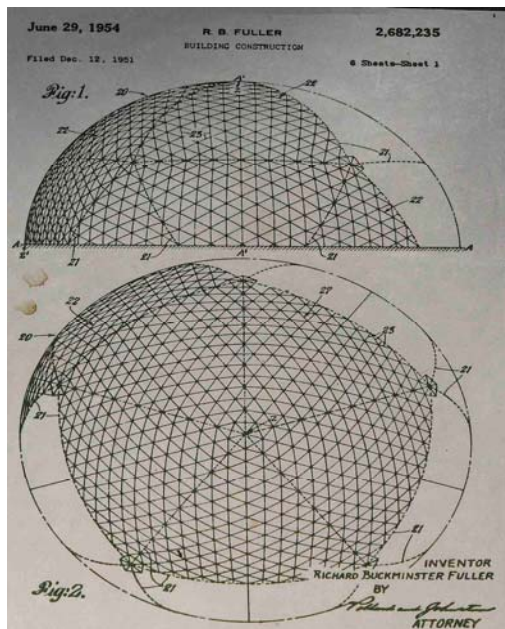


## 664 „Mathematische Eindrücke“ aus Brisbane

### Arbeitsauftrag

- [01] Was versteht man unter einem Gewölbe?
- [02] Worin besteht die hohe Stabilität von Gewölben?
- [03] Welche Strukturen findet man bei den stabilen Anlagen von Honigbienen?
- [04] Welchen Vorteil bietet die „Dreiecksstrukturen“ beim „Tropical dome“ in Brisbane?

Der **Tropical dome** in Brisbane ist ein beeindruckendes Gewölbe aus lauter Dreiecken.



Geodesic: The shortest distance between two points on a curved surface. A geodesic on a sphere is an arc of a great circle, a great circle being a circle on a sphere whose plane passes through the centre of the sphere.

(Buckminster Fuller)

### Mt Coot-tha Botanic Gardens Tropical dome

*"Our ark is the air, water, land  
and all the species of plants and animals,  
including ourselves are the crew.  
How can we be so blind as to continue  
our acts of sabotage."*

Gerald Durrell

You are standing inside another ark, a geodesic dome that encloses and protects the rare, fragile and exotic plants growing here. The dome is made of tinted acrylic bubble panels in an aluminium frame—a miniature spaceship Earth.

Wet tropical plants need a humid, warm and stable environment to flourish. Climatic conditions and nutrient levels within the dome are monitored and corrected as needs arise.

The dome is designed so that temperature ranges between 24-28 C, humidity variation is around 2 percent. Even the soil is special, a sterile mix of sand, peat moss and soil.



Brisbane City

