges of the Prizkter Architecture Prize this year. Except Zaha Hadid, all the judges came and walked around the architecture in a low-key and humble way. We had thought that Steven Holl would get the prize, but the winner turned out to be Wang Shu this year. Perhaps he was the only candidate who could make us happier by winning the prize other than Holl.

We have received many questions from visitors and among all questions, the most interesting one would be: There are so many bamboos in Vanke Centre, would pandas be the least suitable animal to live here? The hardest question was that, if 70% of the area remains vacant, would it be too far from environmentally friendly? With this question in mind, we have been working hard in hope of finding out the answer.

Wang Shi said: This architecture is interesting, just like China at this moment. It is full of uncertainty driven by events, on the way to gradually find itself.

In fact, many things remain uncertain. As this architecture transcends its commercial value, we do not intend to measure its worth in terms of money. However, it has a clear direction: an open, free and equal community that belongs to people of Vanke. All things happening here will be encouraged if they respect these ideas, otherwise, they won't happen again. Let' s describe the changes happening by the following "events"

Event 1: White Cormorant and Bees

It is common that we don't think much when a butterfly flies in front of our eyes. A butterfly perhaps doesn't have profound implications. However, it may represent philosophy to the sages of ancient times! But what's the meaning of over 10 white egrets appearing in the landscape of an architecture which occupies over 60 000m² on the ground and over 40 000m² underground?

In a commercial society, we always want to use logic and accurate numbers to describe events or achievements, but it is obvious that nature has its own standards. During the operation of Vanke Centre, the best demonstration of environmentally friendly ideas is the appearance of white egrets in the landscape everyday during certain seasons. We unconsciously created an environment of biological diversity, rather than a nice environment only for viewing. As a result, in the process of landscape improvement of Vanke Center, attracting animals to here became a crucial indicator of landscape design. Later, an apiarist was employed and since then, our staff is able to enjoy the honey produced by Vanke. Besides, all kinds of butterflies, sea birds and animals unknown to us turned from guests to hosts in Vanke .

Event 2: Open park with few visitors

In the book "The Death and Life of Great American Cities", the author describes four parks of exactly the same size and shape in one American city. After 200 years, they turned out to be extremely different. Some became traffic roundabouts of the city with the areas largely reduced; some turned into the bad corners of the city; while some became known as the most valuable green lands in commercial centre. It demonstrates that things with the same initial purposes and resources will have entirely distinct results due ot differences of time, environment and management. The architecture was built on stilts by Steven Holl that year so as to create an urban garden in Da Meisha where even the beaches are almost privatized. This park is friendly and open. It even provides enough shadow and sea breeze in a subtropical city like Shenzhen to make the space suitable for people to stay as much as possible. But why only few people used the place? This led to the second principle of landscape transformation of Vanke Center, which aims to create reasons and facilities for people to hang around. Excessive pursuit and deliberate creation of primitive ecological environment will only keep people away. There is no space friendly enough for people to have a good rest within the landscape of 70 000 to 80 000m², while the whole design seems so cold and arrogant that it refuses to have a good dialogue with public. Therefore, we are adding various elements to the landscape: sporting facilities, a public square and garden where you can sit and chat and be productive—a landscape which you can participate in. As a community of Vanke people, we try our best to create possibilities for all kinds of sports to make our users healthy; as a public representation of Vanke, the square makes large-scale outdoor assembly possible; as a workplace in the neighborhood of Dameisha, the garden and productive landscape are for neighbors around to sit and chat here everyday at any time. In the space, we will add outdoor toilets, buffet cafes and other service units. In this way the space will not be empty, but friendly, open and diverse.

Event 3: V-Talk

On June 4th, 2012, Tadao Ando came to Vanke centre to deliver a public speech. Additionally, there were 1 500 people came to participate in the activity. It was a free activity, open to everyone unconditionally. On certain days, this will produce more demands on Vanke center. Evacuation, parking, reception and the management of so many people all demand new requirements, which turned into the criteria for architectural space. In that activity, we got positive feedbacks, and also found lots of possibilities to achieve better building functions. Twenty days later, we also invited Mr. Thomas Heatherwick, the designer of the UK Pavilion at the Shanghai World-Expo. It was another successful speech; the event put forward a series of spatial transformation requirements. Being an important piece of architecture in Shenzhen, Vanke Center can also play the role of public knowledge broadcasting platform. It has hosted 1 500 people, while it also has the potential to contain 5 000, or even 10 000 people. The building has been used as the master forum, the international conference center has used as "Davos" forum, and the outdoor space may host undergraduate's open-air film festival. Because it is not only a corporate headquarters, but also a large building that plays a role in a city. It can carry more than a commercial building because both Vanke and building contribute to the society. Before the larger activities, Vanke Center has done a series of adjustments to internal and external traffic networks, with the purpose of providing a valuable cultural platform for the city.

Event 4: Training

In 2011, 1 308 new employees from social recruitment and 226 from campus recruitment came to Vanke from nationwide, who did all kinds of trainings in Vanke Center. What does this mean? It means there were over 20 000 people that stayed in Vanke Center and its surrounding communities for 24 hours. And this number was a underestimated result. Actually 80% of the property management staff had not been trained in Vanke center. However, it is not only the place where dream begins for every Vanke people, but also the study place for every middle manager before undertaking more responsibilities. It is experience, glory and responsibility to work in headquarters. While in some ways, Vanke Center hasn't done a good job in playing the role of learning platform. Therefore, let's build a university and provide experience of reliving campus life. Making every colleague come to study in the headquarters is significant for helping each person find out his dream and passion. This makes people can not help but think of the famous corporation headquarters, such as Google in which people can communicate freely and work happily. The place is more like a college rather than government building.

Event 5:the Harvard Forum of Business Ethics

Wang Shi travels all the way from across the oceans means a lot for the development of the whole enterprise, which can not be demonstrated in statistics. Moreover, interesting things took place, such as the Harvard Forum of Business Ethics. Actually, it is not saying how important a high-profile forum is, but this exclusive and high-profile forum demands more requirements to Vanke Center. As the headquarters of the enterprise, Vanke Center shows great adaptability not only towards their own staff but rather than communicating internationally. In view of experience, people taking part in the forum all live in the resorts around, thus it is hard for them to be impressed by creative living experience, which was carefully prepared by one of the world's largest developers. These high-end residential demands appearing periodically also have an influence on living quality of the people on holidays in Dameisha, for the capacity is always limited. The existence of Vanke Center should not bring negative influence to the surroundings, while it should provide better conference experience to the guests. Thus a hotel with a few of guest rooms should take place and be oriented by living experience and design. The hotel surely is not the most luxurious, but must be interesting, novel and beneficial for future living. Many ideas that can't be achieved in common residence can be tried out in here. In the community of Vanke people, a small but delicate hotel with such guest room will make guests feel like at home.

In fact, there are many other events:

Vanke will celebrate its 30th birthday in September, 2014. These thirty years are also a magnificent years of Chinese economy development process. Vanke Center should have a museum that can record its steps. It may not be very large, but can be a place that opens to everyone who is curious about this enterprise or who wants to tell stories. From diversity to specialization, from developing largely to making architecture as tribute to life, Vanke has its own view, perspective and horizon, independent values and efforts. Thus, there should also be an experience centre in Vanke Centre, which is not too large; what she tells is more about the future, the universal value and the space which touches people's heart and where people can find back their sense of touch, taste, hearing and feeling. It is an experiencing center that can slow down our body and make the soul catch up with footstep.

It has been three years since I first saw Vanke Center. Crossing the last tunnel again and seeing right from the highway, I can see a pure sunshade shutter elevation which makes me feel familiar but still exciting. Turning down from the highway, the building appears in front of me little by little, and many pictures come into my minds. On a typhoon raging night, the workers and us did everything possible to protect the just planted jacaranda; Over and over on the trials beside the track; design of the experience centre were modified again and again ; there had been collective attempt to find better solution with the workers for the paving material of swimming pool and four seasons flower garden; We tried different membranes to get a variety of colors for glass; When Tadao Ando came, colleagues who had been busy for a long time were sleeping in the International Conference Center; Every good corporate headquarters must be full of stories and corporate values. This is a "floating horizon" because the saved space has been changed to parks, which is public, open, free and equal.

跋
建筑的角色

万科总部选址受到了哪些因素的影响？对它的定位有着怎样的发展变化过程？

王石：在万科新总部选址过程中，万科中心所处环境依山傍海，这里符合我心目中关于总部位置的理想。总部的选址也存在历史的局限性和社会文化背景的影响，如果是在美国情况有所不同，一个连锁企业总部设在小城市，并不影响它作为一个世界五百强的国际地位。在中国，北京和上海作为政治文化中心和金融中心吸引了很多大公司，许多国企巨头大公司出于政治的考量都在北京设立总部。而金融中心则越来越明显地转向上海，如保险业多设总部在上海。但是万科不会受此影响，万科有自己的发展重心所在，从股东结构也考虑了国营公司背景的安全性。在政治上和相关领域没有这些诉求。

在选址过程中，原来我如多数人所想，认为总部只是办公的地方，有意思的是选这块地方时规划要求很多东西，如高级酒店，会议中心；我们都乐于接受，但实际上如何把他们经营起来，五星级酒店与总部关系如何；这么大的面积如何有效利用等；还缺乏全面的考虑。从2009年搬进来至2011年我们逐渐形成了清晰明确地定位，将其定位为——总部社区，对外开放，对社区开放的总部。此外，这种定位使企业文化和周边环境潜移默化地融为一体。如果它是强势的，在这种相互融为一体的过程中，也会渐渐对社区产生微妙的影响。

对于将邻近的湖区纳入万科总体环境规划改造体系，是如何考虑的？

王石：确定总部社区这一定位后，逻辑变得逐渐清晰起来，与周围环境的关系也逐步确立起来。这包括两方面——自然与人。作为开放的社区，我们力图以完全敞开的胸怀，营造并解决与社区人群的互动关系。而自然如何友好相处，也是值得考虑的，邻近总部的湖在万科周边管理之差和万科总部环境是极不相符的，我们希望它能成为万科整体良好氛围的一部分，能让湖区与万科配套的一切融合为一个更和谐的环境，这点也很出乎意料地得到了政府的支持与响应。原来他们也在为这片湖区的管理而头疼。

在您的预想未来蓝图中，万科中心在社区乃至城市将扮演什么角色？起到哪些积极作用？

王石：在与社区相互融合的过程中，我们的角色相信也会逐步演变，原先的设计觉得很大的办公面积在更远的未来很可能不够用，那么，邻近湖区的某栋厂房，如果废弃不用，可能就被买过来改造，加以利用，这种方式延续下去，围绕着湖区可能形成一个新的脉络和城镇有机地连接在一起。它跟社区互动的关系，不是此消彼长或简单的并购兼并，而是一种有蔓延意味的，很自然地延伸插入。如同世界上一些著名的大学校区——剑桥，哈佛，其所在的镇，哈佛已经蔓延到主校区外面去了，走过这一片街区，另一片可能就是哈佛的一个学院，再走一段又会看到哈佛的另一个校区。万科总部在盐田区未来的发展也会如此，这也很巧妙地暗合了万科总部对内角色更加注重教育培训未来人才的方向。

王　石

万科企业股份有限公司集团董事会主席

Afterword
The Role of Architecture

What factors affected the choice of location of Vanke Center? How has its position been changed?

Wang Shi: Vanke Center is located near the mountains and sea, which fits my ideal expectation of a headquarters' site. The location can also be affected by the consideration of historical limitation and social background. Situations are different in US. One Global 500 company may set up its head office in a small city without any negative impacts on its international status. While in China, cities such as Beijing and Shanghai, as the political and cultural center and financial center, attract the attention to plenty of large companies. A great number of state-owned companies set up their head offices in Beijing based on the political consideration, while insurance companies may choose to locate in Shanghai. Vanke wouldn't be affected by these factors, since we have already established the development priority and a stable shareholder structure. What's more, we don't have to consider the relevant factors in politics or other fields.

During the selection of site, originally like most people, I believed that headquarters is just a working place. It was interesting to meet the requirements of many things, such as the hotel, conference center; we are happy to accept all. But the point was how to manage them together, and how to relate the five-star hotel with headquarters; how to effectively use such a large area etc.; there was also a lack of comprehensive consideration. From in 2009 when we moved in to the year of 2011, we gradually formed a clear positioning as a headquarters community, opening to the public. In addition, our position fused the enterprise culture together with surrounding environment as an organic whole. In the process of interaction and integration, a strong position will gradually impact the community as well.

What is your consideration about the transformation system of environment planning, which is to bring nearby lake into Vanke community?

Wang Shi: After we set up the position of headquarters, the plan became logic and clear, and the relationship with surrounding environment had been gradually established. There are two aspects, the nature and human beings. As an open community, we are trying to build and solve the interactive relationship with people in community by open mind. What's more, it is also necessary to get along well with the nature. The management of the surrounding lake was not good and its landscape was quite different from the environment of Vanke Headquarters. We hope the lake will become a part of the whole atmosphere of the community and integrate with supporting facilities to create a more harmonious environment. The idea was unexpectedly supported and actively responded by the local government. They were also trying to find a better solution to manage the lake.

In your future blueprint, what active roles will Vanke Center play in the community and city?

Wang Shi: During the process of integration with the community, I believe our role will constantly adjust; the office area which originally was considered too large will probably become not enough in the future, therefore, if a plant near the lake is out of use, it might be bought and transformed by us. As the ways go on, the area surrounding the lake may be well connected and form a new context and organic township. Its relationship with the community is not a process of elimination and replacement or simple merger and acquisition, but a means of extension or natural integration. Like some campuses of world famous universities—Cambridge, Harvard. The Harvard University has ready spread to the whole town, outside its main campus. If you walk through a block to another one, you may pass from one college to another college or campus. The growth Vanke Headquarters in Yantian district will be the same in the future, which also implies the development direction of Vanke to pay more attention to educate and foster the talented.

Wang Shi

Chairman of the Board of Directors of China Vanke Co., Ltd

项目信息
Project information

万科中心
中国, 深圳
Vanke Center
Shenzhen, China

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Steven Holl Architects
主持建筑师 Principal
Steven Holl, 李虎
主管合伙人 Partner in charge
李虎
甲方建筑师 Party A architect
万创设计管理中心
业主 Client
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陈绮薇, 董功
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竞赛团队 Project team, competition phase
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合作建筑师 Associate architects
CCDI
可持续设计顾问 Climate engineers
Transsolar
结构工程师 Structural engineer
中国建筑科学研究院(概念设计/扩初), CCDI–(施工图/施工管理)
机电工程师 Mechanical engineer
CCDI
景观建筑师 Landscape architect
Steven Holl Architects, CCDI
幕墙顾问 Curtain wall consultant
沈阳远大铝业工程有限公司
照明顾问 Lighting consultant
L'Observatoire International
功能 Program
会议中心 conference center (8 300m^2), 酒店 hotel (11 110m^2), 酒店式公寓 condo (25 704m^2), 万科总部Vanke headquarters (13 874m^2), SOHO (13 591m^2), 辅助设施 auxiliary facilities (39 582m^2) , 商业 other commercial space (3 666m^2), 公共剧场 public theater (940m^2) , 绿地区 landscape (52 000m^2)为一体的综合功能型建筑all integrated in one building
建筑面积 Floor area
120 445m^2
阶段 Construction phase
2006 - 2009

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