

FEED YOUR DELTA !

Recycling concrete and glass wastes to restore wetlands, to improve flood protection systems and to support the Mississippi delta growth.

Mississippi delta is facing major climatic risks : sea level rise, floodings, more frequent and stronger hurricanes.
Because of erosion and sinking lands, 25 square miles (64 km²) of wetlands are lost every year, reducing the natural protection and resiliency against high water.
More than two millions people are living in this threatened area.

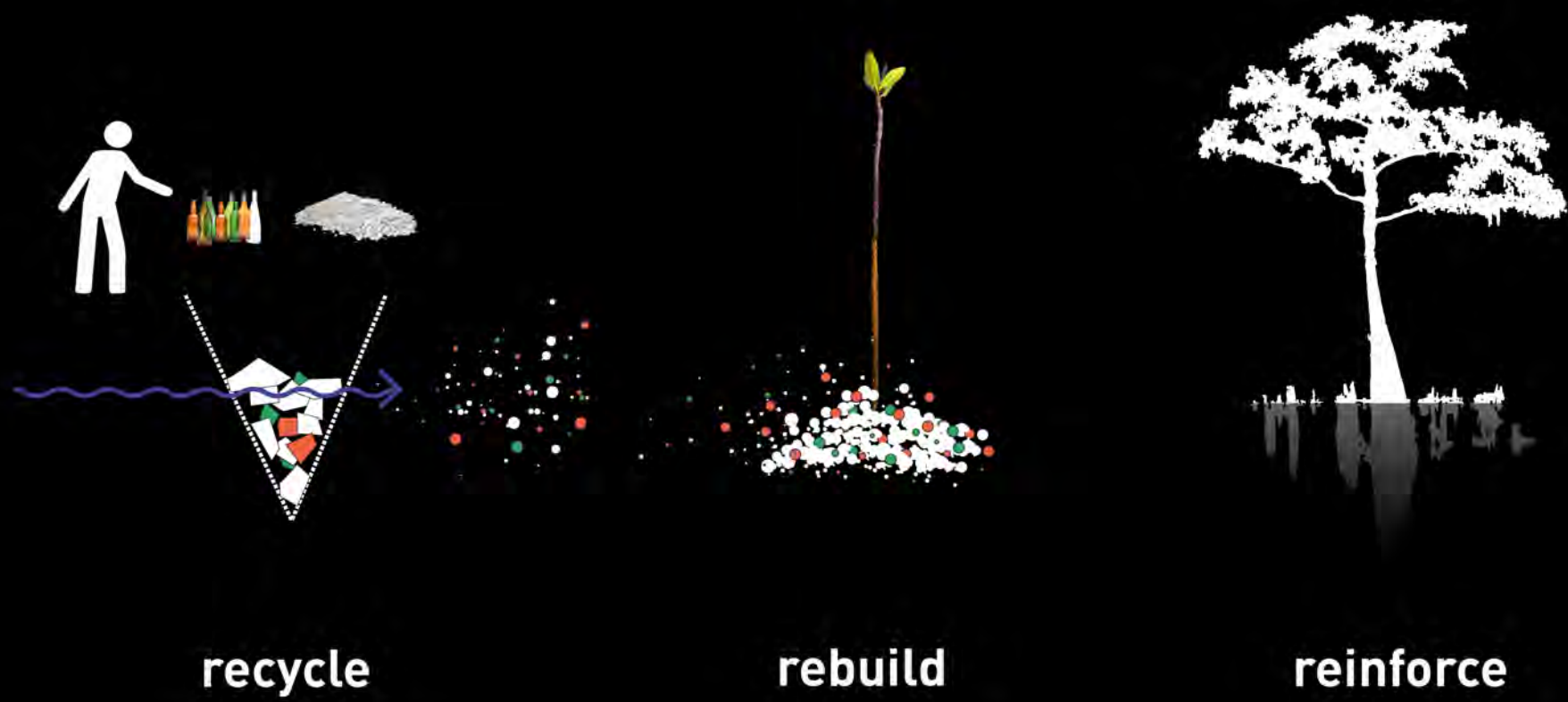
• **SEDIMENTS FOR NEW GROUNDS AND LIVING PROTECTION.**
The project aims at guiding the Mississippi sediment deposits to restore and create new grounds. Reinforcing and amplifying the existing system of lakes, wetlands and sandy first line will provide to the delta a huge resilient buffer zone.

• **WATER AS A RECYCLING FORCE.**
The Mississippi is facing sediment deficit since 120 years. The project proposal is to accelerate sediment creation while recycling glass and concrete wastes using the free power of running water. Wastes are stocked in nets (called *socks*) and shaken by flowing water until they are reduced in particles carried by the stream.
This system is developed at three scales :
- *Community Socks* > a new way for individuals to recycle and act on their environment
- *Erosive Channels* > accelerating the flow and guiding sediments for precise deposits
- *Deep Socks* > off-shore nets for industrial recycling

• **EVERYONE IS GETTING INVOLVED**
Community Socks enable people to act easily and locally for their environment in a positive way. People get involved in the natural process of delta growth : it's called shared responsibility and awareness.

• **TIME AND PRODUCTIVE LANDSCAPE.**
The project is mixing different scales of time :
- Short term : reinforce natural sand barriers (Breton and Timbalier islands)
- Mid term : feed the delta growth with sediment production and deposits
- Long term : impulse the economic mutation of the Gulf of Mexico, from oil and gaz pumping to wind and marine clean energies.

Ecosystems, production infrastructures and people are all three acting to rebuild the shoreline.



TOOLBOX :

CONCRETE is the most used raw material on earth (after water). About 900 millions tons of wastes produced in 2013.

SAND MOTOR



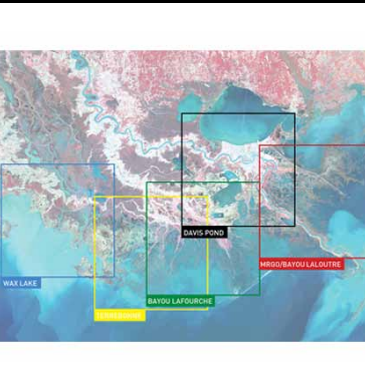
Sand deposit for 20 years beach nurrishment in the Netherlands.

SEDIMENT GUIDING



Nicolas Gilsoul project in South Korea.

RIVER DIVERSIONS



Guy Nordenson & Associates project for Mississippi delta.

SEDIMENT CREATION



The *glass beach* in Fort Bragg near San Francisco.



TIME

SEA LEVEL
EVENTS

- 8 YEARS

- 0.06 FT / - 2 CM

HURRICANE KATRINA

OIL SPILL

Today

+ 5 years

+ 0.23 FT / + 7 CM

+ 10 years

+ 0.5 FT / + 15 CM

MAJOR HURRICANE

