

## Bouyant Rings

**YIM GLORIA JEW**

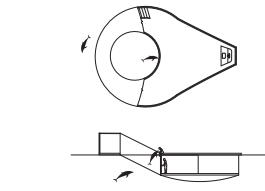
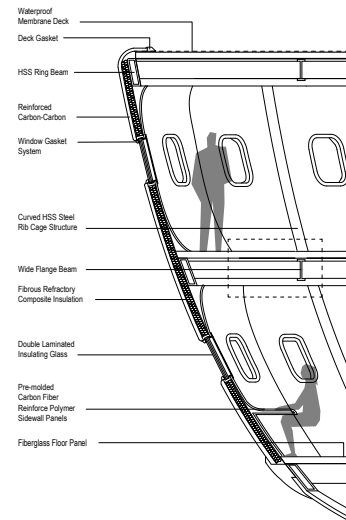
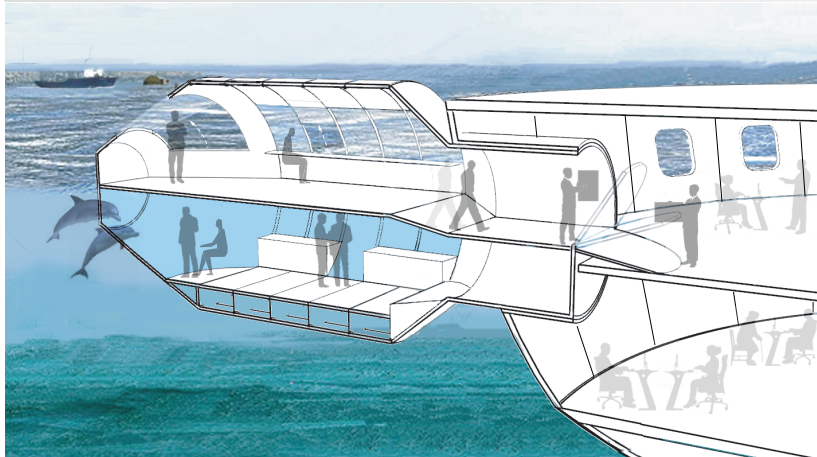
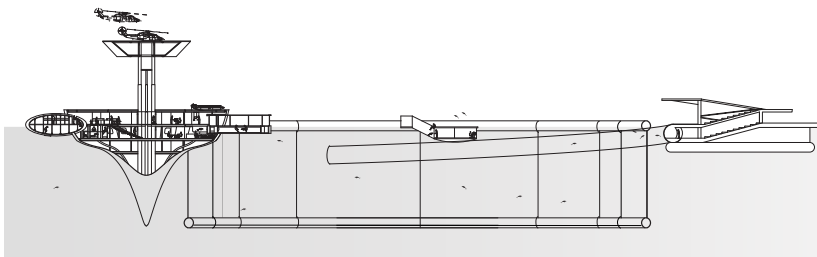
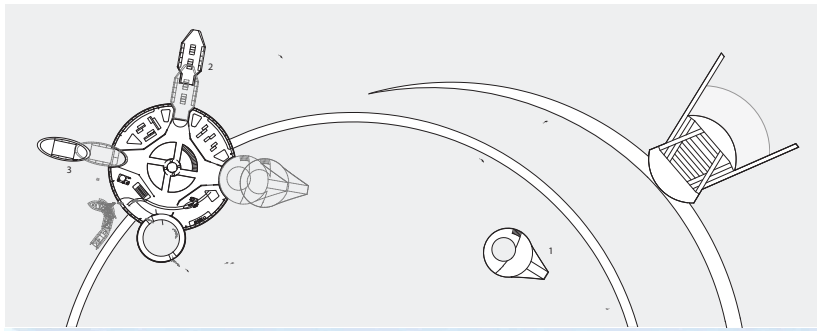
Academy of Art University

**SAINAN BI**

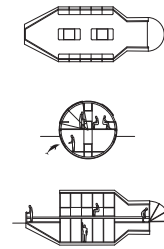
Academy of Art University

Located in the western Hong Kong sea, this Research, Rescue and Rehab facility are for the Chinese White Dolphins, an endangered species. Due to the city's rapid growth of population and economics, Hong Kong has been reclaiming land from the sea in every single available instance. Habitats of marine life are disturbed and compromised. This project creates a floating inhabitable architecture with an approach of "search and rescue". The minimal footprint of rings and mobile units, "pods", are the infrastructure. The primary ring includes a maritime laboratory, the rehab pool and temporary shelter for dolphins. Smaller mobile laboratory pods are deployed to gather data for research and return to the laboratory as "plug-ins". Laboratory modules can be added to the ring. Rescue vessels tether the injured or stranded dolphins and guide them into the ring of the rehab pool for observation and healing. The outer ring is a floating arena for the engaged learning public who act as stewards of the environment. All of these mobile units act and become an active and positive agent in Hong Kong's marine ecosystem.

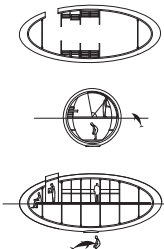
**Material and Construction:** The outer shell of the laboratory and vessels are made of Reinforced Carbon-Carbon (RCC) panels. These exterior panels are attached to a steel frame rib cage structure. The insulation panels are made of Fibrous Refractory Composite Insulation (FRCI). The interior panels are pre-molded Carbon Fiber Reinforced Polymer (CFRP). The fabrication of the panels both for the exterior and the interior allows for its modularity in production and systematic assembly. The laboratory unit and the pods are then transported to the sea.



1. DOLPHIN MONITOR POD



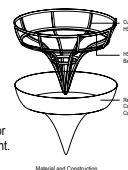
2. WATER RESEARCH POD



3. DOLPHIN RESEARCH POD

**BUOYANT RINGS**

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