

现代建筑

效果图

Architectural Renderings



中国计划出版社

贝思出版有限公司

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绪 论

当我这一代的设计师回想到引导我们学习建筑的决定性因素时，最重要的无疑是建筑师可以用图像来表现自己。使用图的形像来推销一种建筑概念，然后按照相同的事前精确构想出的参数去观察一幢建筑物的转变，仍然是一个令人着迷而又动人的过程。

建筑图和透视图的历史，虽然现在已采用电脑辅助制图方法，本质上是把在四维空间上考虑到的事物和经验囊括在二维空间上。这个过程包含眼、脑和手之间奇妙的联系，可神秘地把思想和想象转变成一个表达得清晰有力的造型。人类通过图画表达社会价值的意识已经大约有2万年了。最早和最著名的有关环境的图像是在法国南部发现的祖先洞穴岩画。在那些早期图像中，由于洞穴的客观环境，并没有建筑上的刻画。古埃及人建造大量精美的雕塑造型和庙宇作为代表生死的中心装饰，他们把日常生活和建筑物建造的经验凝聚在既装饰庙宇又装饰坟墓的强有力的装饰形像中。然而，这些绘画并未有透视概念。建筑物上透视画法的第一次试验是1000多年以后的事，而且只是500年前佛罗伦萨（Florentine）的建筑师布鲁内斯基（Brunelleschi）第一个系统地阐述了线性透视画法的法则。

城市的景色绝大多数是人造的，它在宽阔的环境框架中的适应程度，只能经过视觉判读用设计术语给予定量评价。文艺复兴时代和巴洛克风格流行时期的城市规划师把透视画法应用到城市景色中去，因而，城市造型本身得到一种戏剧性的场面。通常用伪透视画法绘在错视图上的通衢大道掩盖了中世纪的混乱，并道出一个潜在的规律。城市的雕塑差不多都倾向于突出那些最能适应统治政权想法的特点。出自17世纪和18世纪的很多城市景色或全景轮廓线，强调了出于军事原因的碉堡式防御工事。一些统治者，例如西班牙的菲利普二世着手进行主要城市的系统的视觉文献资料。反过来，这种官方纪录文献提高了绘图技术的实验，特别是可以印刷发行的木刻和版画。越来越多地把这种木刻和版画作为选集出版发行了，而且是由各个城市主办的，以便宣扬各城市的优点。展示世界各城市面貌的第一次伟大尝试，在1572至1598年之间出版的多卷不朽巨著《Civitates Orbis Terrarum》中得以实现。我们掌握关于城市在历史上是如何演变的唯一迹象，来自幸存的从15世纪起反映旅行者需要知道关于他们目的地更多情况的印刷品和绘画。唯一幸存下来关于香港最早的一些景色是艺术家为100多年前的《有插图的伦敦新闻报》（Illustrated London News）创作的版画。

简单地说，建筑效果图是有关艺术表达和沟通的学问。最终产品合计起来要多于几何部件的总和。它必须捕捉到基调和节奏：广场上斑驳的阳光、路灯雕塑成一根柱子、微风吹动着小草。图像必须清晰，能反映出一个容易理解的造型中可能包含的一套复杂思想。当一位当今最好的建筑师通过图的表达方式

传递思想和设计概念的发展时，城市规划专家也必须使用类似的技术以便把另一种模糊的城市概念，例如地点的辨认、城市形像、易读性和透明度，模拟成同特定背景有关的视觉词汇。这些事物有固有的特性和潜在意义，经过训练的眼睛一辨即明。

事实上，由建筑师亲自作为艺术协调者把设计意图传递给委托人或委员会，现在已是一种例外情况而不是标准作法。为了各种各样的原因，建筑师、开发商、政府部门、承包商和社区组织多把制作图纸直接委托他人，结果这项工作已由越来越多崛起的有才能的建筑和工业插图师完成了。制图方法多依插图师的偏爱，但是，在创作过程中需要掌握某种特殊手法。一些插图师从丰富的设计表达传统和透视画法理论中得益，也有一些受过某些形式的建筑训练。

用笔、喷笔、水粉画和水彩画媒质有关的技能，在熟练的专业人员中，几乎可以同技术方法相媲美。集成电路和光纤网络几乎提供了无限描绘建筑空间的方法，同时瞬间色彩复制法本身正在引起新的图像技术。电脑透视画法“程序”正好说明：以往通过水彩涂层的吸收和颜色笔在纸上的纹理所描绘出色调的色度和敏感变数，电脑也能做到。当然，在它背后必须具有对艺术意图一定程度的直觉和反应能力。在这种意义上，电脑是绘图成套工具中的另一种简单工具。电脑是关于线性透视画法的，而信息高速公路是关于印刷机的。新的电脑软件可以减去重复的各个方面。结合模糊逻辑，利用数学上的不规则碎片形，既可提供方便又可提供用传统手段可以正常实现的微妙手法。现在可以把一次性的视图控制到最有利的条件，特别是制作非水平的或三点透视图以及连续的视觉图像更是如此。

在控制论时代，通过更好的并买得起的通讯手段，电脑效果图将意味着更多的机会。艺术仍需同技术和电脑技术相交融。而电脑技术代表设计师手中的熟练的革命性工具。电脑的生命力和真实性的“表现”将扩展为最终实现建筑物甚至城市造型的能力，同时开关啪嗒一响就能测出使用的亮度水平。但是，最熟练的电脑图像插图师仍然需要来自建筑物创造者或艺术家的输入。每一幢建筑物的对象的要素仍然需要通过关键性的综合判断和相关判断予以确定、说明和核实。这些将成为更富于挑战性的工作，而且会产生更多的高级工作程序。这些工作程序的焦点将会按照不同的情节而变动。

在本书中，一些材料是简单的草图，而另一些材料是高级的透视图和电脑图像。按照类型和技术口径收集的材料，结果代表了一个非常出色而又奇特的工作剖面。这些技术在未来将会更宝贵。

彼得·库克森·史密斯

1996年12月24日

F o r e w o r d

When a designer of my generation thinks back to the predominant influences that led him or her to study architecture, undoubtedly one of the greatest things was the way in which architects could express themselves graphically. To use these graphic images to sell an architectural concept and then to observe the metamorphosis of a building according to the same precisely pre-conceived parameters, is still an entrancing and moving process.

The history of architectural drawings and renderings, followed now by computer-aided processes, is essentially the encapsulation of three-dimensional considerations and experience into two dimensions. This process involves a wondrous link between eye, brain and hand which enigmatically transforms thought and vision into an articulate form. Man has been expressing a sense of social values through drawing for around 20,000 years. The earliest and best known environmental representations are the cave paintings found in southern France, created by our Homo sapien ancestors. The fact that architectural depiction are notably absent in these early renderings probably only reflects the admittedly tricky business of depicting cave interiors. The ancient Egyptians who constructed a fine array of sculptural forms and temples as representational centrepieces for both life and death, condensed these experiences of everyday life and building construction into powerful decorative images which adorned both temple and tomb. What these drawings did not have however was perspective construction. It was to be more than a thousand years later that this was first attempted, and only 500 years ago that the Florentine architect Brunelleschi first formulated the rules of linear perspective.

The urban landscape is predominantly man-made and its level of fit within the wider environmental framework can only be quantified in design terms by visual interpretation. Urban designers of the Renaissance and the Baroque applied perspective to urban vistas, so that urban form itself acquired a sense of theatrical drama. Ceremonial thoroughfares, often utilising false perspectives painted in trompe l'oeil, masked the medieval untidiness and helped to control experience by emphasising an underlying order. Similarly city portraits tended to highlight those features which best fitted the conception of the ruler or governing power. Many town views or panoramic profiles from the 17th and 18th century emphasise bastioned fortifications for military reasons, and some rulers such as Philip II of Spain undertook a systematic visual documentation of all their principal cities. In turn this type of official recording bolstered experiments in graphic techniques, particularly woodcuts and engravings which could be printed and distributed. These were increasingly published as portfolios and sponsored by cities to extol their merits. The first great attempt to show what the cities of the world looked like was undertaken in a series of volumes published between 1572 and 1598 - the monumental *Civitates Orbis Terrarum*. The only indication we have of how cities have evolved historically come through surviving prints and paintings which reflected, from the 15th century onwards, the needs of travellers to know more about their destinations. Some of the earliest views of Hong Kong only survive as engravings, carried out by artists for the Illustrated London News more than 100 years ago.

Architectural illustration is, simply, the art of representation linked to communication. The end product must add up to more than the sum of the geometric parts. It must capture mood and rhythm, dappled sunshine on a plaza, the way light sculpts a column, and the breeze that stirs the grass. The image must be clear, and capable of projecting a possibly complex set of ideas in a form that is readily comprehensible. Whilst the best architects of today convey ideas and the evolution of design concepts through graphic expression, urbanists must also utilise similar skills in order to simulate

otherwise nebulous urban concepts such as sense of place, city image, legibility and transparency, into a visual vocabulary related to a particular context. These things have inherent qualities and hidden meaning that the trained eye can identify and project.

In fact the conveyance of design intentions to a client or committee, with the architect as the main artistic orchestrator, is now the exception rather than the norm. Illustrations are increasingly commissioned directly by architects, developers, government agencies, contractors and community organisations for a variety of purposes, and as a result this work is now carried out by an increasing number of talented architectural and industrial illustrators. Drawing methods are largely the preference of the artist but require a high degree of skill in a particular medium harnessed to the creative process. Some artists benefit from a rich tradition of design expression and perspective theory, whilst others have some form of architectural training.

The skills associated with the pen, airbrush, tempera and water-colour media can now, in skilled hands, be nearly matched by technological processes. The microchip and fibre optic network provide almost limitless ways to depict architectural space, whilst instantaneous colour reproduction methods are in themselves spawning new presentation techniques. Computer perspective "programmes" are charting a course that can depict those subtle shades of tone and sensitive variables previously achieved through the absorption of wash or the textual resonance of crayon on paper. Behind it all however must be a degree of intuition, responsive to artistic intention. In this sense computers are simply another tool in the representational kit. They are to the linear perspective, what the information highway is to the printing press. New computer software can take away the repetitive aspects and incorporate fuzzy logic and use of mathematical fractals to accommodate both expediency and the subtlety of touch normally achieved by more traditional means. The one-off view can now be manipulated to the best vantage point, particularly in the production of non-horizontal or three-point perspective views, and in the representation of visual progressions.

Computer visualisation in the cybernetic age will mean more opportunities rather than less, with better and more affordable means of communication. Art must still blend imperceptibly with technique and computer skills which represent revolutionary tools in the skilled hands of designers. Computer animation and virtual reality "walk-throughs" will extend the ability to experience eventual building or even city forms, whilst applied levels of luminosity can be tested at the flick of a switch. However the most accomplished imaging technician on a computer still needs input from the building creator or artist. The essence of each building subject will still be determined, interpreted and verified by crucial compositional and referential judgments. These will become ever more challenging and are likely to engender increasingly sophisticated working processes, whose focus will shift according to the stories they have to tell.

Some of the materials in this book is in the form of simple sketches while others represent sophisticated renderings and computer imagery. The resulting collection, in terms of its variety and technical calibre, represents an excellent and unique cross-section of work. These skills will be even more precious in the future.

Peter Cookson Smith
24th December 1996

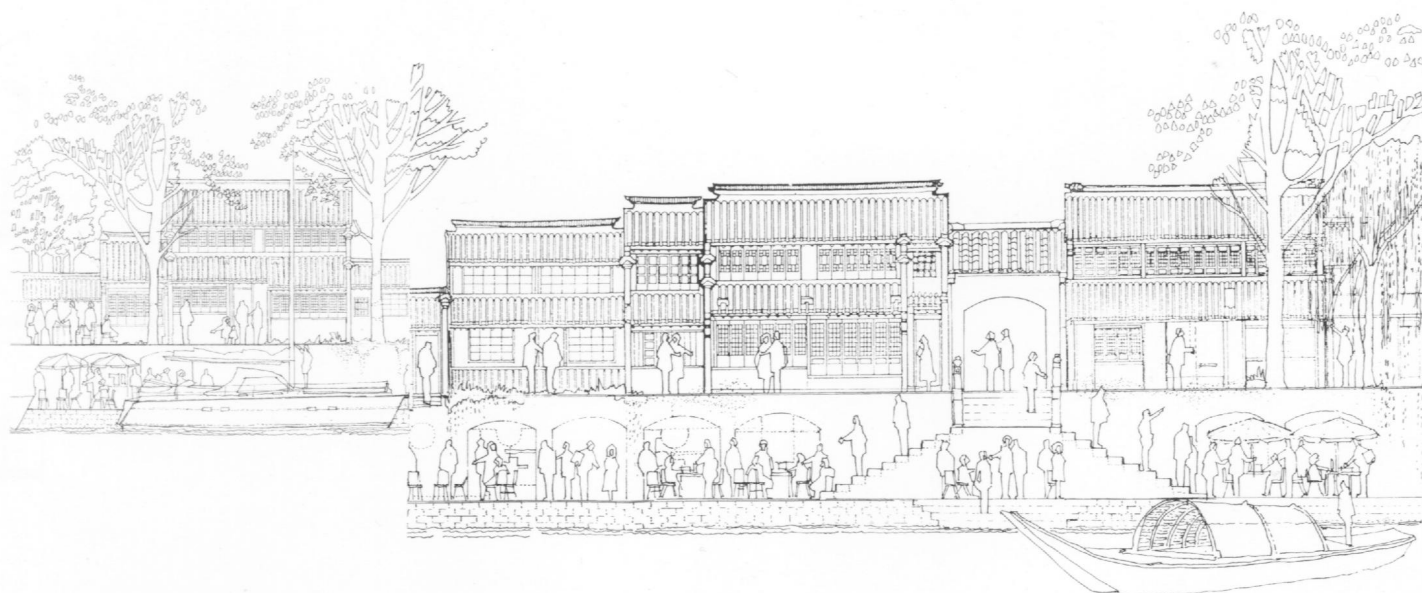
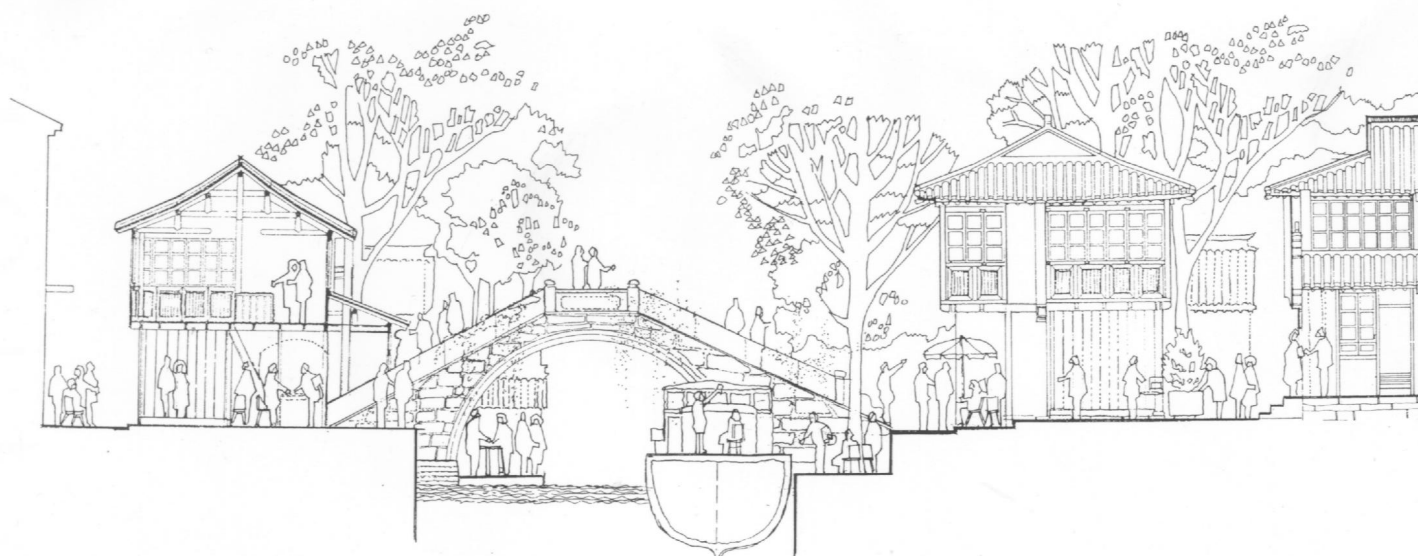
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第一章

立 视 图

chapter 1 Elevations

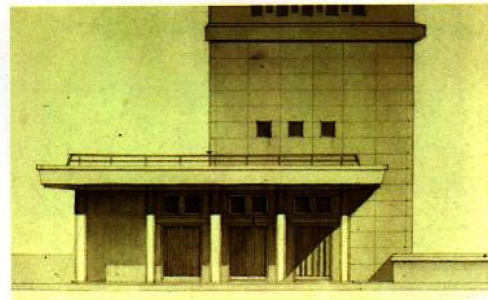
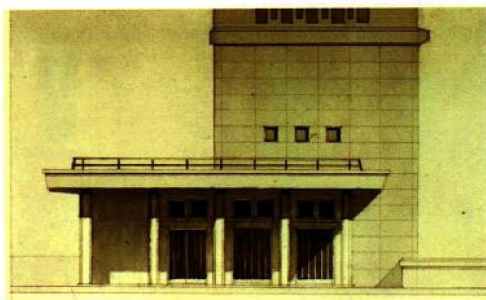
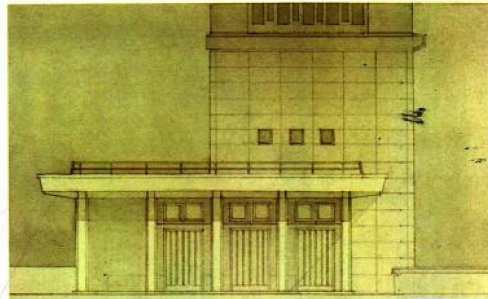
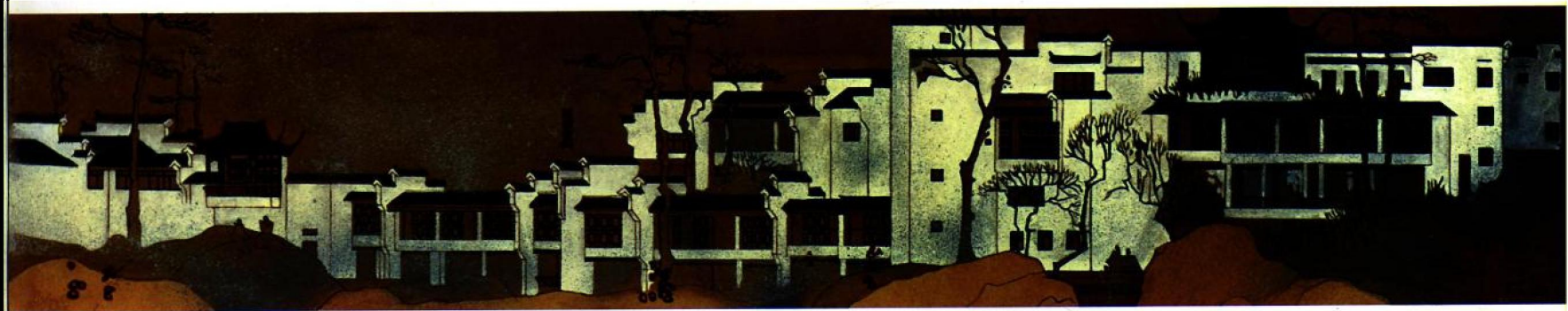


苏州环境改善 Suzhou environmental upgrading.

针笔 Liner;

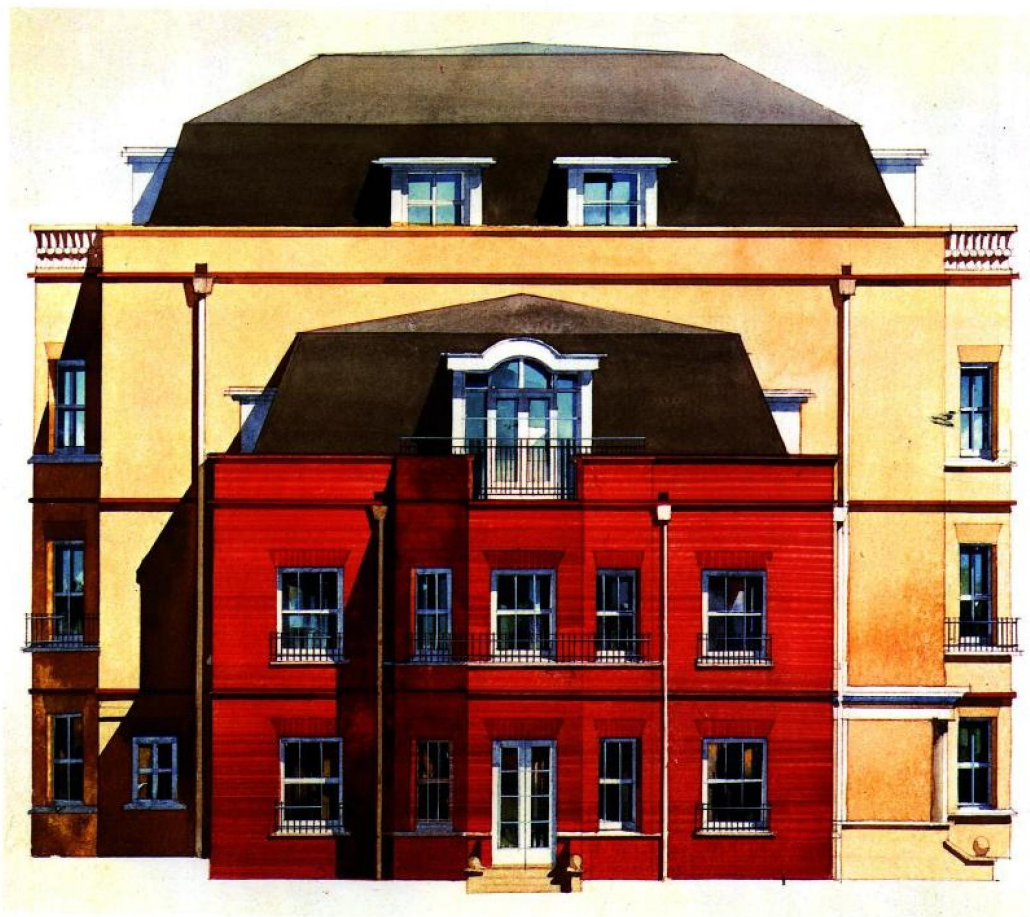
插图师 Illustrator: Peter Cookson Smith;

设计院: 雅邦规划设计有限公司 Architectural firm: Urbis Limited

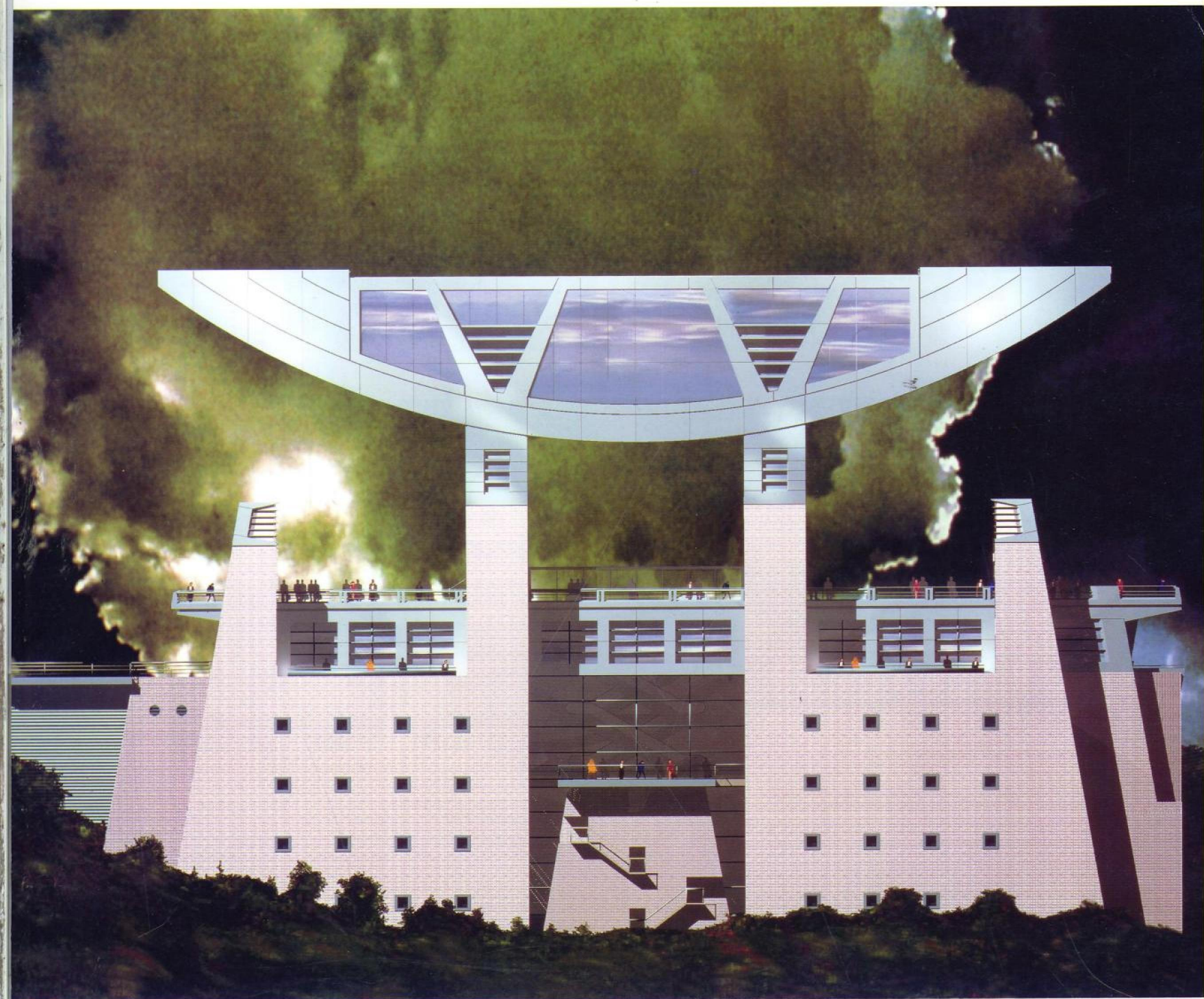


■ 黄山酒店 Huang Shan Hotel;
 水彩用于水彩画纸上 Water-color on water color paper;
 41 x 58 cm ; 1989 ; 8 小时 / Hrs.;
 插图师 Illustrator: Liotard Pascale;
 设计院 Architectural firm: CTB Limited

■ 南京大桥桥头堡 Nanjing Bridge;
 水墨用于水彩画纸上 Ink wash on water-color paper;
 29 x 41 cm ; 1988 ; 16 小时 / Hrs.;
 插图师 Illustrator: Liotard Pascale



英国伦敦高级住宅发展 *Luxury residential development, Highgate, London, U.K.*;
 丙烯调和剂、墨水、水粉颜料用于水彩画纸上 *Acrylic, ink, gouache on water-color paper*;
 1994; 100小时/Hrs.;
 插图师 *Illustrator: Ian Primett*;
 建筑师 *Architect: Keith Griffiths*



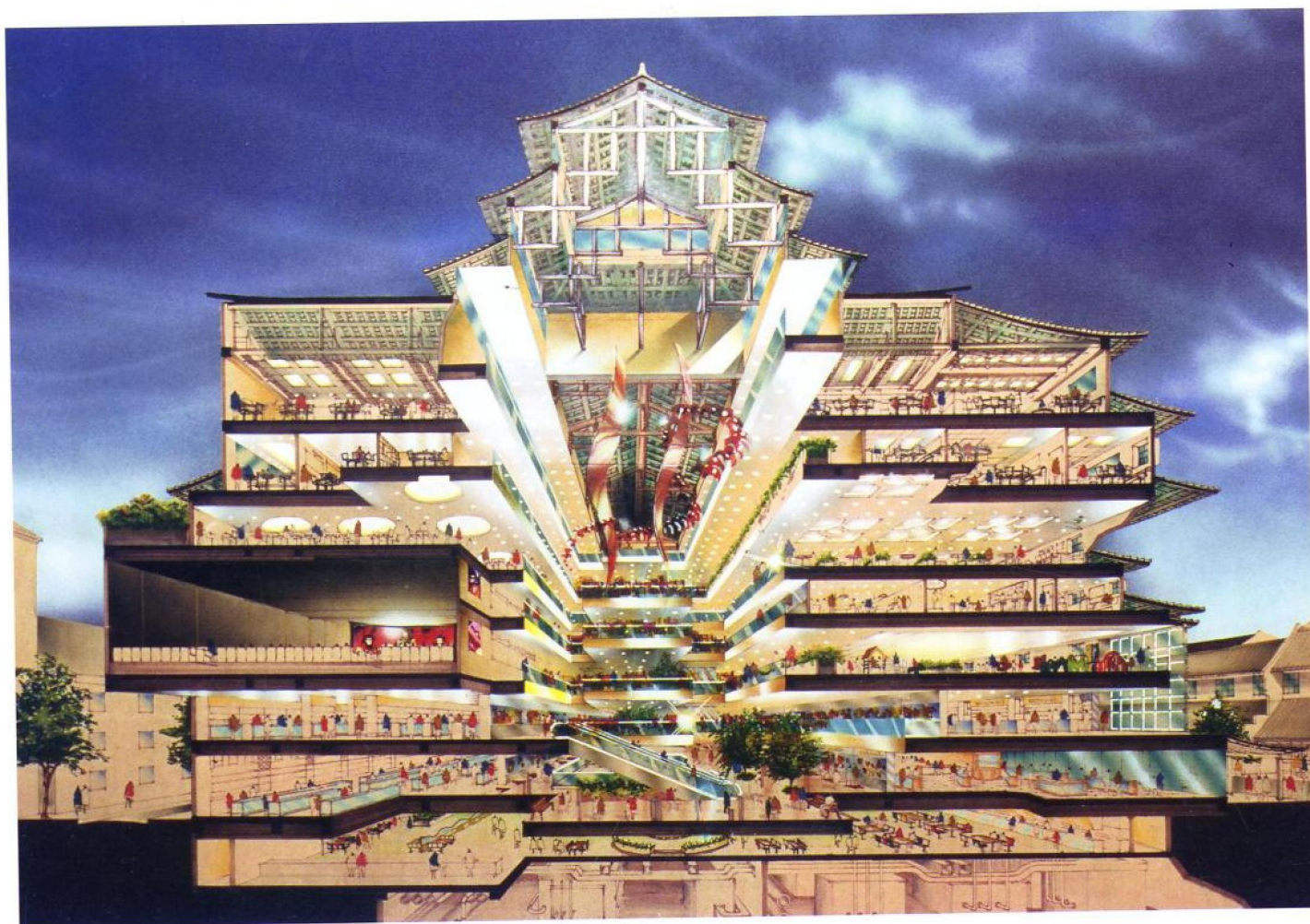
香港山顶重建工程 *Hong Kong redevelopment of the Peak Tower;*
电脑绘制 *Computer rendering;*
1993;
插图师 *Illustrator: Giuliano Zampi, Giuliano Zampi;*
设计院 *Architectural firm: Terry Farrell & Partners*



香港赤角机场 (Lot1) 运输中心 Airport Freight Forwarding Centre Chek Lap Kok Lot 1, Hong Kong;
 插图师 Illustrator: Richard Victor Shallcross;
 设计院: 梁黄顾建筑 (香港) 事务所有限公司 Architectural firm: L.W.K. & Partners (HK) Ltd.

东莞新世界花园 Dongguan New World Garden;
 水彩用于泡沫材料板上 Water-color on foam board;
 60 x 60 cm;
 插图师 Illustrator: Roman Chmiel;
 设计院: 城设建筑师事务所有限公司 Architectural firm: SRT Architects Ltd.

上海翡翠花园 Jade Garden Shanghai;
 水彩用于泡沫材料板 Water-color on foam board;
 45 x 60 cm;
 插图师 Illustrator: Roman Chmiel;
 设计院: 城设建筑师事务所有限公司 Architectural firm: SRT Architects Ltd.



苏州古城爱建环球商场 AJ Universal Centre, Suzhou;

混合画法于重氮基纸上 Mixed Media on diazo paper;

41 x 58 cm; 1996.3; 32 小时 / Hrs.;

插图师 Illustrator: Rolan M. Nocedo;

设计院: 何强建筑设计有限公司 Architectural firm: Tao Ho Design Architects Ltd.



北京庄胜广场 Junefield Plaza, Beijing;
电脑绘制 Computer rendering;
30 x 40 cm; 1995.3; 3 日 / Days;
插图师: 陈国伟 Illustrator: Ray Chan;
设计院: 巴马丹拿建筑及工程师有限公司 Architectural firm: P&T Architects and Engineers Ltd.