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非正规垂直社区：

委内瑞拉加拉加斯市大卫塔

Informal Vertical Communities :

Torre David in Caracas, Venezuela

U-TT建筑与都市主义实践事务所
/ Urban-Think Tank

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摘要 ……

大卫塔，这座委内瑞拉第三高、伫立于加拉加斯市前中央商务区核心地带的45层的高楼，随着其开发商的离世，以及1994年委内瑞拉金融危机的到来，失去了财团的资金支持，逐渐被遗弃，并成为流民的聚集地。现在，它已成为一个自发形成并不断扩容的自组织社区，为750多个家庭提供了住所，一些人称之为“垂直的贫民窟”。设计团队的干预方案旨在改善居民的生活状况，减少能量消耗，降低碳排放量，从而使整个结构自给自足。

关键词 ……

大卫塔；垂直社区；贫民区；设计干预

Abstract ...

Torre David, the third tallest building in Venezuela, stands at an impressive 45 floors in the heart of Caracas' former central business district. In the wake of the 1994 Venezuelan banking crisis the developer passed away and the financial group supporting the construction collapsed, leaving the building abandoned and a magnet for squatters. Today it is the improvised, continually revised home for more than 750 families living as a self-organized community in what some have called a vertical slum. The project team designed interventions to improve the residents' living conditions, reduce energy consumption and render the structure self-sufficient.

Key words ...

Torre David; Vertical Community; Slum; Design Intervention

1. 大卫塔立面夜景图
2. 未完工的大卫塔：结构已建成，却因陷入金融危机而搁浅。
1. Torre David facade by night
2. The unfinished tower: structurally sound but financially crippled.

项目地址：委内瑞拉加拉加斯市

设计干预：U-TT建筑与都市主义实践事务所、瑞士苏黎世联邦理工大学

项目负责人：Alfredo Brillembourg、Hubert Klumpner

项目经理及主要研究员：Michael Contento、Rafael Machado（加拉加斯）

研究团队：Joost deBont、Nicolas Matranga、Ilana Millner、José Antonio Nuñez、Mathiu Quilici、Daniel Schwartz、Lindsey Sherman

研究时间：2003年至今

所获奖项：该项目同期展览“大卫塔/宏大视野”获得2012第十三届威尼斯建筑双年展最佳项目展览金狮奖

Location: Caracas, Venezuela

Design Intervention: Urban-Think Tank, ETH Zurich

Project Directors: Alfredo Brillembourg, Hubert Klumpner

Project Managers and Lead Researchers: Michael Contento, Rafael Machado (Caracas)

Research Team: Joost deBont, Nicolas Matranga, Ilana Millner, José Antonio Nuñez, Mathiu Quilici, Daniel Schwartz, Lindsey Sherman

Research Period: 2003 on going

Award: The accompanying installation, "Torre David / Gran Horizonte," was awarded the Golden Lion at the 13th International Architecture Exhibition — la Biennale di Venezia, 2012



1 背景

1990年1月，位于加拉加斯市中心利贝尔塔多行政区的康菲南兹金融中心破土动工。利贝尔塔多行政区位于加拉加斯的西部，地处环拥城市的山谷的中心地带。这里集聚了政治与金融的力量，使这个街区无论从直观还是象征意义上都引人注目。该地区成为了加拉加斯的华尔街、金融中心以及建造全球化都市的黄金地段。大卫塔的开发商乔治·大卫·伯莱姆博格·奥特加^①构想将其建造成为南美洲最大的私人摩天大楼综合体。

无论何时何地，构成康菲南兹金融中心的5幢混凝土建筑都向世人昭示着它们的勃勃雄心。大楼A座（即大卫塔）作为综合体的主楼计划封顶于45层，并在顶层建设一个直升机停机坪。1~6层将提供酒店支持服务；7~16层为酒店公寓；18~45层为面积达30 000m²的办公空间。第17层被设计为紧凑、封闭的员工宿舍。^①

经过近4年的建设，这个综合体渐成雏形，A座主楼的高度逐渐与周边的摩天大楼齐平。其计划完工日期为1994年7月，底层酒店预计于当年12月开业。然而

接下来的事情变得一团糟，首当其冲的是大卫·伯莱姆博格于1993年4月的离世。

1994年1月，委内瑞拉受到一系列银行倒闭的冲击，导致金融业的衰败。伯莱姆博格的金融援手——以银行为靠山的康菲南兹财团，也未能幸免。失去了领导层和资金的继续推动，该项目几乎立即被搁置，只留下已完工90%的A栋主楼。^②数月之内，一家名为FOGADE的政府金融机构接管了伯莱姆博格财团的资产，包括几近完工的综合体。2001年，该机构拍卖综合体的计划失败，然而在近18年中这个项

目完全被忽略，使大卫塔一直处于空置状态。直到2013年4月，综合体才被出售。

2 自发性侵占

擅自占住空房者和抢掠者的定期“造访”，带走了大卫塔中废弃的器械、建筑材料和大扇玻璃窗，并将能够再利用的材料出售殆尽。在陷入困境的金融区中心，塔楼失去了昔日的光彩，安静地伫立在原地。

1999~2012年间，委内瑞拉新宪法实施，通过了一系列的法律和法令，授权政府提高对公众和私有土地的控制力，削弱了现有的物权法。加上日益增长的住房危机以及城市中许多贫民区朝不保夕的住房条件，使得对公共和私有土地的侵占现象屡见不鲜。2011年4月，加拉加斯共有约155座办公楼、公寓和政府建筑被占用，

大卫塔也包括在内。^[2]

2007年9月17日，一群加拉加斯人被逐出了位于坎德拉里亚的棚户区；为了寻求住所，他们将目光投向了大卫塔。同一天，聚居在加拉加斯贫民区的人们开始接到“专业”空房侵占者的电话和短信，鼓励他们集中起来占领大卫塔。这个消息迅速扩散。当天晚上大雨倾盆，却挡不住许多家庭赶往大卫塔入口的脚步。两个值班门卫看到这群湿透的人们，放下武器并打开了大门。这拉开了占领大卫塔的序幕，其后来成为了全世界最大的垂直贫民窟之一。

关于这个巨大而空旷的开放空间的消息不胫而走，包括最初占领者的朋友和家人在内的人们纷纷而至。这群占领者的数量在其后的3天中呈指数级增长。在最初的几周内，这些新来的人们冒着可能一无

所有的风险，观望着他们是否会被驱逐。家庭成员轮流值班以守卫他们的空间——这是一场接力式的占领持久战。

当被驱逐的威胁逐渐消失后，新居民们开始对整个综合体进行探索，以寻求其中各种空间的居住可能。他们共同对大卫塔进行了清扫，逐层地清理自塔楼废弃以来所积累的瓦砾粗石，并且为每个家庭分配空间。渐渐地，他们组织起来安装栏杆、粉刷公共空间和私人房间。通过团体组织和辛勤劳作，每层楼很快被改造为可容纳15个家庭的居所。最初，只有A座主楼被占领。2009年，A座主楼大约容纳了200个家庭。目前，大卫塔中的居住人口仍然在增加，并且居民们对综合体进行了多方面的改善。

在加拉加斯生活的人不可能不知道大卫塔。该项目不仅是一个独特的物理和象



征性的存在，也无疑是加拉加斯城市景观中一个不可忽视的特色。

3 设计干预

建筑师、城市设计师以及加拉加斯当地居民于1993年成立了“加拉加斯智库”，这将建筑师和城市规划师聚集在一起，思考应该如何为这座城市提供新的城市规划战略。^③在对各类贫民区进行探索、实践、立言著说的同时，我们始终将大卫塔视作一个非正规聚落形式的实验室。早在2003年，我们便与拥有该综合体产权的FOGADE部门进行了接触，期望了解他们的意图以及我们能否对其规划提供帮助。不幸的是，在查韦斯当选的背景之下，有关大卫塔的议题被蒙上了浓重的政治色彩，我们也因此被迫退居一旁。

尽管如此，我们仍然持续关注着大卫塔。到2007年时，塔内人口数量趋于稳定，并且根据他们自身的需求对结构进行了适应性改造。最后，在2008年，我们决定再一次尝试深入了解大卫塔是如何被利用的。这不是一项简单的任务：经过3年的时间，我们试图通过各种可能的途径再一次与社区领袖进行接触，包括频繁地探访综合体的大门——尽管我们屡被拒之门外。直到2011年，我们提议出于安全和美观的考虑，需要对建筑立面进行改造，才得以开始展开对大卫塔为期一年半的调查。^④

当对大卫塔进行了近距离、深入的探访之后，在短期内获得了一些简单的印象，我们开始针对它所引起的一些问题寻求解决方案。它并不真正符合常规意义上贫民窟的标准，不论其形式是垂直的还是其他类型。它也不符合同等高层住宅建筑的常规标准。它看起来与两者都沾边，但却是城市发展中一种独一无二的类型。

我们从未见过有哪个转化为非正规聚落的正规聚落会像大卫塔这样独特、能够如此强烈地激发人们的建筑想象力。作为一个实验室或实验区，大卫塔促使着我们构想出新的技术改造和结构方案，以提高建筑空间的安全性、功能性

并激发社会活力。

我们仅能从实际和伦理的角度出发，以可持续发展为前提对其进行构建和转化。传统的可持续建筑理念无疑不适用于大卫塔的情形。即使在对现有的建筑——当然也包括新的构筑物——进行改造或适应性再利用的背景下，我们的设计目标一如既往地着重于减少能量消耗、降低碳排放量，以及满足结构自给自足的需要——换句话说，任何能够减轻设计对环境的影响并且改善使用者健康和舒适感的事情都包含在设计之内。而后者才是我们在寻求大卫塔可持续发展的途径中至关重要的一点。

我们在此项目探索过程中所做出的干预和所呈现出来的解决途径，旨在提高大卫塔内居民的生活水平。这也是为了通过使用可再生资源为加拉加斯已经不堪重负的电网减负。而就大卫塔自身条件而言，任何“可持续”的概念都必须考虑到社会和经济因素。我们所考虑的任何改变都应该是有机的，都能够使，也需要居民们直接参与其中。任何背景下的“可持续”，都不仅仅是建筑和工程设计上的“可持续”，还应包括操作和行为上的“可持续”。

我们所提出的干预方案，是与来自苏黎世联邦理工大学建筑与可持续建设技术专业的助理教授级专家合作完成的，主要集中在由居民和设计团队予以优先考虑的3个方面——纵向流动性、能源消耗与生产，以及立面安全和美观。

设计首先要解决的问题是在高层建筑中改善纵向流动性的迫切需求。目前，由于缺乏电梯，这座建筑成为一幢完全依靠楼梯上下的公寓，一些居民，尤其是儿童、老年人和体弱多病者，每天在上下楼梯之间走动和搬运物品这类简单的行动上花费了大量的时间和精力。不幸的是，居民们无法负担购买、安装和运行一个正常的电梯系统所需的费用。因此，我们设计了一个可替代的电梯模型——能像城市公交那样运营，按照一个时间表进行人、物品和垃圾的日常运输。



3. 大卫塔内部居民的生活和活动。
3. Current situation of the residents' everyday life and activities inside Torre David.

我们的第二项干预措施将解决目前所面对的一个现实问题：大楼中的能源需求超过了城市电网的电力供给能力，他们正在为分接电流而支付费用。我们设计了一种电力生产及储存系统，能够持续地为大卫塔提供它所需要的部分能源。用最简单的术语来解释，就是将一组风力发电机置于大卫塔东立面的上部，可以在白天进行发电。由这些涡轮机产生的电力，能够在风能发电量较高及用电量较低之时，被主要用于将水抽取至K栋大厦各层内的一系列储水空间中。这些水可以用来分配和消耗，也能够利用所储存水的势能来发电的水泵的微型水电系统中发挥功用。

用电高峰期只需将储存的水释放出



4

来，水下落的重力驱动位于其下方的一系列涡轮机，从而产生电能。这一史无前例的技术的结合成果通过垂直的方式得以实现，满足了大量人口的需求。该系统能够提供大卫塔大约24%的电力需求，然而在启动和维持高效运行之前，仍需要对其进行试验和检测。通过一个智能控制站，以及这些最初的专业检测和调试，我们相信居民可以在随着时间的推移、用电需求不断增加时，来运行并改进这个系统。

我们同时也考虑了如何改善建筑的外立面这一问题，因为居民们也强调了建筑外观对他们的重要性，外观的改变将促使外界重新思考对此地居民的看法和偏见，从而促进该社区与城市社区和经济结构的融合。

4 结语

侵占性聚落区并不稀奇，在拉丁美洲也并不稀奇。几乎世界上每一座大型城市都有类似的地区：加拉加斯、墨西哥城、孟买、拉各斯、约翰内斯堡、雅加达以及阿布贾。这些城市拥有不同的文化背

景和发展前景；地理位置决定它们的形态和建筑材料的不同；基础性资源——例如水——匮乏或充足情况也不尽相同；事实上驱使人们从乡村来到城市的动因也不同：贫穷、饥荒、自然灾害、战乱。而它们的共同之处在于无论受何种驱动力催使，人口都在膨胀，而且将继续呈几何级数地膨胀。

迄今为止，无论贫民窟出现在何处，“处理”的方式还是以清除为主，以创建一个没有贫民窟的世界为目标。我们不曾将贫民窟视作城市的毒瘤，而是将其设想为潜在的重要而充满活力的实验室，我们可以从它的成功与失败中吸取经验。贫民窟具有促成杰出的设计创新和卓越的建筑成就的潜力。在渐进式的发展过程中，非正规居住形式在传统的城市肌理上不断进行扩张与复制，并发展出了新的结构和新的选择。这是城市未来的发展方式，与完成式和定局式的概念形成了鲜明对比。这正是我们在大卫塔所发现的。

专业人士——城市规划师、社会活动家、工程师，尤其是建筑师——应通过促

进城市结构的发展来直面未来现实；与政治家、政策制定者，以及社区团体进行紧密且高效的互动；在发展与应用创新成果的过程中赢得私营机构的参与；从而共同参与到一个更加公平、可行和可持续的城市的创造过程中来。LAF

注释

- ① 他是该项目负责人阿尔弗雷多·伯莱姆博格的堂兄。
- ② 参见2012年2月15日恩里克·戈麦斯和胡里奥·雷伊的访谈，由拉菲尔·马查多和马蒂厄·奎里奇采访。戈麦斯是康非南兹金融中心的建筑师，雷伊是施工期间戈麦斯工作室的实习生。
- ③ 后来我们改名为“城市智库”，因为我们的研究基地发生了改变，并且开始在其他城市开展研究。
- ④ 通过这些努力，我们的研究获得了由迅达集团赞助的研究经费和苏黎世联邦理工学院的支持。
- ⑤ 本文中所有的现场照片均由丹尼尔·施瓦茨拍摄。

4. 大卫塔坐落于银行、大学与政府建筑之中。© U-TT Chair, ETH Zurich
5. 大卫塔成为了集运动、居住、商业和宗教设施于一体的“综合体”。© U-TT Chair, ETH Zurich
4. Torre David is situated among banks, universities, and government buildings. © U-TT Chair, ETH Zurich
5. The residents have introduced a mix of sports, residential, commercial and religious facilities. © U-TT Chair, ETH Zurich

1 Background

In January 1990, ground was broken in the Libertador Municipality of downtown Caracas for the Centro Financiero Confinanzas. Libertador lies in the western portion of Caracas, in the heart of the valley that holds the city. A concentration of political and financial power, literal and symbolic, distinguishes the district: the presidential palace, federal legislative palace, public ministry, headquarters of the Central Bank of Venezuela, and some of the tallest of the city's skyscrapers. The area had become Caracas' Wall Street, the center of finance and the prime location for building the global city. Jorge David Brillembourg Ortega^①, the developer, conceived Torre David as the largest private skyscraper complex in South America.

At any time, and in any place, the five concrete structures that composed the Centro Confinanzas would have been ambitious. Edificio A (Torre David), the main building, was to top out at 45 stories, surmounted by a helipad. The first six floors were to house hotel support services; floors 7–16 were intended to be a hotel; floors 18–45 were planned for 30,000 m² of office space. The 17th floor was designed as a pressurized, hermetically sealed shelter for office workers.^[1]

For almost four years, the complex gradually emerged from the ground, Edificio A rising to meet its skyscraper neighbors. The scheduled completion was July 1994, with the grand opening of the hotel planned for December of that year. Then things went terribly wrong, beginning with David Brillembourg's death from natural causes in April 1993.

In January 1994, Venezuela was hit by a series of bank closures that brought the financial sector to its knees. The financial arm of the project, Grupo Confinanzas, who

had been supported by a number of banks and it, too, failed. Without leadership or funds to continue construction, the project was almost immediately abandoned, leaving 90 percent of Edificio A completed.^② Within months, a government financial agency, Fondo de Garantía de Depósitos y Protección Bancaria (FOGADE), seized the assets of Brillembourg's financial group, including the nearly completed complex. In 2001, FOGADE unsuccessfully attempted to auction the complex, but has otherwise largely ignored the project for the past 18 years, leaving the tower to sit vacant. Until April 2013, the complex has yet to be sold.

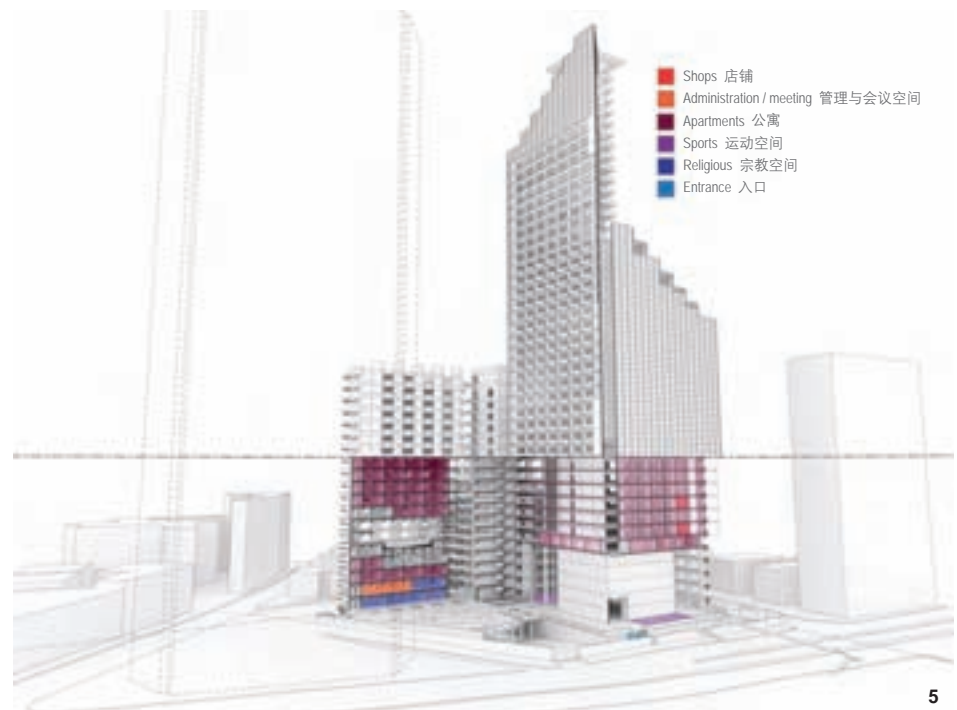
2 Spontaneous Invasion

Periodic invasions of squatters and looters picked over abandoned machinery, construction materials, and large glass windows in Torre David, selling off whatever they could salvage. In the heart of a struggling financial district, the Tower stood dark and

silent.

Between 1999 and 2012, a new constitution was implemented, and a series of laws and presidential decrees were passed increasing government control over public and private land and undermining existing Venezuelan property law. Coupled with a growing housing crisis and the precarious condition of houses in the city's many barrios, these changes created an environment in which the squatting of public and private land became common practice. As of April 2011, 155 offices, apartments, and government buildings estimated in Caracas were occupied by squatters, including Torre David.^[2]

On 17 September 2007, a group of caraqueños, residents from Caracas, was evicted from a squat in La Candelaria. They began searching for shelter and looked towards Torre David. On the same day people in the barrios of Caracas began receiving phone calls and text messages from "professional" squatters, urging them



to converge on and occupy Torre David. The news spread rapidly until that evening when, in heavy rain, a large number of families appeared at the entrance to the complex. The two guards on duty took one look at the mass of drenched humanity, turned over their arms, and opened the gates, thus began the current occupation of Torre David, which has become one of the world's largest vertical squats.

The words of this gargantuan, empty, open space spread rapidly, and soon friends and family members of the original occupiers gathered. Three days later, their numbers had grown exponentially. During the first few weeks, as the new arrivals waited to see if they would be evicted, leaving the space amounted to risking forfeiture of one's stake. Family members guarded their space in shifts — a relay-style, endurance occupation.

As the immediate threat of eviction began to subside, the new inhabitants began to explore the whole complex, evaluating the potential for habitation of various spaces. Together they cleaned Torre David, floor by floor, removing the rubble and trash that had

accumulated since the tower's abandonment, and allocated spaces for each family. Gradually, they organized the construction of balustrades and painted communal spaces and private apartments. Through group organization and hard work, each floor soon had 15 families. Initially, only Edificio A was occupied. In 2009, Edificio A was estimated to house 200 families. The population of Torre David has continued to grow, and the residents have made extensive modifications to the complex.

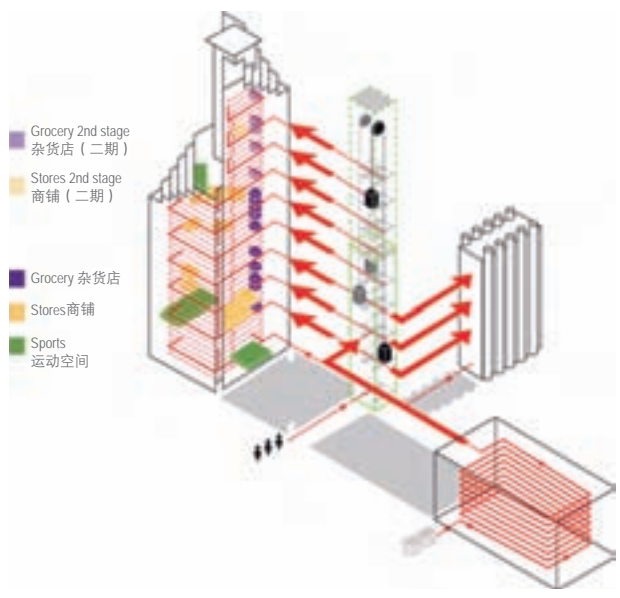
It is impossible to live in Caracas and not know Torre David. It is a distinct physical and symbolic presence and an unmistakable and inescapable feature of Caracas' cityscape.

3 Interventions

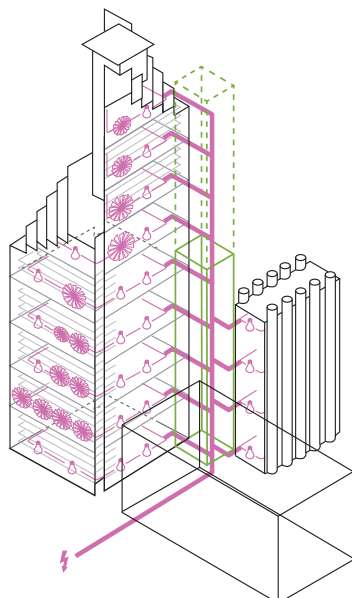
As architects, urban designers, and *caraqueños* ourselves, we established Caracas Think Tank in 1993 as a way to bring architects and urbanists together and consider how we might create a new strategic urban plan for the city.^③ Even as we explored, worked in, and wrote about various barrios,

we had Torre David in mind as a laboratory for a different kind of informal settlements. As early as 2003, we contacted FOGADE, which had taken possession of the complex, to find out what their intentions might be and whether we could assist in whatever efforts they might be planning. Unfortunately, the issues surrounding Torre David became highly politicized in the context of Chávez's election, and we were compelled to retreat to the sidelines.

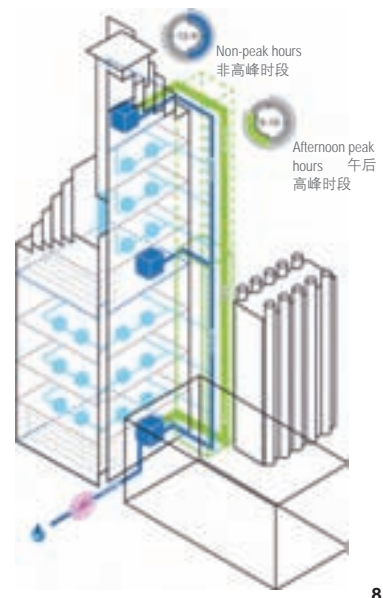
Nevertheless, we kept a watchful eye on Torre David, as, in 2007 the current population moved in and began to modify and adapt the structure to their needs. Finally, in 2008, we decided to try once more to become involved and to learn just how Torre David was being used. This was not a simple task: over the course of three years, we made routine — and routinely unsuccessful — efforts to reach the community leaders by any means possible, including frequent visits to the gates of the complex. It was not until 2011, with our proposal to help redesign the facade for safety and aesthetics, that we



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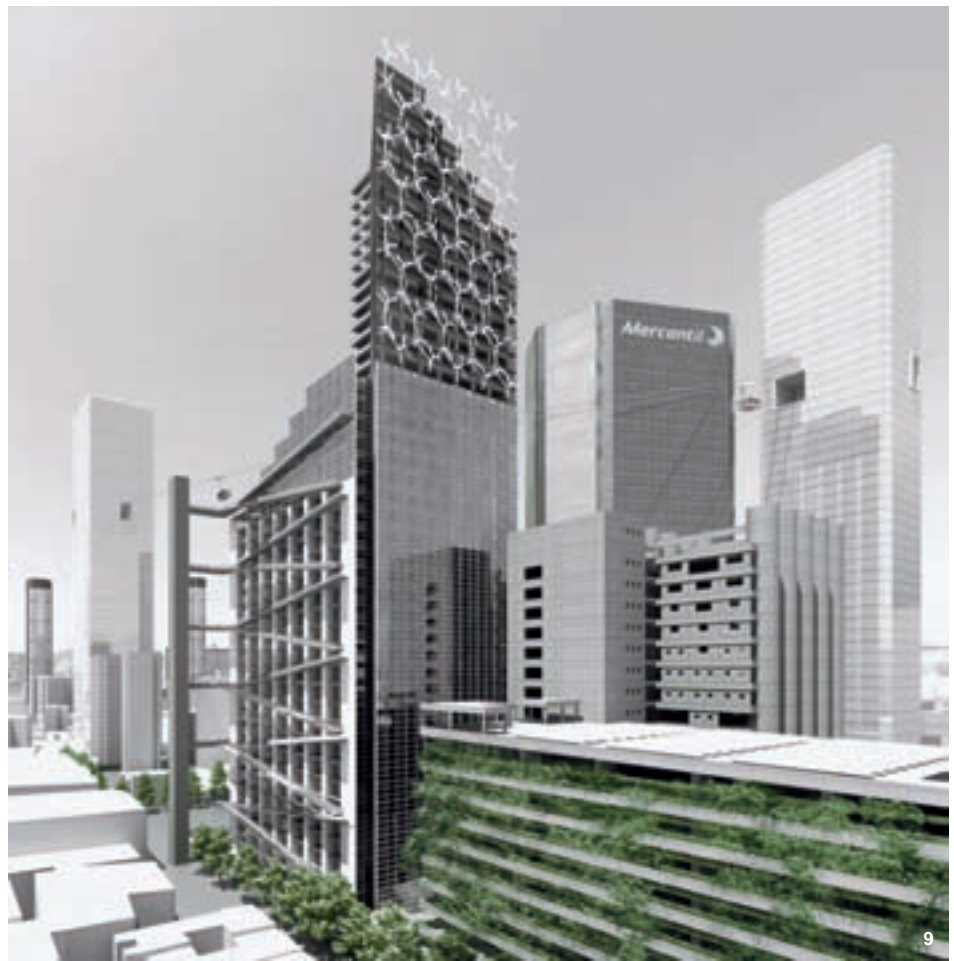
were able to begin our year-and-a-half of investigations.^④

Having examined Torre David closely and intensively, in this snapshot in time, we began to look for answers to some of the questions it raises. It does not truly meet the conventional criteria for a slum, vertical or otherwise. Neither does it meet the equally conventional standards for a residential high-rise. It would seem to partake of both, as well as its own, singular category of urban development.

We know of no other example of the informalization of the formal, quite so singular or so capable of exciting the architectural imagination, as Torre David. As a laboratory, or zone of experimentation, Torre David challenged us to conceive new technical retrofits and structural solutions that can enhance the safety, functionality, and social vibrancy of the space.

Our vision arises from the premise of sustainability as the only practical and ethical basis on which to build and grow. Conventional concepts of sustainable architecture, of course, do not readily apply to the circumstances of Torre David. Even in the context of the retrofitting or adaptive reuse of existing buildings, and certainly in regard to new structures, we typically design for a reduction of energy consumption, a smaller carbon footprint, self-sufficiency of the structure itself — anything, in other words, that will mitigate the impact of our designs on the environment, as well as improve the health and well-being of the users. This last point is of vital importance in our approach to sustainability for Torre David.

The interventions we explored during this project and present as possible approaches are aimed at raising the standard of living for the residents of Torre David. They were also aimed at minimizing the demands on Caracas' already overtaxed power grid by capitalizing on renewable resources, while



taking into account the social and economic issues that are inextricable from any notion of “sustainability” in the context of Torre David. Any intervention we considered also had to be organic, in the sense of enabling and requiring the direct participation of the residents. Sustainability, in any context, is not merely an issue of architectural and engineering design and of technology, but of operations and behaviors.

Our proposed interventions, developed with collaborators in the Assistant Professorship of Architecture and Sustainable Building Technologies (SuAT) at the ETH Zürich, focused on three categories prioritized by both residents and our research team — vertical mobility, energy consumption and production, and facade safety and aesthetics.

The first of our designs addresses the pressing need for better vertical mobility within the high-rise. Currently, there are no elevators, effectively making the building a walk-up. Some residents, particularly the young, elderly, and infirm, spend considerable amounts of time and effort each day accomplishing the simple task of moving themselves and their belongings up and down the stairs. Unfortunately, the residents cannot afford to purchase, install, or operate

6. 基础设施与垂直移动构架图 ©SuAT, ETH Zurich
7. 发电及相关基础设施设计图 ©SuAT, ETH Zurich
8. 供水及储能设计图 ©SuAT, ETH Zurich
9. 可用于大卫塔的风能发电机组 ©U-TT Chair, ETH Zurich
6. Backbone for infrastructure and vertical mobility ©SuAT, ETH Zurich
7. Concept for electricity generation and infrastructures ©SuAT, ETH Zurich
8. Water supply and energy storage ©SuAT, ETH Zurich
9. Torre David with potential wind turbine retrofits ©U-TT Chair, ETH Zurich

a traditional elevator system. Thus, we have proposed an alternative elevator prototype — one that would operate more like a city bus, running on a set schedule throughout the day transporting people, goods, and waste.

Our second intervention addresses the fact that currently, the Tower's energy demands surpass the electrical supply of the city's grid, which they now pay to tap into. We have proposed a new system of electricity production and storage that would sustainably supply Torre David with some of the energy

it needs. In the simplest terms, arrays of wind turbines placed on the upper portions of Torre David's east facade would generate electricity during the day. The electricity produced by these turbines, available at times of high wind energy and low demand, would primarily be used to pump water up to a series of reservoirs located at different levels within Edificio K. This water, meant for distribution and consumption, would also be instrumental in the pumped pico hydro system, which uses the potential energy of the stored water to

generate electricity.

In releasing the stored water during time of high electricity demand, the falling water's gravitational force drives a series of pico hydro turbines located below occupied levels, thus generating electricity. This combination of technologies, implemented in a vertical manner to serve the needs of a large population, is without precedent. It is a system that is capable of producing approximately 24 percent of Torre David's electricity, though it would likely require experimentation and monitoring to derive and sustain efficient usage. With a computerized control station, and initial expert monitoring and training, we believe that residents would be able to operate and improve upon the system over time as electricity demand rises.

We also considered ways to alter the physical appearance of the building, both because the residents have indicated its importance to them and an improved outward aspect would help integrate the community into the social and economic fabric of the city by compelling outsiders to reconsider their perceptions and preconceptions of the residents.

4 Conclusion

Squatter settlements are not new, nor are they unique to Latin America. Nearly every mega-city in the world has its version: Caracas, Mexico City, Mumbai, Lagos, Johannesburg, Jakarta, Abuja, and Beijing. They differ in cultural conditions and expectations, in the geography that dictates their form and building materials, in the abundance or scarcity of basic resources such as water, and in the factors that drive people from rural areas to cities: poverty, famine, natural disaster, and war. What they share is a population that grows with every driving impulse and that continues to grow exponentially.





11

To date, efforts to “deal with” slums, wherever they appear, have focused on their eradication, with the objective of creating a slum-free world. Rather than seeing slums as tumors on the civic body, we conceive them as potentially vital, vibrant laboratories, from whose successes we can learn and whose failures we can seek to mitigate. They hold the potential for extraordinary design innovation and exceptional architectural achievement. The informal expands, reproduces, and generates new structures and new alternatives to the traditional urban grid, in a process of incremental development. It is the way of the urban future, one that is antithetical to notions of completeness and finality. It is what we

found in Torre David.

It is time for professionals — urban planners, social activists, engineers, and most especially architects — to confront the realities of the future by helping to develop the urban fabric from the ground up; to interact forcefully but productively with politicians, policy-makers, and community groups; to enlist the private sector in developing and deploying innovations; and to participate collectively in the creation of more equitable, workable, and sustainable cities. **LAF**

10. “大都市” 构建示意图 © U-TT Chair, ETH Zurich
 11. 在旧有城市肌理的基础上对城市进行重新构想。© U-TT Chair, ETH Zurich
 10. Intervening in the Mega-City © U-TT Chair, ETH Zurich
 11. Re-imagining the city as rooted in and growing from the old urban fabric. © U-TT Chair, ETH Zurich

NOTES

- ① Cousin of the project director, Alfredo Brillembourg.
- ② Enrique Gómez and Julio Rey, interviewed by Rafael Machado and Mathieu Quillici, Caracas, February 15, 2012. Enrique Gómez was the Centro Financiero Confinanzas project architect, and Julio Rey was an intern in Gómez’s office at the time of construction.
- ③ We later changed our name to Urban-Think Tank as we broadened our research base and began working in other cities as well.
- ④ For these endeavors, we received a research grant from the Schindler Group and support from the ETH Zurich.
- ⑤ All site photos were taken by Daniel Schwartz.

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