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#### **RB12**

Posted on May 11, 2016 by Urban UrbanNext

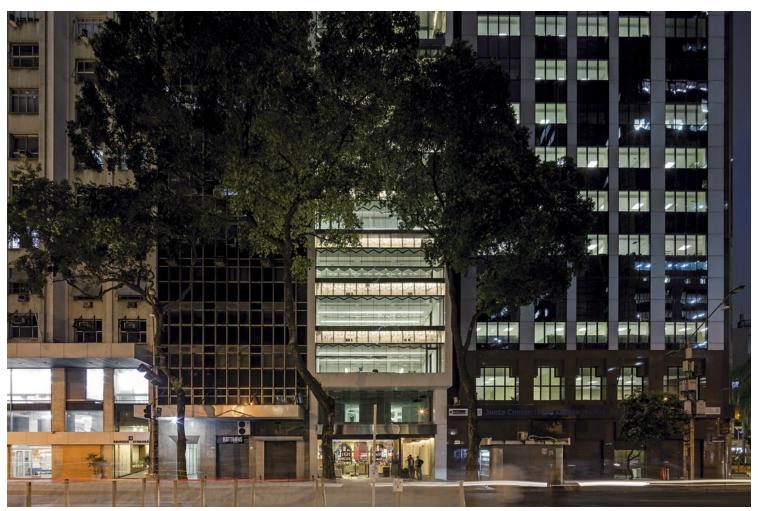


Categories: Energy and sustainability, High Density, Project, Southern Coexistences, Triptyque

Tags: Bioclimatic façade, Brazil, Building, Energetic Approach, Energy consumption, Façade orientation, Glass panels, Green-refurbishment, High-end technologies, Office building, Optimized construction, Project, Rio de Janeiro, Searches on scales, Sustainability, Sustainable construction, Sustainable Development, Thermal comfort, Thermodynamic practices, Thermodynamics, Urban conditions, Urban infrastructure

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Triptyque, a Franco-Brazilian architecture agency dedicated to sustainable design, conceived in Rio de Janeiro the first commercial building based on positive energy concepts in Brazil. This unique project combines daring design with innovative sustainable development technologies.



RB12 contributes to the urban revitalization of downtown Rio de Janeiro, a project called Porto Maravilha covering 5 million m<sup>2</sup> and intended to improve inhabitants' living conditions while preserving the area's heritage.

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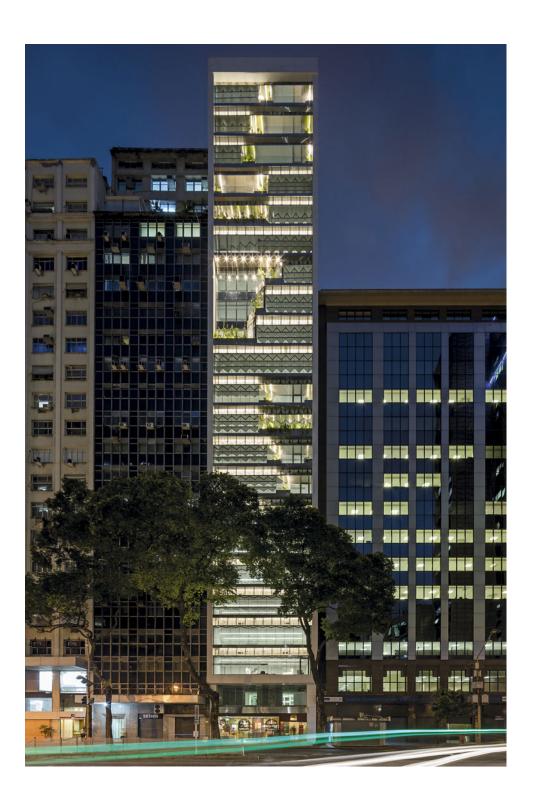
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Located on Rio Branco Avenue, in the business and economic center of Rio de Janeiro, RB12 embodies an innovative new concept of sustainable development based on energy production, thus following the global trend of green-refurbishment which consists of adapting and upgrading old buildings in order to align them with sustainable development criteria. The technical device set up here for the first time allows for optimal management of water consumption, optimizing natural light, thus offering enhanced wellbeing to the real estate in the building.

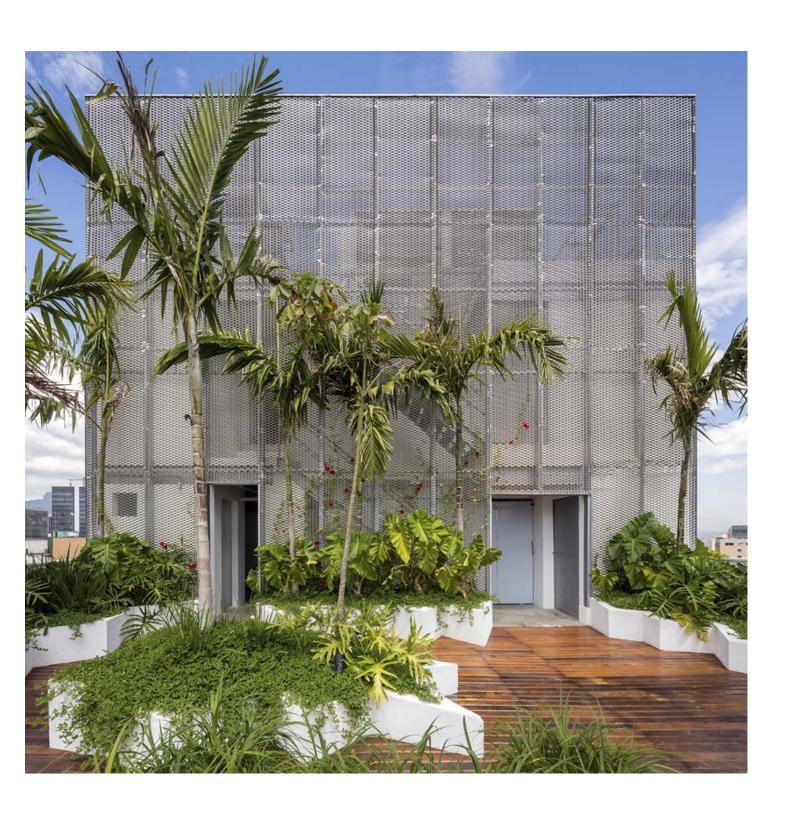
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RB12 has a bioclimatic façade, based on a set of windows that play with the light like a diamond. It is the first commercial building in Brazil to use photovoltaic panels for its own electricity production. RB12 anticipates a change in Brazilian law which does not currently allow auto-production of energy, apart from solar panels. In fact, the building is already equipped with spaces for the future fuel cells that will transform gas into electricity.

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**RB12 Façade Variations** 



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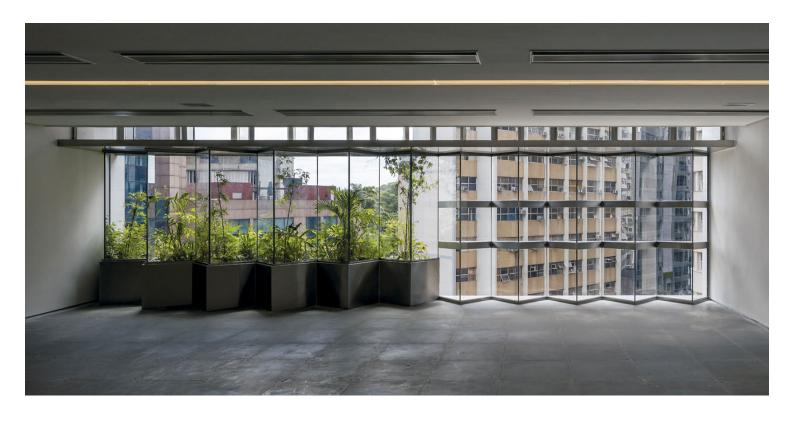
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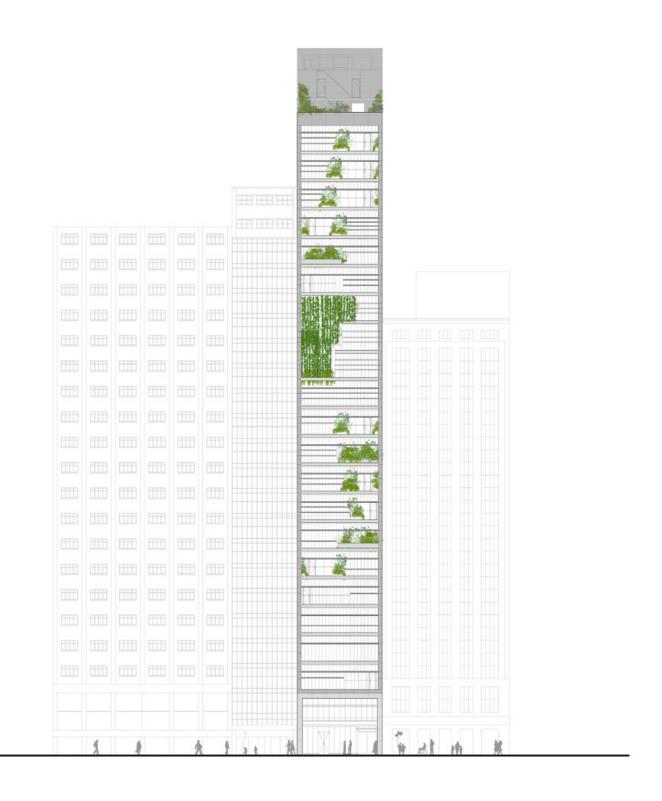
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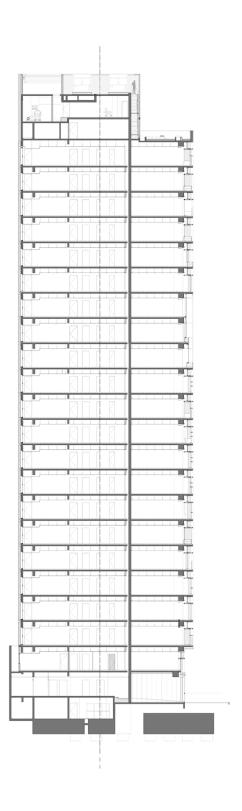
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**RB12 Elevation** 

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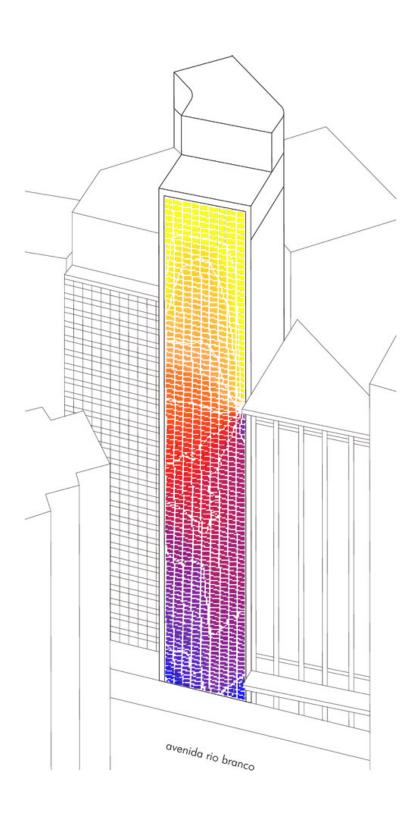


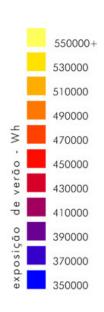
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#### **RB12 Sections**

The hanging gardens on the terraces allow for optimization of cooling and thermal control of the interior areas.

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#### **RB12 Façade Isolation**

All of these high-end architectural technologies help toward the reduction of energy consumption, but also increase savings for the owners.

Natekko, the French market leader in sustainable construction, is the creator of this new office building concept. MMC Investimentos is responsible for the project management.



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