

Manned Cloud - rigid airship

Peter Lobner, updated 8 February 2022

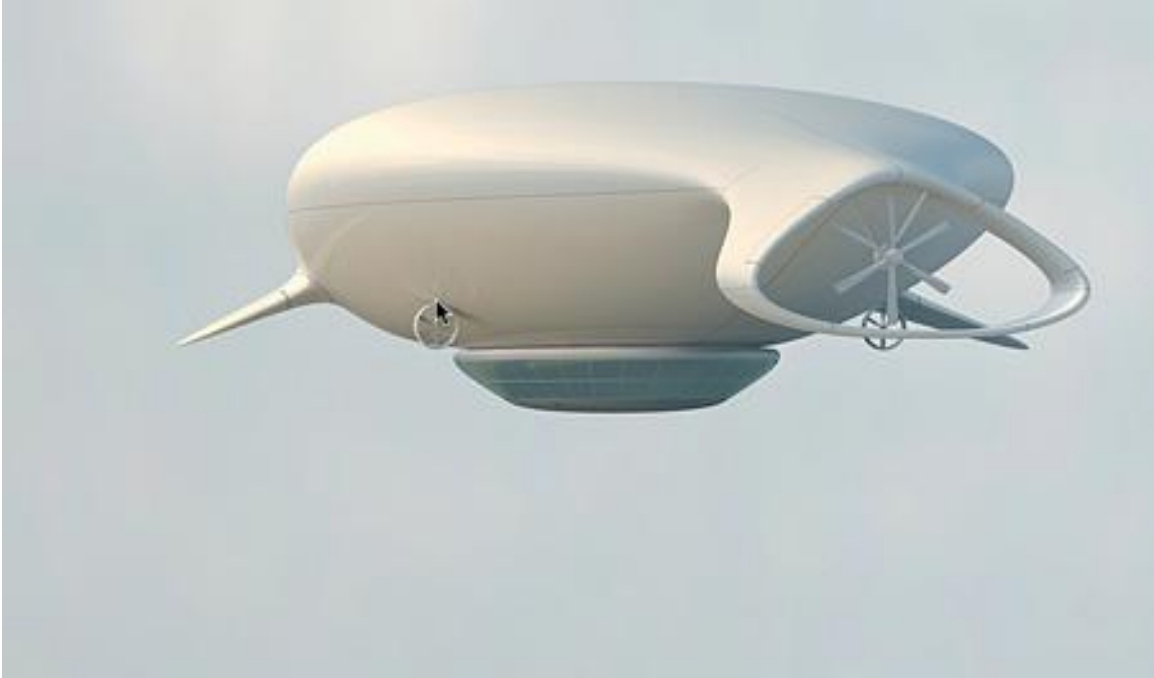
The whale-shaped "Manned Cloud" rigid airship is a flying hotel concept developed by French industrial designer Jean-Marie Massaud starting in 2005, in collaboration with the French national aerospace research laboratory ONERA (Office National d'Etudes et de Recherches Aérospatiales). Massaud described his goal for the Manned Cloud:

“Living in the sky, watching the Earth from above. Rediscovering the marvel of traveling, experiencing contemplation. Exploring the world without trace.....Manned Cloud is an alternative project around leisure and travelling in all its form, economic and experimental, still with the idea of lightness, human experience and life scenarios as the guiding principles. The spiral of Archimedes is the driving force of this airship in the form of a whale that glides through the air.”

In France, Massaud was voted “Designer of the year 2009” by *Now! Design à vivre* for his work on the Manned Cloud.



Manned Cloud over a remote forest. Source: Massaud



Stern quarter view of Manned Cloud in flight showing the tail-mounted main propeller and the two flank, hull-mounted maneuvering propellers.



View of Manned Cloud from overhead shows the sundeck on top of the hull. Source, both graphics: Massaud

The graceful, aerodynamic hull with tapered tail ring minimizes drag. A hull de-icing system is installed for cold weather operations.



*Rendering of Manned Cloud in flight over Paris.
Source: Massaud via Popular Science, 3 June 2008*

Accommodations for up to 40 passengers are provided in a two-deck main cabin beneath the gas envelope:

- The first (lower) deck has 500 square meters (5,382 square feet) of public space with a restaurant, lounge, library and fitness area.
- The second (upper) deck has 600 square meters (6,458 square feet) for 20 passenger rooms with panoramic windows, a spa and a bar.

A terrace level, with a sundeck on top of the gas envelope, is accessed from the main passenger cabin via an elevator or stairway.

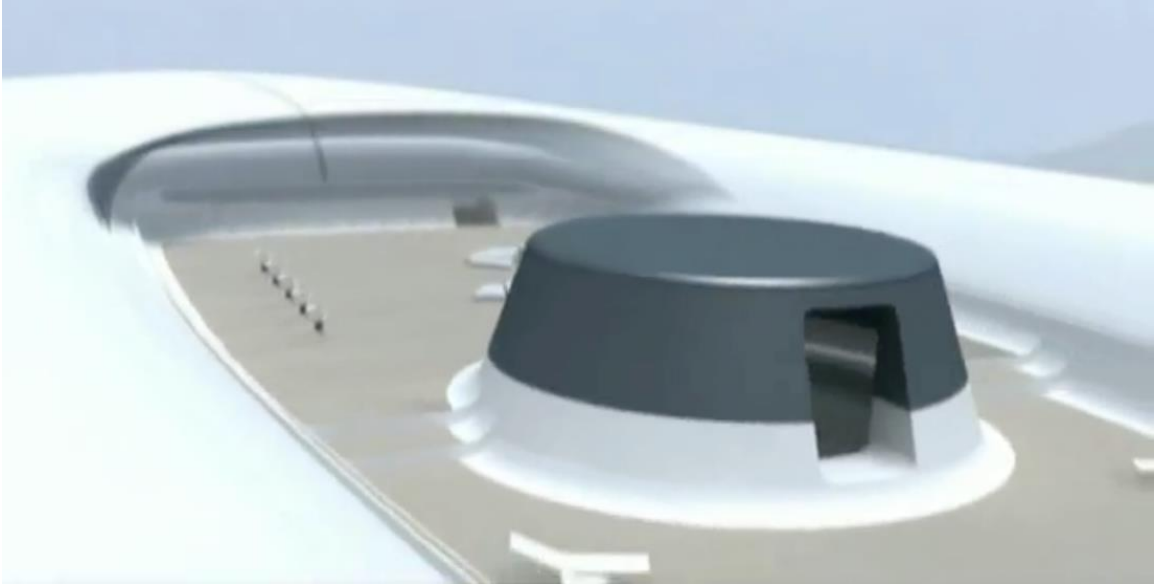
You can take a short (2:36 minutes) video tour of the Manned Cloud airship concept on Massaud's website here:

<https://www.massaud.com/node/386>

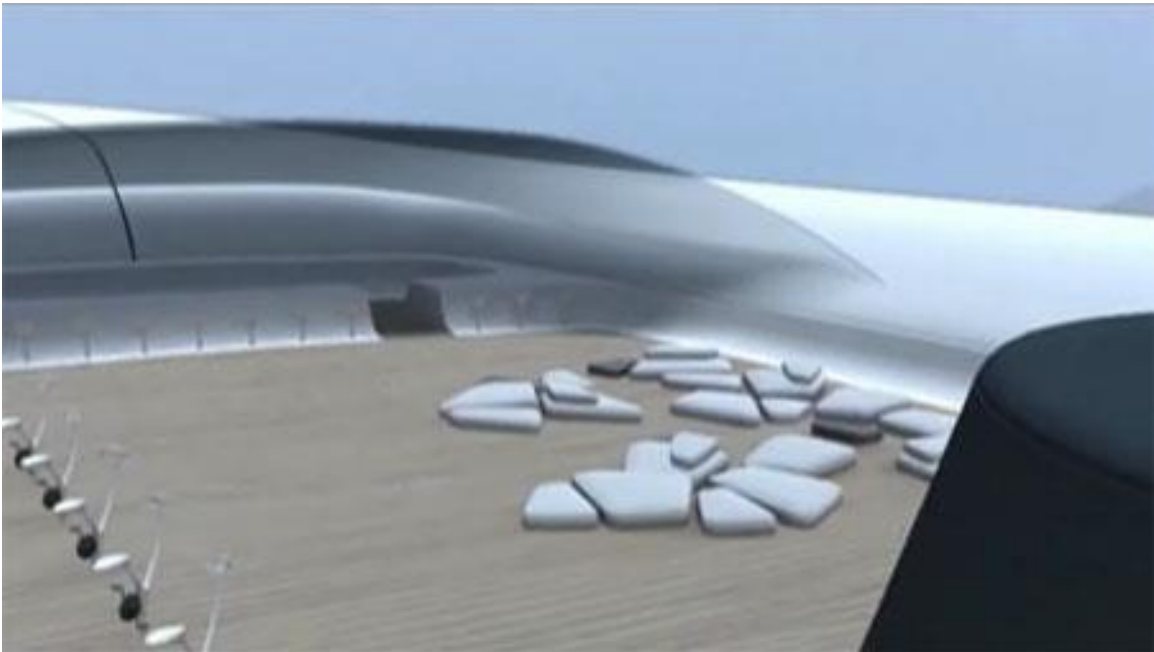


*Public space on the main deck.
The lightweight furniture was designed by Massaud himself.
Sources: Massaud via MB&F (above),
Massaud via Secret Projects (below)*





*Sundeck terrace, accessed via stair well from the main public area.
Sources: Screenshot from Massaud video (above),
Massaud via Secret Projects (below)*

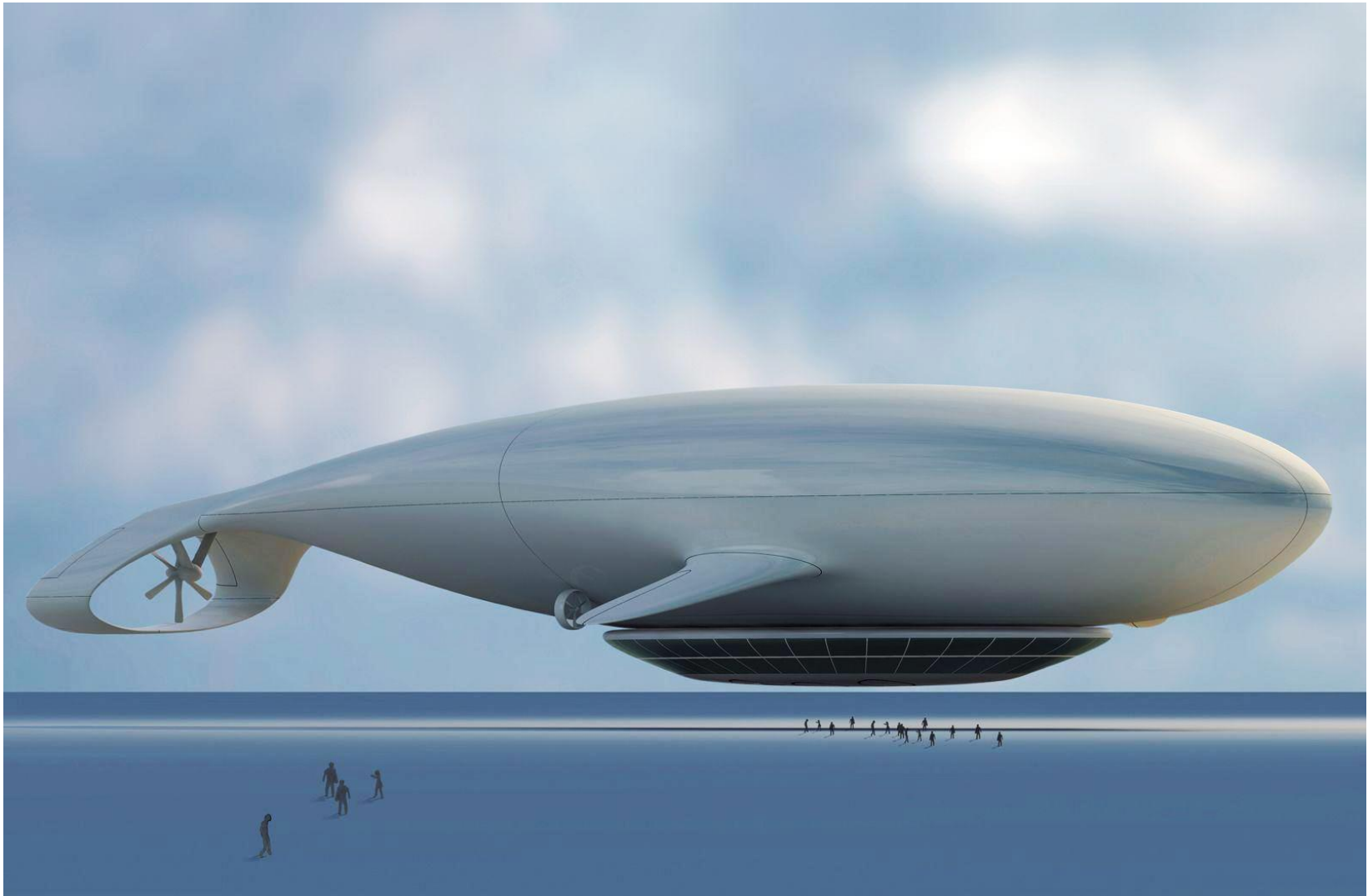




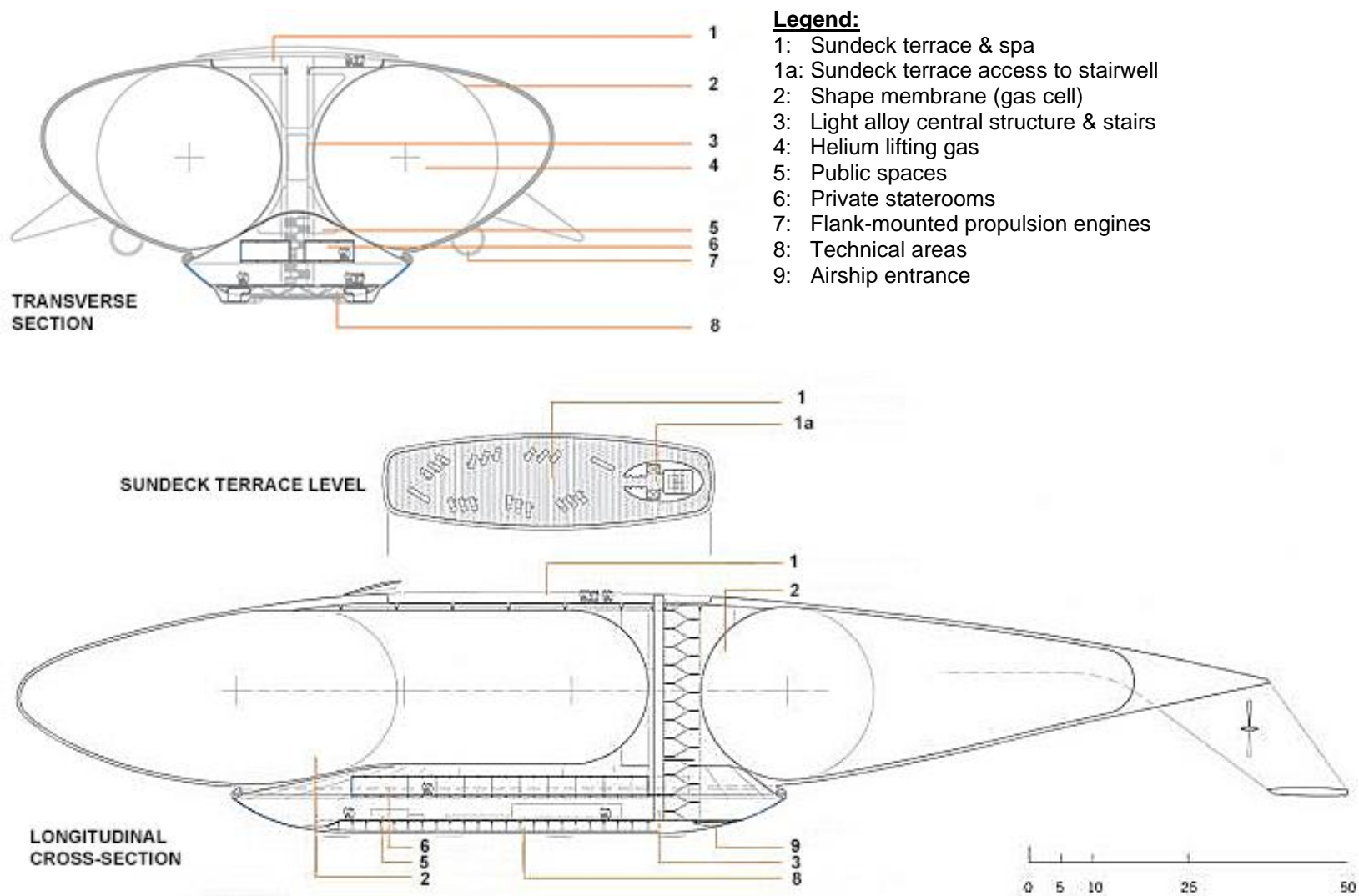
A private stateroom. Source: Massaud

General characteristics of the Manned Cloud

Parameter	Manned Cloud
Type	Rigid
Length	210 m (689 ft)
Width, max	82 m (269 ft)
Height, max	52 m (171 ft)
Gas volume	520,000 m ³ (18,363,000 ft ³)
In-flight ballast control	Air ballast system compresses air to add weight as needed to manage buoyancy as fuel is burned.
Power source	Six small "turbo" engines (likely turbo-diesel or micro turbine) rated at 450 kilowatts each (2.7 megawatts total) provide electrical power.
Propulsion & maneuvering	<ul style="list-style-type: none"> • Main propulsion by an electrically-driven 4.9 meter (16 ft) diameter main propeller mounted in an aerodynamic ring at the stern of the airship. • Two flank, hull-mounted, shrouded, vectorable thrusters provide maneuvering thrust during low speed flight and vertical takeoff and landing.
Accommodations	15 crew members + 40 passengers
Speed, max	170 kph (106 mph)
Speed, cruise	130 kph (81 mph)
Altitude, max	5,486 m (18,000 ft)
Altitude, cruise	2,987 m (9,800 ft)
Unrefueled range	5,000 km (3,108 miles)
Endurance	72 hours.



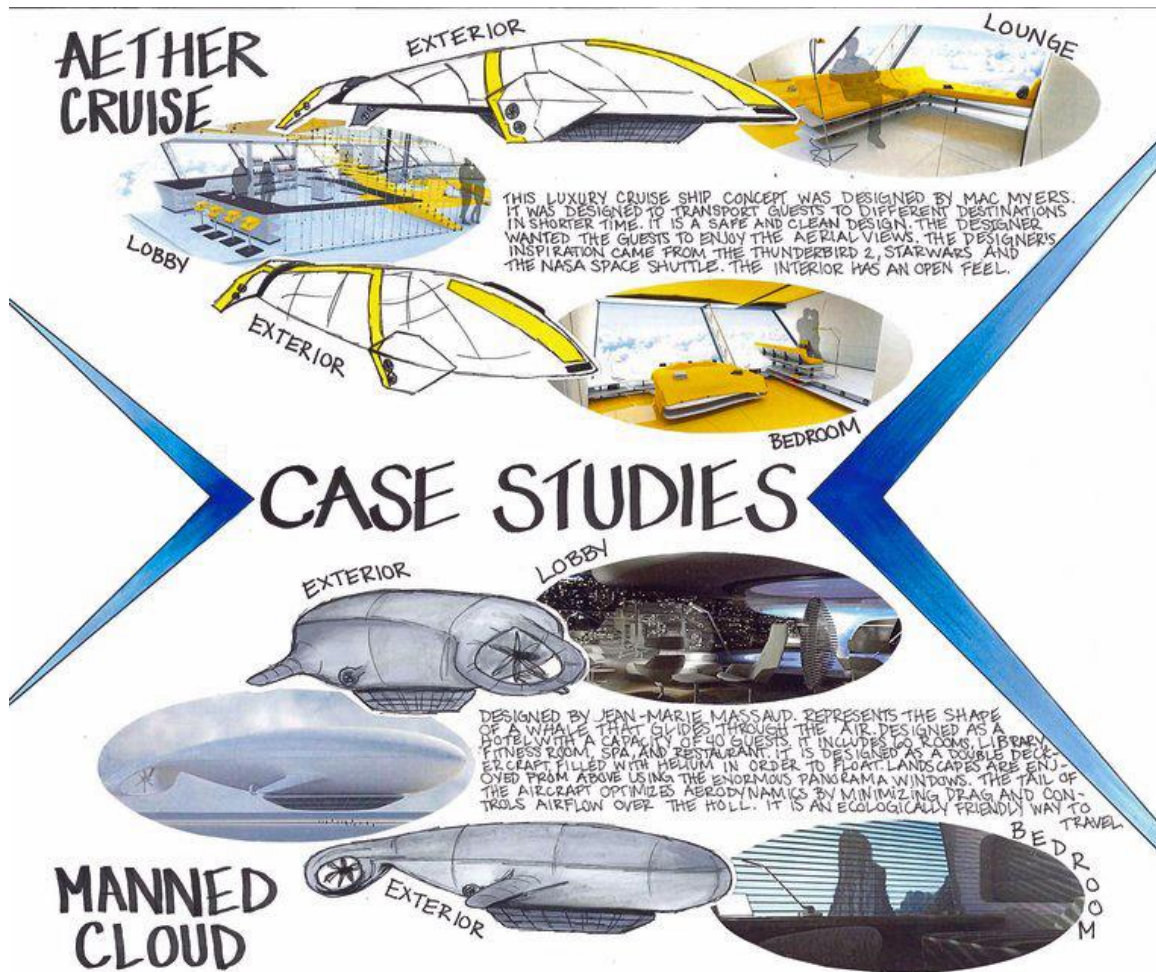
*The Manned Cloud airship hovering above a remote landing site
Source: Massaud*



Manned Cloud Transverse & Longitudinal Section Views.
 Source: adapted from <https://www.massaud.com/node/386>

The firm K+ Development and Design (KEYMAN + DESIGN), in Erie, PA, was founded in 2015 by Keyman Asefi to promote the concept of emotional interior architecture, which focuses on developing the most innovative environment for the occupants. The firm’s website is here: <http://www.keyman-asefi.com/about#aboutkeymanasefi>

Among the case studies presented on this website is one for “future living,” which developed the following graphic that focuses on the design aesthetics of the Manned Cloud airship and the Aether “Sky Cruise” airship concept designed by Mac Byers of Avalon Airships in Manchester, UK. Clearly, both of these airship concepts and their interior designs are in a class by themselves, not to be confused with most other modern, but utilitarian, heavy-lift airship designs.



Source: adapted from <http://www.keyman-asefi.com/mercyhurst-university>

For more information

- Andreas, "Massaud - Manned Cloud Hotel," Airshipworldblog, 29 December 2007:
<http://airshipworld.blogspot.com/2007/12/massaud-manned-cloud-hotel.html>
- Rose Etherington, "Manned Cloud by Jean-Marie Massaud," Dezeen, 10 January 2008:
<https://www.dezeen.com/2008/01/10/manned-cloud-by-jean-marie-massaud/>
- Michael Van, "Manned Cloud" Sky Hotel," Secret Projects, 3 February 2008:
<https://www.secretprojects.co.uk/threads/manned-cloud-sky-hotel.3558/>
- "Manned Cloud by Jean-Marie Massaud," MB&F, 21 June 2009: <https://www.mbandf.com/en/parallel-world/manned-cloud-by-jean-marie-massaud>

Video

- "Massaud - Manned Cloud Airship Hotel," (0:49 minutes), Airshipworld, 29 December 2007:
<https://www.youtube.com/watch?v=iDdigR4psU0>

Other *Modern Airships* articles

- Modern Airships - Part 1: <https://lynceans.org/all-posts/modern-airships-part-1/>
- Modern Airships - Part 2: <https://lynceans.org/all-posts/modern-airships-part-2/>
- Modern Airships - Part 3: <https://lynceans.org/all-posts/modern-airships-part-3/>
 - Avalon Airships - Aether