Project description by author

After a few unsuccessful bids, Brazil will finally host the FIFA World Cup of 2014. This event is an important opportunity for the country to catalyze private investments and create much-needed infrastructure projects. To qualify under FIFA (Fédération Internationale de Football Association) requirements, the Maracanã Stadium (Estádio do Maracanã) in Rio de Janeiro must build a parking structure for at least 5,000 cars. We developed a vision for the site and, like other teams, presented our submission to the state government, which is now studying the proposals with along private parties.

The site is characterized by the arid rail landscape, with a never-ending wall separating the tracks from the city. The railway divides the urban tissue, separating the neighborhoods of Maracanã and São Cristóvão. Another critical problem is endemic flooding of the area. Because of the soil’s low permeability and the pollution of local rivers, flooding occurs frequently during the wet season. Although the public space lacks quality, the perimeter of the stadium is heavily used by local residents for jogging. The area has strong potential for leisure activities. There is a major park in the São Cristóvão neighborhood, but it is not accessible from the other side of the railway lines. Since there are no vacant spaces in the vicinity and flood susceptibility makes an underground car park impractical, our proposal places the parking structure on top of the railway lines. We propose to combine the existing stations, add bicycle parking facilities and bus stations on both sides of the railway, creating an accessible multi-modal station. The new infrastructure would encourage a greater level of multi-modal journeys that utilize public transportation. By eliminating all parking around the stadium we propose to create a new surrounding park by removing the existing parking and fences, maximizing the site’s permeability. The new park will be connected to the existing one on the other side of the railway tracks by a pedestrian/bicycle bridge, creating a metropolitan park that can bring these communities together and attract people from all over the city. An underground reservoir to capture excess of water during the summer rains and then used to water the park is included in the proposal.

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Comment of the Holcim Awards Jury Latin America

In preparation for the FIFA World Cup which will take place in Brazil, the existing soccer stadium Maracanã in Rio de Janeiro will have to provide a new parking structure for at least 5,000 cars. Today the surrounding public space lacks quality. It is used for informal purposes and is frequently flooded by storm water. Furthermore, the existing railway lines divide the area between the stadium, the degraded informal settlement of Mangueira and a large adjacent public park.

The convincing vision of this project consists in temporarily placing the requested 5,000 parking spaces above the railway lines, creating a central multi-modal transport node linking all public transport (Subway, metro and bus) while providing an attractive main station that also serves as a connection platform for pedestrians and cyclists. The surroundings of the main station including the area in front of the stadium will be transformed into a public park linked to the existing park. The new main station itself hosts pedestrian areas, shops and generar landscaped islands which improve the outdoor climate. The main network crossing the roof of the main station and parking station incorporate photovoltaic panels that produce energy for the public network and collect rainwater for irrigation. Following the World Cup, part of the parking above the railway lines will not be used anymore and shall be transformed into housing, office space, and schools.

Relevance to target issues by author

Quantum change and transferability
As in many cities, the railway lines divide the urban tissue sometimes generating degraded areas. The new multi-modal station can create links between fragmented neighborhoods.

Ethical standards and social equity
The arid scenario of cars and fences generates an unsafe and unpleasant public space. The creation of a park surrounding Maracanã and linking both sides of the railway lines would intensify interplay between them, increasing safety and revitalizing Mangueira’s more degraded side. The reclamion of the current parking surface creates a significant leisure space for the neighborhood.

Ecological quality and energy conservation
The concept satisfies FIFA’s conditions to host World Cup matches at the venue (including the World Cup Final), but also removes cars from the public space to improve the site’s permeability. The inter-modal station creates a hub where people from all over the city can leave their cars and proceed to the city center by subway and, in the future as our public transport improves, the site could be transformed into a huge leisure space.

The railway station’s microclimate is improved by a ventilation opening on its roof top and a huge internal garden below the main level. Solar panels fixed on the roof structure and on the parking station’s top level also provide shading while they generate electrical energy for the station. The large rooftop surfaces act as perfect collection surfaces for rain water that is stored under the park and used to irrigate the new gardens.

Economic performance and compatibility
The FIFA World Cup attracts huge private investment. Our proposal includes various opportunities for investors in different areas. The idea is to encourage public/private partnerships so this improvement of the city’s infrastructure is completely funded by private means. Commercial opportunities including operation of the parking station, retail outlets and residential development in the old military area can be explored by private investment.

Contextual and aesthetic impact
Maracanã Stadium is the second most visited site for tourists in Rio. However, its surroundings fail to measure up to its importance. The neighborhood is arid and lacks good public spaces. On the other side of the railway lines, the degraded slum of Mangueira is squeezed between the hillside and the tracks. The area is also an important node on the city’s transport system. This multi-modal station complex intends capitalize on hosting the World Cup to generate much-needed revitalization paid by private investment. It can also address most of the area’s problems with actions seeking environmental, economic and social sustainability in all the aspects of its process. Also, it can become a hub of integrated transport in the city, restoring the area to its importance.