

Title: **The Roots of Tall Buildings: Connecting the City**

Author: Peter Brannan, Managing Director - Asia & Middle East, Architectonica

Subjects: Building Case Study  
Urban Design

Keywords: Mixed-Use  
Social Interaction  
Urban Design  
Urban Planning  
Vertical Transportation

Publication Date: 2016

Original Publication: Cities to Megacities: Shaping Dense Vertical Urbanism

Paper Type: 

1. Book chapter/Part chapter
2. Journal paper
3. **Conference proceeding**
4. Unpublished conference paper
5. Magazine article
6. Unpublished

# The Roots of Tall Buildings: Connecting the City

## 高层建筑的根源：城市连接



**Peter Brannan**

Managing Director - Asia & Middle East  
亚洲及中东区董事总经理

Arquitectonica | Arquitectonica建筑  
设计事务所

Hong Kong, China | 香港, 中国

Peter Brannan is responsible for the management, new business development and level of service of Arquitectonica's Asian and Middle East practices. He has over thirty years of extensive experience in architectural design, management and marketing in Europe, Australia, Asia, and the Middle East. He received a Diploma in Architectural Design and Technology at the University of Western Scotland. Mr. Brannan specializes in the management, design and delivery of large, mixed-use commercial projects in Asia and the Middle East. He has lived in Hong Kong since 1988 with his wife and family.

百伦先生负责Arquitectonica亚洲及中东区项目的管理、新业务拓展及服务监管，在欧洲、澳大利亚、亚洲和中东的建筑设计、管理及市场销售方面具有30年以上的丰富经验。他获得了苏格兰西部大学格拉斯哥贝尔技术学院的建筑设计和技术文凭，专门从事亚洲及中东大型综合体的管理及设计。自1988年开始与妻子和家人定居香港。

### Abstract | 摘要

*This paper investigates the integration of tall tower, mixed-use developments and how they connect with the city and the public when they meet the ground. Critical challenges have to be overcome in resolving the lower horizontal components of these projects – at street level, above, and below street level. In the same way that trees cannot thrive without roots, it is the accessibility of towers to transport, infrastructure, amenities, commerce, landscape and the public domain which in large part determines whether they are both profitable and sustainable. Examples will be drawn from the company's international practice comparing similar projects and their solutions in diverse locations. Cultural integration, urban renewal and the strategic use of retail centers as first-phase drivers for future high-rise master plans will be explored. In each example, the relationship of high- to low-rise components will be reflected to see how careful planning and design can maximize their mutual benefits.*

**Keywords: Design Process, Integrated Design, Mixed-Use, Sustainability, Urban Design, Vertical Urbanism**

本文探讨高楼、综合体发展的整合及其连接城市 and 大众到地面的方法。在处理低层横向部分的街道水平、街道水平以上及街道水平以下时，需要跨越严峻的挑战。树不能没根，同样地，塔楼连接交通系统、基建、便利设施、商业、园景及公共区域对于其收益及可持续发展也很重要。透过本公司于不同城市的案例，比较我们以国际手法处理的解决方案。文化融合、市区重建及策略地运用购物中心会是推动未来高楼总体规划的第一步。本文每一个例子都会反映高层与低层建筑的关系，及透过精心规划和设计把其效益最大化的方法。

**关键词：设计流程、整合设计、混合用途、可持续性、城市设计、垂直城市化**

### Introduction

With more than half of the world's population now living in cities, and with these numbers set to grow as populations rise and economies develop, pressure on land and resources means our cities must become denser and our buildings taller. The design of our cities will therefore involve more concentrated mixed-use complexes, where families live and work, shop and socialize, and participate in the full range of civic activities associated with our daily lives.

How these buildings are designed is therefore critical. One of the most critical parts is where and how they meet the ground and connect to the city and its people. A degree of horizontality is required to connect to adjacent buildings, transport systems and nodes, and other destinations beyond. We identify three planes of horizontal connections: (a) street level, (b) below street level, and (c) above street level. Care and attention is needed to ensure these connections, or roots, are designed with foresight and flexibility to adapt to future

### 简介

时至今日，一半以上的人居于城市。此数字随着人口增长和经济发展不断增加。土地和资源的压力意味着我们的城市必须变得更密集、我们的建筑物更高。因此城市的设计有更多集多种用途于一身的综合建筑，让家家户户生活工作、购物交际及在日常生活中参与各式各样的社会活动。

因此，怎样设计这些建筑很重要。其中最关键的部分是在哪里及如何把它们连接地面，接通城市和人们。要连接到毗邻的建筑物、交通运输系统及节点和其他目的地，横向覆盖因而需要。我们需要确定横向连接的三个平面(a) 街道水平 (b) 街道水平以下(c) 街道水平以上，并加以关注，确保这些像根一样的连接设计具预见性和灵活性，以适应未来的需求和连接，特别是公共交通。

为了方便人们往返，往来这些发展项目的交通需要完善。交通运输系统需要整合、提高效率，让人们无论由火车到计程车、由渡轮到地铁等都能完美无缝地往来。科技将能协助这进程，如香港的八达通，提供充值卡让用户能无需买票、轻松自在乘

needs and connections – particularly public transportation integration.

Transportation to and from these developments will need to improve to move people to and from. Transport systems need to integrate and become more efficient to allow people to move seamlessly from train to taxi, from ferry to subway, etc. Technology will assist the process, like the Octopus Card system in Hong Kong which provides users with a pre-paid card allowing ticket and hassle free travel on buses, ferries, trains, subways, mini-buses, and trams, etc.

A vibrant street life with convenient access to services and shops in close proximity is critical for community and social interaction. The creation of as much garden space on podium roof tops for commercial and community use has proven to be of major importance to the well-being of living in dense urban complexes. These issues have to be coordinated with government policy and commercial pressures affected by land and property values.

This paper evaluates these considerations through case studies of a selection of projects designed by Arquitectonica in different countries and cities. We shall see how different cities apply codes and policies to adapt to new high density developments. Vibrant street life and walkable cities with cheap and plentiful public transport are found to play critical roles.

### Case Study – TaiKoo Hui, Guangzhou

Located on a 4.5Ha city-block site in the Tianhe District of central Guangzhou, TaiKoo Hui is a mixed-use development comprising two Grade-A office towers including a boutique hotel, a Mandarin Oriental Hotel & Residences tower, a cultural center and a retail center – plus parking and support facilities for 880 cars. The total commercial floor area is approximately 450,000sqm (Figure 1).

The development is fully integrated around a split level podium of between two and four stories above street level. The towers are pushed to the extremities of the site to maximize retail flexibility and create the sense of a city within a city. The podium takes up the whole city block. Shops, offices, retail, hotels and the cultural center enjoy street level pedestrian access on all four sides of the block. The city block connects to the adjacent city blocks for easy walking access in the city. The sidewalks are wide and include extensive



Figure 1. TaiKoo Hui (Source: Arquitectonica)  
图1. 太古汇 (来源: Arquitectonica)

坐公交车、渡轮、火车、地铁、小巴、电车等。

充满活力的街道生活加上方便、邻近的服务和商店是社区和社会互动的重要关键。在裙楼屋顶创造园林空间予商业和社区用途已被证实为在密集城市综合体生活的重要因素。这些都需要与政府政策及被土地、物业价值影响的商业压力相协调。

本文通过由Arquitectonica在不同国家及城市设计的案例作研究，探讨上文提出的考虑因素。我们将看到不同城市如何应用规范和政策，去迎合新的高密度发展。热闹街道生活及便宜、便捷的公共交通起着重要的作用。

### 案例研究 – 广州太古汇

太古汇坐落在广州市天河区，面积4.5公顷，是一个综合体。太古汇拥有两栋包括

精品酒店的甲级办公大楼、文华东方酒店及公寓大楼、文化中心、商业中心及供880辆车的停车场及配套设施。总商业建筑面积约450,000平方米（图1）。

此项目与位于地面层以上，二至四层之间的分层裙楼充分整合。大楼置于地块的最端，把零售灵活性提到最高，营造一个城中的感觉。裙楼占据了整个地块。行人可从地块的临街面地面层达到项目的不同功能，包括商店、办公室、酒店及文化中心等。城区还连接了附近的大厦，步行即可轻松抵达。人行道宽阔并设有座椅和树荫的景观广场，供人们休憩。

公共花园位于3层，商业裙楼的平台。此平台花园24小时开放，透过大楼两端的大楼梯和自动扶梯到达，也为项目中央提供次要步行线。天台花园被餐厅和酒吧包围，提供室内及露天的餐饮和娱乐。商业裙楼及办公楼、酒店和文化中心也能到达裙楼广场。这独特而高活性的公共广场为





Figure 2. TaiKoo Hui, Master Plan (Source: Arquitectonica)  
图2：太古汇总体规划（来源：Arquitectonica）

landscaped plazas with seating and shade for the public to rest and enjoy.

A public garden is located on the roof of the retail podium at L3. Public access to the roof garden is provided 24/7 via grand stairs and escalators at opposite ends of the block providing a secondary pedestrian street through the center of the development. The roof garden is surrounded by restaurants and bars for indoor and alfresco dining and entertaining. The podium plaza is also accessed from the retail center below as well as the office towers, hotels and cultural centers adjacent and above. The result is a unique, highly active public plaza where building occupants and public visitors can meet and enjoy the comfort of a virtual oasis in the center of the city (Figure 2).

Pre-design research established a distinct lack of publically accessible gardens in Guangzhou. The impact of the TaiKoo Hui Garden has been recognized by South China University of Technology's school of Architecture. Professor Dr. Xiao Yiqing commended the exceptional nature of the "place" and cited the garden as a case study for the city authorities to implement in the planning and development guidelines for the city.

Cars, taxis and buses have multiple drop-off points on all four sides of the city block. A porte-cochere cuts into the center of the block and provides the main vehicular drop-off for cars, taxis and buses. Car parking and loading docks are located in the basement. Access ramps are provided at the rear of the development for car users. However, the design emphasizes pedestrian access via prioritizing public transport over private cars.

The retail center is on four and a half levels. Two levels are below grade. Two pedestrian

tunnels at B1 and B2 levels connect the retail to the adjacent Metro-1 subway station. A third pedestrian tunnel is planned for connecting to a nearby Metro-3 subway station. Visitors using the public subway system enter and leave the building at B2 and B1 level. They filter their way through the retail center – like crossing a traditional town square – on their way to or from work at the office, staying in the hotel, spending an evening at the theater, dining in the roof garden, shopping in the retail center, buying their groceries, or simply meeting friends and socializing (Figure 3).

用户和公众游客提供一个能聚集和享受舒适的城市绿洲（图2）。

前期设计研究显示广州明显缺乏开放给公众的公园。太古汇公园的成效已被广州华南理工大学的建筑学院认可。教授肖仪清博士表彰其特殊性质，并引其为城市局规划及发展指导方针的案例研究。

在项目的四边都有多个汽车、出租车和公交车上落客区。在大楼中央也设有盖的主要上落客点，供汽车、出租车和公交车使用。停车场及卸货区位于地库，并在项目后面设有出入坡道给汽车使用者。但项目的设计重点落在公共交通工具的人行通道多于私家车。

四层半的购物中心包括两层地库商业。地库一层及地库二层有两条人行隧道连接商场及邻近的1号线地铁站，第三条人行隧道已预留，以便将来连接附近的3号线地铁站。使用公共地铁系统的游客利用地库一层及地库二层进出大楼。他们穿过购物中心筛选自己的路，像穿越传统的小镇广场一样，往来办公楼、留在酒店、去看戏度过一晚、在天台花园用餐、在商业中心购物、购买食品杂货或只是跟朋友聚会、联谊（图3）。

### 案例研究 - 首尔国际金融中心

位于首尔的国际金融中心看起来简单而整齐排列在近方形的地块，但拥有复杂交织



Figure 3. TaiKoo Hui, Section (Source: Arquitectonica)  
图3：太古汇剖面（来源：Arquitectonica）



Figure 4. IFC Seoul (Source: Arquitectonica)  
图4. 首尔国际金融中心 (来源: Arquitectonica)

### Case Study – International Finance Center, Seoul

The International Finance Center in Seoul appears to be a simple and neatly organized collection of towers on a nearly square site, but there exists a very complex and interwoven system of horizontal and vertical connections that facilitate access between the towers and the massive network of on-grade and below-grade programs (Figure 4).

The three office towers and one hotel tower are all easily accessible from grade-level pedestrian entries and vehicular drop-offs, just as one would expect in either urban or suburban areas. Obviously, these main lobbies facilitate vertical circulation up into the towers, but they also begin a connection down into the below-grade programs of the project, which fill the entire site for seven stories below grade. This is accomplished by the elevator cores of each of the buildings, but in the office lobbies, escalators also take

patrons down into the first level of the three-level retail and entertainment complex.

It is from the first level below grade, B1, populated entirely of retail, where access from one tower to another can first be achieved without leaving the facility. All four tower cores come down and provide access to this B1 level. One floor further down, B2, also populated entirely by retail, is the next pedestrian connection and, quite possibly, the most important link from the surrounding city – access to the subway network of the City of Seoul. From B2, patrons can enter the escalator network and go up or down, to B1 or B3, and proceed on up into the office and hotel lobbies at grade, or, they can descend down into the parking floors, which exist below retail, by additional sets of elevators.

Below grade vehicular access to the site is facilitated by way of ramps which, in the case of loading, follow the perimeter of the site and spiral around foundation slurry walls to descend below the parking levels – one ramp in and one ramp out. Parking access also exists in two locations on the site in a corkscrew series of ramps which descend down to those respective floors that are located in section between the retail levels and the loading level. Patrons then ascend through elevators and escalators as needed to reach their destination, whether that is the subway, the retail, the hotel, or the office towers (Figure 5).

One of the most important levels, which is also the least known, lives between the B1 retail level and the ground floors of the towers. This is an egress transfer floor where a vast network of stair transfers coming down from the towers and up from the parking and retail are safely moved to collection zones on the site. This floor links the entire

的横向及竖向连接系统，方便进出大楼和地面、地下的大型网络（图4）。

正如人们期望在任何一个城市或城郊区域，3栋办公楼及酒店都能从地面行人出入口及车辆上落客点方便抵达。这些主要大堂提供通往大楼垂直动线，也连接了项目地下七层的地库设计。这连接透过各大厦的升降机核心而成。于办公楼大堂，其升降机也能带顾客到楼高三层零售及娱乐中心首层。

全都是商业零售的地下一层(B1)，可以说是项目第一个横向平面，人们不用离开整个建筑从一栋大楼走到另一大楼。四栋塔楼的核心筒都能到达这B1层。再下一层(B2)也全都是商业零售，亦是另一个重要行人连接，接通首尔市地铁网络，很可能是项目中接通周围的最重要连结。在B2层，顾客能使用自动扶梯到达B1及B3层，继续上去地面层的办公楼和酒店大堂，或是透过客梯，到达在商业零售下面的停车场楼层。

地下车辆通道以坡道的方式连接用地。货车坡道则沿着用地的边缘，沿地基地下连续墙螺旋下去停车场楼层，一个坡道入，一个坡道出。停车场出入口也有两个位置，以螺旋形坡道下去位于商业零售及装货区中间的各个车库楼层。顾客可透过升降机上达他们的目的地，包括地铁、零售、酒店或办公楼（图5）。

位于B1商业层和大楼地面层之间的是其中最重要的楼层，也是最不为人所知的。这个出口换乘层是庞大的楼梯转换网络，安全地把从大楼往下及停车场往上的楼梯移到集合区。这层连接了整个项目聚居规划的垂直出口基础设施，以及地面层错综复杂的道路和人行道网，把首尔IFC连接到附近的邻里及社区。

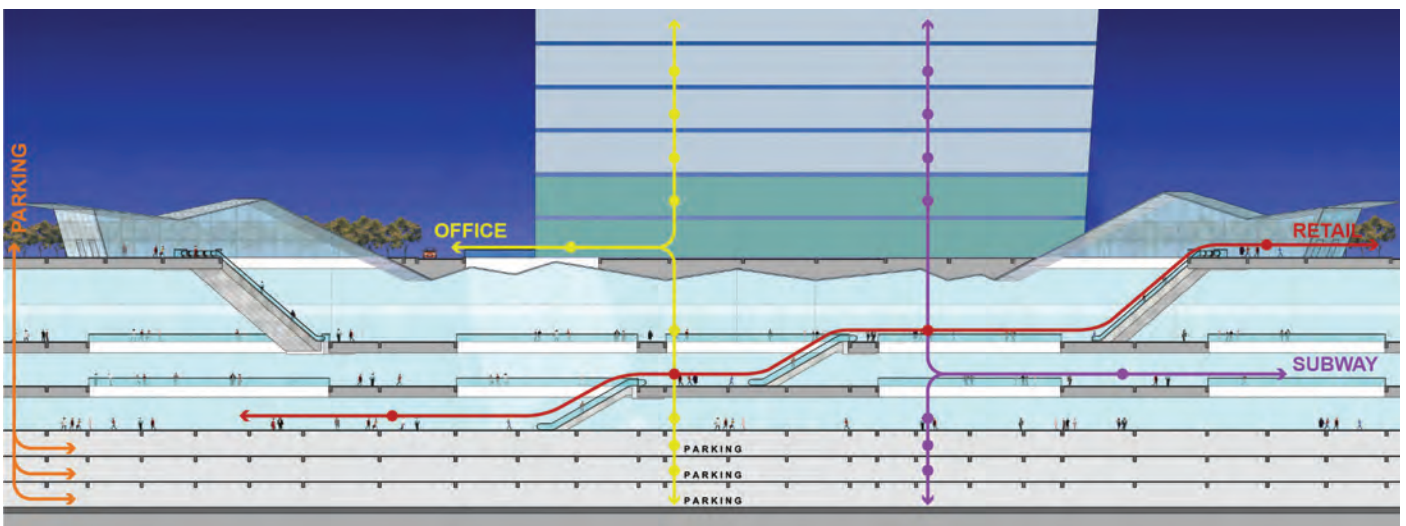


Figure 5. IFC Seoul, Section Pedestrian Flow (Source: Arquitectonica)  
图5. 首尔国际金融中心人流路线剖面 (来源: Arquitectonica)





Figure 6. Brickell City Centre (Source: Swire/Arquitectonica)  
图6. 布里克尔城市中心 (来源: 太古地产/Arquitectonica)

vertical egress infrastructure of the inhabited programs of the project with the intricate road and sidewalk network at grade which in turn connects the Seoul IFC to its neighborhood and its community.

### Case Study – Brickell City Centre, Miami

Brickell City Centre is envisioned as a transformational project forming Miami's new urban core. The project redevelops and connects five city blocks into a seamless mixed-use destination. The program includes a retail and entertainment center, an East Hotel tower, two office towers, three residential towers and an 80-story mixed-use tower comprising office, residential and hotel components – plus covered parking for 4,341 cars. The total floor area is approximately 817,000sqm (Figure 6).

The site covers 3.64Ha of land along South Miami Avenue, between 8th and 6th Streets. Although no public subway system exists as yet in Miami, the development is connected directly to the adjacent 8th Street Metromover train station. The Metromover station was redesigned to fully integrate with the development to improve public and

pedestrian access. The project also connects to several bus transfer hubs in the Miami-Dade Transit system.

The five city blocks are retained intact by connecting them both below-grade and above-grade. The walkability at street level and the urban fabric of the city is retained (Figure 7). The project is designed into the city fabric, not the other way around. Shops face the streets and a newly created mid-block pedestrian promenade. Pedestrian bridges, occupied by cafes and restaurants, connect the upper levels over the streets. Parking is tucked below grade and connects the blocks under the streets, reducing vehicular congestion and promoting the pedestrian and the walkable city.

The development introduces a three-story shopping district linking street life with the buildings above and the public and private transport networks feeding in at basement, street level, and above street level. The various towers are dispersed among the city blocks and connect into the retail and entertainment center and the park above it.



Figure 7. Brickell City Centre (Source: Swire/Arquitectonica)  
图7. 布里克尔城市中心 (来源: 太古地产/Arquitectonica)

### 案例研究 – 迈阿密布里克尔城市中心

布里克尔城市中心被视为迈阿密新城市核心的转型项目。此重建项目把五个城市街区无缝连接为城市综合体。此项目包括零售及娱乐中心、东隅酒店、两栋办公楼、三栋住宅及楼高80层地标塔楼的综合体，提供功能包括办公、住宅、酒店及可容纳4,341辆车的停车场。项目总建筑面积约817,000平方米 (图6)。

此项目用地为3.64公顷，沿南迈阿密大道的第8街于第6街之间。虽然迈阿密还没有公共地铁系统，此项目连接了邻近的第8街Metromover（旅客自动输送系统）车站。为了充分融入发展项目及改善公众和人行通道，车站已重新设计。此项目也连接到迈阿密-戴德运输系统的几个公交换乘枢纽。

五个城市街区以地上及地下连接的方式原封保留。适宜步行的城市街道及结构仍然保留 (图7)。项目设计以融合在现有城市肌理为目的。商店依街道及新建的人行长廊布局。设有咖啡厅和餐馆的人行天桥连接了街道以上的楼层。停车场位于地下，连接到地下的楼层。这减少车辆拥塞，并促进人行和步行城市。

项目发展包括楼高三层的商圈，把街道生活连接了上面的建筑物及地下、街面和街



## Case Study – Zhu Jiang Plaza, Guangzhou

Zhujiang Plaza sits at the entrance to the new Zhujiang CBD in central Guangzhou. The project is a mixture of first-class office, retail and entertainment facilities. Two office towers sit at either end of the site. One tower is 65 floors above street level, the other is 40 floors tall. The Retail Village is of five levels. Two levels are below street level. The basement includes parking for 1,300 cars on three levels below the retail. The total floor area of the project is approximately 235,000sqm (Figure 8).

Unlike many other mixed-use projects in Guangzhou, where retail centers are enclosed and air-conditioned, the Retail Village at Zhujiang Plaza is an open-concept mall made up of individual pavilions. The public circulation spaces above grade – and partially below grade – are not air-conditioned. The public circulation spaces below grade are fully air-conditioned. The purpose is to encourage outdoor use and alfresco dining and entertaining (Figure 9).

道以上的公共和私人交通系统。不同的塔楼分散于街区不同位置，把零售及娱乐中心及上面的公园连结起来。

## 案例研究 – 广州珠江新城

珠江新城位于广州市中心新珠江中央商业区的入口，是一个包括甲级办公楼、商业及娱乐设施的综合体。两座办公楼位于地块的两端，一座楼高65层，另一座楼高40层。商业村共五层，其中有两层位于地下。地下楼层包括位于商业地下三层的停车场，可容纳1,300辆车。项目的总建筑面积约235,000平方米（图8）。

很多广州综合体的商业中心都是位于室内并配备空调。珠江新城的商业村与别不同的就是开放式的规划概念，由独栋商业组成。在地面以上及一些地面以下的公共空间没有配备空调，而其他地面以下的公共空间设有空调。这设计的目的是鼓励户外使用及露天餐饮和娱乐（图9）。

此项目有四层连接着市内：

1. 地下：两个公共交通系统透过南、西面的隧道连接项目B2层。这不但贯穿



Figure 8. Zhujiang Plaza (Source: Arquitectonica)  
图8. 珠江新城 (来源: Arquitectonica)

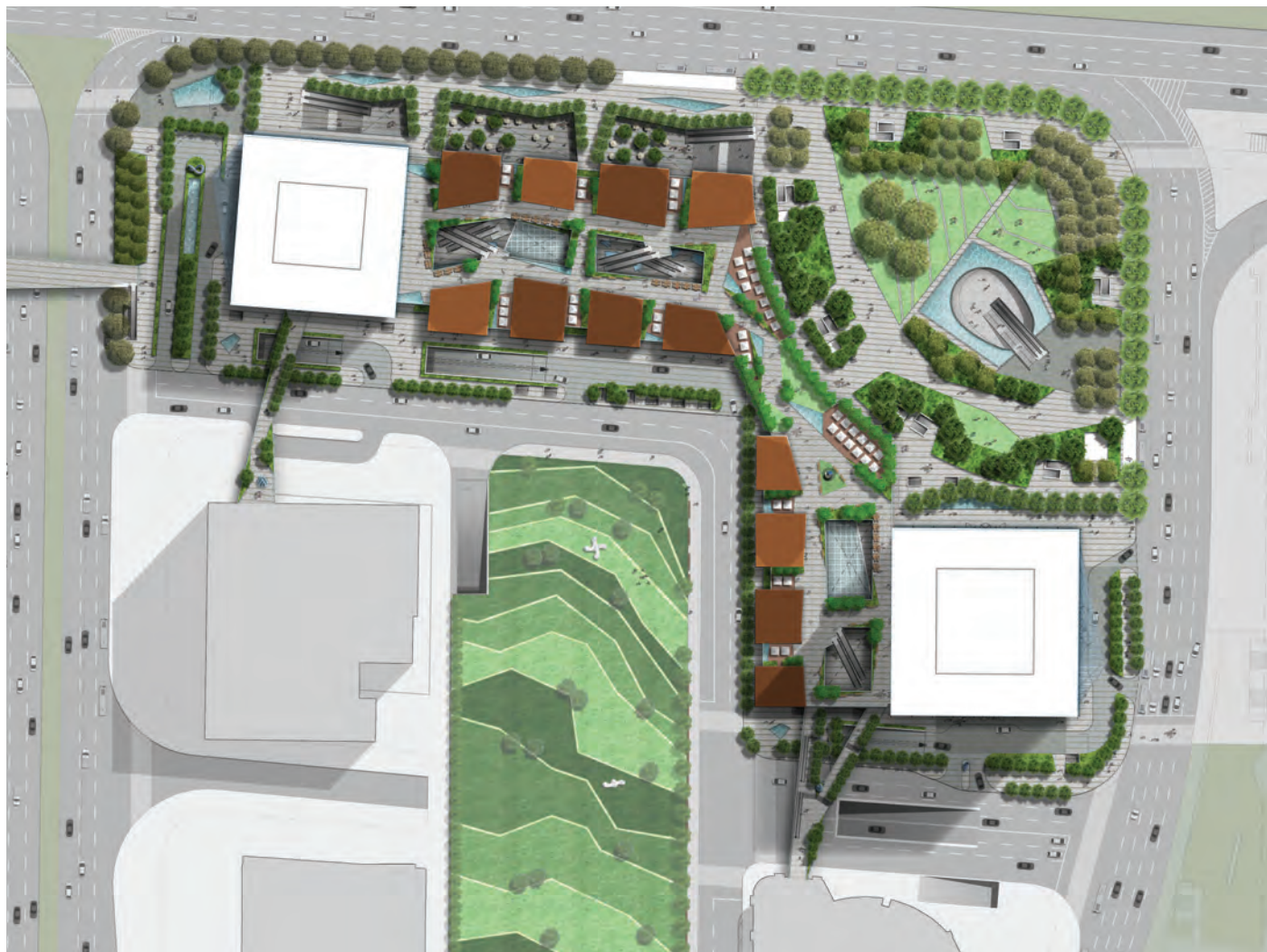


Figure 9. Zhujiang Plaza, Master Plan (Source: Arquitectonica)  
图9. 珠江新城总体规划 (来源: Arquitectonica)





Figure 10. Buxin Centre (Source: Arquitectonica)  
图10. 布心中心 (来源: Arquitectonica)

The project is connected to the city on four levels:

1. Below Grade: two mass transit systems connect to the project at B2 level via tunnels at the south and west sides of the site. These connections run through the B2 retail and provide a connection between underground train lines.
2. Below Grade: cars parking at B3, B4 or B5 levels can travel up to either the office towers or the retail village by escalators or lifts. They may leave the building by the same route.
3. Street Level: pedestrians connect at street level either by walking from adjacent city blocks or being dropped off by private car, taxi or bus at the many drop-off points around the perimeter of the site.
4. Above Grade: three pedestrian footbridges connect to buildings on adjacent city blocks at the north-west, north-east and western sides of the project. The footbridges align at L2.

The four connection levels are interconnected vertically by escalators and lifts once the visitor gains entry to the project. This allows unfettered and extensive movement throughout the development for users and visitors.

### Case Study – Buxin Centre, Shenzhen

The Buxin project represents a major urban intervention with a state-of-the-art re-development of the existing Kingway Brewery site into a new hub for the jewelry industry in central Shenzhen. The program of the 460,000sqm mixed-use development consists of a jewelry village, a retail mall, office towers, residential towers, museums, public plazas & civic spaces, public transport interchanges (PTIs), and covered car parking. Innovative planning and design solutions have been employed to create a world leading, sustainably designed community for living, working and relaxing – for the resident, worker and visitor alike (Figure 10).

了B2的零售，也为地铁线提供连接。

2. 地下：位于B3、B4或B5的停车场可以透过自动扶梯或升降机到达办公楼或者商业村。顾客可以相同方法离开大厦。

3. 地面层：人行通道连接了街道层。无论在附近街区走路或是在项目周边私家车、出租车或公共汽车下车点都能连接。

4. 地面层以上：在L2对齐排列的三条人行天桥把项目与附近西北、东北及西边的大厦连接。

当访客到达时，四个连接层以自动扶梯和升降机垂直地相互连接，让用户及访客无拘无束、更自由自在在整个项目游走。

### 案例研究 – 深圳布心中心

布心项目是在主城市中的旧改重建项目，在深圳市中心把原有的金威啤酒厂与珠宝行业的新枢纽融合。建筑面积460,000平



The project is seamlessly integrated with the neighboring districts and urban fabric of the city. In doing this, the development is arranged into four distinct but unified zones: 1) The Jewelry Village situated at the center of the development; 2) The Cultural Avenue with preserved brewery structures along the eastern edge; 3) The Signature Tower consisting of a 300m tower and a retail podium facing the main road on the south; and 4) The Residential Village with four residential towers that fit neatly into the ascending hillside on the west (Figure 11).

The Jewelry Village, at the heart of the development, is defined by a series of public open spaces connected by pedestrian friendly streets and walkways, providing human scale connections to the other zones. The public spaces and walkways form the arteries and life of the development, creating great spaces that attract users and visitors alike.

Circulation hierarchy is arranged on multiple levels. The pedestrian takes precedence over the vehicle. A north-south elevated boulevard connects the Signature Tower and the districts to the south of the site all the way through to Weiling Park to the north. A series of east-west terraced corridors at ground level connects the Residential Village in the west to Dongchang Road and the Cultural Avenue along the eastern edge of the site. Sunken plazas strategically located along the north-south axis create mini-destinations and integrate the pedestrian circulations at the basement, ground and elevated levels.

Tall buildings are situated close to main roads to keep vehicular access on the perimeter. A below-grade public road running across the Jewelry Village helps divert local traffic and provides discreet access to car parking in the basement. The underground car parking of all zones are connected by tunnel or extended basement underneath the main roads.

The below grade retail underneath the Jewelry Village and the Signature Tower are connected at B2 level via an underpass, with further connection to the nearby Tai An and Buxin metro station on the same level. A public transportation interchange (PTI), located underneath the Signature Tower, connects with the north-south pedestrian axis, providing seamless public access to and from the whole development.

The result is an extensively integrated district focused on public transport networks connected to well-planned pedestrian and vehicular networks that give easy access to all parts of the development and the city beyond.

方米的综合体包涵珠宝购物、零售商场、办公楼、住宅、博物馆、公共广场空间、公共交通交汇处 (PTI) 及停车场。此项目采用了创新的规划和设计方案以创造世界领先、可持续发展的社区给住户、工人及游人 (图10)。

项目与邻近地方和城市肌里无缝融合。为此, 项目地块被分为四个截然不同的区域: 1) 位于项目中间的珠宝村; 2) 沿东边、保留了啤酒厂结构的文化大道; 3) 位于南方、面对城市主干道的300米高的地标塔楼和商业裙楼; 4) 沿西边山坡整齐排列的4栋住宅小区 (图11)。

位于项目心脏地带的珠宝村是一系列的公共开放空间, 联结着人行道, 提供人性化连接至其他区域。公共空间及人行道形成了项目的动脉和生活, 创造大空间吸引用户及访客。

动线系统渗透在不同标高, 人行比车辆优先。南北高架大道连接着地标塔楼及通过

围岭公园由南至北接通用地。在地面层有一系列由东至西的梯型走廊联系了住宅小区西边的东昌路及沿地块东边的文化大道。下沉广场战略性放置沿南北中线, 打造小型目的地, 并在地下室、地面及架空楼层整合行人动线。

高楼设于靠近主干道的位置, 保持车辆出入于周边。位于地底的公共道路跨越珠宝村, 帮助疏导区内交通, 并为地下停车场提供不为显眼的出入口。所有的地下停车场都由隧道或主道路的延伸地下室联系着。

位于珠宝村的地下商业于B2地下室连接地标塔楼, 并进一步连接到附近的太安地铁站及布心地铁站。公共交通交汇处(PTI)位于地标塔楼下面, 连接南北人行中线, 提供无缝公共接通过整个项目。

项目最终能成为着重公共交通网络的广泛整合的城区, 并连接到精心规划人行和车辆网络, 让整个项目甚至城市易于进入。



Figure 11. Buxin Centre, Master Plan (Source: Arquitectonica)  
图11. 布心中心总体规划 (来源: Arquitectonica)





Figure 12. Festival Walk (Source: Swire/Arquitectonica)  
图12. 又一城 (来源: 太古地产/Arquitectonica)

### Case Study – Festival Walk, Hong Kong

Festival Walk is a 143,000sqm mixed-use development on a 3.5 hectare site. It includes retail and office facilities. The retail mall has seven levels of shopping, and includes an 11-screen multiplex cinema, food courts and an Olympic-sized skating rink (Figure 12).

The development sits at the intersection of two MTR train lines. Tunnels connect the two stations on the north and west sides. The City University sits on the east side of the site. The design allowed for public circulation spaces to connect the two MTR stations to the university through the retail public circulation space.

A Public Transport Interchange (PTI) is incorporated into the design towards the north end of the project. The PTI allows double deck and single deck buses, mini-buses and taxis to drop-off and pick-up within the development. The development also acts as a transit point between the PTI and the two MTR stations. This results in a tremendously high footfall through the project every day. The office building, food court, cinema and ice rink are located at the south end of the site. Visitors to these areas using public transport have a pleasant walk through the “high street” to the facilities at the southern end of the project. A vehicular drop-off is provided at the south end servicing office and retail entrance lobbies.

### Conclusions

We conclude that the success of high-density, mixed-use developments in our cities is critical to our future. Multiple pedestrian connections at street level, below street level and above street level are vital to ensuring the movement of increased population density. Equally vital is connecting high population

densities to efficient, accessible and affordable public transportation hubs and networks. The incorporation of garden spaces needs to be considered as a prerequisite and planned early. They keep our cities healthy but just as importantly provide meeting spaces for social gatherings and civic functions providing balance and harmony.

The design process in the case studies cited have often had to challenge government and planning department policies, which often lag behind or are misaligned with social requirements, changes in technology, communications and how people connect. In almost all cases we find the governing authorities receptive to innovative design ideas. In some cases governing officials openly encourage and seek new ideas to assist in policy making. In each case, inclusive, cooperative relationships with the governing authorities is a prerequisite to solving design issues on multiple levels.

Each case study cited is site specific and underwent Arquitectonica's rigorous pre-design analysis process. This involves identifying architectural cultural requirements, i.e., social and community culture, design culture, construction culture, development and regulatory culture, climate and how this affects culture, social behavior and patterns, technology, and transportation, etc. The results form the basis of a solid brief and guidelines for the design process. It often challenges local perceptions and results in surprises – “people don't eat outside in tropical cities because it's too hot!” They won't if the exterior spaces are not designed to have shade, breezeways, water and appropriate materials to make the spaces comfortable and pleasant. The podium garden at Taikoo Hui is a case in point where previously unused roof decks were used to create a culturally and socially interactive, environmentally positive and commercially attractive space.

### 案例研究 – 香港又一城

又一城建筑面积143,000平方米，坐落在3.5公顷的地块上，包含商业及办公设施。其7层高的购物商场设有11屏幕的多厅电影院、美食广场及奥林匹克规格的溜冰场(图12)。

此项目位于两条港铁线的交汇点，以隧道接通两站的西北面，东面是香港城市大学。这设计让公共动线能穿过商业公共动线空间直达大学及两港铁站。

公共交通交汇处(PTI) 纳入在设计中，位于项目的北端。PTI容许双层及单层公交车、小巴、计程车在项目范围内上落客。项目也作为PTI与两港铁站的中转站，让项目每天都有很高的客流量。办公楼、美食广场、电影院及溜冰场位于地块南端。使用公共交通工具的游客会先轻松的走过“商业街”，再到达南边的设施。南端设有车辆上落客区供办公楼及商场入口大堂使用。

### 总结

由以上可见，我们城市里的高密度综合体的成功对我们将来的城市发展很重要。在地面、地下及地上的多种行人连接，在人口密度增加的情况之下确保人流活动。同时把高人口密度连接着高效、方便和实惠的公共交通枢纽及网络。需要提前考虑和在早期计划纳入园林空间。它不但让我们的城市健康，更可以为我们提供社交聚会和公民功能的聚会场所，使生活平衡、和谐。

以上案例的设计进程往往不得不去挑战落后或对社会需求错配的政府和规划部门之政策、日新月异的科技通信及人们的连结方式。在大多数的案例中，我们发现有关政府部门都接受创新的设计理念。有时候，有关官员更会鼓励和寻求创新意念，协助制定政策。在每一个案例里，有关当局互相包容的合作关系是解决任何层面设计问题的先决条件。

以上每个案例都经过Arquitectonica谨慎的前期设计分析，包括确定建筑文化要求，即社会和社区文化、建筑文化、发展及监管文化、气候及对文化、社会行为和模式、科技及交通等的影响。其研究结果为设计进程形成了坚实的设计任务要求和准则，并经常对当地质疑的看法和结果带来惊喜 – “在热带城市，人们不会在室外用餐，因为太热。”如果外部空间的设计没有阴凉处、通风廊、水景及适当的设施让空间舒适宜人，人们当然不会去。太古汇的平台花园是一个很好的例子以没用过的屋顶来创造一个文化和社会互动、环保正面且具有商业吸引力的空间。