distribution in cell size

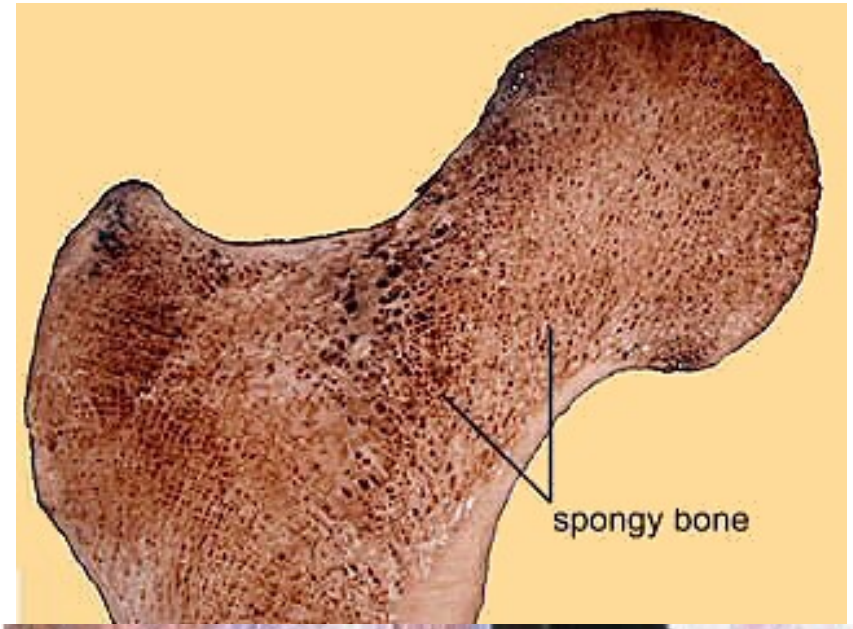
If surface tension determines growth :

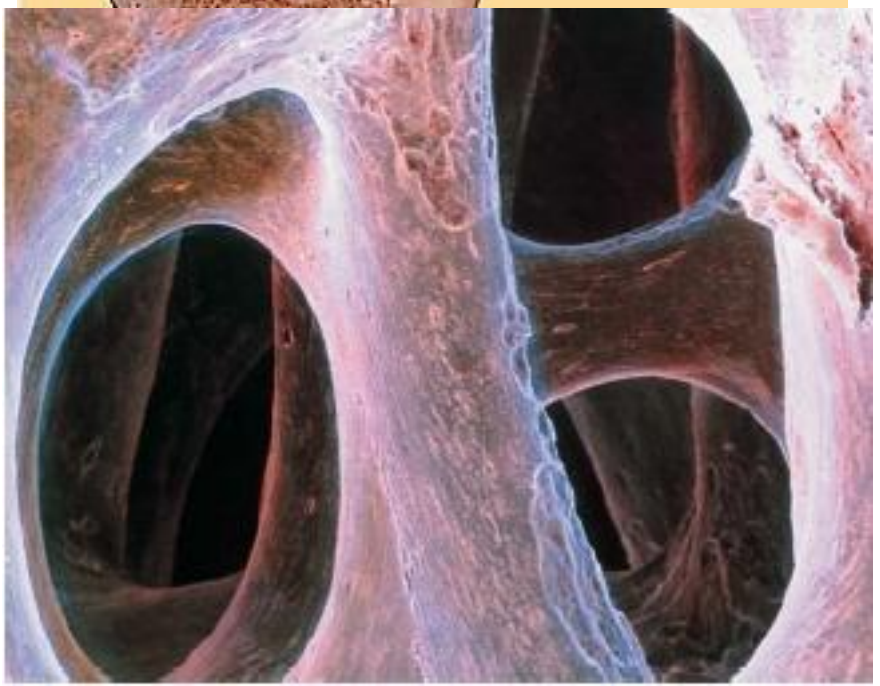
$$\frac{dS}{dt} = C_1(n-6)$$ Neumann – Mullins (2d)

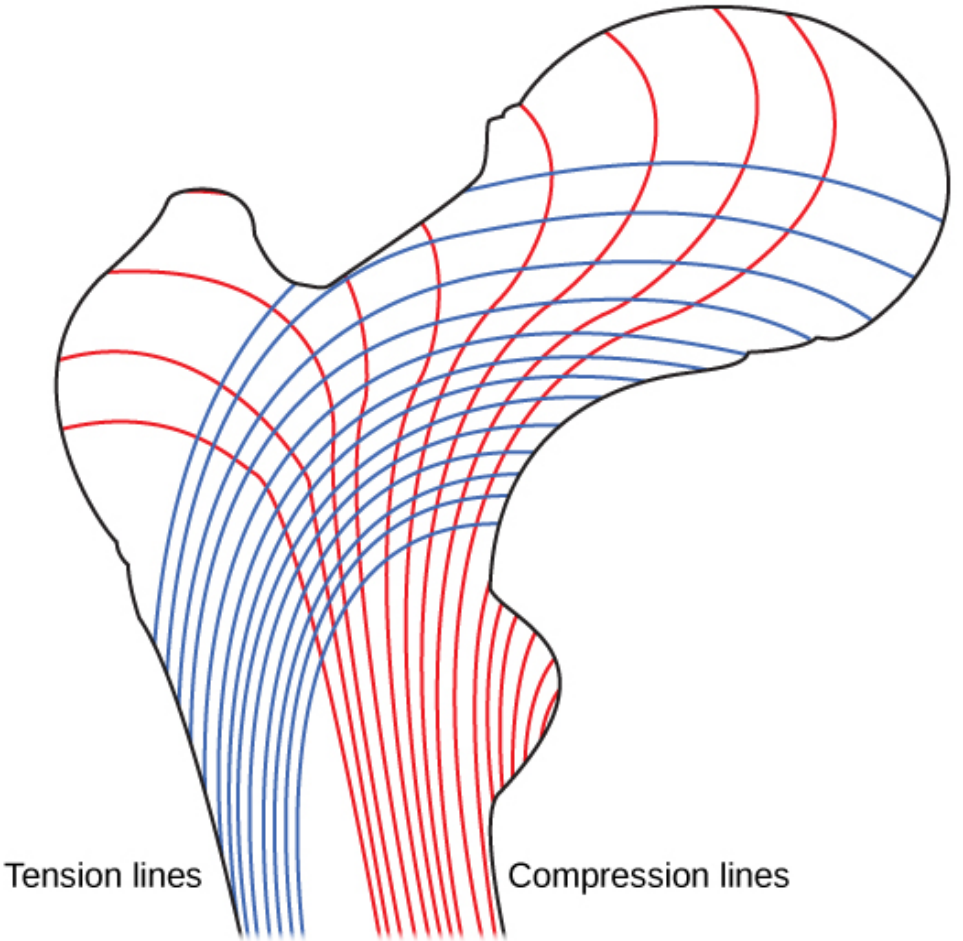
$$\frac{dV}{dt} = C_2(f-\bar{f})$$ Rivier (3d)

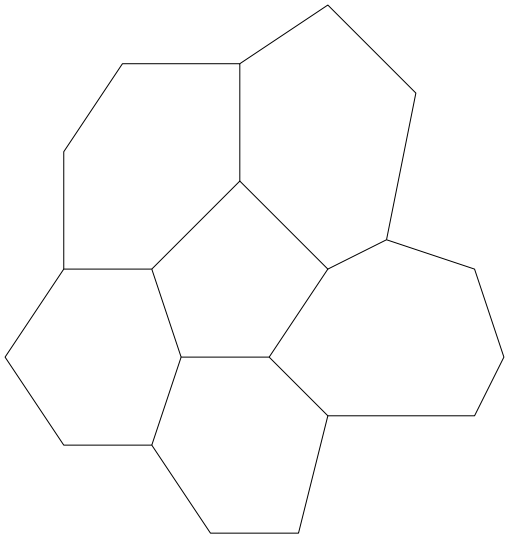
In case of evaporating liquid, viscous factors effect topology significanlty, leading to non-equilibrium structures

In natural cellular materials shapes are influenced by the loads they carry









$$\bar{m} = 5 + \frac{6}{n}$$ Aboav – Weaire (2d)

$$\bar{g} = 13 + \frac{14}{f}$$ (3d)

$$\frac{A(n)}{A(\bar{n})} = \frac{n - n_o}{\bar{n} - n_o}$$ Lewis (2d)

$$\frac{V(f)}{V(\bar{f})} = \frac{f - f_o}{\bar{f} - f_o}$$ Rivier (3d)