

All magmas contain some amount of gas

Volcanic gases include:

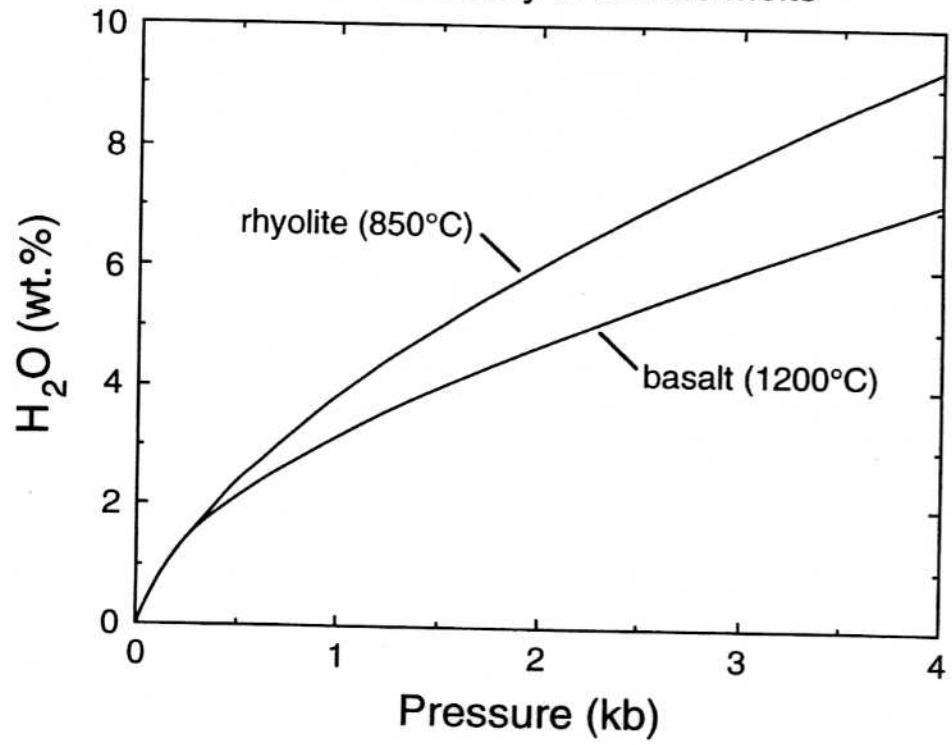
water,	carbon dioxide,	sulfur,	chlorine
H ₂ O	CO ₂	SO ₂	Cl

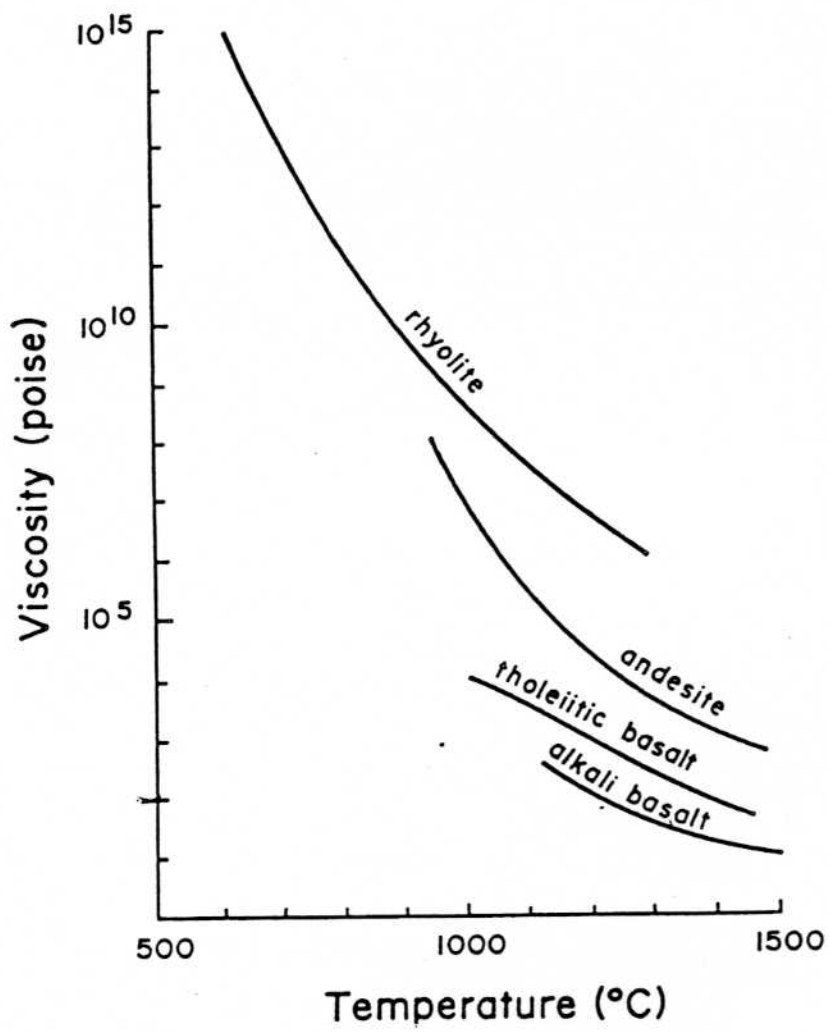
When those gases come out of solution, they form bubbles

Whether those bubbles can escape from the magma determines the eruptive of the magma

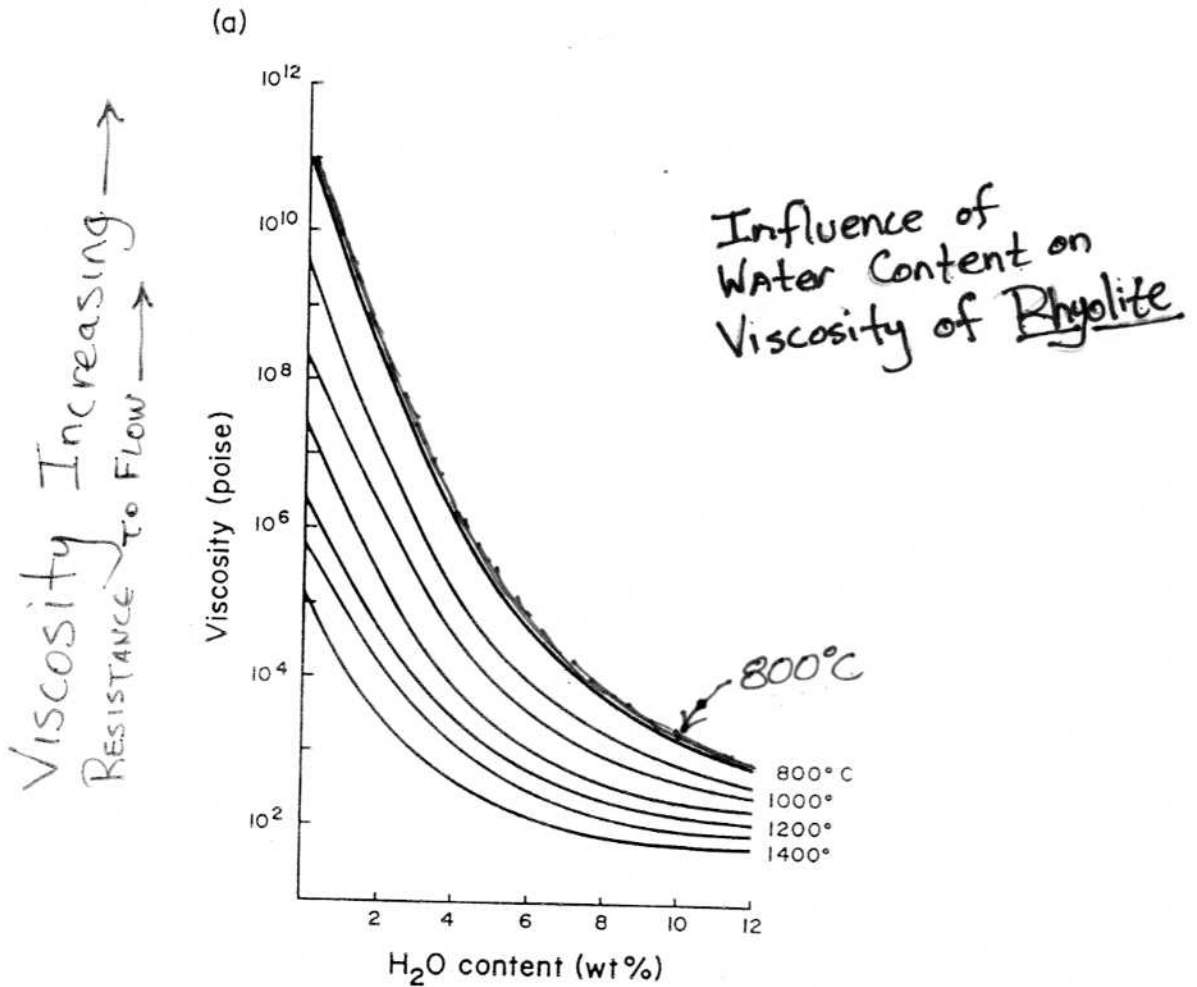
The ability of bubbles to escape depends on the viscosity of the magma

Water solubility in silicate melts

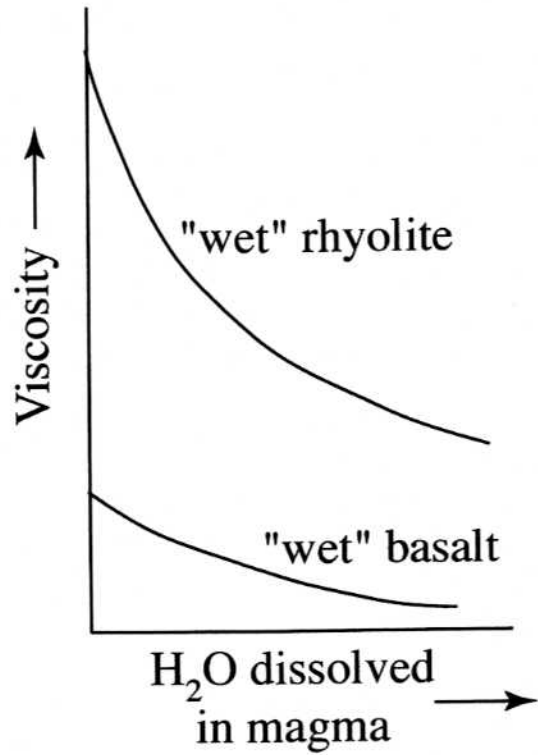
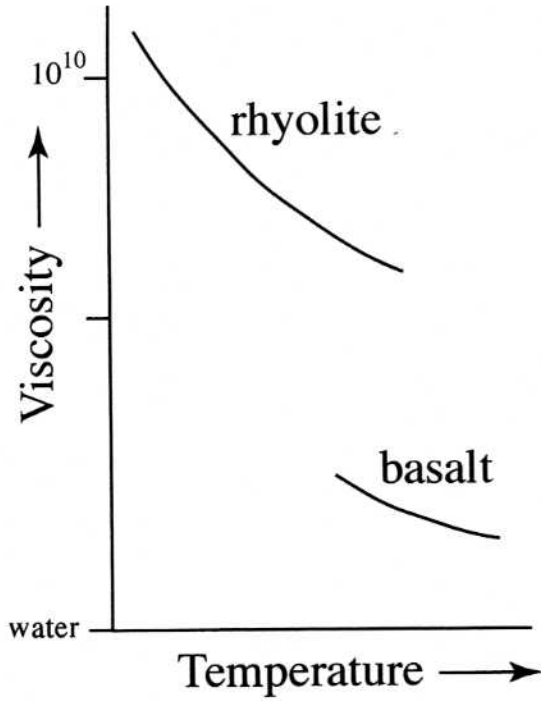
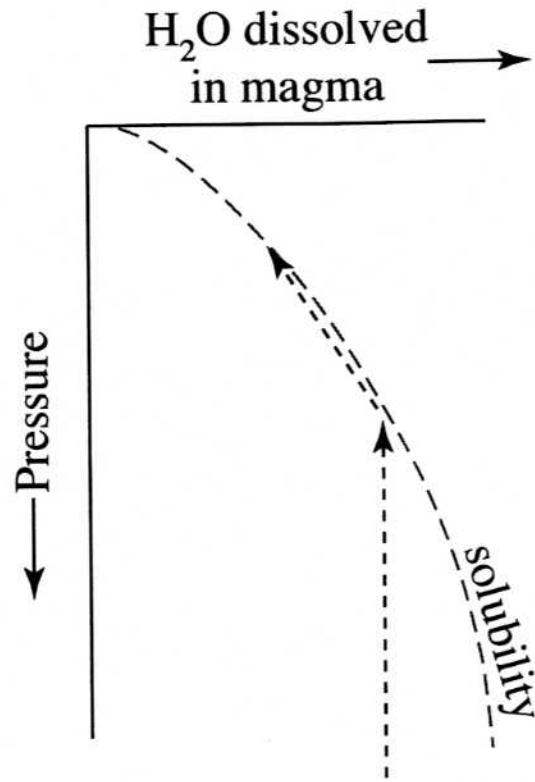
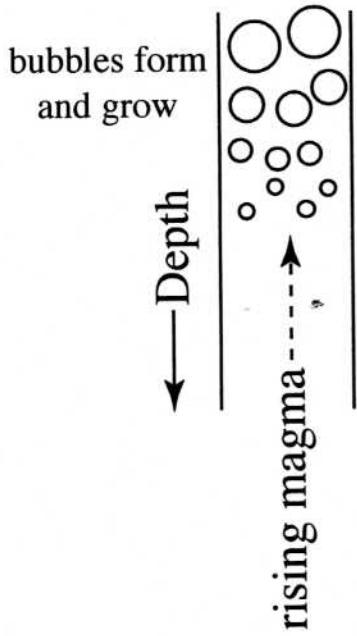




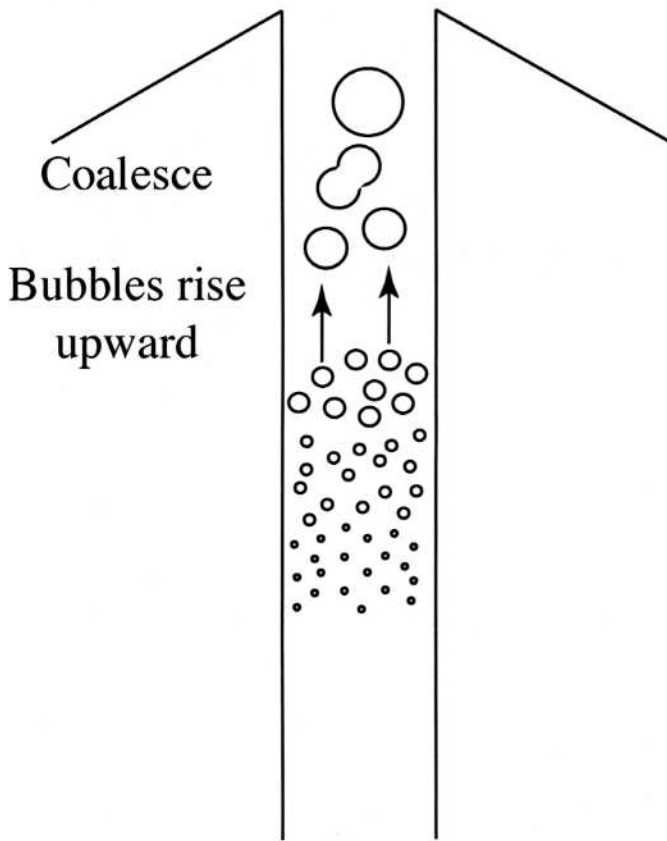
WATER DISSOLVED IN MAGMA
breaks Si-O bonds



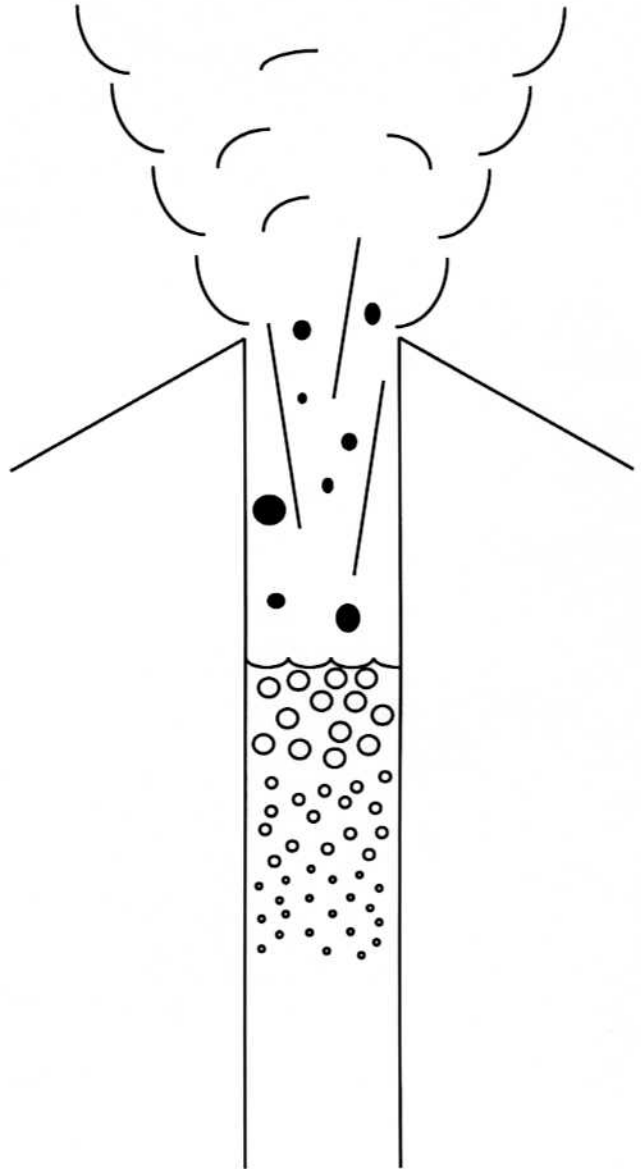
Amount of H₂O
dissolved in the melt

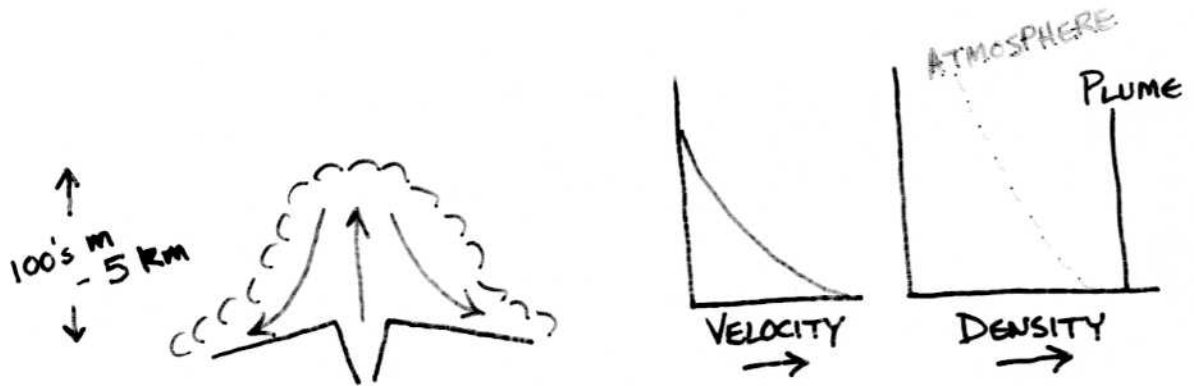
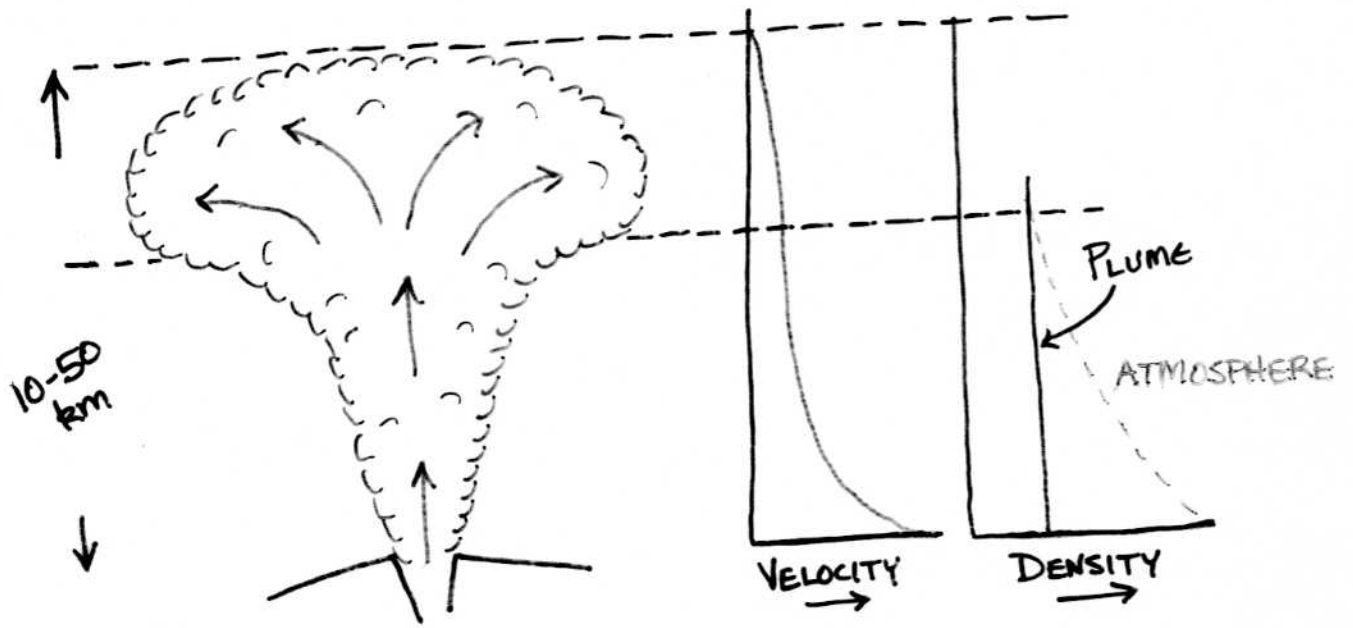


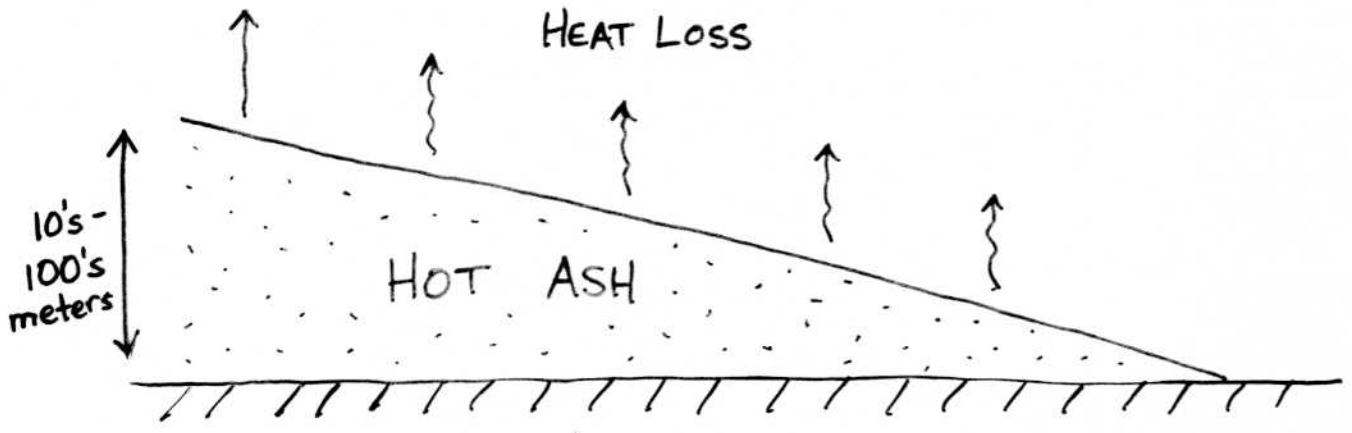
Basalt
Eruption



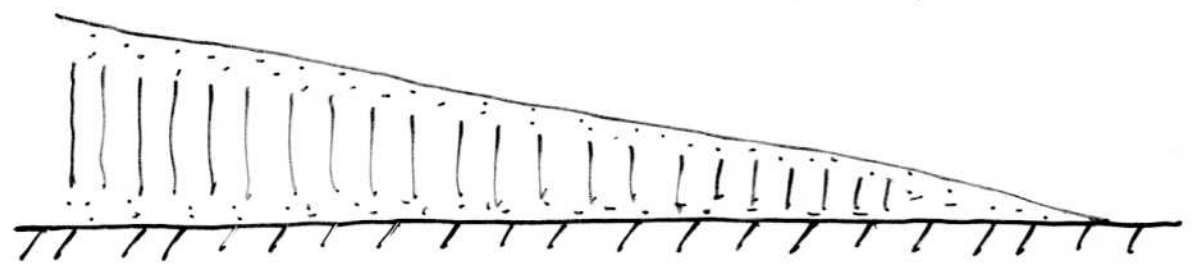
Rhyolite Explosive
Eruption





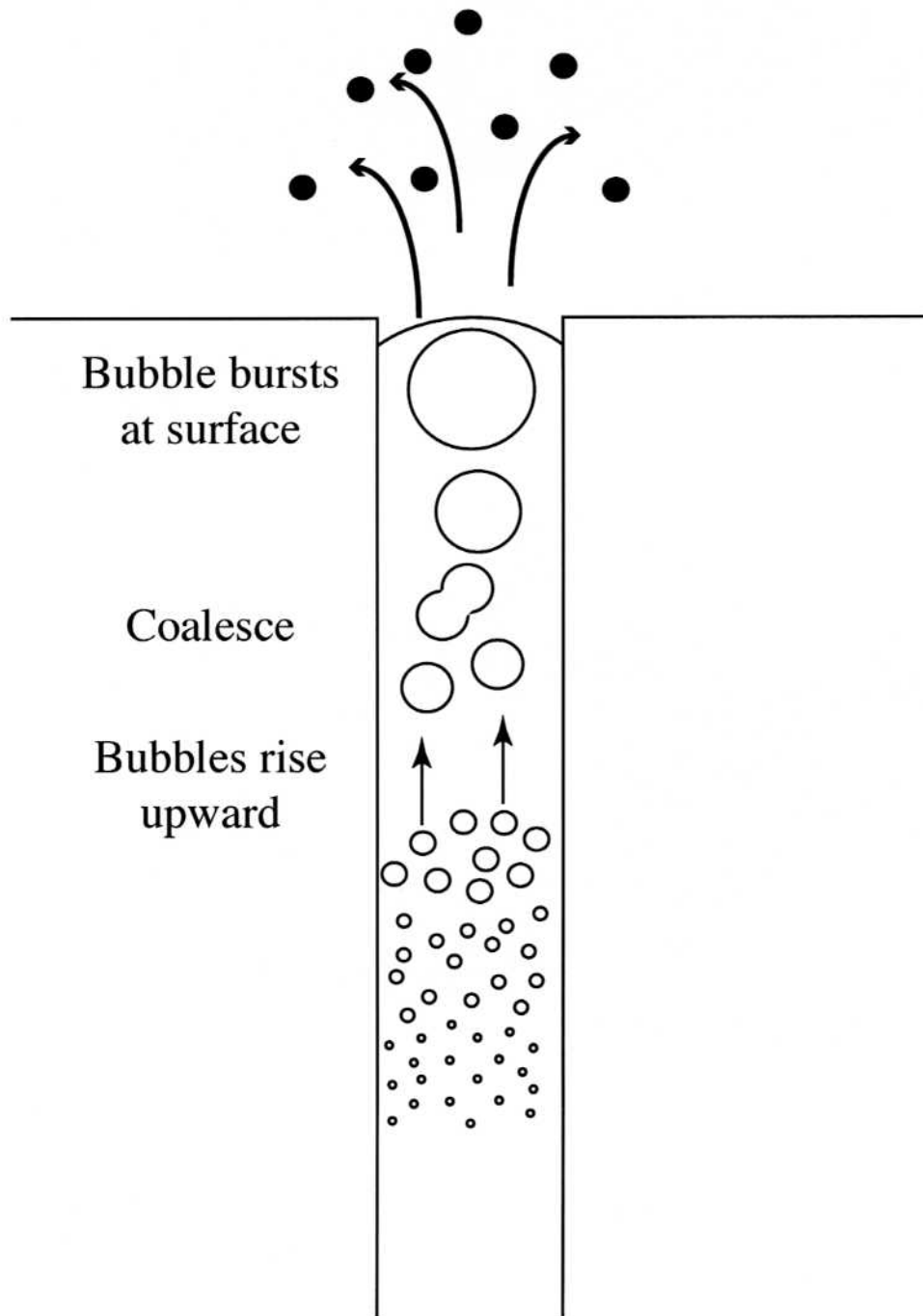


TUFF - CONSOLIDATED ROCK OF ASH



WELDED HARD BY HEAT AND WEIGHT

Strombolian Eruption (= low gas flux)



Fire Fountains (= high gas flux)

