Suggested problems for HW
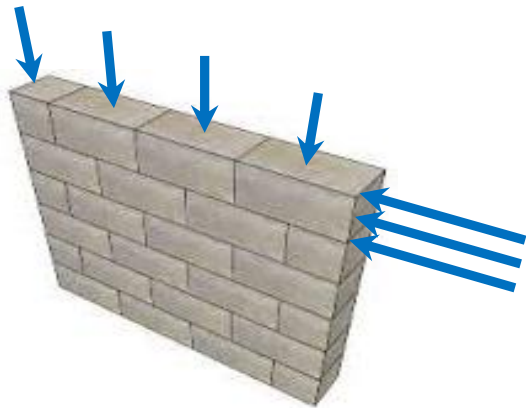
(1) Stonehenge under horizontal acceleration:

different directions of acceleration;
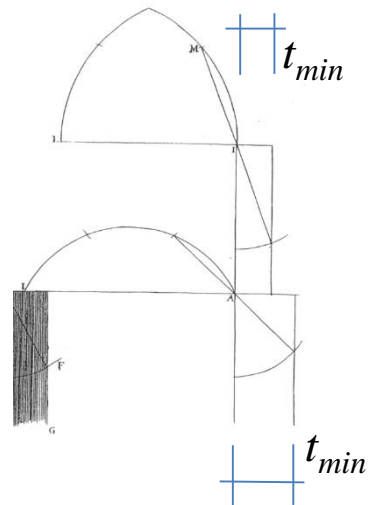different velocities $\rightarrow$ failure mode?
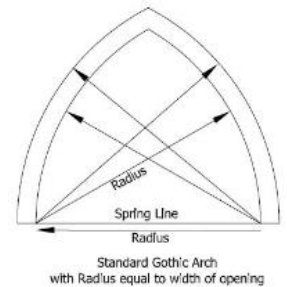
(2) Comparison of FEM and DEM:

prepare the same wall in DEM and FEM;
submit to cyclic loading (till slide in each cycle);
compare

Suggested problems for HW
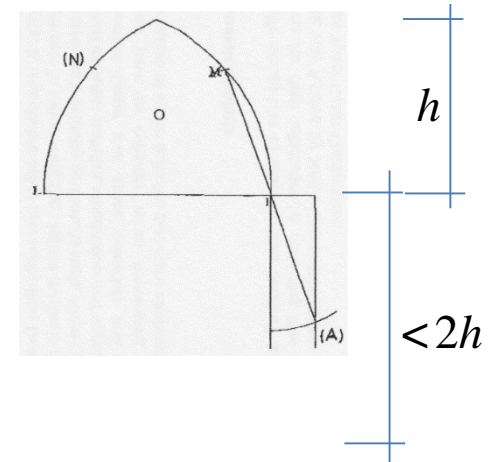
(3) Cathedral Design Rule of Derand:

Standard Gothic Arch
with Radius equal to width of opening

Is this t_{min} a good approximation?

t_{min}

t_{min}

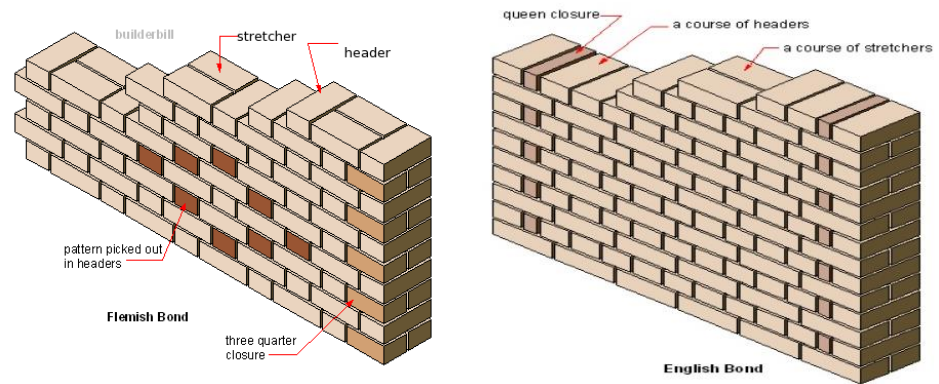## (4) 7th Cathedral Design Rule of Gil de Hontanao:

What happens for smaller / larger height?

h

$<2h$

Suggested problems for HW

(5) Planar walls:

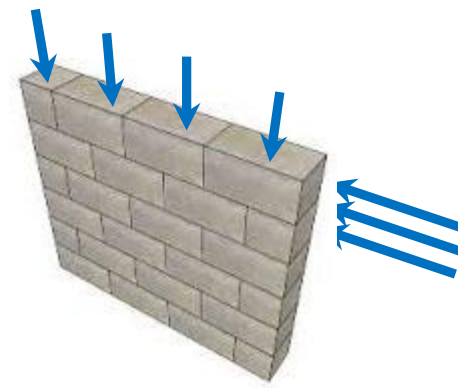Effect of bond pattern?

Flemish Bond

English Bond
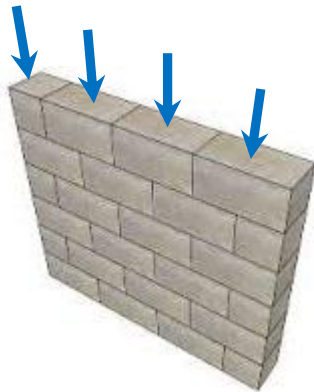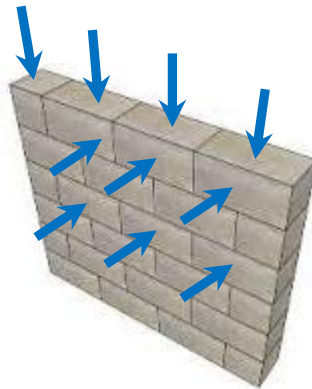
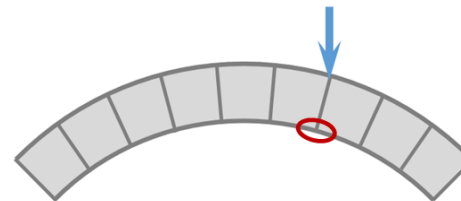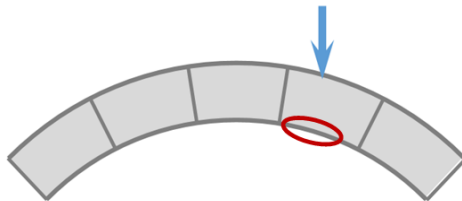(1)   (2a)   (2b)

$\rightarrow$ Find the failure load for different bond patterns, and compare!

Suggested problems for HW

(6) Simulate Jenga steps:

(7) Size effect of the voussoirs

(8) YOUR OWN PROBLEM