



LIVING BREAKWATERS _ STATEN ISLAND, NY

SCAPE STUDIO

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LABORATORIO DE URBANISMO SOSTENIBLE. MASTER HABILITANTE DE ARQUITECTURA UGR'21



RESTOS DE
FÁBRICA DE PAPEL
DE LIJA

**SANDPAPER
FACTORY
REMAINS**

ESPIGÓN
GROIN

ESPIGÓN
GROIN

DESAGUE
OUTFALL

DESAGUE
OUTFALL

DESAGUE
OUTFALL

TUBERÍA
PIPE

ROMPE OLAS
BREAKWATERS

ARMADURA RIP RAP
RIP RAP ARMOR

WOOD WALL
MURO DE MADERA

TUBERÍA
PIPE

PILOTES DE MADERA
TIMBER PILING

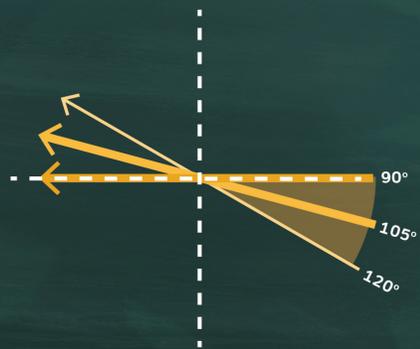
EXPOSED PIPE
TUBERÍA EXPUESTA

BOLSAS DE ARENA
EXPUESTAS
**EXPOSED
SAND BAGS**

DUNE
DUNA

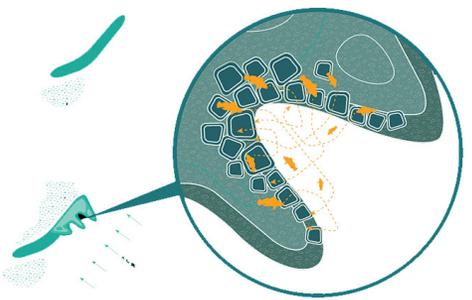
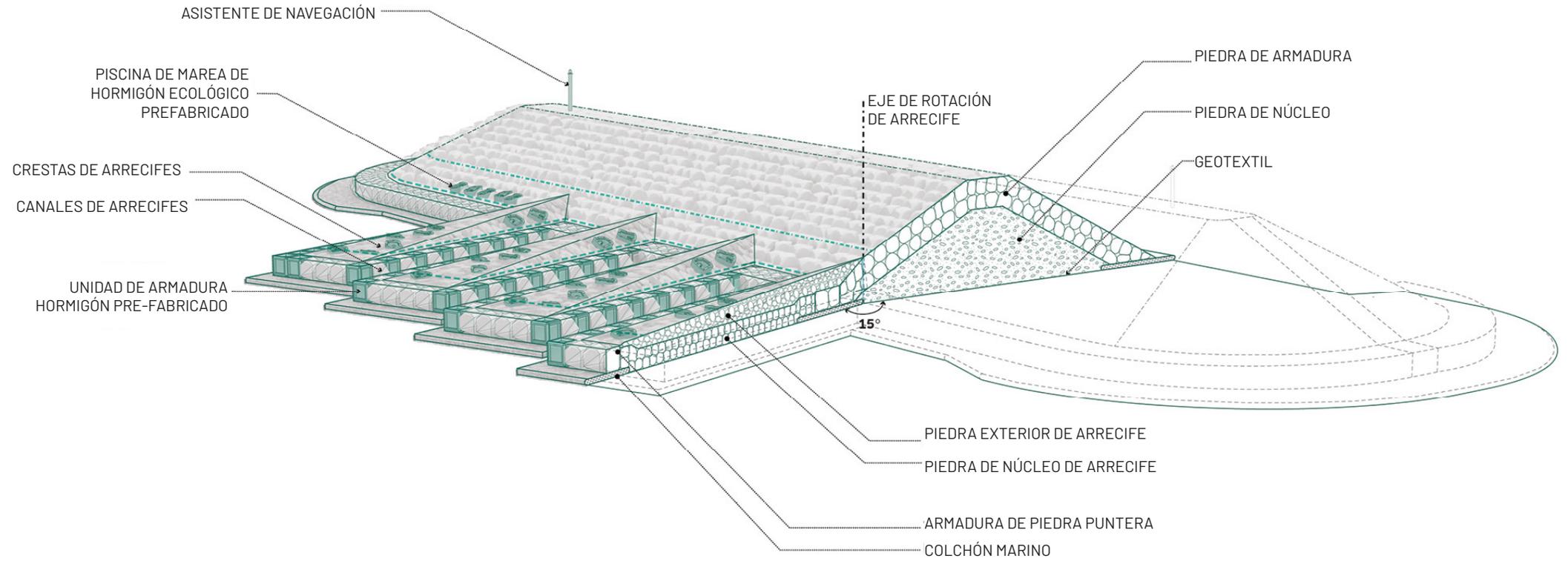


PROBLEMÁTICA



PREDOMINANT STORM WAVE DIRECTION
DIRECCIÓN DE OLAS DE TORMENTA

PROPUESTA



INTERNAL CORE STONE
D₅₀= 16"

PIEDRA DE NÚCLEO INTERIOR

MARINE MATTRESS
HT= 12"

COLCHÓN MARINO

REEF RIDGE CORE STONE
D_{min}= 24" D₅₀= 30"
D_{max}=36"

PIEDRA DE NÚCLEO DE ARRECIFE

REEF RIDGE EXTERIOR STONE
D₁₅= 15" D₅₀= 24"
D₁₀₀=36"

PIEDRA DE EXTERIOR DE ARRECIFE

STONE ARMOR UNIT
D₅₀= 40"

UNIDAD DE ARMADURA DE PIEDRA

STONE TOE ARMOR UNIT
D₅₀: 48"

UNIDAD DE ARMADURA DE PIEDRA PUNTERA

PRE-CAST ECOLOGICAL CONCRETE ARMOR UNIT
Dimension: 48"x 48"x 48"

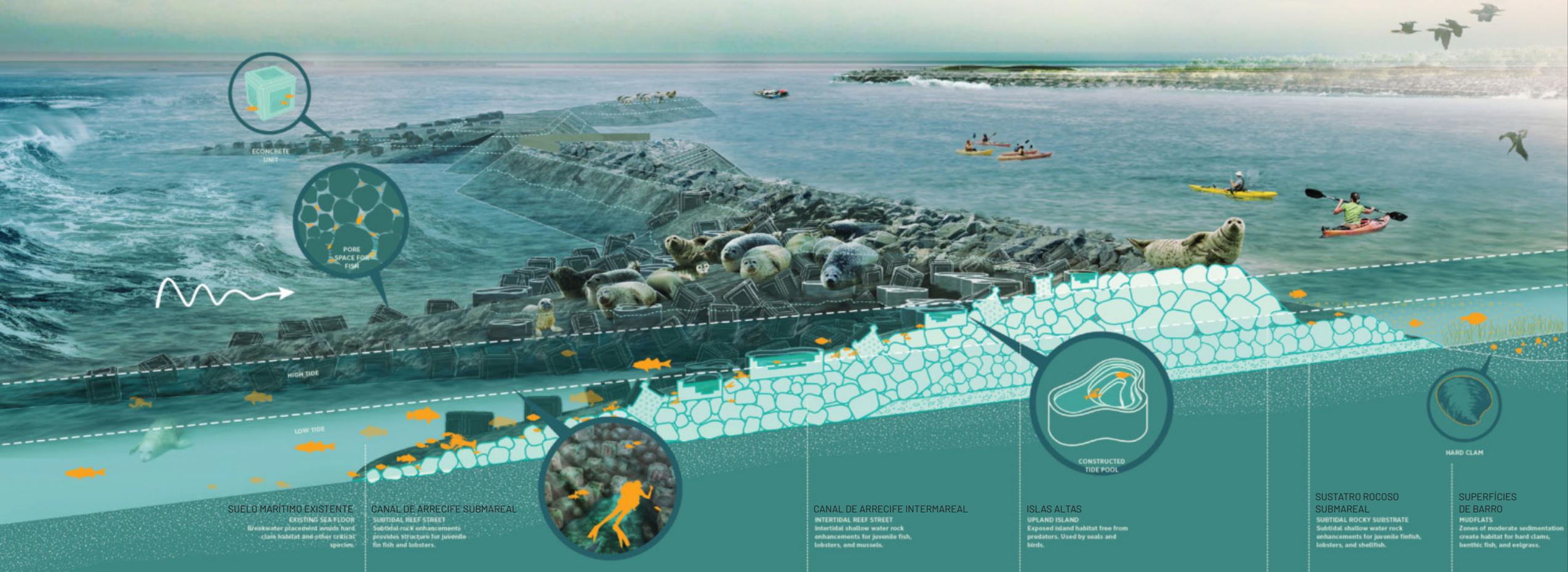
UNIDAD DE ARMADURA DE CONCRETO ECOLÓGICO PREFABRICADA

PRE-CAST ECOLOGICAL CONCRETE TIDE POOL
Dimension: 44"x 48"x27"

PISCINA DE MAREA ECOLÓGICA PREFABRICADA

BUILDING ECOLOGICAL RESILIENCY

CONSTRUYENDO LA RESILIENCIA ECOLÓGICA



ECONCRETE UNIT



PORE SPACE FOR FISH



CONSTRUCTED TIDE POOL



HARD CLAM

SUELO MARÍTIMO EXISTENTE
EXISTING SEA FLOOR
Breakwater placement avoids hard-claim habitat and other critical species.

CANAL DE ARRECIFE SUBMAREAL
SUBTIDAL REEF STREET
Subtidal rock enhancements provides structure for juvenile fin fish and lobsters.

CANAL DE ARRECIFE INTERMAREAL
INTERTIDAL REEF STREET
Intertidal shallow water rock enhancements for juvenile fish, lobsters, and mussels.

ISLAS ALTAS
UPLAND ISLAND
Exposed island habitat free from predators. Used by seals and birds.

SUSTATRO ROCOSO SUBMAREAL
SUBTIDAL ROCKY SUBSTRATE
Subtidal shallow water rock enhancements for juvenile finfish, lobsters, and shellfish.

SUPERFICIES DE BARRO
MUDFLATS
Zones of moderate sedimentation create habitat for hard clams, benthic fish, and eelgrass.