城市儿童公共空间
——广州俄罗斯方块商业广场景观设计

摘要

俄罗斯方块广场是一个位于广州市天河区社区综合体一隅的商业广场。业主将该广场定义为具有儿童游乐功能的商业空间，但设计师更愿意将其视作服务于周边年轻社区及核心家庭的公共空间。因此，设计围绕着解决一系列社区问题展开。不同于一般的商业广场项目，该项目以营造空间代替摆放成品游戏设施，生成了许多灵活的空间与场景。同时，设计师没有遵循传统商业广场以少种树来保持店铺通透可视的原则，而是巧妙结合游憩设施，在场地中“隐藏”了一片树林，为广场带来了更多的人气和荫凉。此外，设计师采用方格网设计语言，有效实现了物料的精简，同时简化了施工难度，使得施工质量也更易于把控。由此衍生而来的模块化混凝土装置被广泛应用于整个综合体之中，其两款基本模块可以以20多种方式进行自由组合。建成后的项目既是一处城市亲子乐园，也是周边社区的公共空间。设计师致力于通过更加友好、更加自然的设计和游戏方式，让孩子们在探索中学习，并构建对外部环境的认知体系，提升他们的想象力和创造力。

关键词

城市公共空间；儿童游乐空间；广场；亲子；商业空间

ABSTRACT

Tetris Square is a commercial plaza located in a corner of a large mixed-use development in Tianhe District, Guangzhou. Designers treated the site as an urban public space rather than a commercial place simply for children play, with focus on younger users and core families. Landscape architects attempt to respond to a series of community demands with a smarter proposal. Instead of a direct use of finished play equipment, designers create many flexible spaces for diverse play experience, and "hide" a grove by integrating it into the play facilities, which introduces an urban oasis attracting more visitors to the square. This does not follow the conventional design principle of commercial spaces which is to plant as few trees as possible for a maximum storefront display. The grid modules of squares make facility fabrication and installation much easier, helping save the costs and ensure the construction quality. Assembled precast concrete outdoor furniture was used extensively in the whole complex. Landscape architects designed only two basic precast concrete modules, which could be assembled into more than twenty combinations. Now Tetris Square is an urban playground for children and their parents, as well as a public space for other residents in adjacent communities. The project provides children with fun and happiness through user-friendly and naturalized design, encouraging children’s cognitive learning from the external world, and simulating their imagination and creativity in play.

KEYWORDS

Urban Public Space; Children Playground; Plaza; Parent-Child; Commercial Space
2 设计策略

2.1 像素广场

在宏观尺度上，景观设计师结合建筑肌理，梳理出了一个像素化的网格系统景观框架，为综合体的景观构建了一个内容丰富的“像素广场”。这一标志性的设计语言为社区带来了极具辨识性的场所身份。在微观尺度上，基于像素化（基本模数为500mm×500mm）的网格系统从铺装、户外家具、种植乃至竖向设计都回应了年轻群体对灵活空间和互动场所的需求。基于这一设计语言，位于综合体地块西北角、占地6 000m²的“俄罗斯方块广场”应运而生，使场地的使用者仿佛置身于立体的俄罗斯方块游戏中。这样生动立体的场景将场地转变为充满趣味的儿童活动空间，唤醒了孩子们丰富多样的情感和本真鲜活的快乐。需要阐明的是，俄罗斯方块这一独特的设计语汇并非设计的灵感来源，相反，它是基于对场地的各项条件进行诊断后才诞生的创造性策略。建成后的俄罗斯方块广场即成为社区内面积最大的公共开放空间，以及联结整个社区的重要纽带。

2.2 迷你公园

俄罗斯方块广场虽然是一个商业配套广场，但设计师意在将其打造为一处能够联结社区与人的“迷你公园”。符合不同年龄段儿童心理及活动需求的游乐空间分布于通往商业建筑走廊的两侧。设计师致力于场所营造，而非在场地内放置任何成品儿童设施。其中，“亲子口袋”通过设置一系列吊床为周边社区的家长和儿童提供了充满趣味性的亲子互动空间。“自由岛”则为孩子们提供了可用身体进行探索
的多层次空间，是整个广场中体验最为丰富的互动场所。这一设施可激发孩童玩乐的天性，促进孩子们进行感官认知体验。此外，场地内建有“云幔”和“云亭”等独具创意的设施，以充满活力的橙黄色为广场创造了一系列私密空间。商场前的户外剧场不仅可用于举办商业活动，也可作为周边学校的户外活动场地。这些功能不同、形态各异的公共空间共同组成了一座迷你公园，可供儿童、家长，以及包括年轻人在内的附近居民共享这一稀缺的开放空间。

2.3 与孩子们共同成长的树林

与大多数商业广场项目相比，俄罗斯方块广场内的乔木量巨大。设计师并没有遵循传统商业广场以少种树来保持店铺通透可视的原则。而是巧妙结合游憩设施，在场地中“隐藏”了一片树林。在炎热潮湿的广州，这一策略不仅没有对商业造成影响，反而以由树木荫凉吸引了更多人流，这对于商业项目来说难能可贵。鉴于亲子互动是广场最为重要的功能，设计师特意选择了抗风能力和抗空气污染能力强
的凤凰木（*Delonix regia*）和小叶榄仁（*Terminalia neotaliala*）作为骨干树种以增强空间的安全性和舒适性。从人行道至商业建筑，乔木由密到疏的变化，两棵花若丹凤的凤凰木分别植栽于亲子口袋和自由岛的中心位置，色彩艳丽的花朵和细如羽毛的枝叶在视觉上吸引人们前往商业入口。同时，围绕在“云幔”和“沙池”周边郁郁葱葱的小叶榄仁可遮蔽炎炎烈日，为整个广场营造了清凉宁静的氛围。更有意义的是，这片生机勃勃的树林将与孩子们共同成长，在枝繁叶茂的树木间的嬉戏时光也将成为他们美好的童年记忆。

### 3.4 兼顾经济与生态

尽管该项目的建造预算仅为一般商业项目的二分之一，但其并未成为一种限制，反而是形成设计方案的主要推动力之一。设计师采用格网设计语言，有效实现了物料的精简，同时简化了施工难度，使得施工质量更易于把控。由此衍生而来的模块化混凝土家具被广泛应用在整个综合体之中，而两款基本模块可以20多种方式进行自由组合。管理者可以根据不同的使用场景灵活选择组合方式，使用者也可根据自己的需求进行随意组合，这种设计形式极受年轻人的欢迎。预制混凝土不仅是制作户外家具的原材料，也被用于场地铺装，尽管在此过程中需要克服因模块生产技术水平限制而带来的诸多问题，设计师依然认为这一尝试非常必要且有意义——除了可节约造价（预制混凝土的单价是石材的三分之一），更重要的是希望通过此种方式减少自然石材的使用，以保护日益恶化的自然环境。

### 3 使用后观察

俄罗斯方块广场建成后获得了良好的反响，在短时间内便成为了整个社区乃至附近社区使用频率最高的公共空间。自由岛每天都会吸引周边孩童在这里乐此不疲地玩耍嬉戏；亲子口袋中的网绳吊床不仅为孩子们提供了有趣的游乐场所，也吸引了很多成人参与其中；甚至连休息区的造型座椅也被年幼的孩子当作小型滑梯——无成品设施，回归空间的策略得到了使用者的积极回应。一个商业空间能够以较低的成本投入最大程度地发挥公共空间的作用，这正是设计师的目标。与此同时，项目前置条件的制约（低造价、短工期），以及商业（私有）空间的公共化对整个场地的耐久性将是一项长期考验，也会造成后期管理运营成本的增加与维护的压力。于是，设计师在项目建成后的一年中持续对场地进行了运营记录，并获得了有趣而值得思考的观察。

#### 3.1 灵活空间在运营维护中的潜力

通过“以营造空间代替摆放成品游戏设施”策略生成的灵活的凤凰木（*Delonix regia*）和小叶榄仁（*Terminalia neotaliala*）作为骨干树种以增强空间的安全性和舒适性。从人行道至商业建筑，乔木由密到疏的变化，两棵花若丹凤的凤凰木分别植栽于亲子口袋和自由岛的中心位置，色彩艳丽的花朵和细如羽毛的枝叶在视觉上吸引人们前往商业入口。同时，围绕在“云幔”和“沙池”周边郁郁葱葱的小叶榄仁可遮蔽炎炎烈日，为整个广场营造了清凉宁静的氛围。更有意义的是，这片生机勃勃的树林将与孩子们共同成长，在枝繁叶茂的树木间的嬉戏时光也将成为他们美好的童年记忆。

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空间与场景，也可为广场的运营与维护带来更多灵活性。例如，亲子口袋中的吊床因长期高负荷的使用而损坏后，其金属框架可以保留下来，待日后添加新的吊床、秋千或其他设施；又如户外剧场背后一处配有哈哈镜的儿童剧场因没有运营经费而暂时用作休闲坐阶，待获得经费后便可重新激活，提供更多功能。

3.2 公共与私有的博弈

设计师通过巧妙的设计，最终实现了“公共”与“私有”的双赢。尽管在后期运营的过程中出现了令人遗憾的现象，原本作为公共空间的部分地块被租用者长期私有化（如云幔被收费的电动游乐园占据），但令人欣慰的是，约占广场面积三分之二的公共场地得以保存，可供社区居民长期免费使用。广场的公共空间属性使其能够长期聚集较高的人气，这对附近的商业有着巨大的促进作用。

4 结语

“俄罗斯方块”这一设计语言的生成来自于多方：核心家庭的亲子互动需求、社区开放空间的匮乏、造价与建造周期的限制，以及年轻受众的启发。虽然它的载体是儿童户外活动空间，但设计围绕着一系列社区问题的解决而展开。从设计框架到实施细节，设计师积极解决工程挑战，试图将亲子环境与社区形象、公共空间以及城市自然环境紧密联系在一起，同时致力于通过更加友好、更加自然的设计以及游戏方式，让孩子们在探索中学习，并构建其对外部环境的认知体系，提升他们的想象力和创造力。此外，儿童并不是广场唯一的使用者，跨代际的人群愉快、融洽地生活在同一个社区中是设计师由衷的愿景。持续一年的使用后观察也验证了上述设计策略的成功。LAF

项目信息

项目地址：中国广东省广州市

项目面积：6 000 m²

项目委托：广州市万旭房地产有限公司

景观设计：大小景观（原Lab D+H深圳工作室）

设计团队：钟惠城、宋妃敏、蓝皓、袁绍钟、叶婉璐、邓柳军、肖丙如、沈永楷

设计时间：2017年6月-2018年5月

施工时间：2018年5月-2019年1月

建成时间：2019年1月

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6. 俯瞰云幔

7. 云幔下玩耍的孩子们

6. A bird-eye view of the Cloud Curtain

7. Kids playing under the Cloud Curtain
people and core families. Sitting in the northeast of the Tianhe District, Guangzhou, the complex centers in the Tianhe Smart City, one of the nine newly planned towns in Guangzhou City, neighbors to many smart industries such as the Internet of Things, cloud computing, e-commerce, and information services, and enjoys convenient transport facilities. There are also many reputable universities nearby such as South China University of Technology, South China Normal University, and South China Agricultural University. Although many long-term plans are under construction by stages, this area still suffers from an insufficiency of amenities, such as plazas, parks, and stadiums. Open spaces within community for parent-child interaction, sports exercises, recreation, gatherings, and social communication are particularly needed.

The younger user groups of the complex hint that this mixed-use development is operated for people who want to live and work in this first-tier city but cannot afford the high price / rent of housing. So this project is a meaningful practice for improving citizens’ livelihood, and brings reflections on how to balance the daily needs of the young and children and the commercial interests of the developers in an urban public space. At the same time, it has to address challenges such as limited budget, urgent construction speed, and low-standard construction teams.

1 Design Context

Guangzhou Vanke Cloud City Phase 2 is a pioneer community complex which is comprised of a diverse blend of affordable small apartments, incubator offices, a middle school, and a shopping mall. The targeted user groups are mainly young
2 Design Strategies

2.1 A Pixel Plaza
At the community scale, landscape architects conceived a “pixel plaza” with a unified gridding landscape framework to echo the appearance of surrounding buildings, forming a strong identity for the community. At the site scale, the pixel image (500 mm × 500 mm by each grid) was used in paving, outdoor furniture, planting, and elevation design of the square, responding to diverse interaction of younger families. Following these ideas, Tetris Square was built up in the northwest corner of the complex with a size of 6,000 m². The highly recognizable “Tetris” image in this commercial square makes users feel as if they are in a vivid three-dimensional Tetris Game, transforming the site into an active place for children’s activities, and arousing children’s rich emotions and real happiness. It needs to be clarified that the unique design form of Tetris is not the inspiration for the design, but a creative strategy based on the site investigation. Now Tetris Square has become the largest public space of this young community, bonding all residents together.

2.2 A Mini Park
Even though established as a commercial plaza, Tetris Square was designed specially as a mini park to connect people in the community. There are playgrounds on both
sides of the square corridor, catering to various activities and psychological needs of children in different ages. Instead of a direct use of any finished children equipment, the design focused on place making. The Family Pocket consists of a series of hammocks where kids and parents could interact in joy and comfort. The Free Island is a multi-layered play facility for kids to discover spaces and exercise their bodies, which provides the richest interactive experience in the square and allows children to freely explore, learn, and understand the world. Other creative design elements such as the Cloud Curtain and the Cloud Pavilion, painted in an energetic orange color, provide private spaces for children and parents. The Amphitheater in front of the shopping mall not only provides a gathering space for commercial activities, but also can serve as an outdoor classroom for the middle school nearby. The series of small spaces for various programs make this mini park widely attractive to children and adults, enhancing its value as a precious open space within the high-density neighborhood.

2.3 A Growing Grove

Tetris Square has a decent number of trees. Landscape architects “hide” a grove by integrating it into the play facilities. This does not follow the conventional design principle of a commercial plaza, which is to plant as few trees as possible for a maximum storefront display. The strategy is successful as it attracts many visitors here to enjoy the shade as a shelter from the humid tropical climate in Guangzhou. Since parent-child interaction is the primary need to be satisfied, designers specifically chose *Delonix regia* and *Terminalia neotaliala* with strong resistance to wind and air pollution as backbone tree species to enhance the safety and comfort of the space. From the sidewalks approaching the shopping mall, trees were planted in a dense-to-sparse gradient, with openings that...
lead to the mall. Two fully blossoming Delonix regia trees, each was planted in the center of the Family Pocket and the Free Island, refresh visitors on their way to the square with appealing blossoms and featherlike leaves. At the same time, groves of Terminalia neotaliala around the Cloud Curtain and the Sand Pool provide shade for kids and parents, where adults can enjoy the quality time with their children, and the kids would harvest a beautiful memory of playing and growing up in such a green wonderland.

2.4 An Economical and Ecological Strategy
The design of this project was not embarrassed by the limited construction budget (about half of common commercial projects), which, on the contrary, spurred the design team for a smarter proposal. The grid modules make facility fabrication and installation much easier, helping save the costs and ensure the construction quality. Assembled precast concrete outdoor furniture was used extensively in the whole complex. Landscape architects designed only two basic precast concrete modules, which could be assembled into more than twenty combinations. Site managers can select appropriate combinations according to different scenarios, while users could select the most comfortable furniture combination to meet their needs, which appeals strongly to younger users. The precast concrete was also used as the substitute for the traditional stone pavement in spite of the problems caused by technological limitation. This decision was proved to be both economical and environment-friendly: the unit price of precast concrete is about one-third of the stone paver, which also helps conserve the natural stone resource in China.

3 Post Occupancy Observation
Right after completion, Tetris Square has soon become a popular daily public space for the complex and adjacent communities. Besides the highly welcomed Freedom Island and Family Pocket, the sculptural benches are used as slides for toddlers — By returning to place making without finished equipment, designers have successfully maximized the function of public space as such a low-cost commercial (private) plaza with the limitation of construction budget and period, which brings challenges to the long-term operation and maintenance. Therefore, designers conducted a continuous post occupancy observation for one year after its opening and retrieved interesting and provoking feedback.

3.1 Space Flexibility in Operation and Maintenance
The flexible spaces created through the place making strategy support a more elastic operation and maintenance. For
example, the steel frames of hammocks in the Family Pocket can be remained after the rope nets have been worn out, for reinstalling new hammocks, swings, or other facilities. Due to the fund shortage, the Children Theater behind the Amphitheater is temporarily serving as a sitting area with a distorting mirror, and can be re-activated in the future.

3.2 Negotiations of Public and Private Spaces

This project achieved a win-win between the public and the client through design approaches. Even though part of the Tetris Square is under exclusive use, e.g., the music plaza and the Cloud Curtain have been occupied by an electric amusement park for a fee, the majority of the square remains open to the public, facilitating social communication and parent-child interaction which in return brings more consumers to the businesses around.

4 Conclusions

The design language of “Tetris Square” was generated from the needs of core families, inspired by the spirit of younger users, and addressed the scarcity of public space around the site and the limitation of construction budget and period. Even though positioned as an outdoor children play space, the square has actually solved a series of community problems. From the overall design framework to the variety of details, designers attempted to connect the children playground with community identity, public place making, and natural environment in the city. By overcoming construction obstacles, the project provides children with fun and happiness through user-friendly and naturalized design, encouraging children’s cognitive learning from the external world, and simulating their imagination and creativity in play. In addition, young residents and parents are also attracted to the square, realizing the vision that intergenerational people could enjoy the square together. With a continuous post occupancy observation for one year, the ideas and strategies above have been proved working.

PROJECT INFORMATION

LOCATION: Guangzhou City, Guangdong Province, China
AREA (SIZE): 6,000 m²
CLIENT: Guangzhou Wanxu Real Estate Co. Ltd.
LANDSCAPE ARCHITECTURE: Atelier Scale (previous Lab D+H Shenzhen Studio)
PROJECT TEAM: Zhong Huicheng, Song Feimin, Lan Hao, Yuan Shaozhong, Ye Wanlu, Choi Young Joon, Deng Liujun, Xiao Bingru, Shen Yongkai
DESIGN PERIOD: June, 2017 ~ May, 2018
CONSTRUCTION PERIOD: May, 2018 ~ January, 2019
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