The project seeks to contrast the tendency of unmanaged development along transit infrastructure (fig1). It recognizes the roads as a system, as well as the various natural systems (green) and proposes a translator that softens the transition between the two. In addition, it stresses the importance of permeability and connection between the natural and the built, and the savanna/wetlands and the rivers/mountain.

Connectivity

This image shows the strong relationship between the park entrance node, the transportation, the urban space, and the main axis that leads to the ecosystem of the savanna with a pedestrian connector.
This image shows the strong relationship between the park entrance node, the transportation, the urban space, and the main axis that leads to the ecosystem of the savanna with a pedestrian connector.
This on-going project is a research oriented development of alternative ways to conceive the deployment and construction of architecture. It challenges the current notions of time and scale, and pushes the traditional ideas of structure and enclosure.

Our group approach was to tackle rigid folding, both geometrically and technologically, by offering different ways in which these pre-programmed “packages” could be easily deployed once on site, and then taken apart. We experimented with tension, inflatables, and elastics, aiming in each case to propose self-supporting, interactive structures.

A sheet of fabric is sandwiched between complementary patterns of rigid panels. The different tolerances between panels prescribe the direction and extent of the folds, so that when the sheet is corrugated, it will acquire a pre-determined shape.

This prototype combines material thickness and mitering of joints to fold the flat, packable sheet to pre-determined angles. Folding is activated by inflation.

This prototype tests a double layer of thin plywood and elastic fabric. The model folds into the minimum triangle, and “pops” three-dimensionally out of plane.
Three-Part-Joint with curvature continuity, where parts nestle perfectly into each other.

Spinning top milled in 4-axis machine with exported parametrically controlled tool paths, rather than surfaces.

Dry-Stacked arch segments in compression, casted on resin-fixed tensile fabric following a solver-generated hanging chain model.
Parametric voronoi facade developed at/with Diaz Paunetto Arquitectos. Initial Shop Drawings and fabrication images.

Algorithm for discretization of closed geometry under the premise of "poles" of influence, into foldable parts. The obtained pieces are assembled with nesting joints. The dimensions of the tabs, amount of subdivisions, and size of apertures (conceptually for economy of material) are variable parameters.
AS SHOWN

SUNSCREEN DETAILS

CONSTRUCTION DRAWINGS FOR:

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IMPROVEMENTS

MAIN SUNSCREEN DIMENSIONS

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