

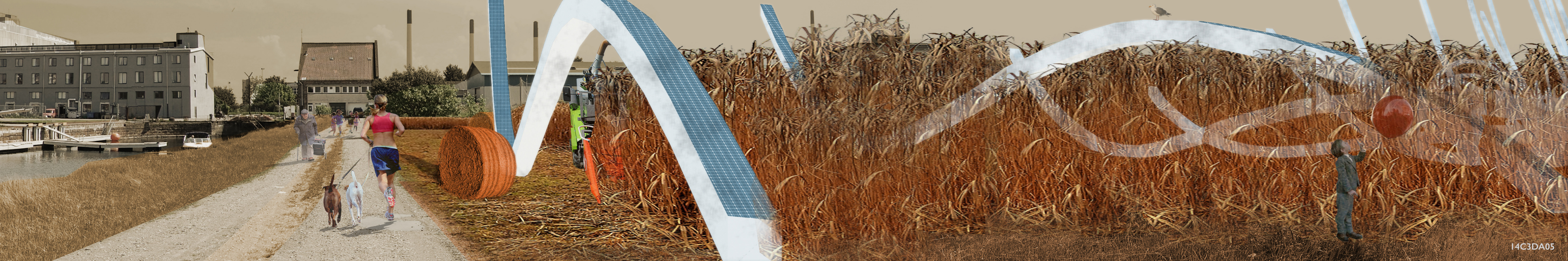
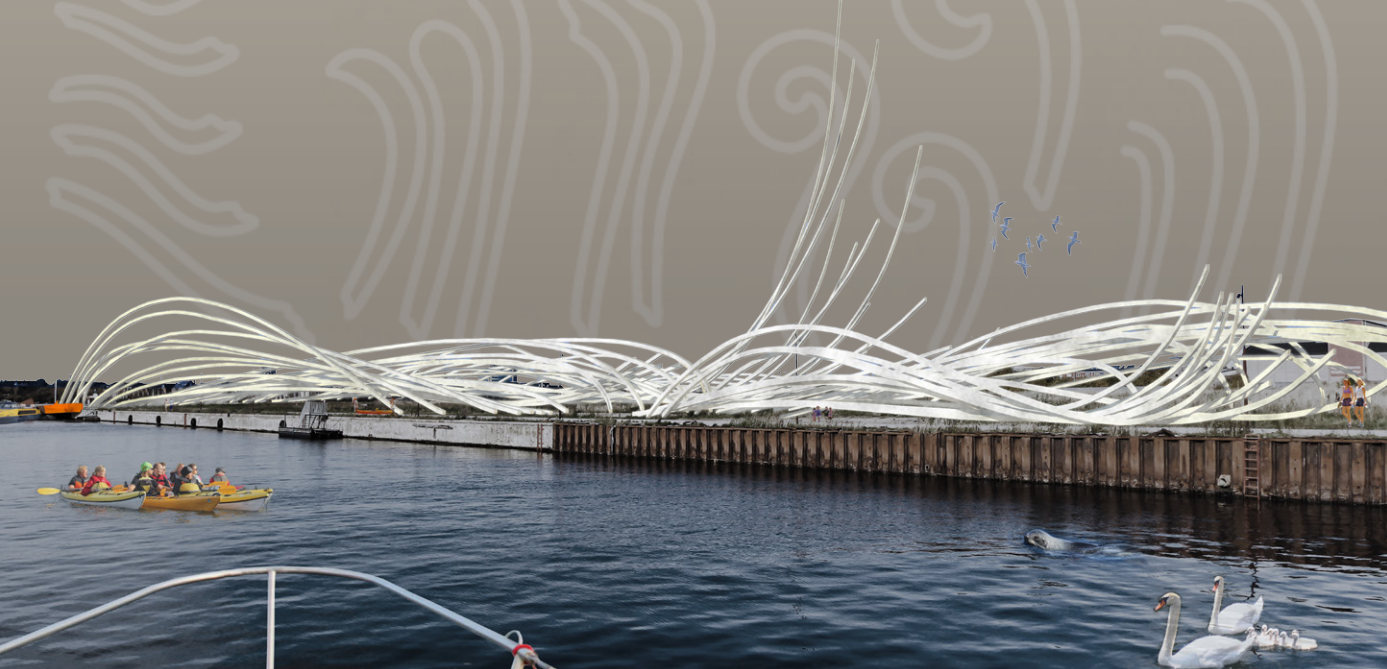
# skibgræs

The increasing use of biomass plays a critical role in Denmark's energy policy, or the Energy 21 action plan. Currently, efforts are concentrated on the exploitation of available biomass residues, mostly straw and wood. However, the contribution from energy crops is expected to increase steeply from 2012 to 2030. *Miscanthus giganteus* is a sterile hybrid that does not form fertile seeds. Propagation is by rhizome cutting. It has a high yield potential, particularly in coarse sandy soils, and has a low fertilizer demand, good for a site close to water. Not only can it withstand salinity, it is also effective in removing heavy metals from former industrial areas.

Because harvesting *Miscanthus* requires 3 meters, the ribbons' spacing responds at 3m intervals. Ribbon spacing increases further from the terminal to not only allow the *Miscanthus* to be harvested more efficiently, but also to provide a recreational setting for Copenhagen's densely populated city center. In order to create minimal impact on ground plane, new gravel paths reference existing foot traffic paths, for users to circulate under and through the arcs of ribbon canopy, walking amidst them as they touch the ground plane. The lowest part of the canopy is 2m and the highest is 8m. The site is seen from prominent Copenhagen destinations across the harbor. To create a focal point, the repetition of ribbons across the landscape culminates in the 70-meter monument.

Research suggests that an increase in the area of *Miscanthus* grown has temporary benefits for farmland bird populations during establishment. *Miscanthus* stands also contain higher quantities of large animals like mammals and birds than other herbaceous crops (i.e., corn or reeds. This is likely due to a greater diversity of canopy structure leading to a higher number and greater range of ecological niches.

Kalvebod Fælled is a nearby large bird area, located in southwest Amager. It is listed as an Important Bird Area (IBA), a designation given to globally important habitats. Additionally, it is a Conservation Area, an EU Bird Protection Area, and an EU Habitat. The Dansk Ornitologisk Forening (DOF) also considers Amager Fælled, located in the southwest corner of the island, an important bird habitat.



proposed bird habitat

existing bird sanctuaries

solar ribbons

secondary circulation

primary circulation

*Miscanthus giganteum*  
mix of ornamental mid-sized  
*Miscanthus*  
small grasses

## *Miscanthus* fuel generation

powers 33 households



planted rhizomes  
regrow annually,  
remediating  
toxic soil



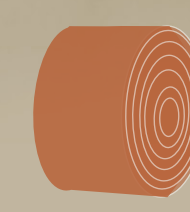
3 meter bunch grass  
provides migratory  
bird habitat



grasses dry  
during winter,  
intensifying biomass  
availability



harvest in spring  
is simple and efficient



harvest is baled  
for transport



simple, inexpensive  
machinery chops and  
compresses grass into  
fuel pellets



pellets can be burned  
in homes for heat or  
used for electrical  
generation