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## Aesthetics in the Past and the Future of Airship Buildings

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### Summary

Airship buildings are the most outstanding design areas for both architects and engineers. To make a house for an aircraft lighter than air puts some different difficulties in front of the designers, such as always fighting with wind while launching the airship inside the building. For the function of the building requires an empty space inside and because of the huge dimensions of the buildings, the designers are in need of overcoming the structural forces in the economic meaning without losing the elegant appearance of the building. This means that every type of structural form could be used while designing the framework of the building even with ground slab or without. The envelope of the building should be light enough in the meaning of dead load, but also should be hard against bending moments. The gates are from the most important parts of the building. Airship buildings are the important samples which it could be easily seen that aesthetic follows the structural quality.

**Keywords:** airship buildings, steel structural systems, envelope, framework, airship, aesthetic

### 1. Introduction

**Genius** is a word all humans **Love**. This ineffable **Quality**, in an airship building composer, both **Architect** and **Engineer**, ensures entry into the pantheon of the composers of the remarkable buildings in the **Universe**.

During the time, from 1852-the time of the creating of the first airship by Henry Giffard, till now, the structures of the airships have changed from timber via metal to carbon fibre framework.

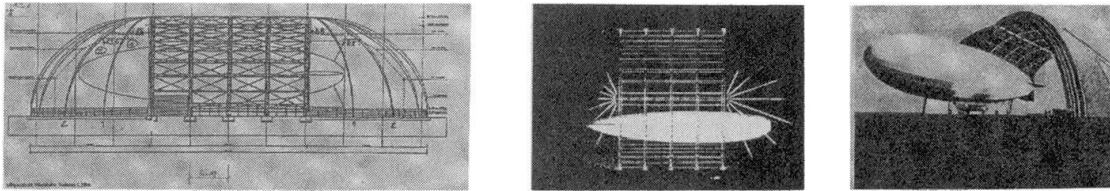
And parallel to airships, the material for airship buildings changed from timber to steel. In past, some of the airships were used during the war, then they were used for passenger aviation. Now, they are used eg., for environmental friendly transportation of heavy loads and for searching seismic movements in the oceans.

While the construction technology is developing and going forward, the forms and the structures of the airship buildings are being differed.

## 2.Aesthetics and Structural Quality

**Aesthetics** and **structural quality** are peculiarly susceptible to the changing demands of space, time and technology precisely because they entail the construction of spatial representations and artefacts out of the flow of human needs.

The only certainty in the future are surprises, some of which will be very surprising surprises. Ultimately, it is likely that the design limits will be set not by the capability of the technology involved, but by the depth of their creative imaginations in the aesthetics and structural quality as it is seen in fig.1.



*Fig.1 in near future, in Brand(between Berlin and Cottbus) , Germany, the New hall, made of fixed arches with a cross section consists of 4 tubes, with  $b/h/t$ -210/ 107/ 340m, steel weight of more than 10 000t.*

There is a nice **Harmony** in between the combination of the arch and the tubes of the new hall, which allows a large span of 210m, on one hand side, and the airships on the other.

At the new hall, it is very clear to observe the development of the envelope, from function to aesthetics.

## 3.and the Conclusion

As a result, while designing of an airship building both with architectural identity and also with engineering identity, the most important point is the Integrity of designs.

From the point of the structure, when it is needed to have large spans, it is always a challenge for engineers, surely more than architects. And the structures of airship buildings are the best examples for this struggling point with the framework.

All of us may agree, much of the excellence of built airship buildings is a tribute not only to their creators but to the Genius of human beings in the universe.

By the way, the structure of an airship building has a chance to present the state of the Art of Structural Quality as Aesthetics.

And perhaps the most Outstanding Design Area for an architect and an engineer to find A Surprise is in the Quality of designing an airship building with the help of contemporary material, Steel.