

# SUBSURFACE

Tidal turbines and aquatic life do not mix well. While tidal and wave energy shows increasing potential to become a major source of renewable power in the future, certain negative impacts of existing ocean technologies must be reconsidered.

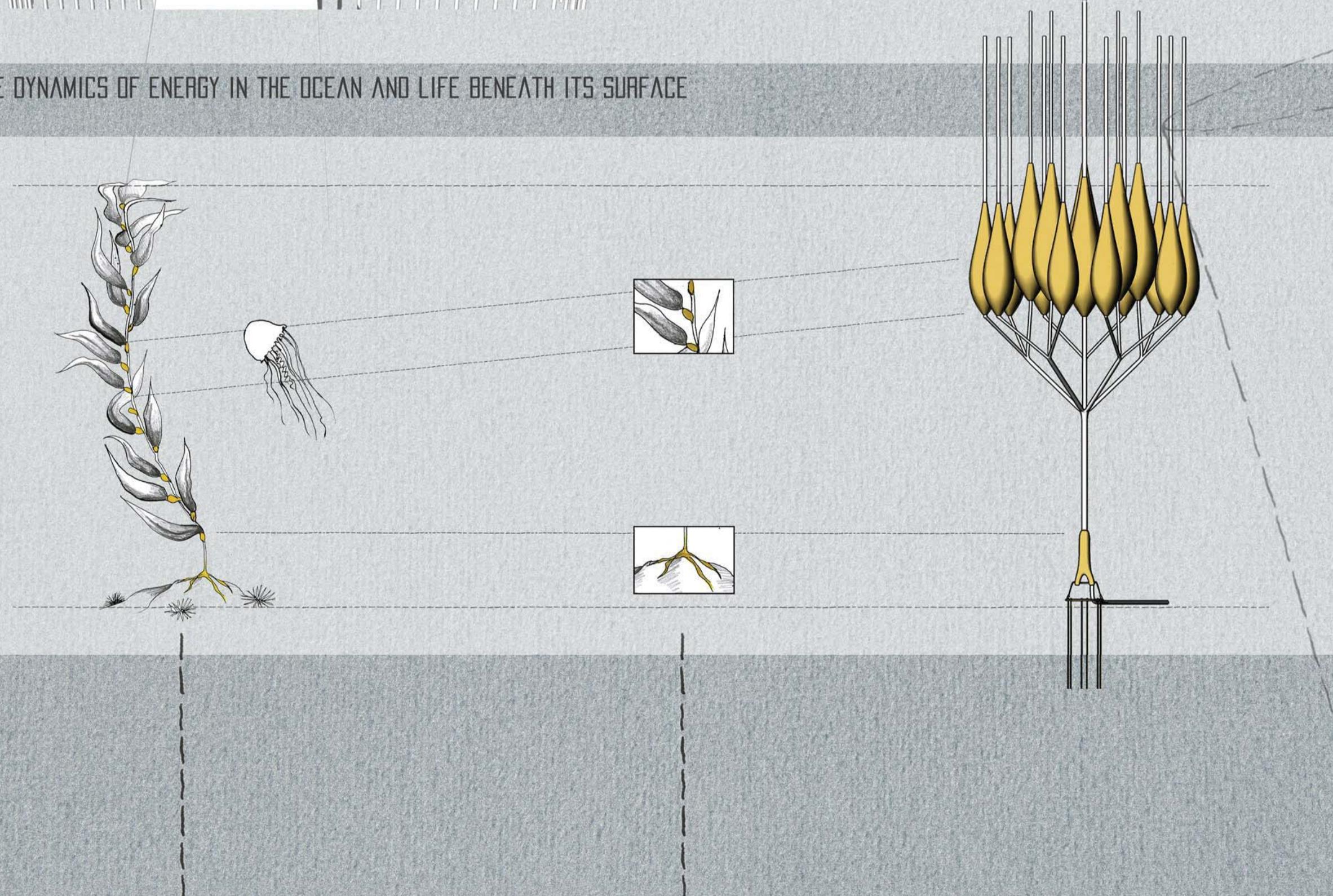
In this wave buoy prototype we have taken inspiration from the buoyant, swaying form of sea kelp, a vital yet threatened ocean organism, to form a new kind of wave buoy. Its swaying motion allows it to pump water through a pipe to an enclosed turbine. All the while these motions and energies are transmitted through the surface to the air above, revealing what would otherwise be largely invisible to the human eye.



THE PROJECT AT LARGE SEEKS TO REVEAL THE DYNAMICS OF ENERGY IN THE OCEAN AND LIFE BENEATH ITS SURFACE

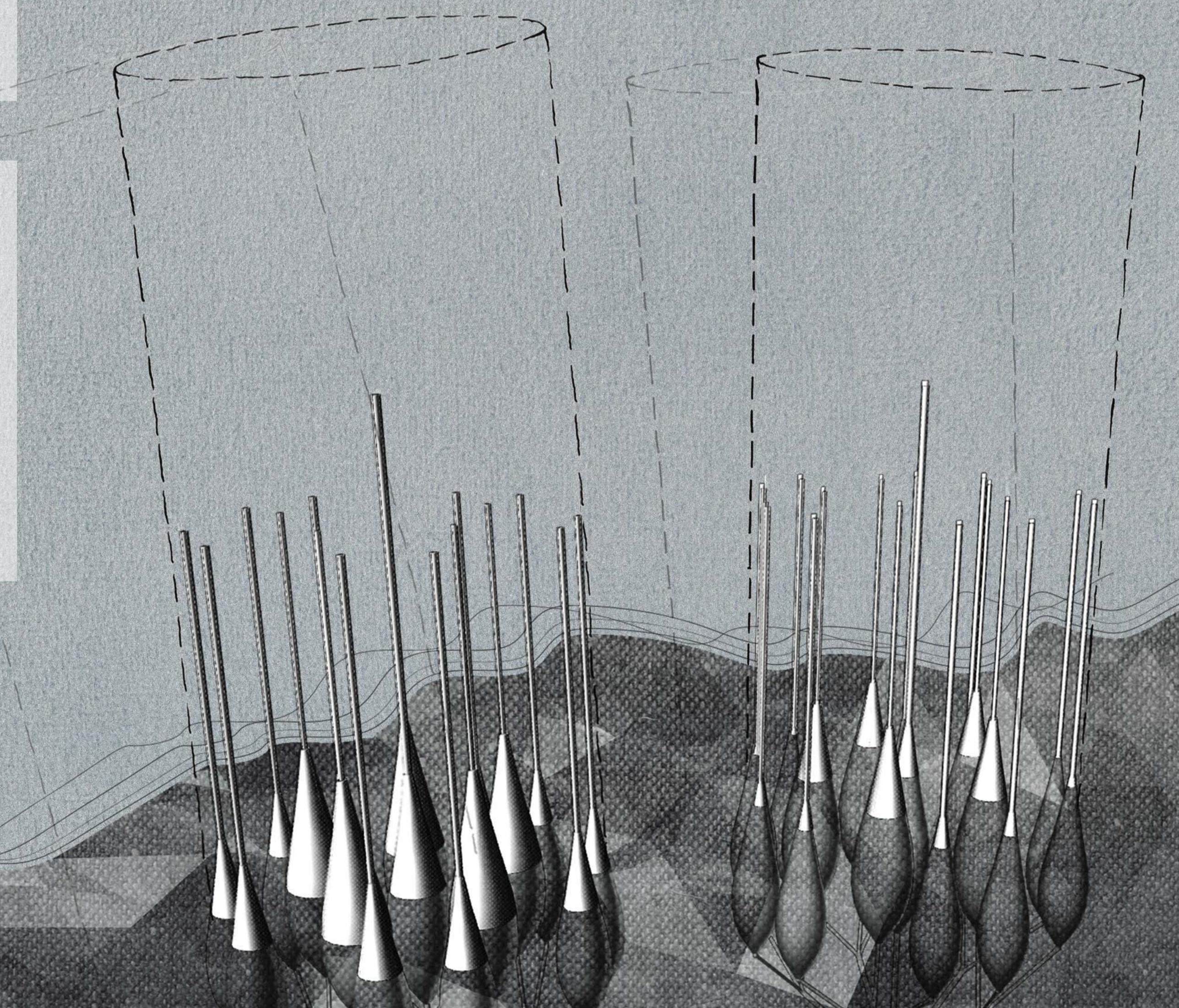


SPINNING BLADES AND SOUND EMISSION POSE SERIOUS THREATS TO AQUATIC LIFE.



ASPECTS OF KELP SUCH AS THEIR BUOYANT PODS AND FLEXIBLE ANCHOR POINT INFORMED THE DESIGN OF OUR BUOY PUMP.

PODS ATTACHED TO THE STEM ALLOW MOVEMENT TO ACCOMMODATE TIDE AND WAVE MOTION



MICRO VS. MACRO: PERSONAL UNDERSTANDING VS. LARGE SCALE EXPRESSION