Short Shell Short shell structures basically have a cylindrical shape which has a large radius as .5 compared to its length. The overall thickness of the shell is very thin due to its properties. Short shells can carry the load in two different ways, the first is carrying the load to the lower elements and the second as a curved beam to the arches. Reinforced cement concrete is used in the construction of shell structures because it is a highly plastic material. When the cement is mixed with water it will take the shape of centering and once it gets hardened, the shell membrane will act as a strong and Rigid shell .structure