

# Permeable Borders

addressing multidimensional conflicts between polarized communities in Rio de Janeiro

## Borders.

Rio de Janeiro is a 'Broken City' (Ventura, 1994). Rapid urbanization processes, wealth concentration, market-oriented development, governmental neglect and socio-spatial segregation have been enlarging the societal gap between rich and poor in the city. Those processes have shaped the fragmentation of Rio de Janeiro, where multidimensional borders - social, spatial, economic, ecological and institutional - construct a divide in the city.

## Vulnerability

The fragmentation increases the vulnerability of groups with lower capacity to withstand to uncertainties - mostly situated in favelas, irregular settlements and social housing. In order to analyse the conditions precipitated by the fragmentation phenomenon, the research investigates on the case of the Planning Area 4, that contains the highest socio-economic discrepancies in the city. The multidimensional analysis resulted in the identification of three areas with the highest vulnerability rates: Praça Seca, Curicica and Gardênia Azul.

## Research question

How can spaces of co-production, within polarized communities, enhance socio-ecological resilience and promote the integration of vulnerable contexts with the city, in Rio de Janeiro?

## Permeability

The fragmentation phenomenon varies according to multiple conditions and through different scales. It produces a gradient of three spatial conditions: fragments, borders and in between zones. The research proposes strategies to increase the permeability of the borders, by enhancing the adaptive capacity of the vulnerable groups and integrating them with the city. The strategic aim of the project is to activate the fragments, permeate the borders and connect the in between zones.

Latin America



Brazil



Rio de Janeiro



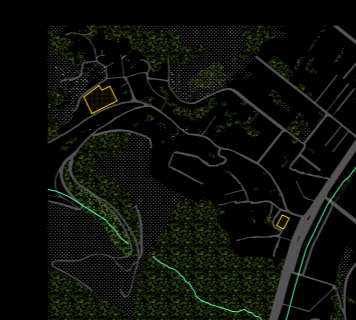
Planning Area 4



Highest vulnerability areas



Praça Seca



Curicica



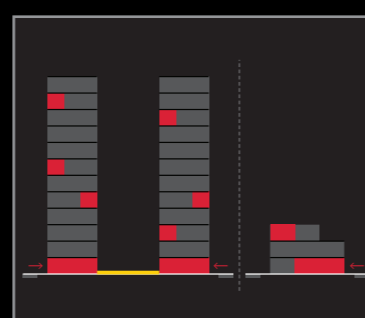
Gardênia Azul



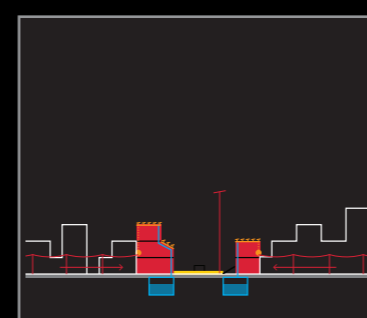
## Open project

The proposal defines by four strategies: Social empowerment, Ecological capacitation, Public space and Housing; that are represented through independent actions that have complementary benefits. The design explores opportunities for an alternative development process in the city, one that can reinforce the self-capacity and adaptability of the vulnerable groups in the city. The flexibility of the project goes beyond spatial or functional aspects, extending to the institutional layer as well. The proposal does not foresee a definitive plan, but it generates alternative pathways that can be carried out by multiple stakeholders networks, creating several possibilities for bottom-up and self-organized development. The iterations of possible stakeholder networks increase the adaptability of the community to withstand economic, ecological and political uncertainties.

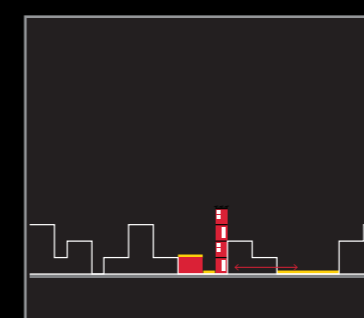
## Actions



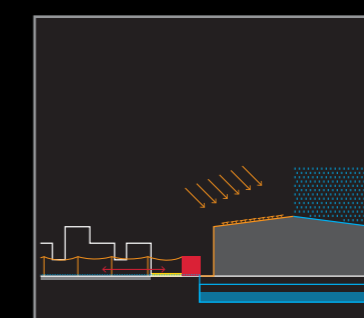
01 Activate new uses in monofunctional buildings



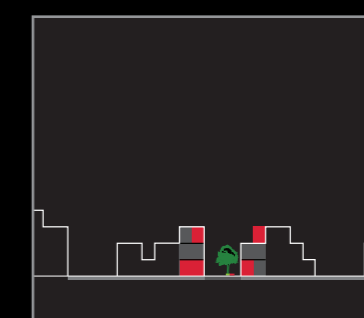
02 Generate civic centers



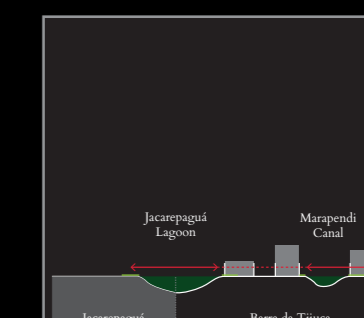
03 Establish capacitation centers



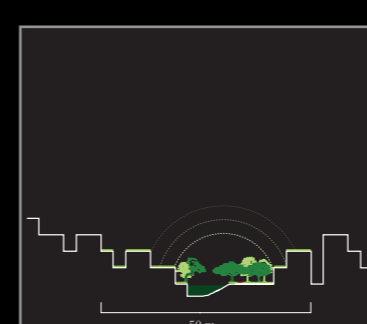
04 Stimulate the exchange of collaborative services



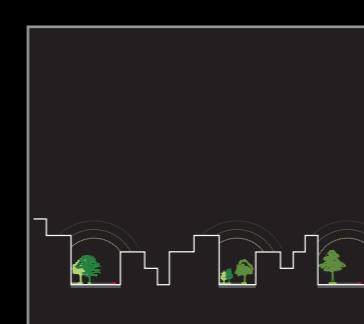
05 Promote networks of commercial and services activities



06 Promote connections through aquatic transportation



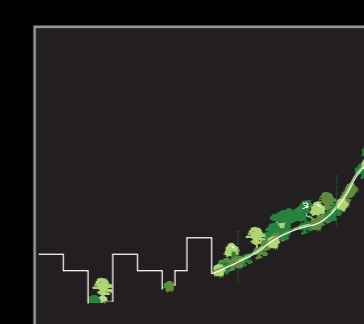
07 Create ecological corridors



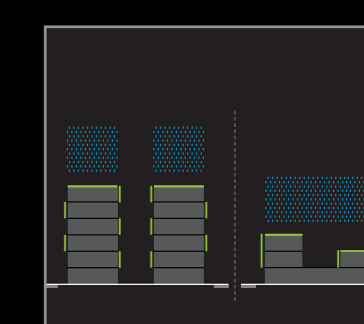
08 Expand the green network



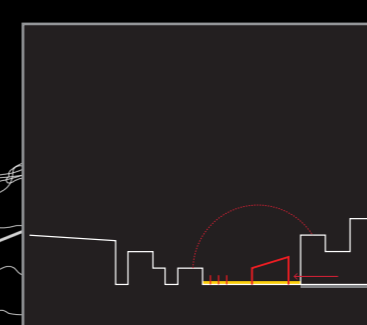
09 Rehabilitate the mangroves and the restinga



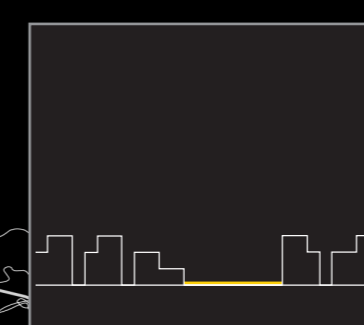
10 Grow retention vegetation and agroforest



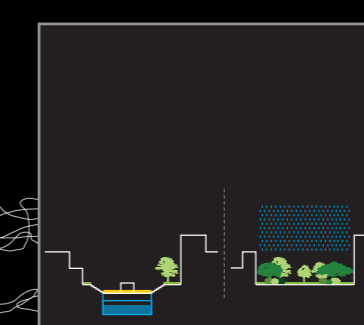
11 Stimulate green envelopes



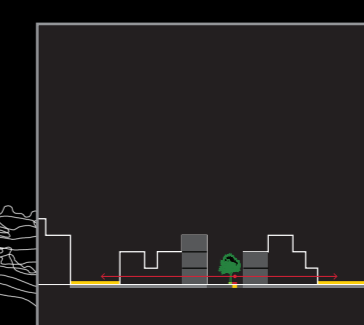
12 Activate neglected areas in iconic community spaces



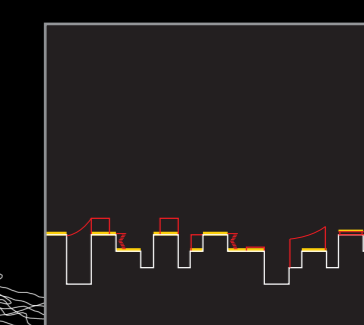
13 Generate new public spaces



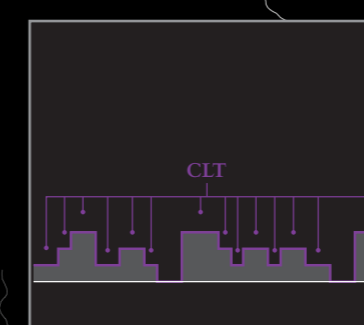
14 Capacitate existent public spaces



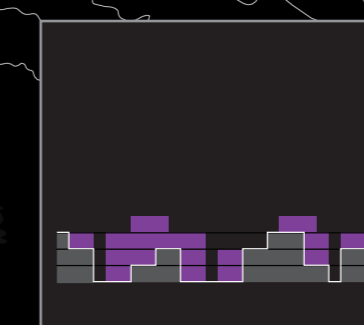
15 Qualify the network between public spaces



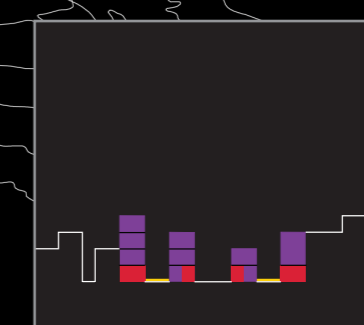
16 Expand the public domain to household roofs



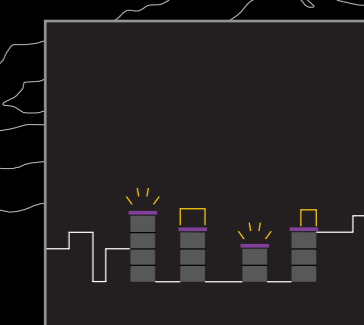
17 Develop Community Land Trust's (CLT's) in non-regularized settlements



18 Densify low populated areas



19 Build affordable multifunctional housing complexes



20 Reinforce the development of flat roofs in new housing units

Praça Seca

Curicica

Gardênia Azul

Planning Area 4  
Socio-ecological Strategic plan

- Civic center
- Capacitation center
- Multifunctional buildings
- Solar energy production
- Services and retail
- Canals
- Ecological corridors
- Supportive green network
- Hillside vegetation
- Green envelope
- Mangrove rehabilitation
- Instant identity
- New public space
- hard surface
- soft surface
- Existent public space
- Infrastructural equipment
- Cyclepath
- Building mass

- Civic center
- Capacitation center
- Multifunctional buildings
- Solar energy production
- Services and retail
- Water transportation
- Ecological corridors
- Supportive green network
- Mangrove rehabilitation
- Hillside vegetation
- Green envelope
- Instant identity
- New public space
- hard surface
- soft surface
- Existent public space
- Infrastructural equipment
- Community Land Trust
- Densification
- Affordable housing complexes

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