

水晶石

CRYSTAL CG

建筑表现 IV

水晶石数字科技有限公司 | 编
世界建筑杂志社

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建筑表现 IV

CRYSTAL ARCHITECTURAL RENDERING IV

主编 | 水晶石数字科技有限公司
EDITOR | CRYSTAL DIGITAL TECHNOLOGY CO.,LTD.
世界建筑杂志社
THE WORLD ARCHITECTURE MAGAZINE PUBLICATION

知识产权出版社

INTELLECTUAL PROPERTY PUBLISHING HOUSE

图书在版编目 (CIP) 数据

水晶石建筑表现.4/ 水晶石数字科技有限公司, 世界建筑杂志社编.- 北京: 知识产权出版社, 2005.8 ISBN 7-80198-051-4
I.水... II.①水...②世... III.①建筑艺术-中国-图集②建筑设计: 计算机辅助设计-作品集-中国
IV.①TU-881.2②TU201.4

中国版本图书馆 CIP 数据核字 (2005) 第 081028 号

- 主 编: 水晶石数字科技有限公司
世界建筑杂志社
Editor: Crystal Digital Technology Co., Ltd.
The World Architecture Magazine Publication
- 总 策 划: 卢正刚
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Cover Design: Xu Qing
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蒙安童 郭丽伟 陈卓夫
Layout: Crystal Digital Media
Meng Antong Guo Liwei Chen Zhuofu
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Printing Supervisor: Yang Baolin

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水晶石建筑表现 IV

水晶石数字科技有限公司 世界建筑杂志社 编
知识产权出版社出版、发行
地址: 北京市海淀区马甸南村 1 号
通信地址: 北京市海淀区蓟门桥西土城路 6 号
邮编: 100088
<http://www.cnipr.com>
发行电话: 010-82000893 010-82000860 转 8101
印 刷: 恒美印务(番禺南沙)有限公司
新华书店经销
2005 年 9 月第一版 2005 年 9 月第一次印刷
规 格: 965mm × 635mm 1/8 印张: 42
印 数: 1~6000
ISBN 7-80198-051-4/T · 123
定 价: 350.00 元

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什么是水晶石的未来主义？

1. 中国式分离

1995年——中国对外开放后17年，深圳特区建立后15年，浦东开发后5年，邓小平南巡后3年，香港回归前2年，澳门回归前4年，北京申奥成功前5年，中国入世前6年，上海申博成功前7年——水晶石，在这个世界上变化最快的地方诞生了。

一个奇幻的时代需要一门奇幻的工业。高频的语境和压缩的周期需要快感的表达。效果图，一度被建筑师爱恨交织的造物，成为早期水晶石白手起家的奇幻产品。通过将空间逻辑归结为视觉效果，将建筑压缩成建筑画，效果图以其直观而低成本的表现，将人从抽象的草图、机械的施工图和苍白的设计说明中解放出来，为非专业的（如果不是急功近利的）业主们提供一目了然的快餐。建筑表现，这个先前隶属于建筑设计过程内的程序，因为市场的万有引力而从中分离出来，成为一个建筑师和业主之间的独立部门。它不再设计，不再对成果有决策权，它所做的仅仅是将建筑师的设计用令人满意的方式表现出来——不仅要令客户（建筑师）满意，还要令业主（投资方）满意；但正是这一类似包装盒和花瓶的后期加工功能，却成了当代中国建筑师的必杀技，几乎超出前期设计本身对业主决策的说服力。换句话说：前期设计对于后期表现不再是必要条件，前期甚至需要依赖后期才能存在。

建筑设计的前后分离，导致水晶石成为50%的建筑师——后期建筑师。这一在社会高度分工的发达国家也罕见的职业分化，在水晶石的诞生之初就极具中国特色。

2. 软件包

1995年——水晶石诞生的同年——Autodesk登陆中国。全球最大的数字化设计软件供应商面对全球最大的建筑市场，就像插头找到了匹配的插座。它和随之而来的Adobe的系列软件产品，迅速以洗脑的方式改变了整个设计产业链的工作形态，几年之内，传袭多年的手绘图纸和手工模型被更为快捷、精准和廉价的CG（电脑图像）所淘汰，AutoCAD和3D Studio成为业内家喻户晓的装备。

一套水晶石版的标准软件包同时也是一个无中生有的程序链：AutoCAD - 3dsMax - Brazil - Lightscape - Photoshop - Premiere - AfterEffects。他的工人不再像卓别林般疲于奔命地在大机器边重复一个动作，而是软绵绵地萎缩在一把电脑转椅中，一边打着联网CS游戏，一边用鼠标建造着一栋38层的摩天大楼。最后，当这些成果被存成小宇宙般的光盘中时，关于未来的预言，即可在光驱中流畅地读取出来。

3. 向好莱坞学习

当人们用好莱坞为全球的奇幻经济作标高时，中国与之匹敌的成就却不是发生在电影界，而是在建筑界。

当建筑界还在向拉斯维加斯学习时，水晶石却已然在向好莱坞学习。

在好莱坞，可以为了一部电影而建造建筑；在水晶石，却是为了一座建筑而制作电影。这是中国建筑向西方电影取经回归后颠倒的因果关系：不是建筑为电影提供场景，而是电影为建筑提供画面。就在好莱坞大规模地使用3dsMax自我数字化时，水晶石以同步的速度和同样的软件自我动态化和电影化。但这并没有

改变水晶石的效果图本位，从前裱在画框里的一幅画，变成了刻录在DVD中的N幅画：建筑画升级成了建筑电影，进一步为尚不存在的建筑虚构未来。

借鉴好莱坞的动效特技经验，并结合效果图工业的实践，水晶石开发出的若干不成文、值得命名的专利：梦幻飞行、向心旋转、超级缩放、时间切换、变速、轴向生长、反崩塌、大爆炸。

4. 欢迎光临虚拟现实

当人们坐在北京市规划展览馆4D影像的大型弧面屏幕前时，他们已成为水晶石虚拟现实技术的首批用户。视窗不再有边界，影像不再有距离，内容则是他们自己的城市：北京的过去和未来。立体电影眼镜和高保真音响，带领着他们浸没在这个熟悉而陌生的虚拟世界，像鸟一样梦游。

而这仅仅只是开始。与此同时，波音公司已完全使用虚拟现实技术成功设计了波音777；加拿大政府已采用虚拟现实技术进行多伦多市的规划与管理；洛杉矶、巴黎和东京以虚拟模型的方式出现在风靡全球的游戏Midnight Club中，一个熟练的玩家将同时也是这三个城市的熟客，即使他从未体验过实地的光临……水晶石的下一步也许不再是向好莱坞学习，而是向游戏学习；不再是被动地观赏，而是带上目镜，主动和亲临现场地进入未来：这个虚拟的未来将以可塑的方式延续现实。政府将在此评估和决策，建筑师将在此进行实验和建造，开发商将在此策划和销售，民众则在此观光和游戏。

5. 不可能的任务

在完成了大量以西方现代化模式为蓝本的本地拷贝之后，水晶石回到了过往的另一半，那令人豪情满怀又唏嘘伤逝的中国古代文明，从崇洋回到了怀古。采用与建造一座白宫版的市政大厦或拉斯维加斯版的购物中心相同的奇观技术，水晶石将一系列帝王时期的古城备份成为相同的格式：从明清北京城到元大都，直到梦回唐朝，在数字的空间召唤那些盛世的故都 and 文化的亡灵。在北京正在为2008奥运成为世界上最大的工地时，水晶石在一系列写实的影像上复原了未能挽救的北京城门。与水晶石贯有的乐观主义渲染不同，这个系列的中心是一个透明的虚空，一个由线描构成的、风干了的数字躯壳，一个内在的、却没有内容的外部，一个不可能的任务：我们生活于其中，却永远无法进入，因为它不再是未建而即将出现的，而是曾建而已经消失的。

>是播放，>>是快进，>>>则是大快进。

它也是一个预览键，激活的是一个未卜先知的水晶球。其中包含的是由无数愿望、计划、野心和理想勾勒出来的未来，那些看上去值得我们去大刀阔斧地争取的未来。

如果有人来到中国，问2010年的这里会是什么样子，你不必带他去长途跋涉，按下>>>键，水晶石的未来主义便会眼花缭乱地呈现出来，在不过咫尺的屏幕上，在那些拥有未来的地方。

本文节选自城市中国杂志试刊第二期

作者：姜珺 城市中国杂志执行主编

What is CrystalCG's Futurism?

1. Chinese Style Divorce

In 1995, 17 years after China opening to the world, 15 years after Shenzhen Special Economic Zone was founded, 5 years after development of Pudong new area, 3 years after Xiaoping Deng visited south China, 2 years before Hongkong returned to China, 4 years before Macau returned to China, 5 years before Beijing won the Olympics bidding, 6 years before China joined the WTO, and 7 years before Shanghai won the EXPO 2010 bidding, CrystalCG was born at the place that fastest changes have taken place in the world.

A fantastic age needs a fantastic industry. High-frequency context and compressed period need to be represented piquantly. RENDERING, a creation which used to interlace the love and hate of architects, has become a fantastic product with which CrystalCG built up from nothing in its early years. By reducing spatial logic to illustration, compressing buildings to a picture - as an intuitionistic and low-cost expression - RENDERING releases people from abstract sketches, mechanical construction drawing and pallid instruction, and provides an open-and-shut snack for non-professional (if not opportunistic) owners. Architecture rendering, a process subject to the course of architectural design, was then separated from it by the universal gravitation of the market, and becomes an independent section between architects and clients. It does no design, doesn't have any decision-making authority, what it does is to express architects' proposals in a satisfying manner - not only to satisfy the clients (architects), but also the owners (investors); however, it is this artifactitious function akin to the late process for packages and vases, that has become an invincible weapon used in the initiative attack of modern architects, which goes beyond the persuasion of the early stage design itself to the owners. In other words, early stage design is not the prerequisite for late stage expression, and the former needs to rely on the latter.

The separation of the early and late stage of architectural design, makes CrystalCG a 50% designer - late-stage architect. With the vocational differentiation, which is unusual even in a developed country with high division of labor, CrystalCG was born with the distinguishable Chinese characteristics.

2. Software Package

In 1995 - the same year as the birth of CrystalCG - Autodesk landed on China. This biggest supplier for digital design software meeting with the biggest architecture market was like a plug finding its right outlet. With the succedent software series of Adobe, they have changed rapidly the working form of the whole chain of design industry in the way of brainwashing. In years, the traditional hand-drawings and hand-made models were replaced by CG, which is faster and more accurate and cheaper. AutoCAD and 3D Studio become the widely known equipment in the profession.

A set of standard software package of CrystalCG, is also a program chain that is able to make anything from nothing: AutoCAD - 3dsMax - Brazil - Lightscape - Photoshop - Premiere - AfterEffects. The workers along the chain are no longer repeating the same action in front of big machine exhaustedly, but shrinking nervelessly into a swivel chair, playing the CS games while building a 38-storey skyscraper with a mouse in hand. In the end, while all these production were saved in a microcosmic hard-disk, the prediction of the future can be read from CD-ROM smoothly.

3. Learning from Hollywood

When people take Hollywood as the high-point of the world fantastic economy, the equal accomplishment in China does not take place in the movie world, but in the architecture world.

When the architecture world is still learning from Las Vegas, the CrystalCG has been already learning from Hollywood.

In Hollywood, buildings could be built for a film, while in CrystalCG, films could be made for a building. It is a conversed consequence that Chinese architecture learns from western movies: it is not architecture that provides movie with scenes, but movie that provides architecture with frames. Just at the time that Hollywood was widely digitalized by 3dsMax, the CrystalCG was animatized with the synchronous speed and the same software. However, it does not change the orientation of RENDERING in CrystalCG. A picture formerly mounted in the frame turns to N pictures written in a DVD: architectural drawing is updated to architectural movie, which ulteriorly fabricates future for architecture that does not yet exist.

Learning from the experiences of the special effects of Hollywood scenes, as well as integrating with the practice of RENDERING industry, CrystalCG has developed several informal but alchemic stunts, which are patents worth to be named:

Dream Flying
Centripetal Rotation
Super Zooming
Time Switch
Speed Shift
Axial Growth
Counter Collapse
Big Boom

4. Welcome to Virtual Reality

When people sit in front of the huge cyke screen with 4D images in Beijing Urban Planning Exhibition Hall, they have already become the first users of virtual reality technology (VRT) of CrystalCG. There is no border of screen, no distance between images. The content is their own city: the past and future of Beijing. 3-D glasses and high fidelity acoustics take them immersing into such a virtual world which is both familiar and strange to them, sleepwalking like birds.

This is only the beginning. Boeing Co. has designed Boeing777 by using virtual reality technology; Canada government has planned and governed Toronto City by using VRT; Los Angeles, Paris and Tokyo appear in the world-fashionable game of Midnight Club, that a skilled player can be a frequent visitor synchronous to these three cities, even though he has never physically visited the spot...For CrystalCG, the next step is no longer learning from Hollywood, but learning from games; no passive viewing and admiring, but wearing the glasses, entering in person into future on his own initiative; the reality will be continued in a compliable way by such virtual future: here governmental authorities will make evaluation and decision, architects will make experiment and construction, developers will plan and sell, and people will look around and play.

5. Mission Impossible

After finishing a mass of native copies that followed the original version of western modernization, CrystalCG goes back to the other part of its past - Chinese ancient civilization that makes people full of lofty sentiments and lamentation - turning from the worship to the west to the meditation on the past. By using the same spectacle technology in making a White-House-like municipal hall or a Las-Vegas-like shopping mall, CrystalCG makes copies in the same format for a series of ancient cities in the imperial times: from ancient Beijing city in the Ming and the Qing Dynasties, the capital city in the Yuan Dynasty, until the Tang Dynasty, that summons those souls of the once prosperous capitals and civilization.

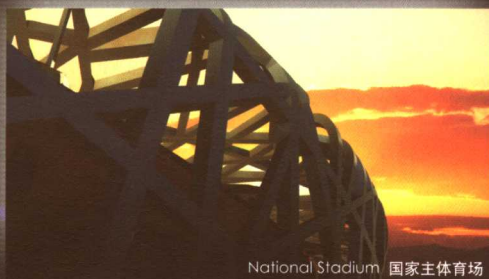
When Beijing becomes the world's biggest construction site for 2008 Olympic Games, CrystalCG reverts the wall gate of Beijing city which was not yet retrieved or preserved over a series of illustrations taken realistically. Different from its consistent optimistic exaggeration, the center of this section is a transparent emptiness, an air-dry digital body composed of threads, an intrinsic exterior without substance, an impossible mission: which we live inside, but are never able to enter, because it is not to be constructed, but once constructed while already disappeared.

> play >> forward >>>great forward

It is also a preview key that activates a predictable CrystalCG ball. It contains the future that is profiled by numerous wishes, plans, ambitions and ideals, which deserves our decisive and bold efforts to achieve.

If someone comes to China and ask what it will be in 2010, you do not need to take him into another urban odyssey. Press >>>key, CrystalCG's futurism will present itself in a dazzling way, on the screen with limited space, in the place where there is future.

Excerpts from Urban China, 2nd Issue
By Jiang Jun: Chief Editor of "Urban China"



National Stadium 国家主体育场



National Gymnasium 国家体育馆



Xizhimen Traffic Pivot 西直门交通枢纽



National Swimming Center 国家游泳中心



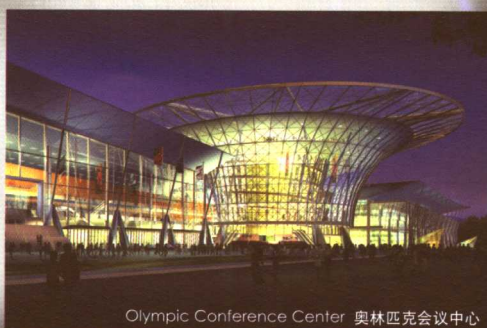
Chang'an Avenue 长安街



National Great Theater 国家大剧院



Olympic Village 奥运村



Olympic Conference Center 奥林匹克会议中心

数字影片 新北京

digital film of
'new beijing'



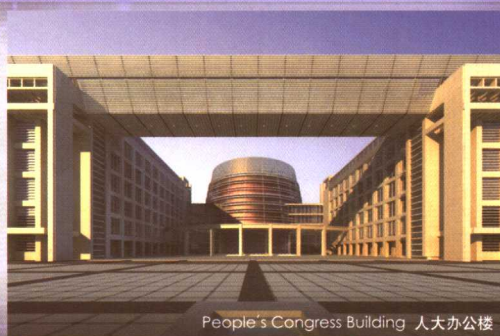
China Petroleum mansion 中国石油大厦



Central Axis 中轴线



National Museum 国家博物馆



People's Congress Building 人大办公楼



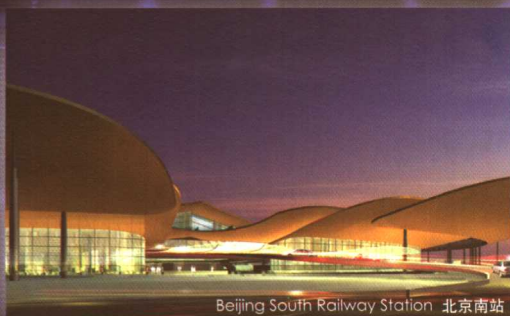
Xidan Books mansion 西单图书大厦



Kaichen Mansion 凯晨大厦



CCTV 中央电视台

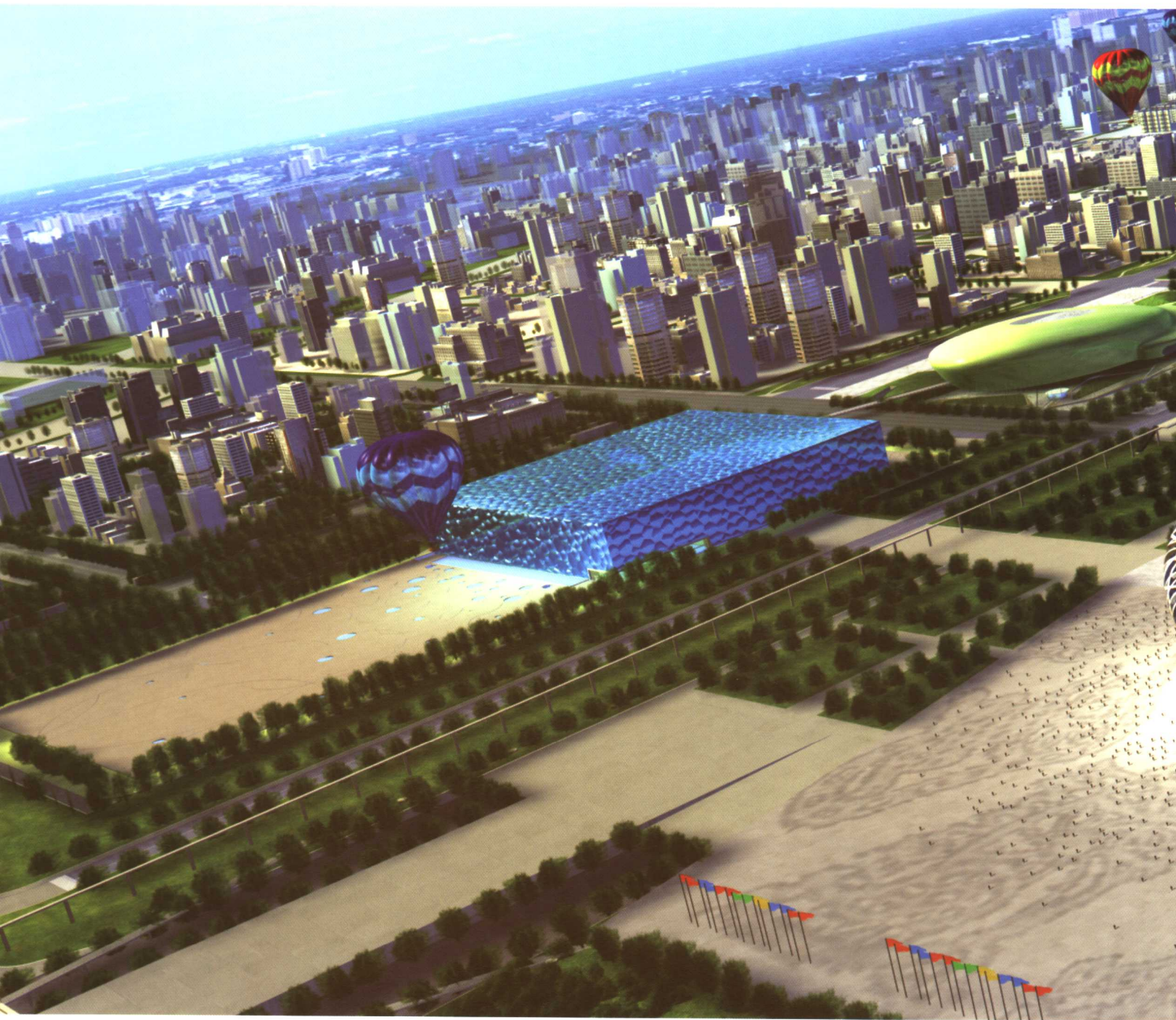


Beijing South Railway Station 北京南站

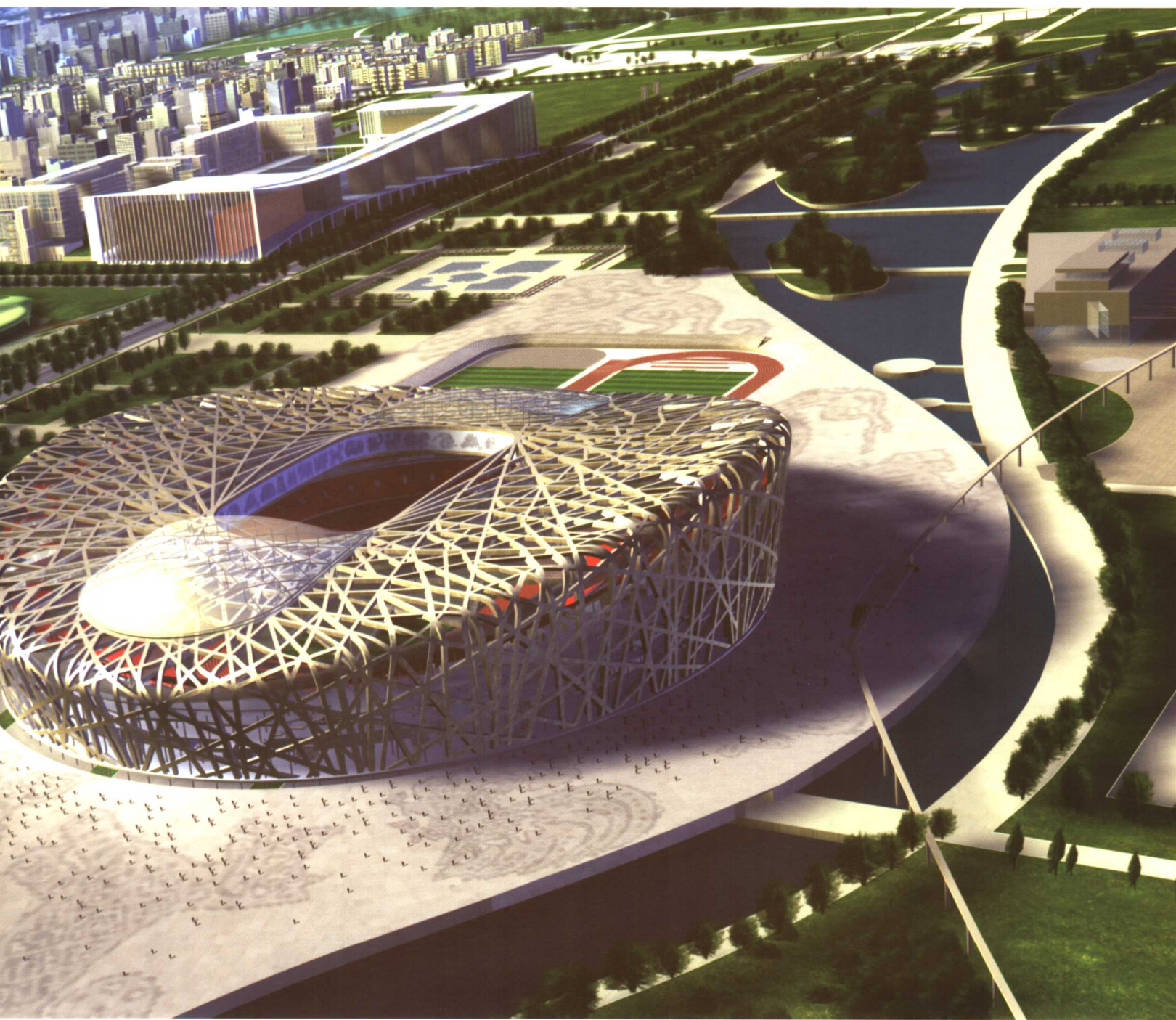


Capital International Airport 首都国际机场

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All above images are selected from digital video, 'New Beijing',
at Beijing Urban Planning Exhibition Hall.



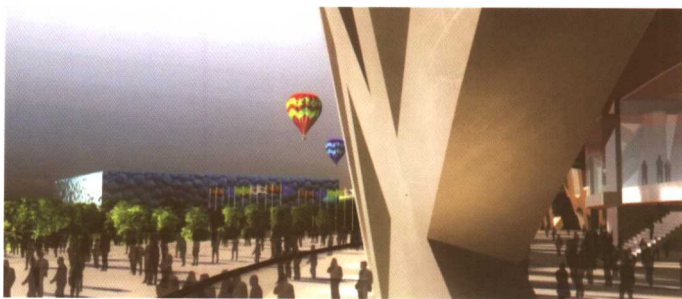
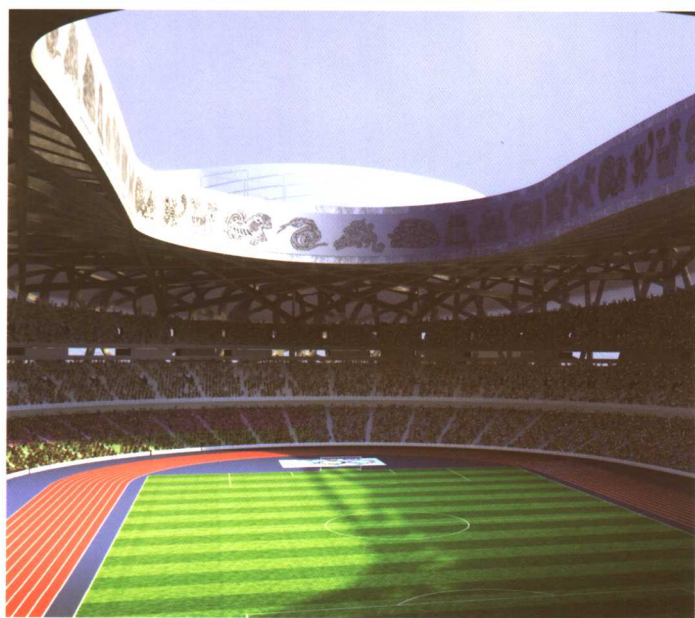
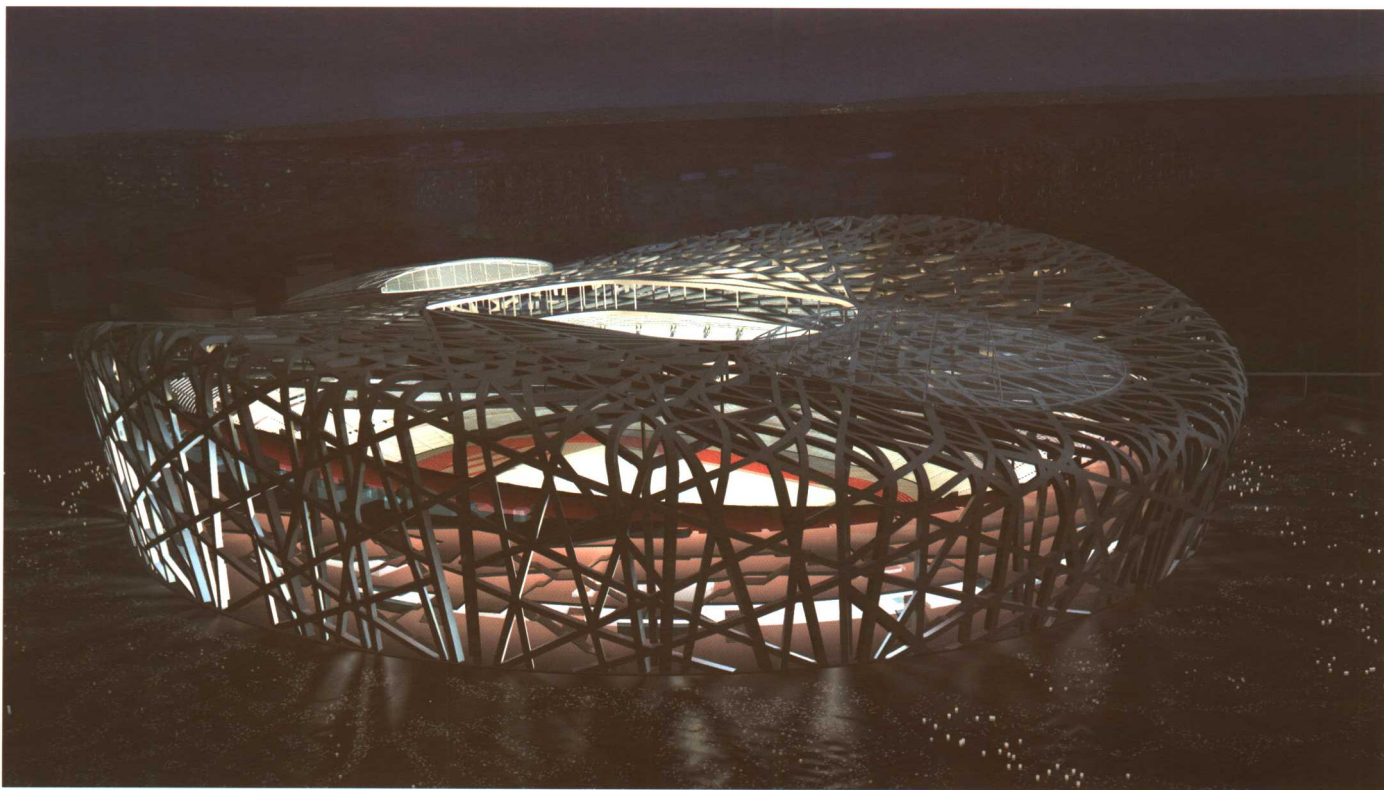
Olympic Green 奥林匹克公园



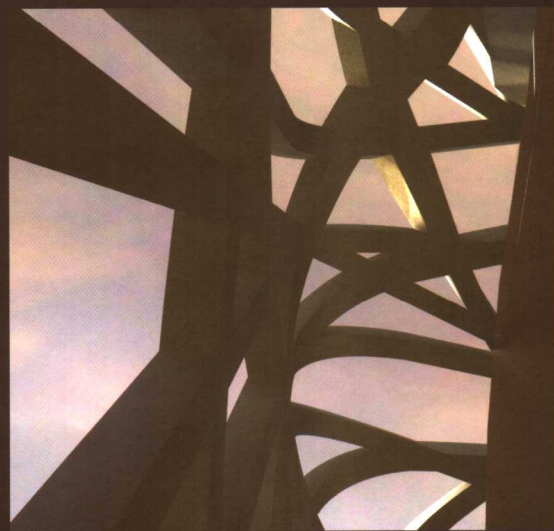
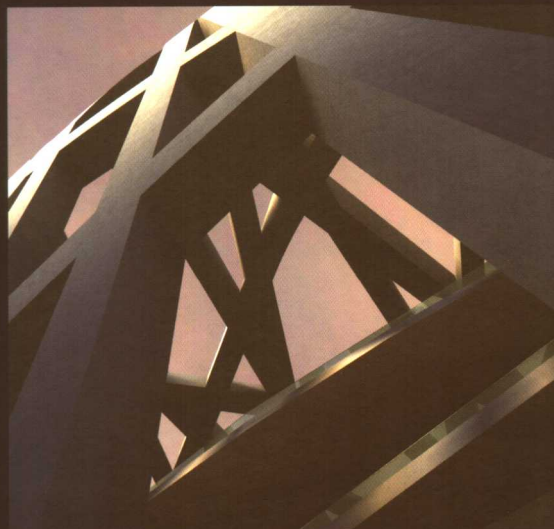
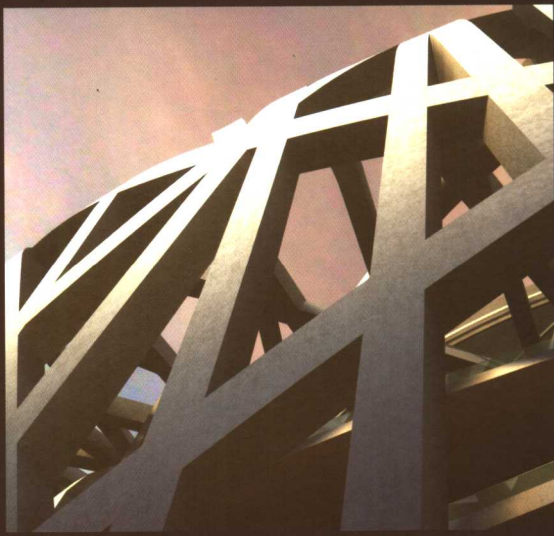
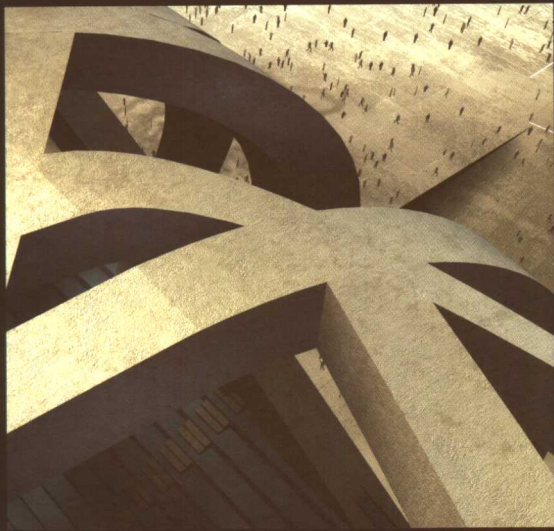


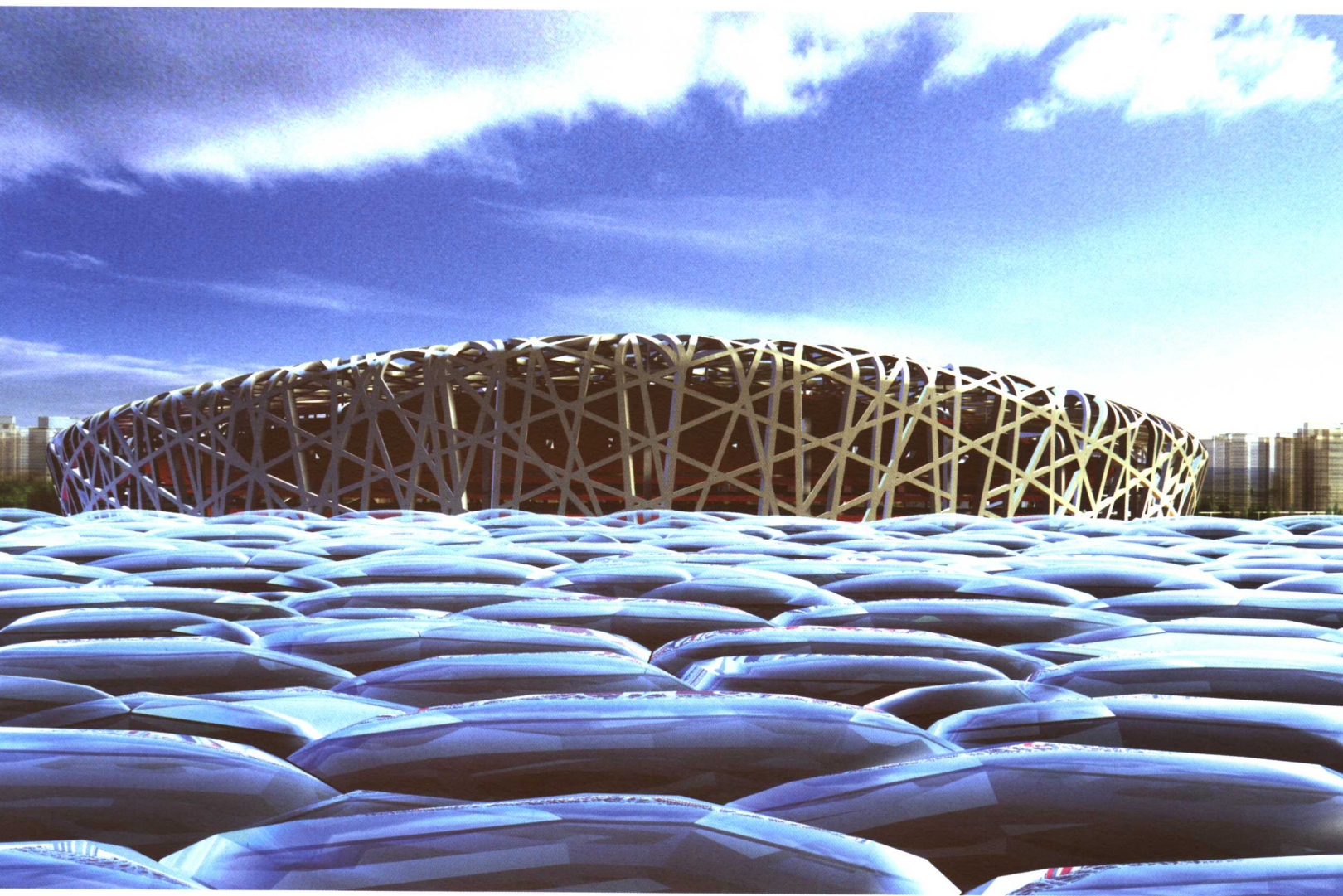
National Stadium 国家体育场

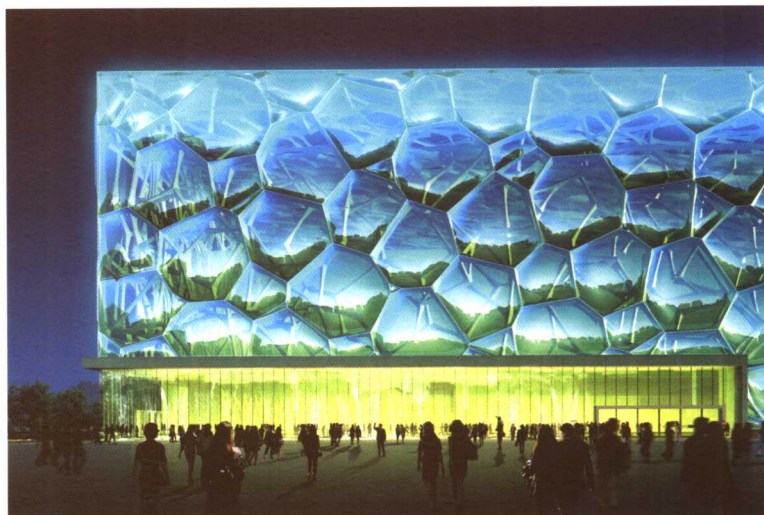
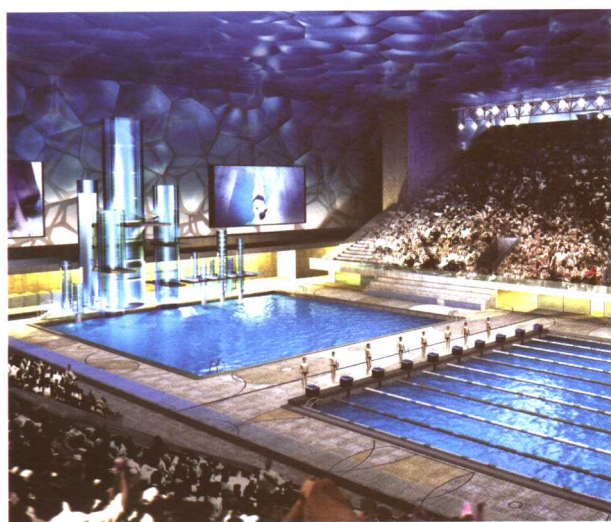
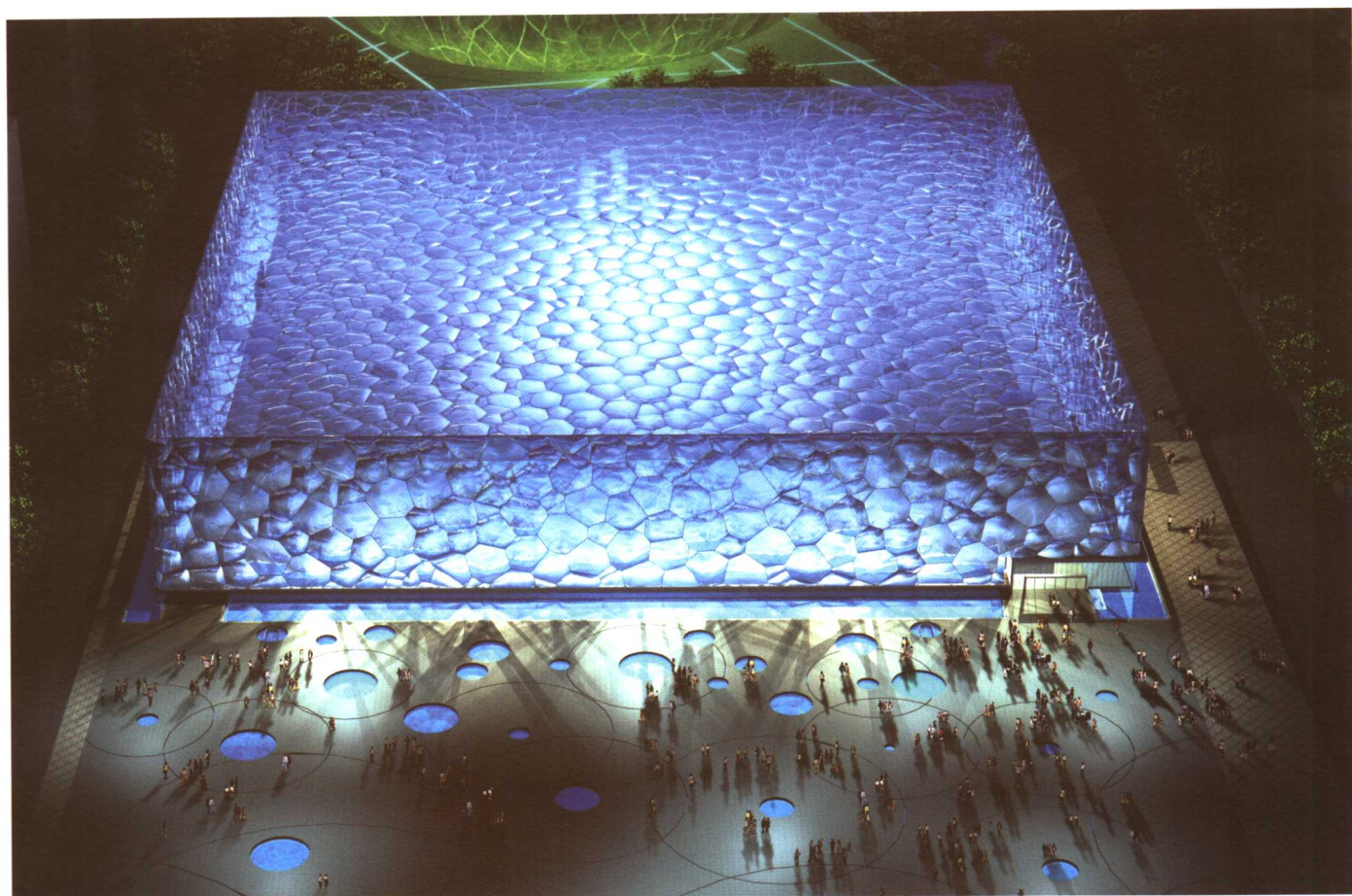




National Stadium
国家体育场







National Swimming Center
国家游泳中心



National Gymnasium
国家体育馆

