

太阳城之塔，里约热内卢(概念性设计)

Solar City Tower, Rio de Janeiro

建筑设计 RAFAA建筑事务所



里约热内卢为举办2016年奥林匹克运动会而进行了此次国际建筑竞赛。由于项目位于柯东杜巴岛的城市海湾，不可避免地要考虑飞机降落及将垂直结构作为城市的地标，因此设计中太阳城之塔将很自然地迎接来自世界各地前来观看奥运会的人们。

设计概念

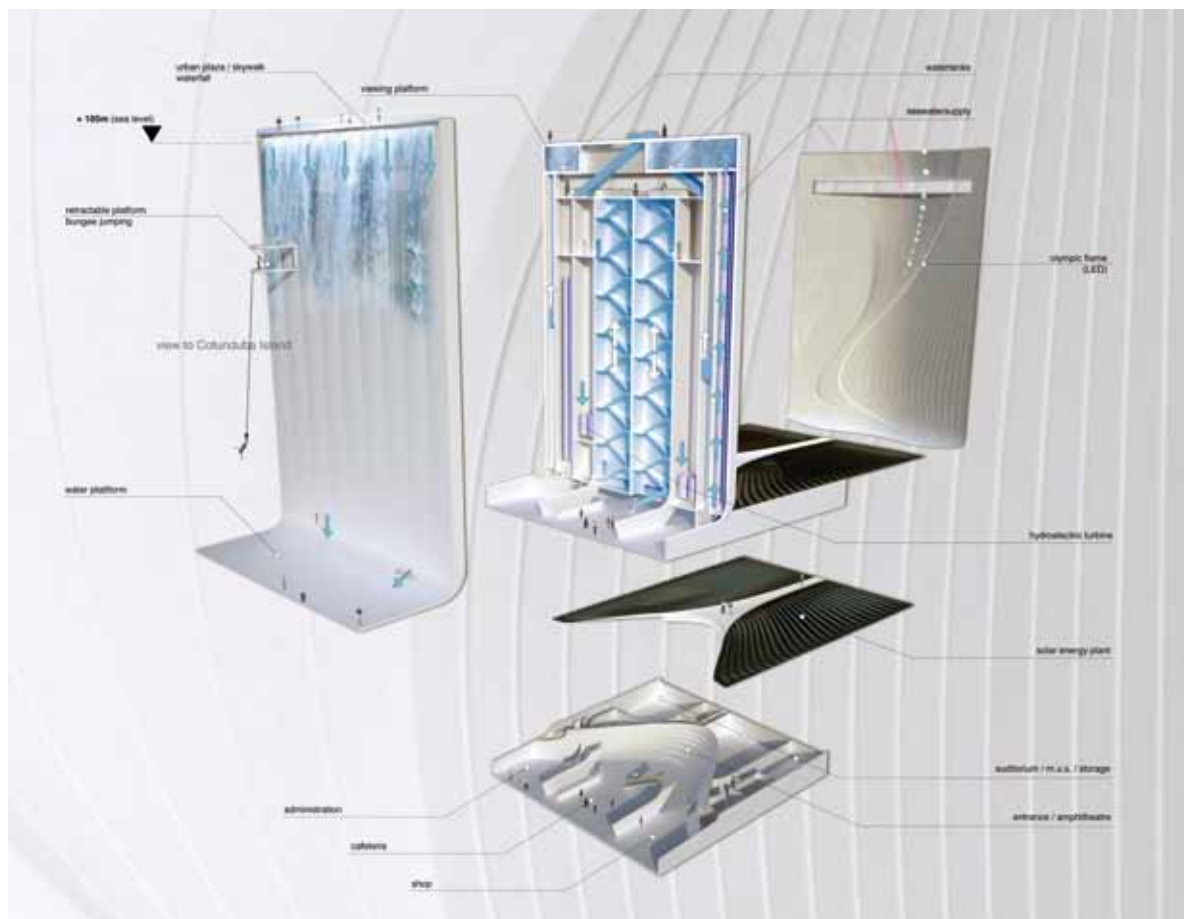
设计旨在探讨是否应该重新考虑地标建筑的概念，它可否不必造价昂贵，也不非要是特别符号化的建筑形式，而是回归到建筑本质，迎接即将来临的后石油时代的真正挑战。因而项目体现出社会面对未来的方式，成为一种内在态度的表现。我们的设计将利用自然能源为城市和市民提供能量。自1992年环境与发展联合国会议之后，里约热内卢再一次成为全球绿色运动和城市可持续发展的起点，未来也将成为奥林匹克运动会第一个零碳足迹的象征。

设计方法

项目是一个动力厂，它为奥林匹克村和城市提供电能及其他能量，而多余的能量将用于提升海水进入塔楼。夜晚，泵入的海水将被释放。在特殊情况下，这个建筑将可以变成一种壮观的自然景观——城市瀑布，也将人们的注意力引向它周围的景观中。建筑入口是位于海面上60m的城市广场，通过圆形剧场也可以到达建筑一层的入口。

空间组织





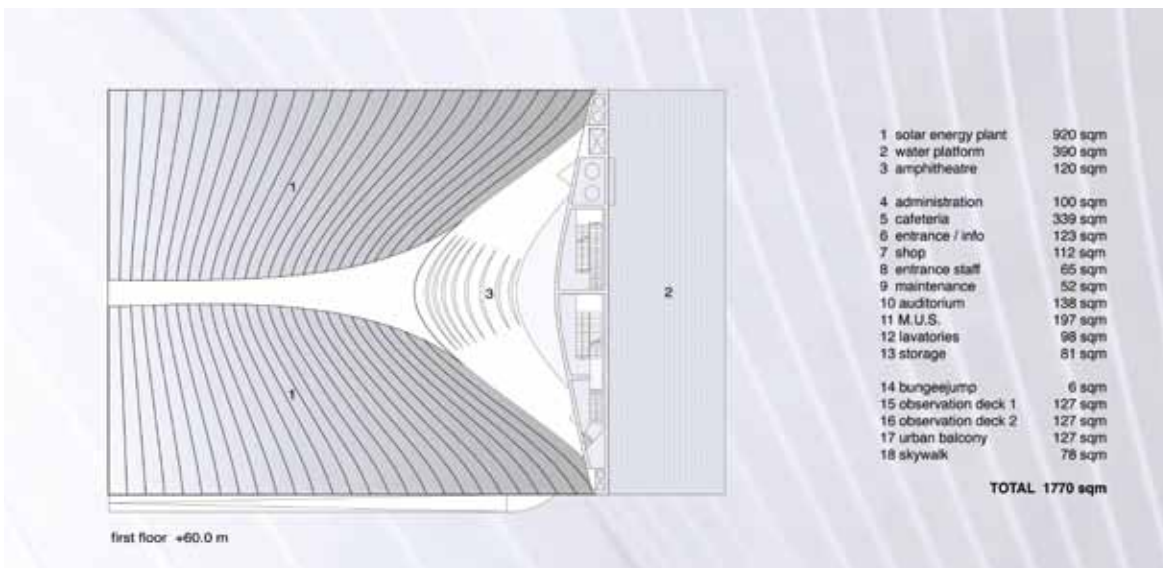
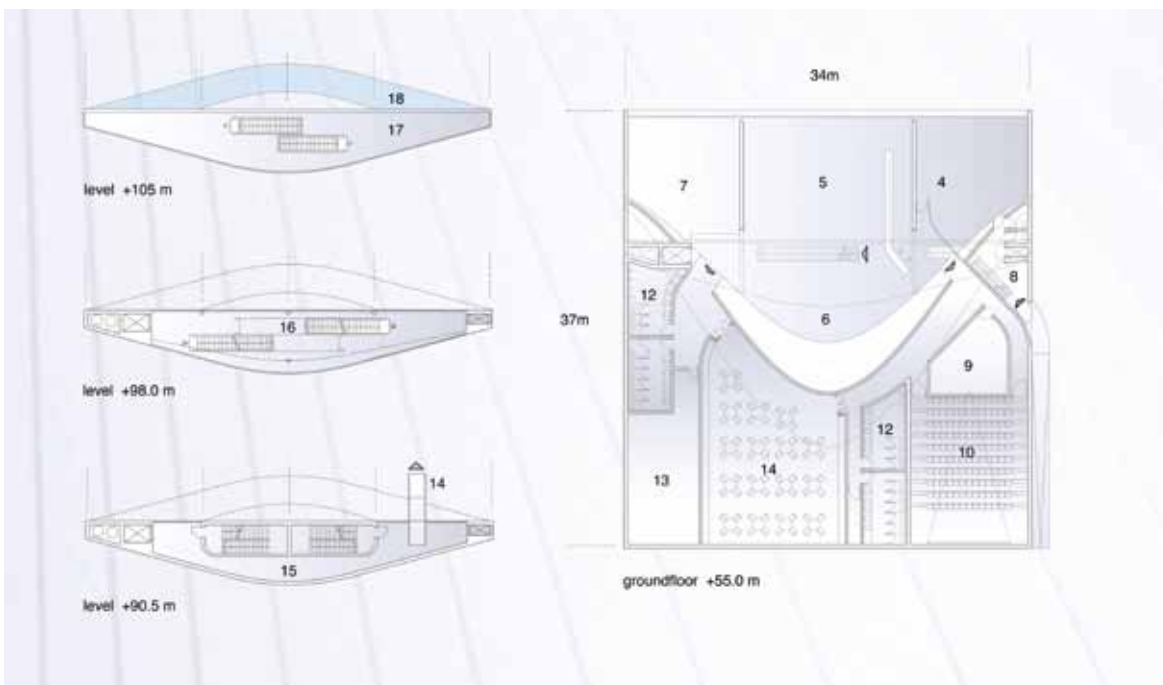
入口与圆形剧场都作为一种社会公共集会场所，进而成为进入公共空间的起点。咖啡店和商店位于瀑布下面，人们在那里可以欣赏美景，也可以乘坐电梯到观景台赏景。办公部分由大厅直接到达。建筑内部流线由自身入口和电梯组织。建筑后部有半公共空间，可单独使用。蹦极的可伸缩平台设在90.5m处。在塔楼98m处也设置了可供远距离眺望的观景台，另外在105m处还设有城市观景台，人们不仅可以看到360°的壮观全景，同时还可以体验脚下的瀑布。

International Architecture Competition for the Olympic Games 2016 in Rio de Janeiro.

“The project under consideration should be located in the bay of the city of Rio de Janeiro on the Cotunduba Island, which is the obligatory approach for aircraft landing and will comprise a vertical structure which will seek to become a symbol for those arriving in Rio, creating an image potent enough to enable Rio to triumph in its bid to host the summer Olympics in 2016. The challenge, therefore, consists of designing a observation tower which will become a symbol welcoming all those who visit Rio de Janeiro, whether they arrive by air or sea.”

Concept

The aim of this project is to ask how the classic concept of a landmark can be





reconsidered. It is less about an expressive, iconic architectural form; rather, it is a return to content and actual, real challenges for the imminent post-oil-era. This project represents a message of a society facing the future; thus, it is the representation of an inner attitude. Our project, standing in the tradition of “a building/city as a machine”, shall provide energy both to the city of Rio de Janeiro and its citizens while using natural resources. We hope to attain an international Olympic message with a political appeal. After hosting the United Nation’s Earth Summit in 1992, Rio de Janeiro will once again be the starting point for a global green movement and for a sustainable development of urban structures. It will perhaps even become a symbol for the first zero carbon footprint Olympic Games.

Approach

The project consists of a solar power plant that by day produces energy for the city respectively the Olympic village. Excessive energy will be pumped as seawater into a tower. By night, the water can be released again; with the help of turbines, it generates electricity for the night. The electricity produced can be used for the lighting of the tower or for the city. On special occasions, this “machine building” turns into an impressive wonder of nature: an urban waterfall, a symbol for the forces of nature. At the same time, it will

be the representation of a collective awareness of the city towards its great surrounding landscape. Via an urban plaza located 60 meters over sea level you gain access to the building. Through the amphitheatre, you reach the entrance situated on the ground floor.

Organisation

Both entrance area and amphitheatre can serve as a place for social gatherings and events. The public spaces are also accessible from this point on. The cafeteria and the shop are situated beneath the waterfall and offer a breathtaking view. The public elevator takes the visitor to the observation decks and the urban balcony. The administration offices can be reached directly from the foyer. Its inner circulation is organised by an own entrance and the elevator. The semi-public spaces are located in the back area of the building; thus, they can be used separately. A retractable platform for bungee jumping is located on level +90.5. Long distance observation can be done from the observation deck on level +98.0. The urban balcony is situated at the top of the tower 105 meters above sea level. Here the visitor has a 360° view of the landscape and can experience the waterfall while walking over the glass sky walk. **AT**

事务所简介

RAFAA是2007年由Rafael Schmidt先生在瑞士苏黎世创立的建筑设计公司，事务所主要关注当代建筑语言，同时将发明创意、新技术的启示结合到设计中，摄影师、作曲家等不同艺术家们之间的合作成为设计首要考虑的要素。设计团队通常由2~3名建筑师和设计师组成，根据不同的项目与规模会聘请一定的规划师等参与到设计中。

RAFAA is a studio for architecture and design in Zurich, Switzerland. The studio critically analyses the contemporary architectural discourse and combines the insights gained with creative inventions, new technologies and design by research. The collaboration with different artists such as photographers, composers or curators is a further key element.

The studio is a creative cell with a permanent team of 2 to 3 architects and designers working together with a pool of freelancers recruited specifically for individual projects. Large projects are realised with external planning partners. For complex tasks, a flexible and independent network allows for the realisation of ideal project structures with a maximum of creativity and flexibility.

The studio was founded by Rafael Schmidt in 2007.