

Country / City Santiago, Chile
 University / School Pontificia Universidad Católica de Chile
 Academic year 2018
 Title of the project Boca Sur Coastal Dune Park: Landscape Design for Tsunami Resilience
 Authors María Ignacia Weihrauch Varela

TECHNICAL DOSSIER

Title of the project	Boca Sur Coastal Dune Park: Landscape Design for Tsunami Resilience
Authors	María Ignacia Weihrach Varela
Title of the course	Landscape as Infrastructure for Risk Reduction and Urban Resilience to Natural Disasters
Academic year	2018
Teaching Staff	Arturo Lyon and Osvaldo Moreno
Department/Section/Program of belonging	MAPA · Magister en Arquitectura del Paisaje
University/School	Pontificia Universidad Católica de Chile



Chile is continuously affected by natural disasters. Due to Climate Change, these events are increasing its frequency and intensity. Cities, on the other hand, are expanding its limits and being built, most of the times and without any planning or design, in risk areas making them more vulnerable to these catastrophes. Earthquakes, fires, tsunamis and volcanic eruptions are creating a hard tension between the natural and the built environment.

This project, located in the coastal area of Boca Sur, in San Pedro de la Paz (Concepción), is a high risk scenario for urban development due to its location in front of the sea, the risk of tsunamis, its deteriorated ecosystem and lack of relationship between the city and the coastline. Through an understanding of tsunamis and the case of study, this project purpose is to recognize the problems and critical layers of the site, in order to design strategies to re-configure the current city limits as a resilient and dynamic border landscape that helps mitigate the effects of an extreme event. This proposal restores the dune cord, facilitating the use of its natural contain capacity in order to dissipate the force of the waves. The design establishes also a new relationship between the city and its socio-ecosystem through biological buffers, control volumes, circulations and materials.

For further information
Máster d'Arquitectura de Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842
Contact via email at: biennal.paisatge@upc.edu

Máster d'Arquitectura de Paisatge -DUOT - UPC
ETSAB - Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain



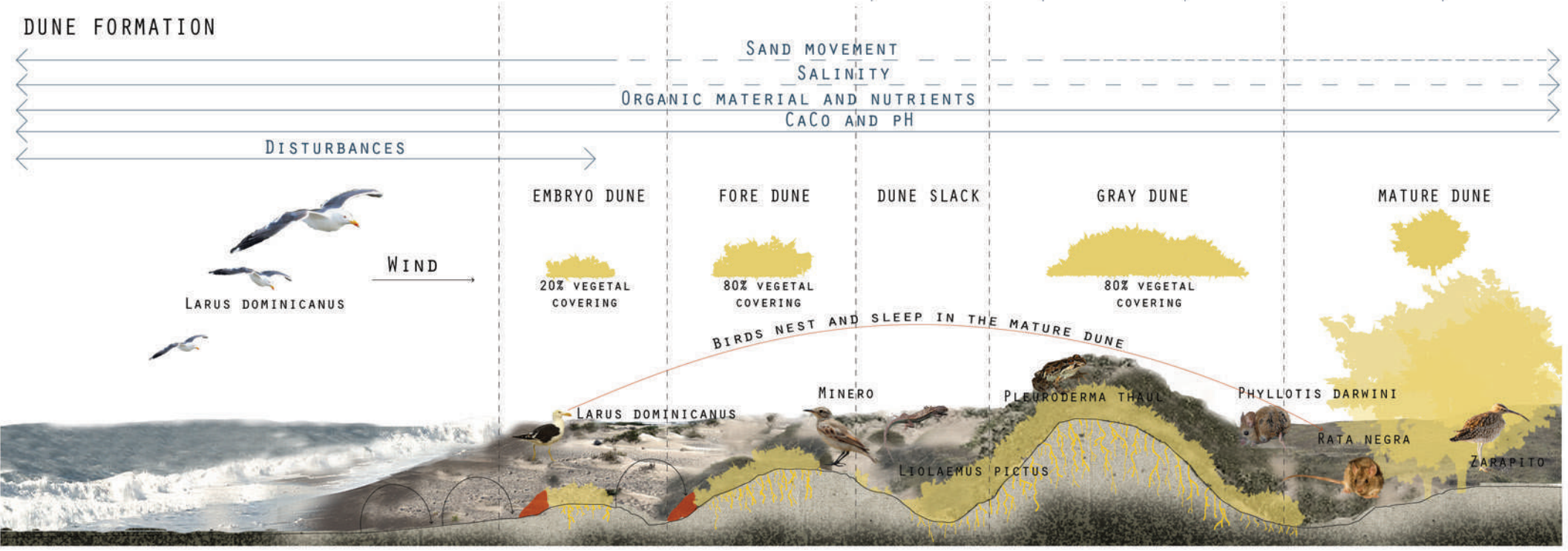
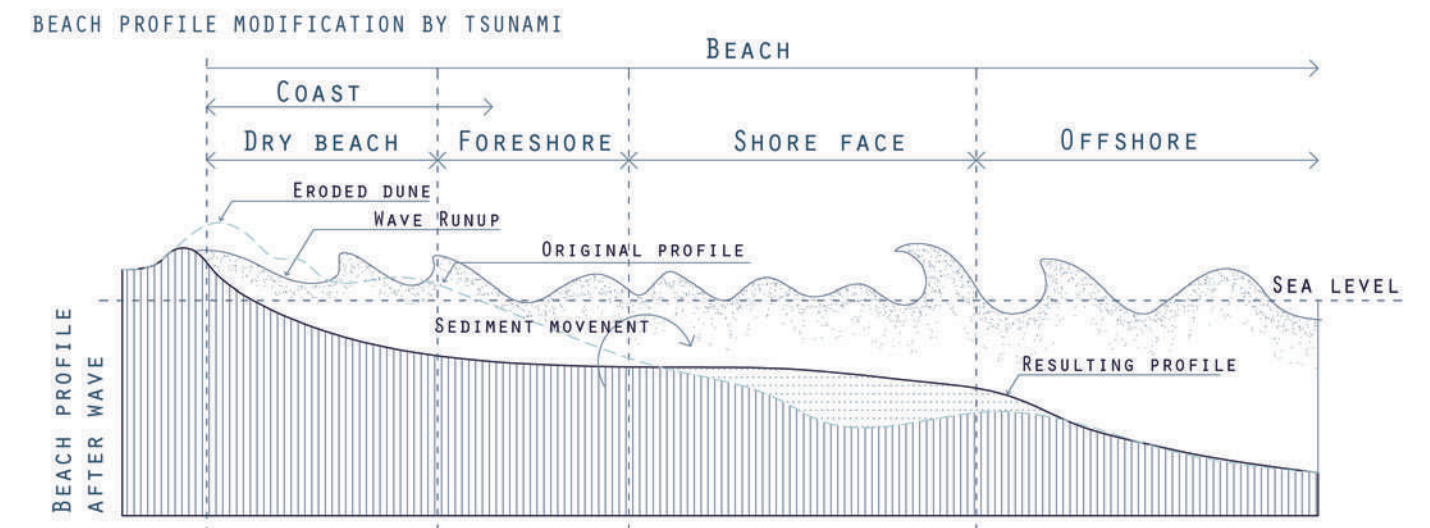
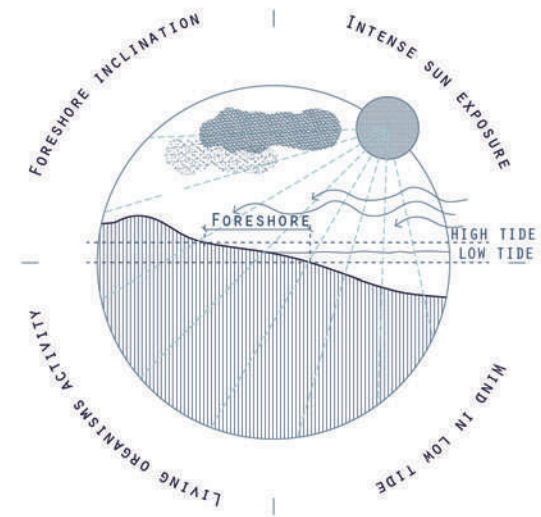
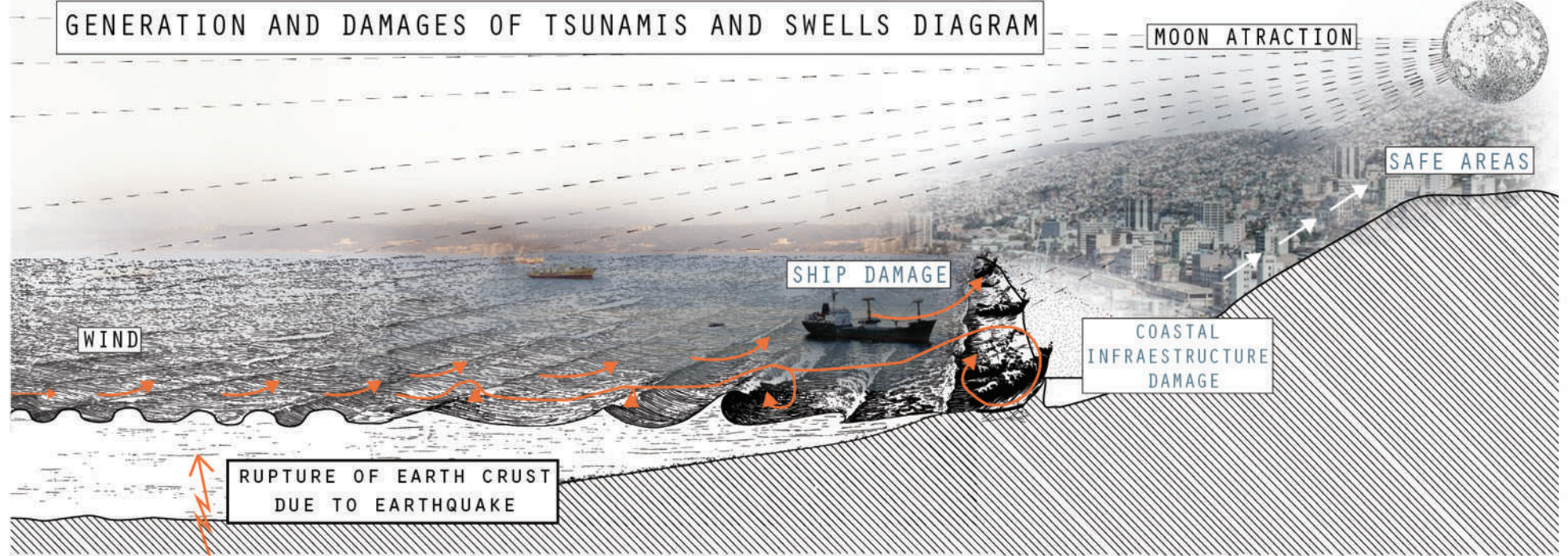
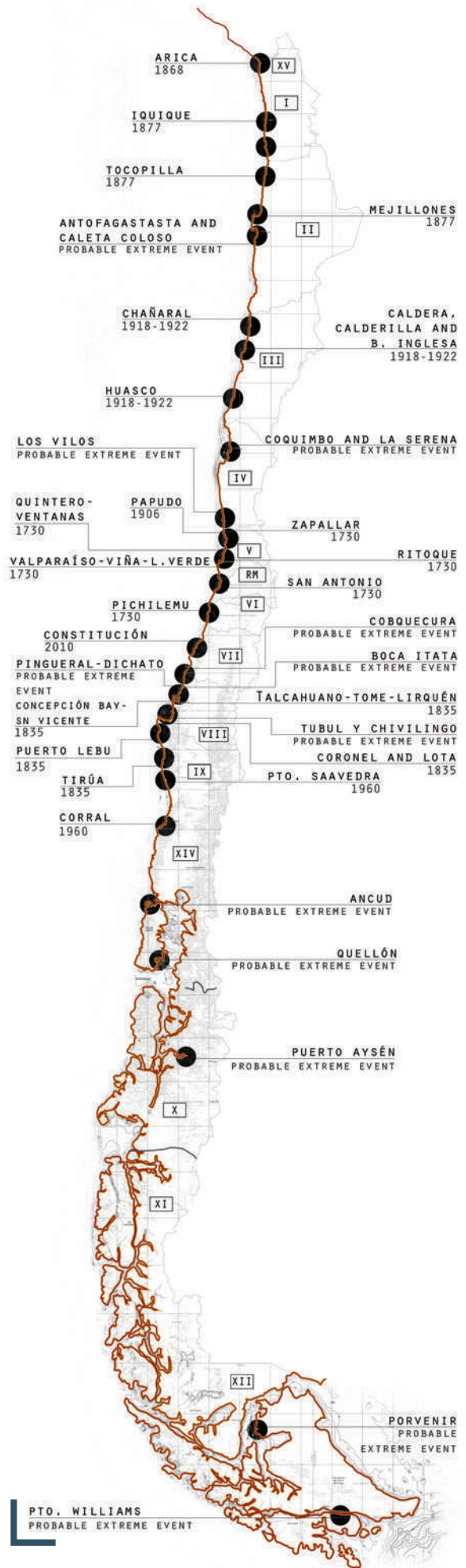
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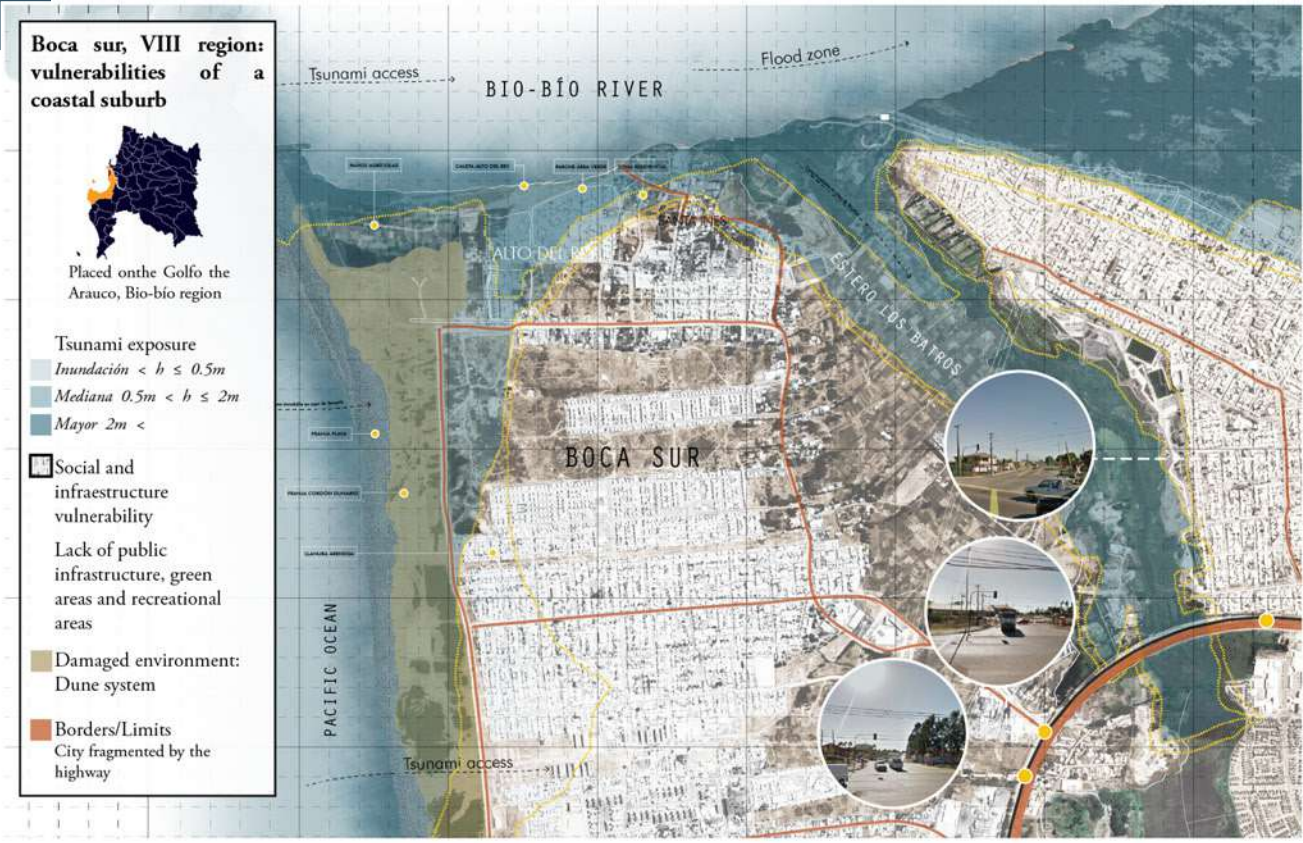
11th International Biennial Landscape Barcelona

Barcelona September 2020
SCHOOL PRIZE

NATURAL DISASTERS AS A PROBLEM FOR LANDSCAPE ARCHITECTURE

TSUNAMI REGISTER IN CHILE

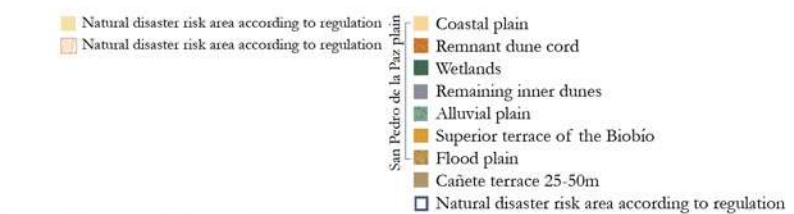
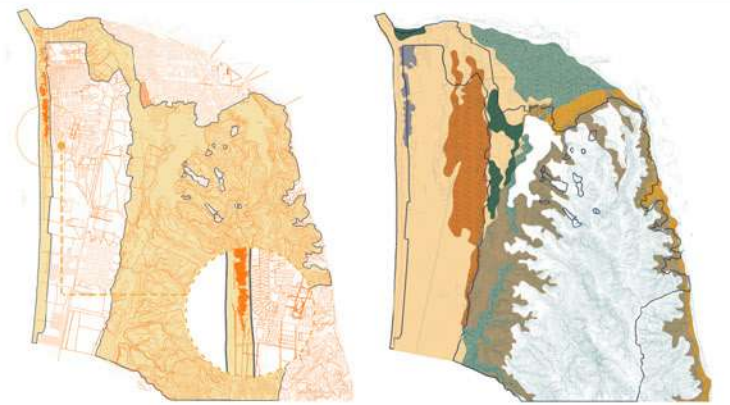




DUNES STUDY



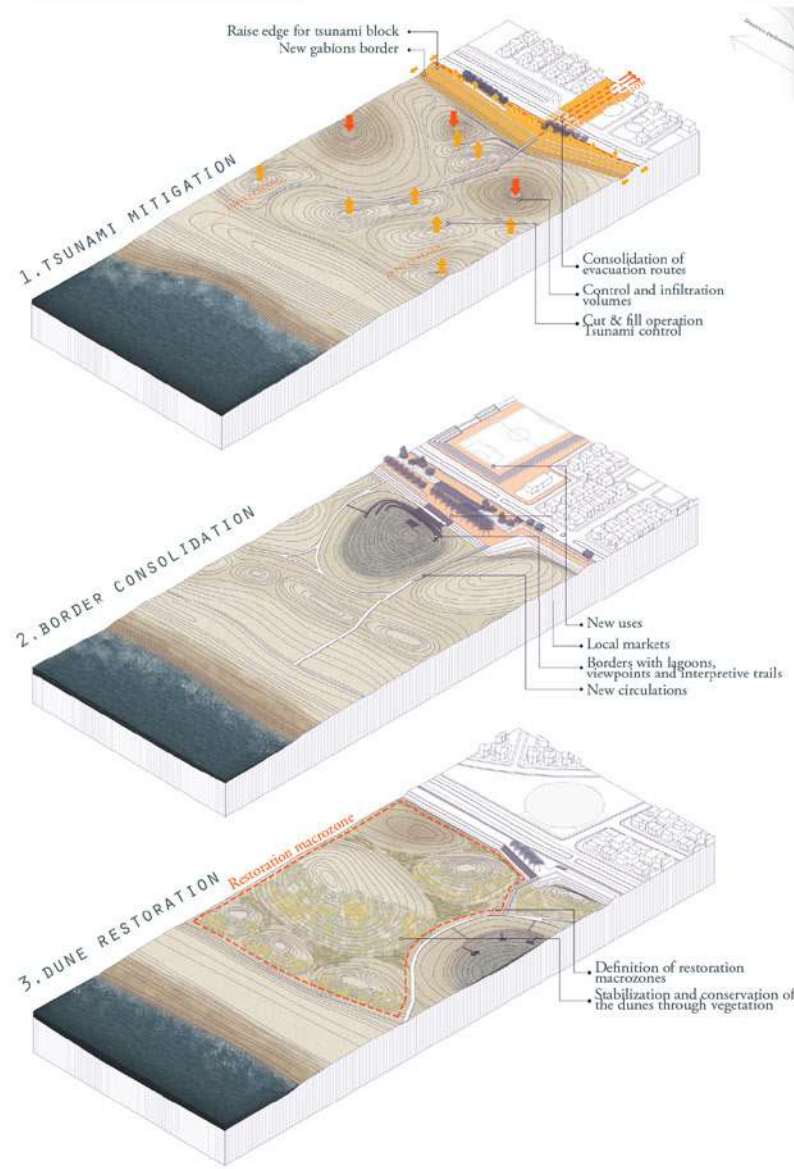
BOCA'S SUR DISCORDANCE BETWEEN PLANNING AND RISK AREAS



BOCA SUR DUNES PROBLEMS



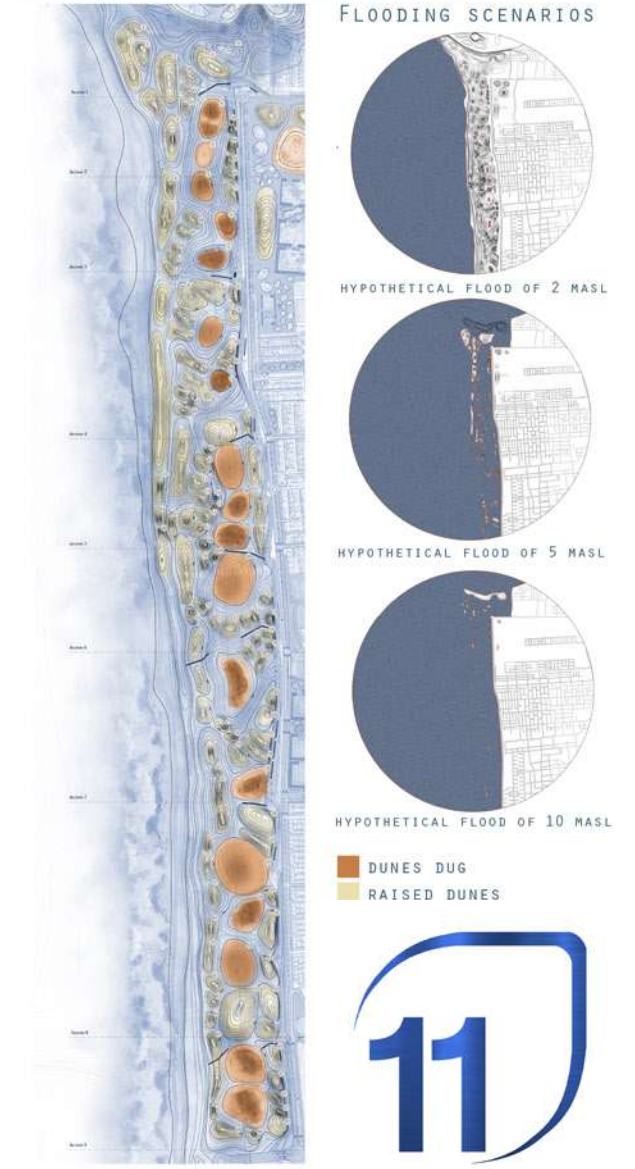
PROJECT DIAGRAMS



RE-PLANTING THE DUNES: STABILIZATION



CUT AND FILL: TOPOGRAPHY RESTORATION





TOPOGRAPHIC MOVEMENTS



NEW CIRCULATION AND USES



WATERFRONT SECTION



ELEVATED WATERFRONT DUNE PARK

