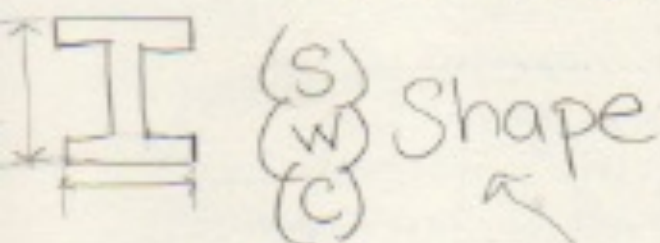
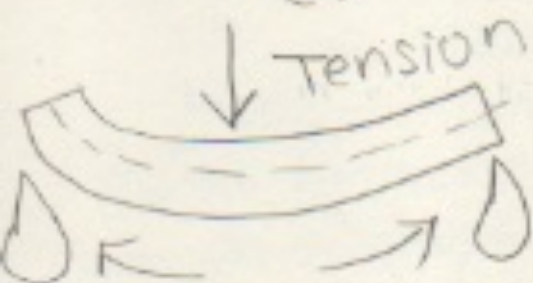


# Structure: Steel



Resist bending and shear forces within allowable limits of stress.



width make wider

W → wide flanges

## Structural material

masonry  
wood  
concrete

Stone age  
bronze age

Transparency

↳ open space

cast iron - hard  
Wrought iron - weak

"bowtie" - to help hold the stone together  
\* Brooklyn bridge \*  
for example

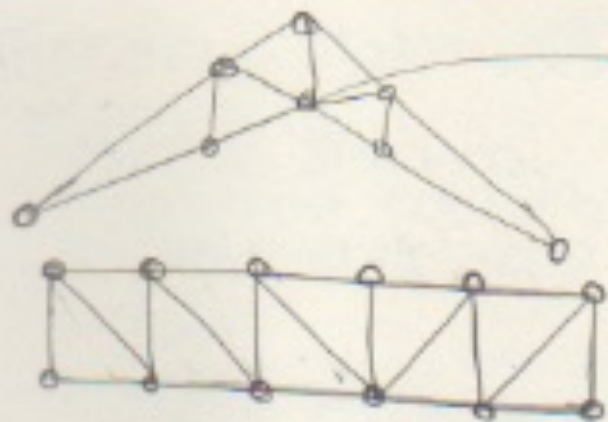
## Fabrication/ Erection

fabricator show drawing  
iron worker/erector  
plumbing up drift



Raised chord  
trusses have  
bottom support

River  
↳ train  
subways



### Scissors trusses

Extending from the foot of each chord

### Flat trusses

parallel top and bottom chords

\*not efficient\*



W Shape

\* suitable for connections to beams in two directions.



Round pipe



Rectangular or Square tubing

### Floor systems

Concrete - Precast concrete planks supported by beams or load bearing walls.  
 Steel - Supports - steel decking or precast concrete planks  
 Wood - Supports - plank decking