

Arch 1230 - 03/09/17

Cement element - Lime, iron, silica, alumina  
concrete building in NY - Guggenheim Museum  
concrete has 0 tensile ability

Portland Cement:

concrete - 28 days to get complete form

hydration - to make even dry

flyash - adding it helps the concrete

hydraulic cement - for bridge or water use

workability - from truck to the place.

slump test - fill up a cone with concrete and put upside down and check it's ability.

Cylinder test - dump from truck into a cylinder,  
formwork -

Concrete Origins - Romans

Portland cement - from Portland 1842

Quality of concrete.

Site cast Concrete

two way firming system:

Structural bay should be close to square

03/16/17 - Arch 1230

steel strength in tension - (20k - 43k) psi

~~In~~ ~~Structure~~ Transparency is Architectural Linkage in Plans

Arch works good in compression mode.

Cast iron: hard ~~and~~ material

Wrought iron: chains and rods used to resist tensile forces

Clifton suspension bridge, Bristol, England

Cast iron: Crystal Palace - defined a new type of spatial character based on almost complete transparency.

~~The cast iron~~

masonry clad steel;

Cast iron - iron ore

wrought iron - iron Alloy

Puddle iron/steel - refining cast iron

Bessemer iron

wrought iron - very low carbon, malleable / weak

Steel - less than 2% carbon, strong

Cast iron - (3-4%) Carbon, hard

Monday - Discussion (Roof and Spans)

Start - Floor Plans

Thursday - Midterm (Lovell Beach House)