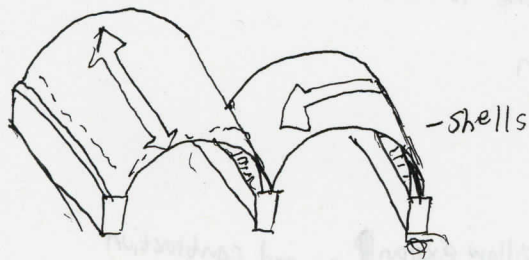


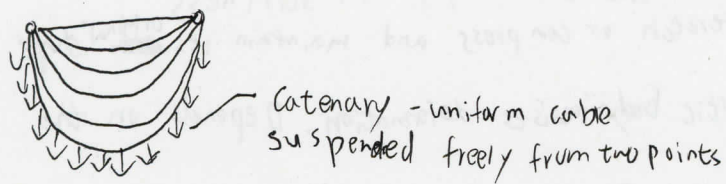
2.27 Shell - thin, curved plate structures constructed of reinforced concrete. Has little bending resistance and unsuitable for concentrated loads

Ruled surface is easy to form and construct in the motion of straight line.

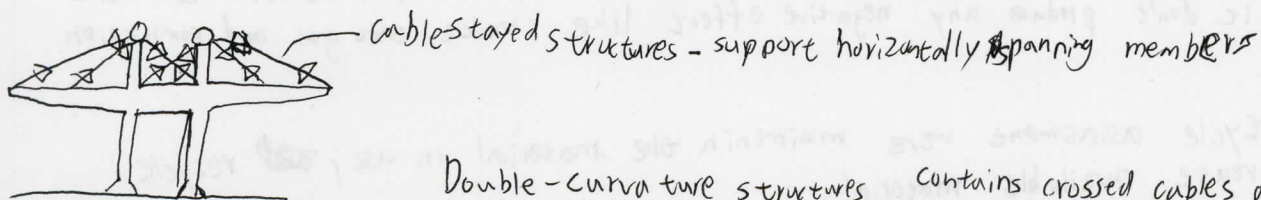


2.28 Cables - have high tensile strength but has no resistance to bending

A cable need to fit its shape so its in pure tension under the movement of applied load



Suspension structures use a network of cables suspended to directly support applied load



Double-curvature structures contains crossed cables of different and reverse curvatures and each of set has different period of vibration and more resistant to flutter.

2.29 - Membrane - thin, flexible surfaces, carry loads to development of tensile stresses

- Membrane need to have relative sharp curvatures in opposite directions in order to avoid high tensile forces.

- Membrane can transmit external to ground anchors by tensile forces.

• Translucent membranes provide natural illumination, gather solar radiation and cool inside space at night.

• Air supported structures - single membrane support by internal air pressure