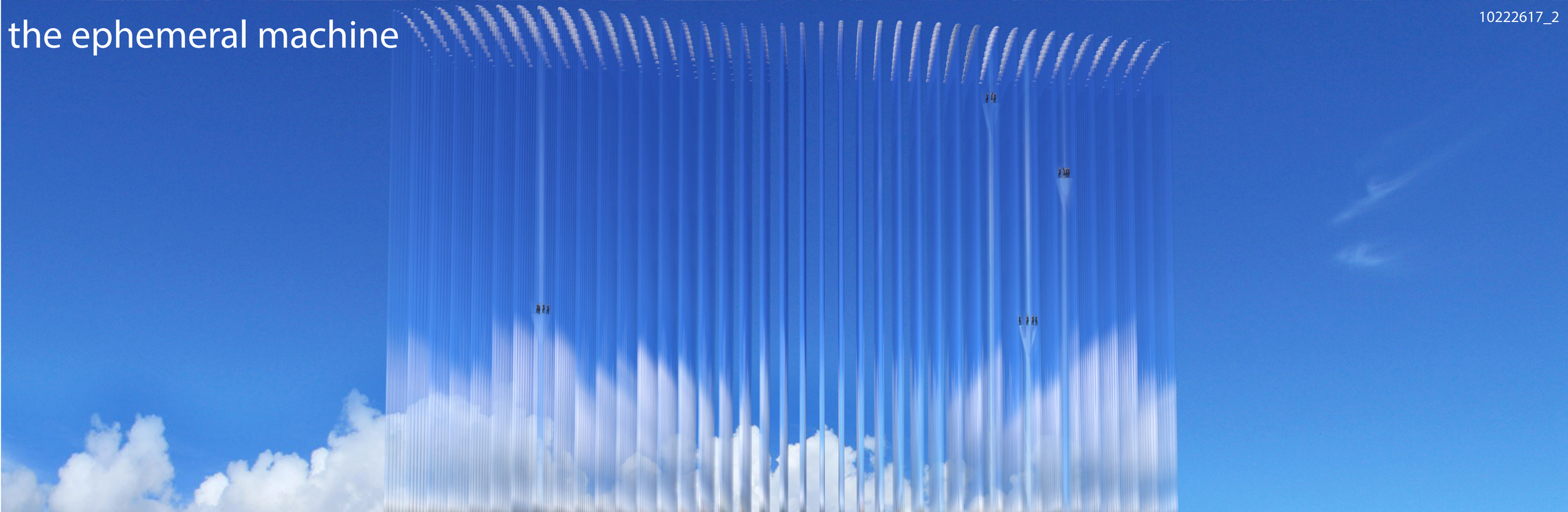
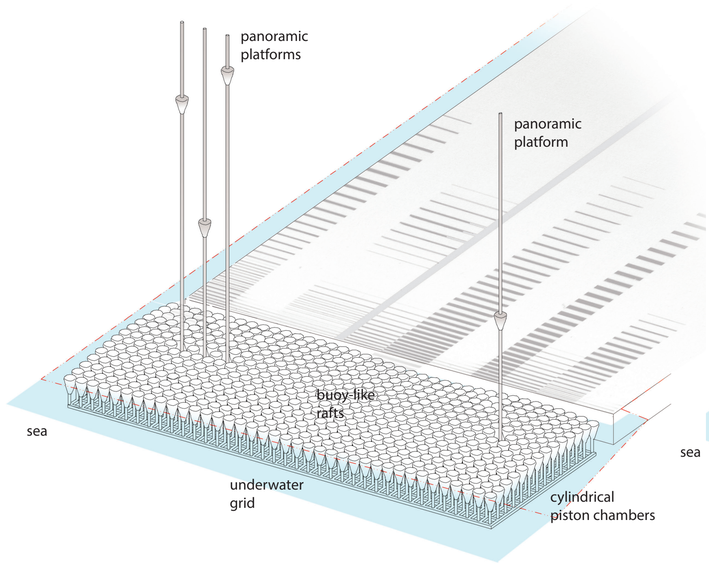
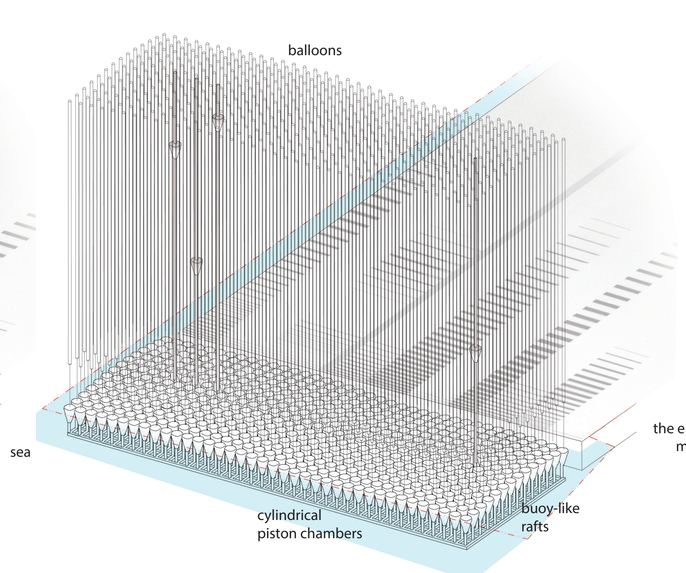
the ephemeral machine







We decided not to use the entire site but a portion of it only. The area that the machine occupies is the sea zone in front of the shipyard and we want to talk about density in terms of power production. In fact, this marine portion has a surface of 10000 m2 and as the machine can reach 1000 Mwh/year which means that it can provide an energy density of 100 Kwh/-year/m^2.The machine sits on a the sea floor thanks to an extremely regular grid made out of recycled steel beams. This grid collects the energy coming from the cylindrical piston chambers below the rafts and send it to the generator and the battery units besides the machine at an underwater level. To reduce the impact to the marine environment the grid will not have foundations and it will simply lean onto the sea floor as it is conceived to be function as a stabilizing mass.

Rafts are composed by a recycled steel core and by a recycled reinforced fiber glass shell. The steel core is a supporting platform connected to the piston and it is designed to transfer each movement of the raft to the piston. The shells are made out of recycled reinforced fiber glass and they are interconnected by small passages. This because all together they form a sort of big flexible swinging carpet accessible by visitors. At the center of this big carpet four panoramic platforms (sort of panoramic slow elevators) traverse the balloon portion of the machine to reach the height of 120 m becoming four extraordinary points to look at the sea, the harbor and the city of Copenhagen. These are the only elements that utilize electrical power and they will move inside the transparent portion of the machine like pistons. They allow visitors to have a more direct and funny experience of the machine and beautiful views of the of the surrounding environment, but since they consume energy visitors, that can access the raft carpet for free, will have to pay a ticket. This concept is not developed here, but it can be easily realized. The shipyard will have only outlined passages leading to the machine. We wanted to leave this space completely empty as the machine can become an attractor of big events (concerts, fairs and exhibitions). In fact more people will come to the site more energy the machine will produce. Access to it will be, in any case, regulated for security reasons.