En 1989, 2,000 hectáreas son declaradas bosque protegido. 
In 1989, 2,000 hectares are declared protected forest.

Hoy, el área de bosque protegido es 6,078 hectáreas. 
Nowadays, the protected forest area is 6,078 hectares.

700 Especies de plantas vasculares. 
700 Vascular plant species.

54 Especies de mamíferos, 6 en peligro de extinción. 
54 Mammal species, 6 threatened with extinction.

221 Especies de aves, 21 en peligro de extinción. 
221 Bird species, 21 threatened with extinction.

20 Especies de anfibios y reptiles, 60% endémicas. 
20 Amphibian and reptile species, 60% are endemic.

Very often, the growth of the city is done at the expense of native vegetation. Urban pressure ends up consuming forests that have taken centuries to grow, thus losing valuable ecosystems. This project proposes an alternative: with minimal architectural interventions, the forest becomes a learning agent mobilizing use as an engine of ecological preservation.

Keywords
Reserve
Conservation
Borders
Project
Vegetation
City Limits Collide With Forest

The Bosque Protector Cerro Blanco, located in Guayaquil, has 6,078 hectares and is one of the last remnants of dry forest on the Ecuadorian coast. The reserve was inaugurated in 1989 when the city had 1.5 million inhabitants, which has currently doubled. This growth exerts great pressure on the forest’s limits and threatens its conservation. It has 221 endemic bird species, of which 21 are threatened worldwide: 54 mammal species, 9 endemic, and 6 threatened. Up to 60% of amphibians and reptiles are also endemic.

The reserve is on the city’s urban expansion axis. To the south, it borders a large real estate development for middle and upper-middle-class housing, inflicting pressure on the use and value of land. To the north, it borders with informal expansion: large areas urbanized through land trafficking have already crossed the boundaries of the forest, leading to problems such as logging and illegal hunting.

Transforming Weaknesses Into Strengths

The Bosque Protector Cerro Blanco Master Plan proposes a coexistence between the city’s growth and the natural reserve through what we have called “Ecological Strips.” These strips reinterpret the commercial status on one side and promote social regeneration on the other. Allowing the reserve to open less than 1% of its territory, the master plan can support a large influx of visitors without affecting the intangible area of the natural preserve.
3 El bosque da la bienvenida a la ciudad. Dispositivo de reunión e intercambio. / The forest welcomes the city. Gathering & Exchange buffer. La arquitectura se dispersa en el paisaje. / The architecture is scattered into landscape.
© Al Borde

4 Inclusión social y medioambiental. Dispositivo productivo y social. / Social & environmental inclusion. Productive & social buffer. +100 ha en peligro de urbanización ilegal se convertirán en amortiguadores de producción agrícola. / +100 ha in danger of illegal urbanization will turns into an agro-production buffer.
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The proposal is to turn the areas already exposed to formal and informal urban growth into engines of environmental preservation, economic development, and social transformation, thus protecting the great biodiversity and ecological value of intangible areas. In that sense, the threats become the tools that help preserve the forest.

Towards the southern limit – with a marked commercial vocation – the plan proposes a Strip of Encounter and Exchanges, distributing the projects in a way that always generates an interaction with the forest. On the other hand, the Social and Productive Strip is proposed towards the northern limit, a buffer zone of marked public use that not only contains the informal city but also provides it with infrastructure and services. Finally, the Educational and Leisure Forest is set towards the reserve, where the built projects serve to motivate the forest’s discovery.

Each strip is mainly a door to explore and learn from the forest through non-invasive architectural
Torre de observación / Observation tower
© Expresión Gráfica,
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Pistone UNR
elements. The proposal uses local materials produced within a radius of 5 km, including concrete, while only excluding steel. That way, instead of adapting the site to architecture, the project does the opposite: it uses natural conditions to create site-specific experiences, contributing to environmental education in the city. ARQ
Plan Maestro Bosque Protector Cerro Blanco / Bosque Protector Cerro Blanco Master Plan

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Al Borde is an architectural practice formed by David Barragán, Pascual Gangotena, Marialuisa Borja, and Esteban Benavides, architects trained at the Pontifica Universidad Católica del Ecuador. Named among the 100+ Best Architecture Firms 2019 by DOMUS magazine, the practice was part of the official selection of the Venice Biennale 2016 and has received the Lafarge Holcim Acknowledgment Latin America 2014; the Global Award for Sustainable Architecture 2013; the Schelling Architecture Prize 2012, among others. Its work has been published in the monograph Menos es todo (CDMX, 2014) and in Las Tres Esperanzas (Quito, 2020). Visiting professors at UCAL (Peru) and at UDLA (Chile).