

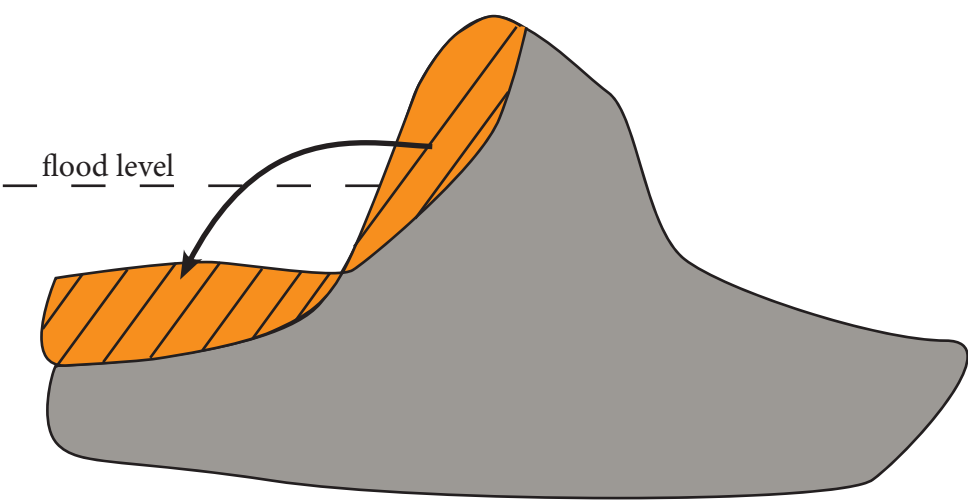
# Building with dunes; a year-round beach pavilion

Stimulating the touristical sector  
and protecting the dunes

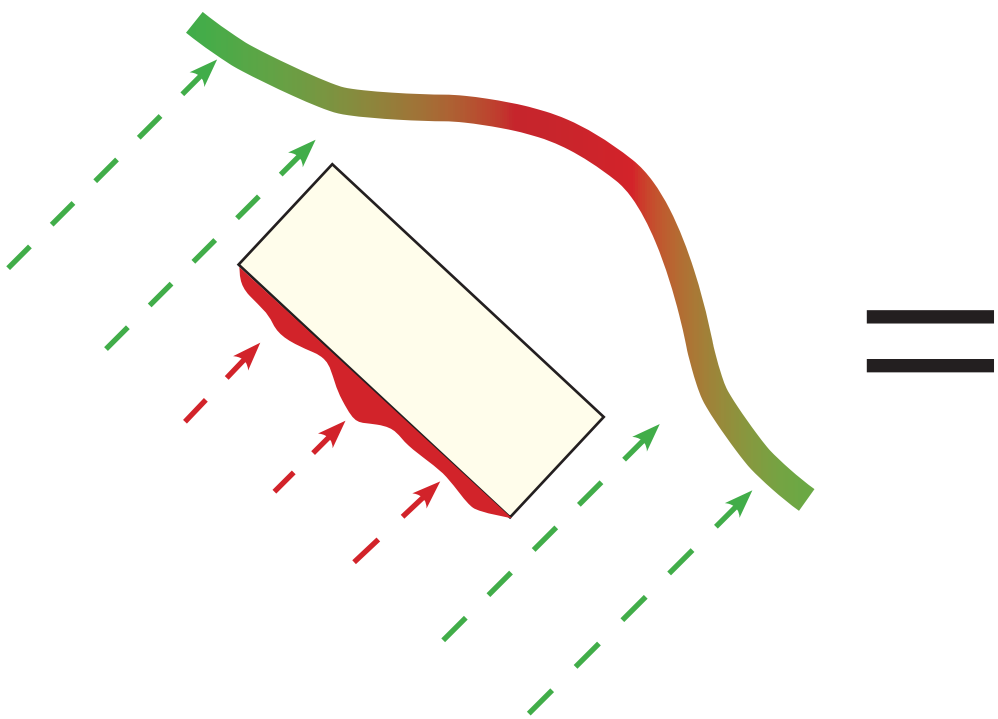
How to build a year-round pavilion in  
front of the dunes?

placing a pavilion in front of the dunes blocks the sand from reaching the dunes while these dunes need this sand to grow and repair itself after erosion. By making a up/down moving pavilion the sand can pass underneath the building. Furthermore the pavilion protects the dune in times of storm by breaking the waves which would otherwise collapse on the dune causing dune erosion. hydraulic systems make it possible to make moveable elements in the building, these elements are the two up and down moving parts of the pavilion and the protection facade along the whole side of the pavilion. this protection facade is used as a terrace in good weather and can be lifted against the normal facade in times of storm in order to break waves. Steel concrete steel sandwich pannels give the facade the strength to resist the huge forces of the sea; and rubber pressure seals are making the whole building water tight when the protection facade is lifted.

Dune erosion by storm:  
Dune weekend



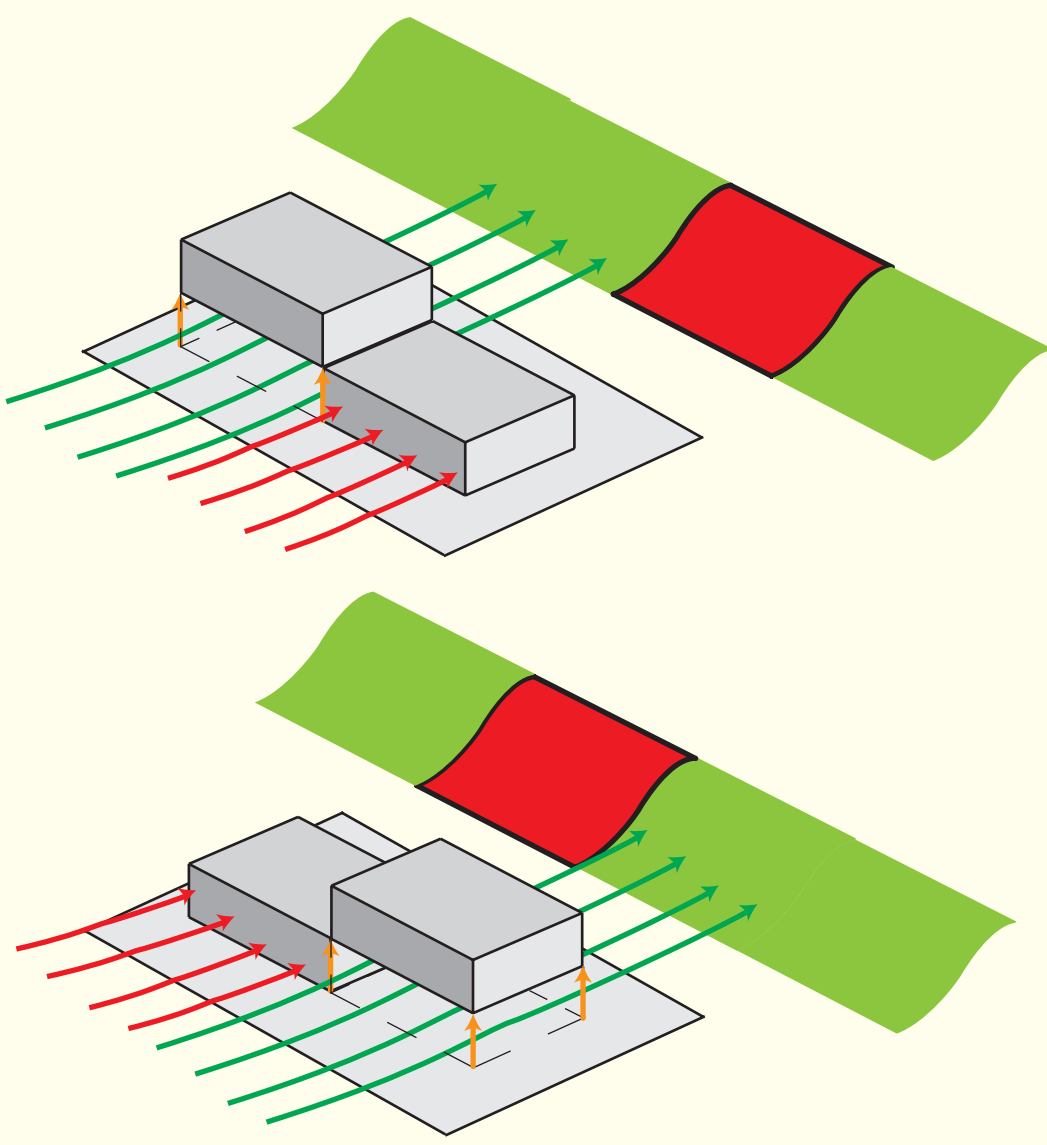
Sand blokked by buildings:  
Dune cant repair itself



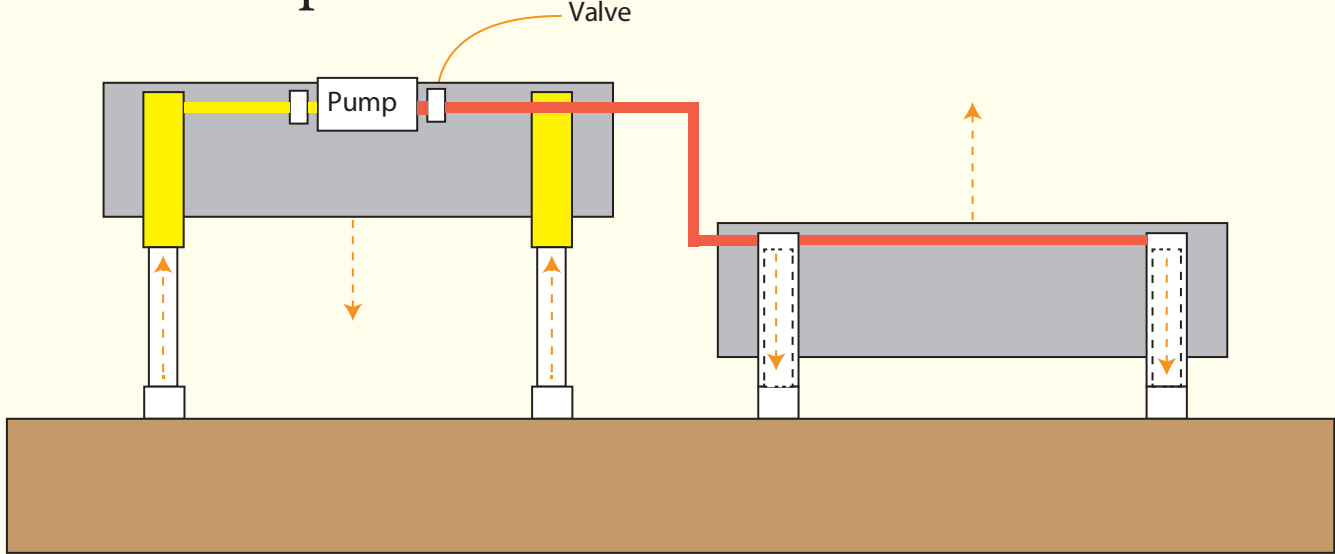
Structural degradation of the dunes



Sand can pass underneath



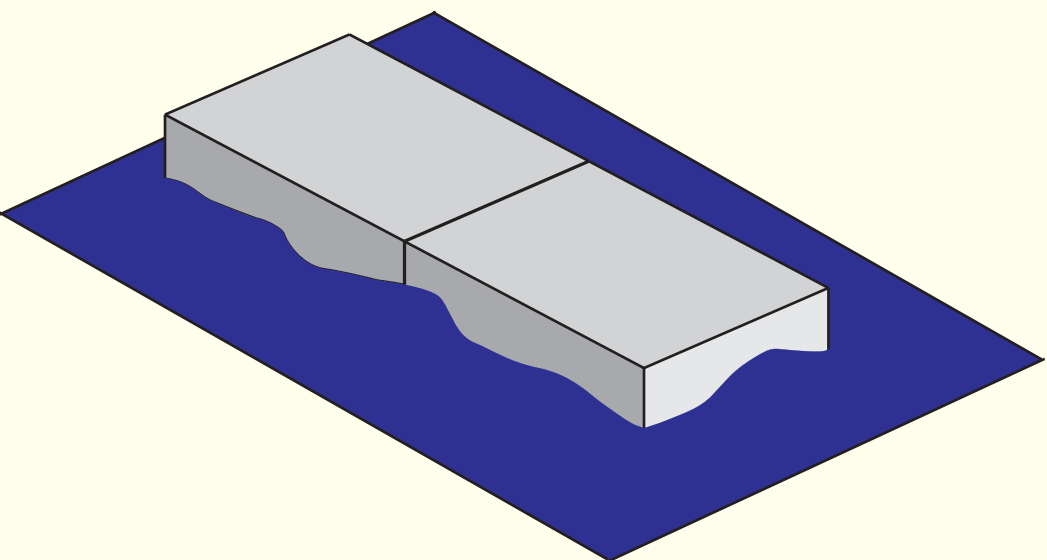
Hydraulic collumns lift both parts of  
the pavilion in turns



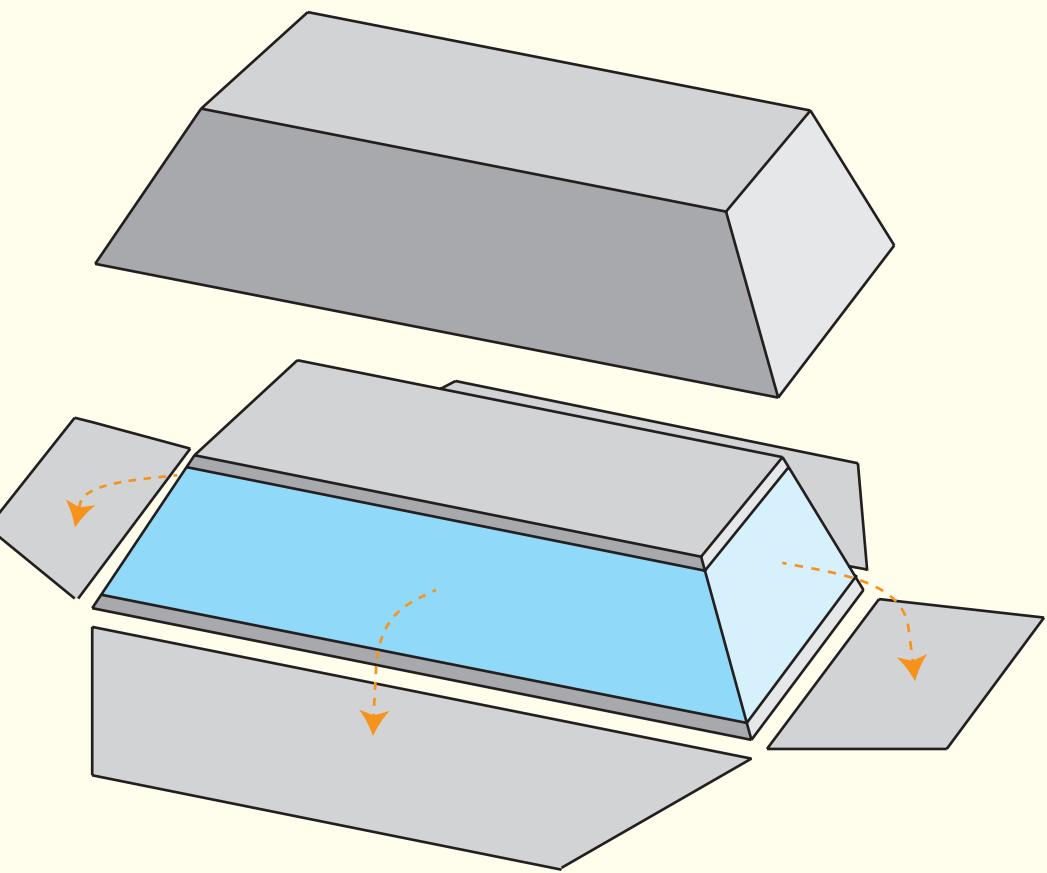
Light facade: ETFE



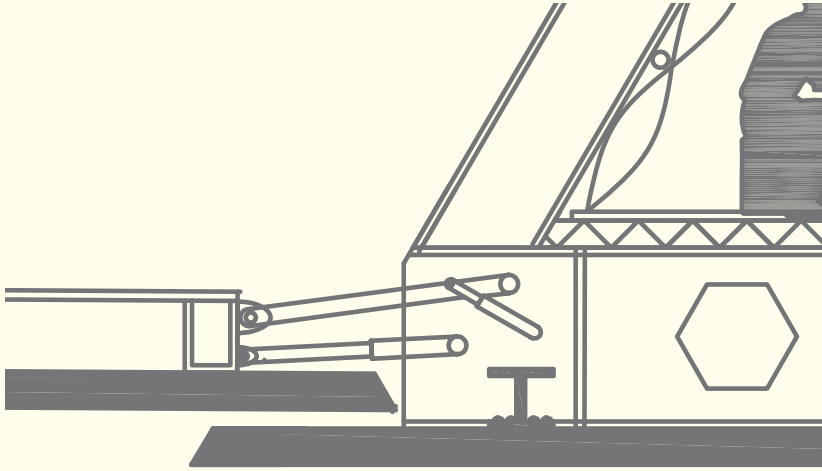
Breaks waves in times of storm



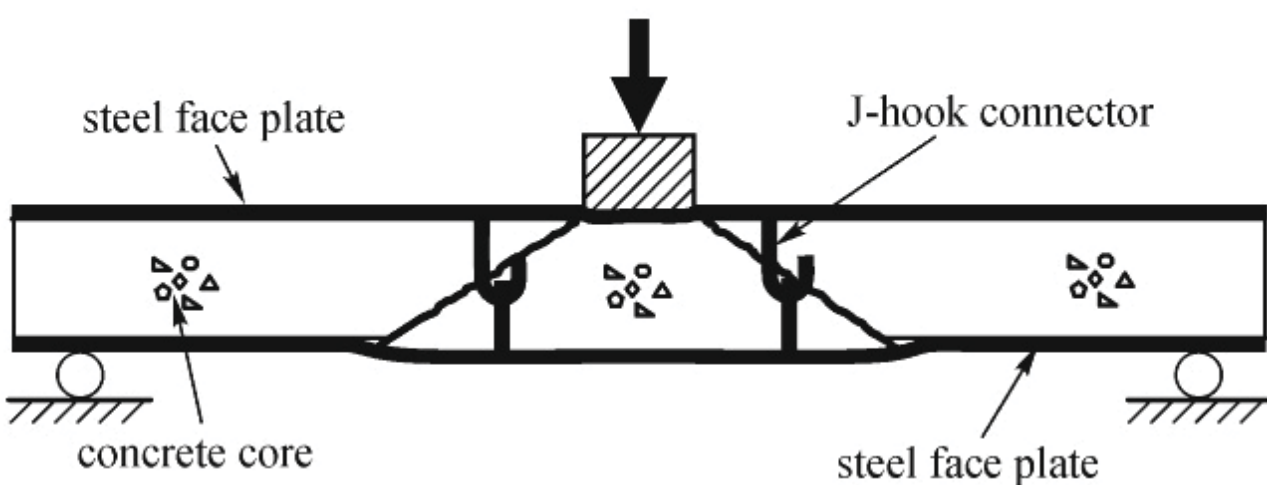
Liftable protection facade



Hydraulic principle: truck door



Innovative marine material protection facade:  
Steel Concrete Steel Sandwich panel



Watertight compression seals

