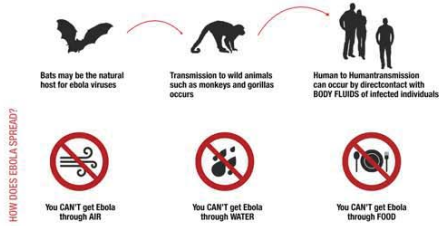


A MARINE HETEROTOPIA | ATALANTI'S EBOLA TREATMENT CENTER



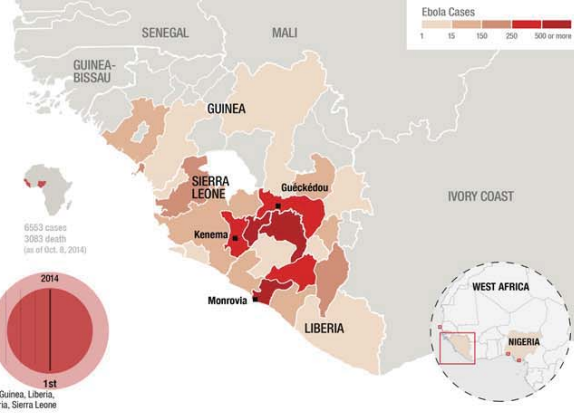
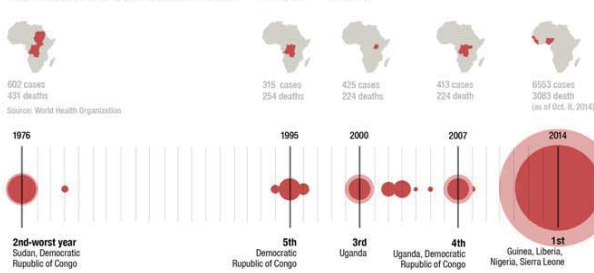
Virus Definition

Ebola is a deadly virus that has killed hundreds of individuals in West Africa so far in 2015. This is the worst recorded outbreak of the virus. The fatality rate of Ebola can be as high as 90%. No vaccine is available, nor is there any specific treatment. Originating in Guinea, Sierra Leone and Liberia, cases have now been confirmed in Nigeria, some countries in Europe, and the US.

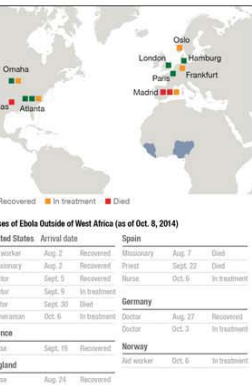


How does this compare to past outbreaks?

Ebola cases and deaths by year, and countries affected



Why Ebola?

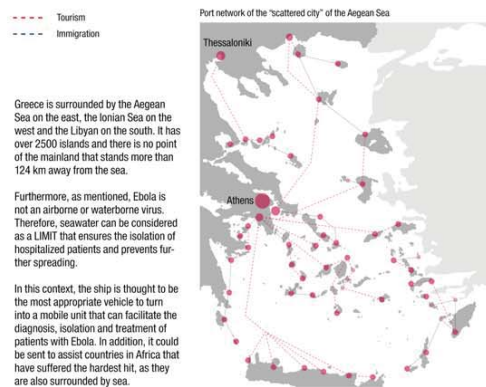


50% of the Africans that intend to get to Europe, end up in Greece

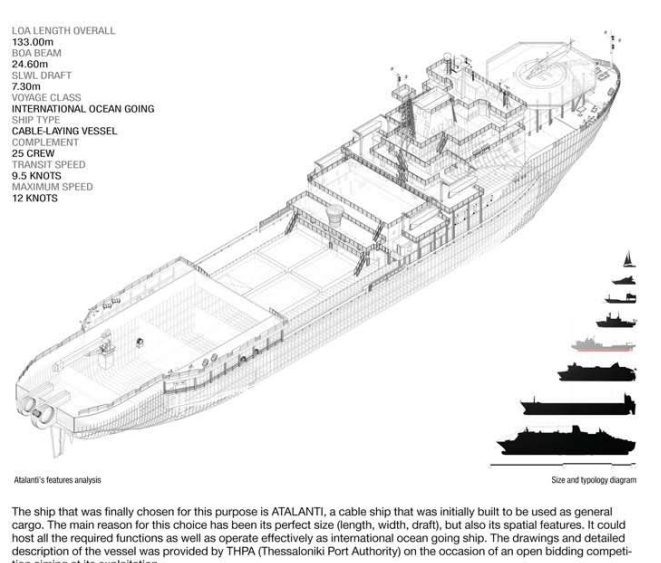
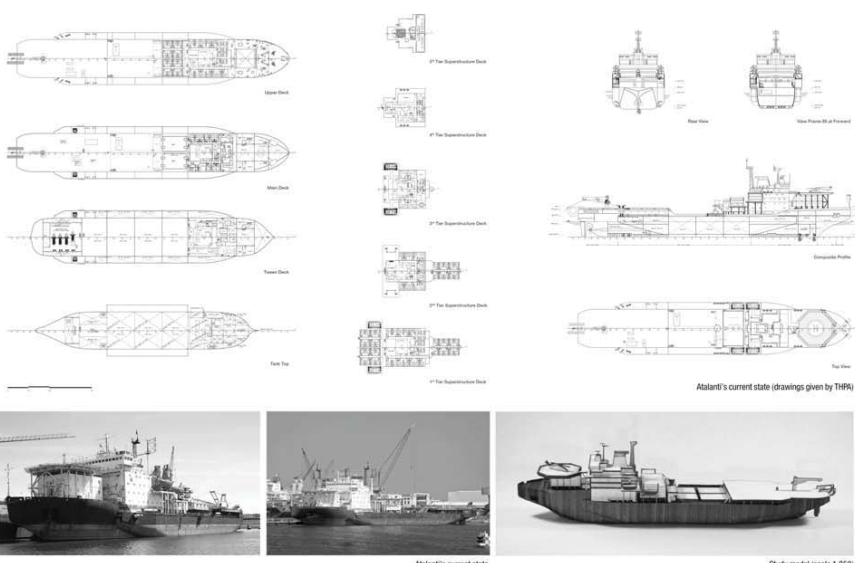
200% of country's population equals the number of tourists that visit Greece every year

Greece is located at the southernmost tip of the Balkan Peninsula, at the crossroads between East and West. Due to this particular geographical position, it is considered to be the entrance to Europe, especially for immigrants coming from Africa and Asia. Specifically, it is estimated that 50% of the Africans that intend to get to Europe, end up in Greece. This raises great concern about the possibility of Ebola spreading in the country, something that has already happened in other countries in Europe and the US.

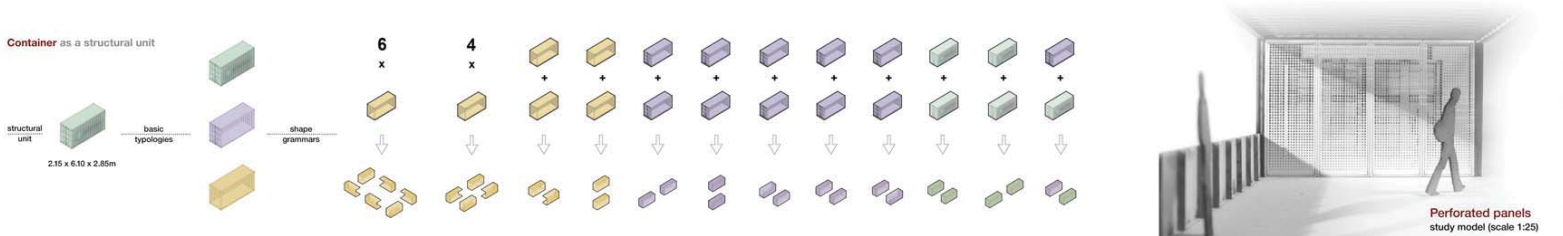
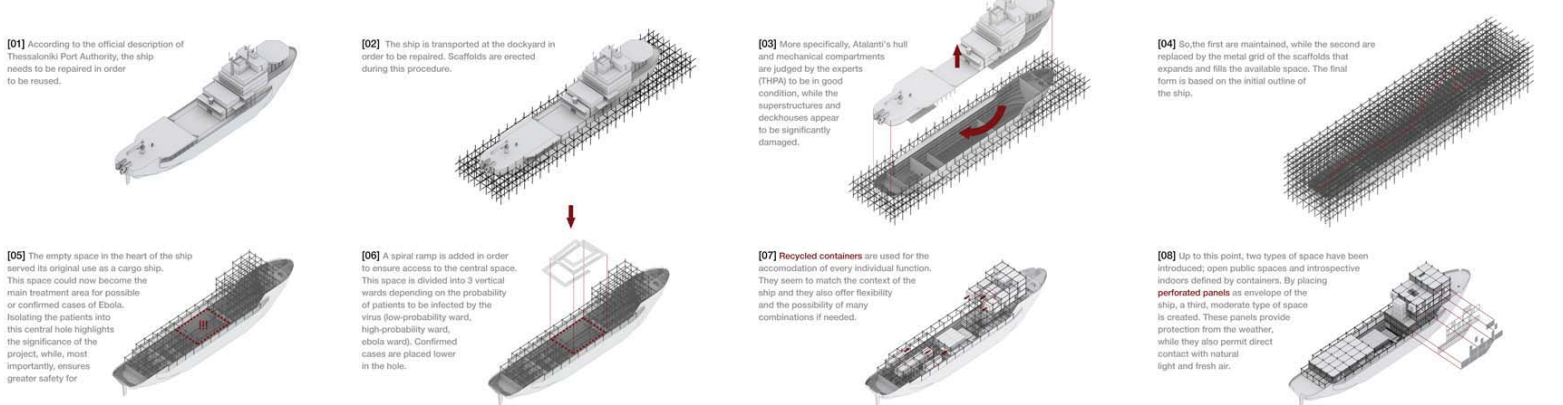
Moreover, many tourists (2 times the country's population) visit Greece each year. Therefore, it constitutes a place where people from different origins come together. Thus, the risk of the virus transmission is significantly increased.



The Vehicle



The Concept

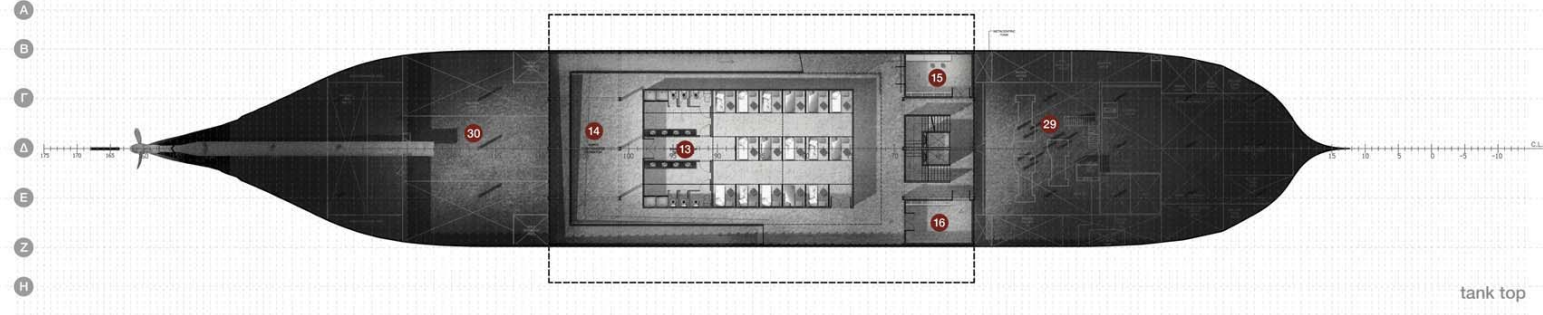
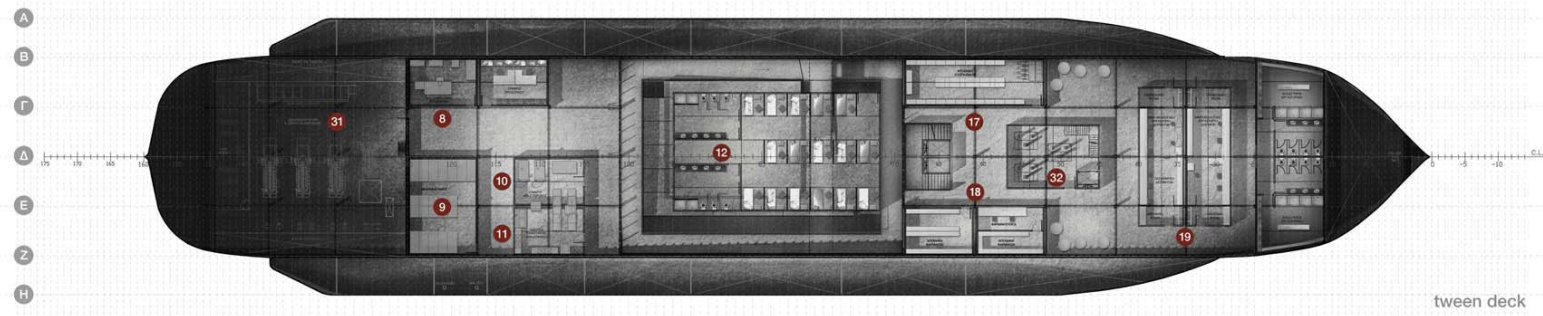
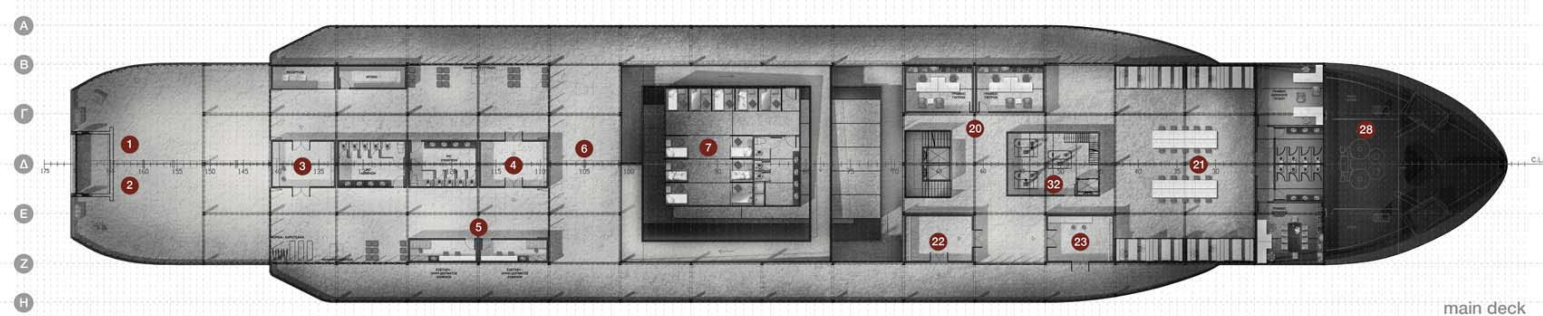
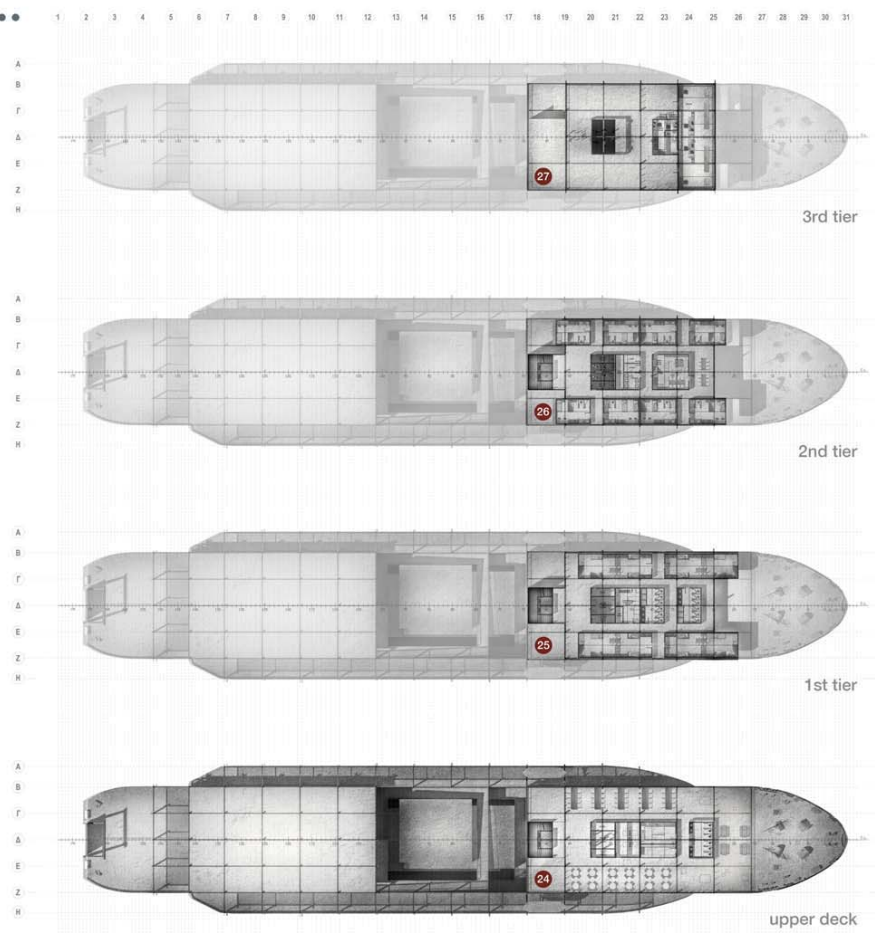
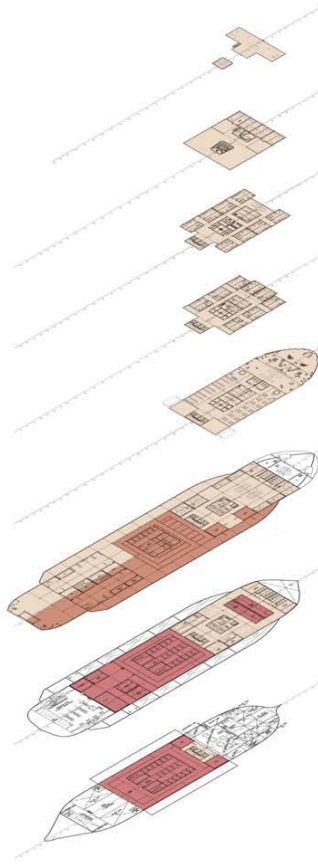


Superstructure and Hull plans

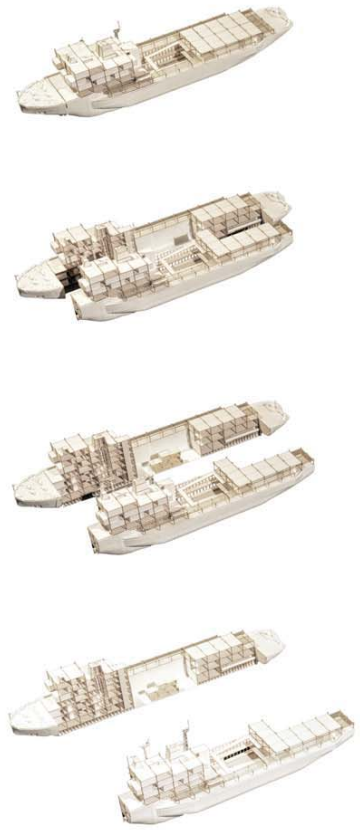
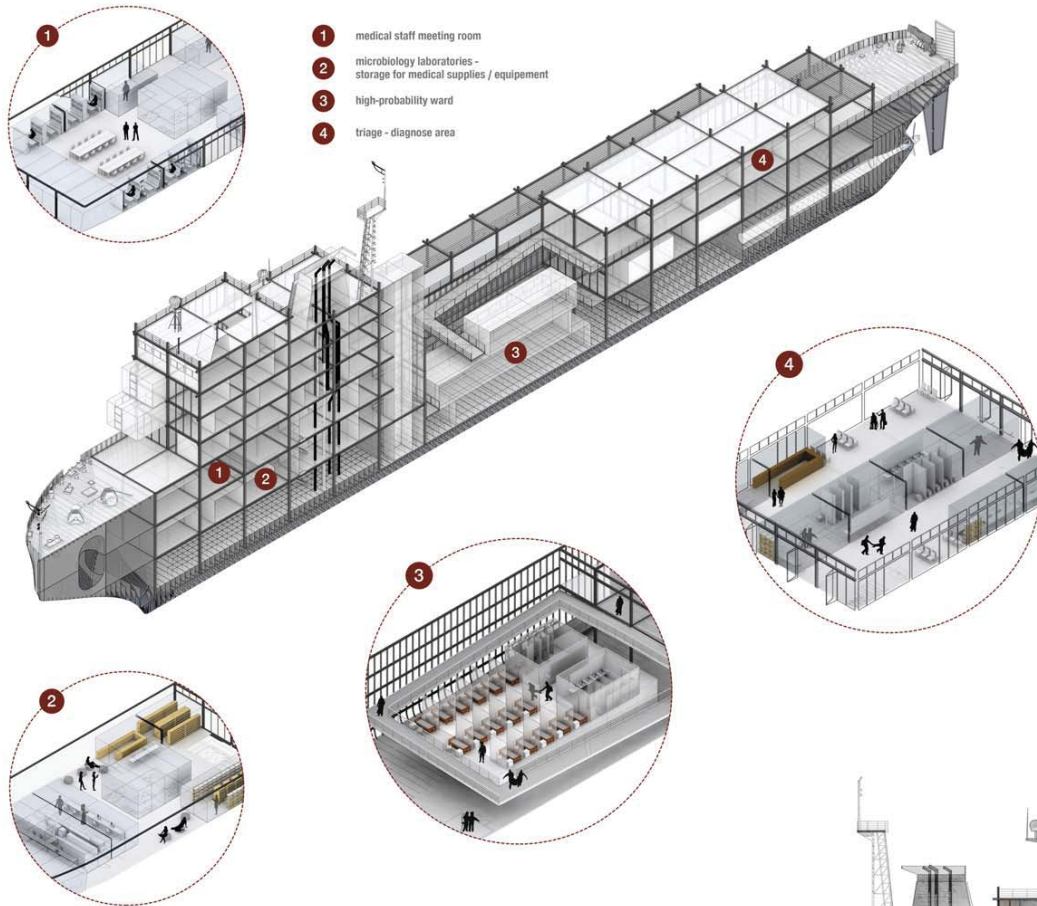
Classification of risk zones

● low ● moderate ● high

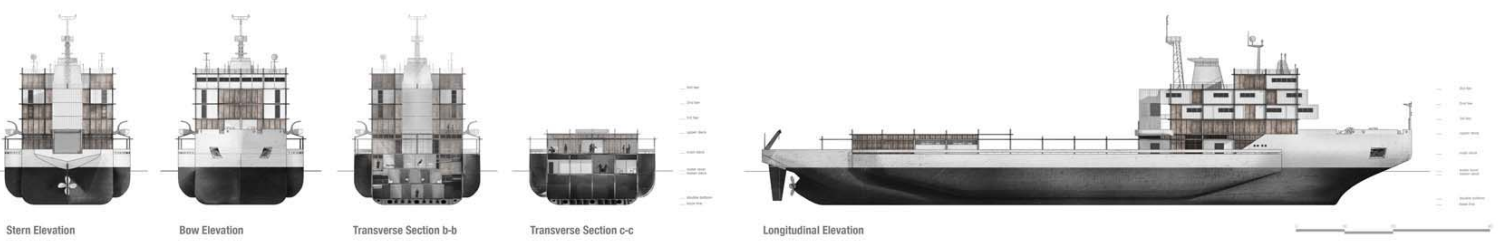
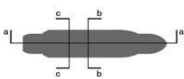
- 1 entry for medical staff and crew members
- 2 patient entry
- 3 dressing room
- 4 undressing room
- 5 triage - diagnose area
- 6 fence for visitors' protection
- 7 low-probability ward
- 8 incinerator room
- 9 morgue
- 10 sterilization room
- 11 decontamination room
- 12 high-probability ward
- 13 ebola ward
- 14 disinfection of dead bodies
- 15 dressing room
- 16 undressing room
- 17 storage for equipment
- 18 storage for medical supplies
- 19 microbiology laboratories (decontamination rooms included)
- 20 doctors' offices
- 21 doctors' meeting room
- 22 dressing room
- 23 undressing room
- 24 restaurant - cafe
- 25 rooms for medical staff
- 26 rooms for crew members
- 27 ship bridge
- 28 machinery room
- 29 motor compartment
- 30 propulsion room
- 31 generator room
- 32 casing



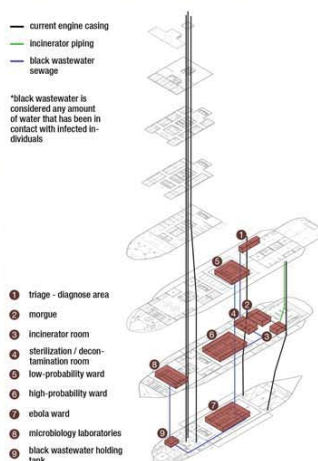
Models - Sections - Elevations



Final model (Scale 1:200)



Renders



Waste management plan / air handling system

Infectious Waste Type	Package / Handling	Treatment / Storage	Disposal
Sharps	Discard into rigid, puncture resistant sharps container. Label BIOHAZARDOUS	Autoclave and store	Shoreside
Fluids (blood, blood products, and other liquid infectious waste)	Decant fluids to sanitary system. Bulk blood that cannot be emptied into the ship's marine sanitation device should be placed in leak-proof containers. Label BIOHAZARDOUS	Blood, blood products, and other liquid infectious wastes may be discharged into the ship's marine sanitation device (MSD). Otherwise autoclave and store in leak-proof containers	Ship's MSD or shoreside
Pathological Waste	Place in containers double lined with leak-proof plastic bags. Label BIOHAZARDOUS	Logistical and ethical constraints may require freezing this waste	Shoreside
Materials Saturated With Blood or Blood Products	Place in containers double lined with leak-proof plastic bags.	Autoclave and store	Shoreside
Other Infectious Wastes (isolation wastes, cultures, and associated biological)	Place in containers lined with leak-proof plastic bags. Label BIOHAZARDOUS	Incinerate and store	Incineration

* Source: International Convention for the Prevention of Pollution from Ships
 - Atalanti's current mechanical ventilation system is used, as Ebola is not an airborne disease. However, all ventilators shall be fitted with 2 viral filters; a filter is to be placed between the distal end of expiratory tubing and the ventilator (to prevent contamination) while another filter is to be placed at the exhaustation outlet of the ventilator (to minimise contamination to the environment).