

My House, My Neighbourhood *Minha Casa, Nosso Bairro*

Johannah Fening proposes integrating formal and informal settlements for an inclusive community in Santo Cristo, Rio de Janeiro



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My House, Our Neighbourhood – *Minha Casa, Nosso Bairro* – is a proposal developed to provide high quality and affordable social housing in Brazil. The scheme prioritises housing for Brazilian minorities, displaced residents from the Olympic developments, low-income households and former favela residents. It aims to create a spatially, socially and economically integrated community while incorporating site specific urban design practices. The proposal challenges the current Brazilian housing provision programme called My House, My Life – *Minha Casa, Minha Vida* (MCMV) – which provides affordable housing units for low-income households. The houses that MCMV produces are monotonous and poorly integrated with the rest of the city, which is an aspect the new scheme addresses.

URBAN DESIGN ANALYSIS

The former port site of Santo Cristo was selected by the Brazilian government for redevelopment post Rio Olympics 2016. A morphological analysis of the area was performed to understand the context of the neighbouring informal settlements – *favelas* – which influences the proposed building form and social spaces. Weaknesses emerged from the analysis: there is a harsh divide in the urban grain and social class between the formal and informal settlements, a lack of a commercial area and the use of trams.



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- 1 Morphological analysis of Santo Cristo
- 2 Masterplan proposal
- 3 A-A cross-section showing public spaces and building forms
- 4 Public realm of semi-private courtyards
- 5 Proposed housing typologies with naturally ventilated access block



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DESIGN APPROACH AND INTEGRATION FRAMEWORK

The vision is to create an integrated community for Santo Cristo. The design approach derived from an integration framework developed from case-study research on slum-upgrading via the *Favela-Bairro* programme in Brazil, which measured and analysed spatial, economic and social integration. As a result, integration is achieved through the following design objectives:

● **Provide inclusive, mixed use and adaptable housing reflecting local typologies**

The urban blocks have been adapted from a morphological analysis of informal patterns in Santo Cristo, which now includes tertiary roads and a walkable public realm for accessibility and permeability. Flexible courtyard spaces have been provided in each block including the use of verandas, balconies, platforms and canopies for social interaction and different types of play. A colourful mix of 1-3 bed apartment buildings with a maximum of five storeys, are evenly dispersed throughout the site, sitting parallel to the street edge and in keeping with the dense, low-rise, local residential typology. In addition, amenities are located at the corner of blocks, creating regular, walkable and commercial junctions.

● **Create vibrant and engaging public and private spaces which celebrate Brazilian culture**

Santo Cristo has a rich culture of samba dance and music with more than 15 local samba schools. The scheme includes a colourful street mural, a popular type of public art in Rio de Janeiro, painted along one of the connecting roads from the neighbouring informal settlements into the new development named *The Samba River – O Rio Samba*. The mural features 30 Black-Brazilian samba musician’s portraits previously exhibited in April 2019 at the local Rio Museum of Art. The mural creates a united place-identity by spatially connecting the informal

settlements to the new development while celebrating the contributions of black Brazilians in a historic slave-related site. Public areas are defined by a site-specific paving pattern, similar to the iconic Copacabana paving in Rio, based on the African samba quilt pattern, enhancing Santo Cristo’s place identity.

● **Incorporate natural ventilation and cooling strategies to reduce non-renewable energy consumption**

Santo Cristo receives strong prevailing winds throughout the year from the north and south. Therefore, the majority of the residential buildings are orientated in this direction to provide cross ventilated accommodation. The scheme responds to Rio’s hot climate and high sun position through canopies, trees, deep verandas and shading balconies. The building fronts and backs avoid facing south to prevent excessive heat gains and direct sunlight. In addition, the internal access stairwells feature high-level air vents to promote airflow and stack ventilation.

● **Empower the residents through local jobs, self-build strategies and adaptable spaces, revitalising an unused part of Santo Cristo**

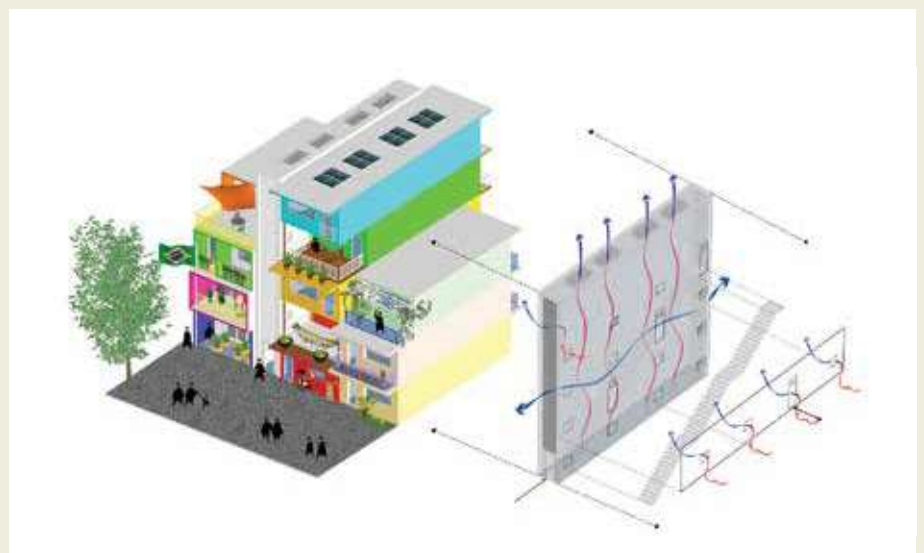
The commercial area provides local jobs for the residents and neighbouring communities, located adjacent to the existing tram line and added cycle lanes, enhancing mobility and boosting the use of the existing trams. The flexible semi-private courtyards enable the creation of temporary urbanism managed by the local residents. Adaptable

ground floor units provide residents with space for small businesses to grow over time responding to the gradual growth of the neighbourhood. Lastly, this scheme provides affordable half-built apartments using a framework of community-driven design codes, enabling more minorities to buy and own homes, and ultimately empowering the community.

LESSONS LEARNED

● **Effective ways of communication**
Language differences made verbal communication challenging when discussing ideas and urban strategies in the community engagement meetings with local residents, despite the presence of translators. On the other hand, the use of drawings served as an effective tool and a universal language to facilitate conversations.

● **The value of contextual understanding**
Being immersed in the culture of Rio de Janeiro was an essential part of the research and design process. It helped address any assumptions and unconscious bias from a Western perspective towards the context, through the inquiry by design approach, using local community engagement. ●



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