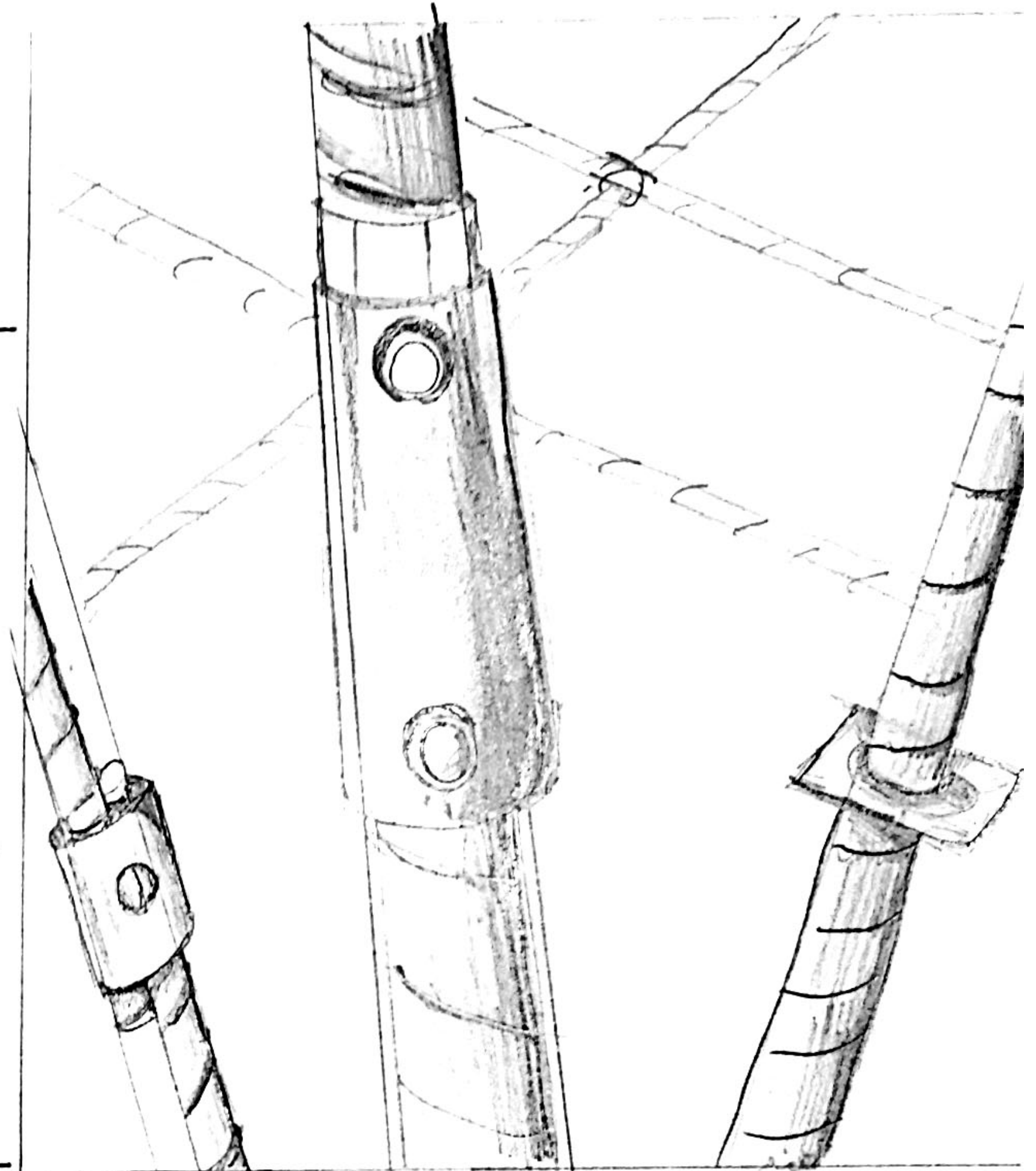


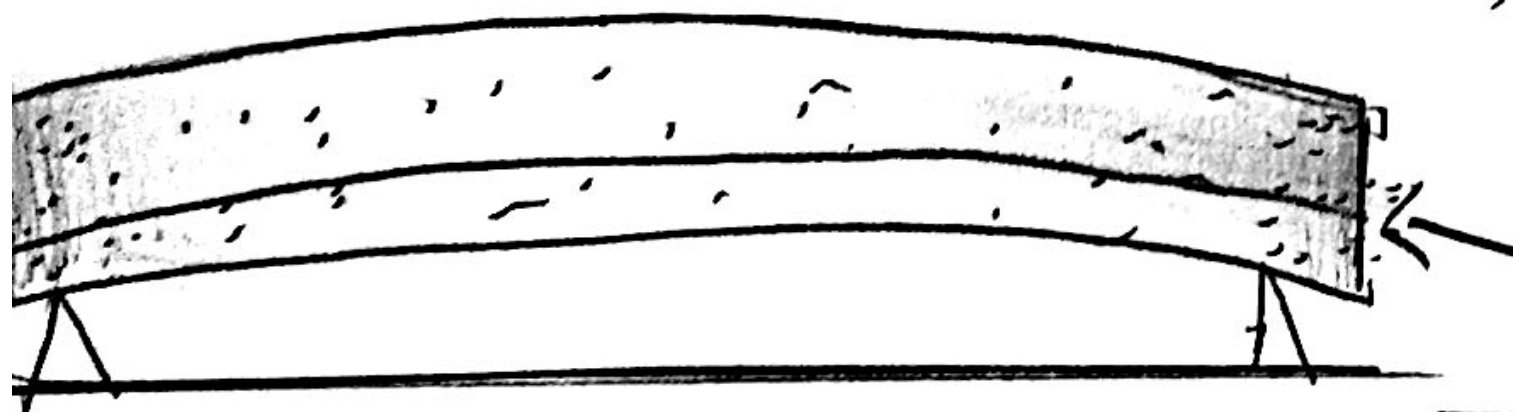
Concrete: is a heavy building material made from a combination of small stone gravel, sand, cement, and aggregate.

Reinforced concrete is used to make columns, walls, beams, slabs, and much more.

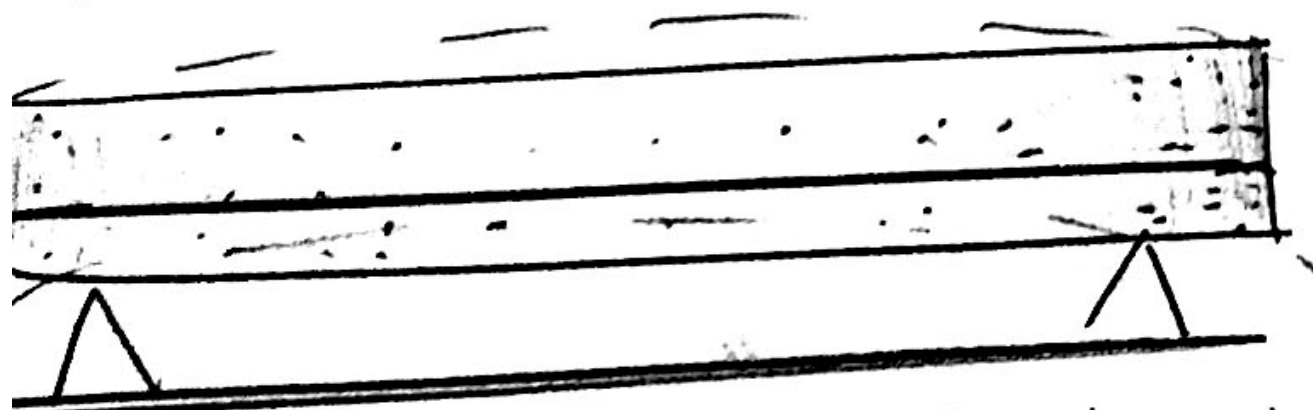
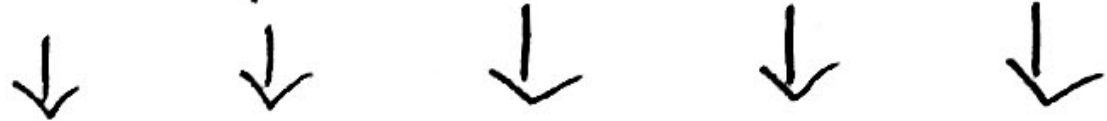
by including steel bars in the lower part of concrete it allows for more stability.



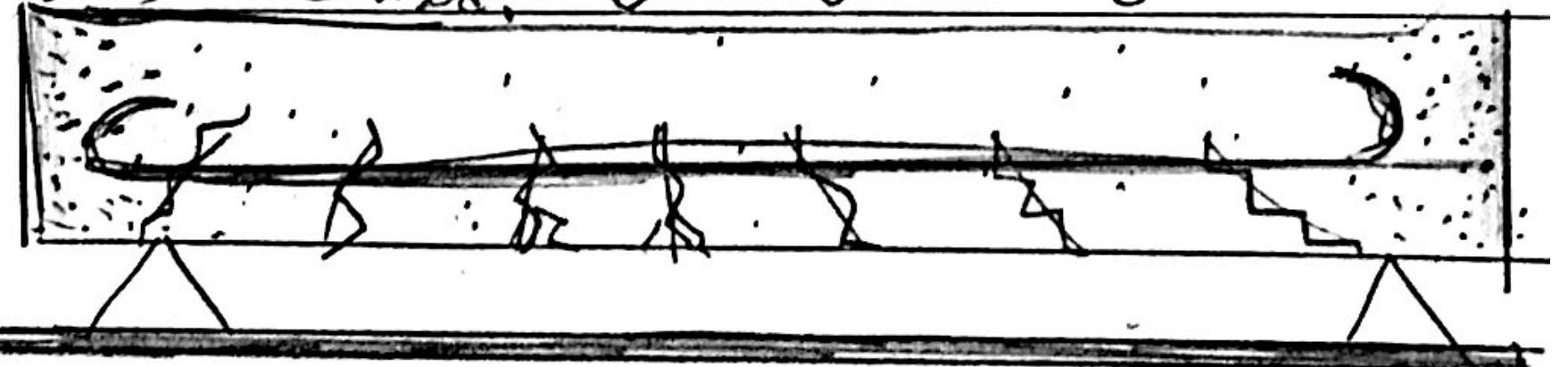
In order to make concrete stronger, more stable, and safe, reinforced steel bars are used.



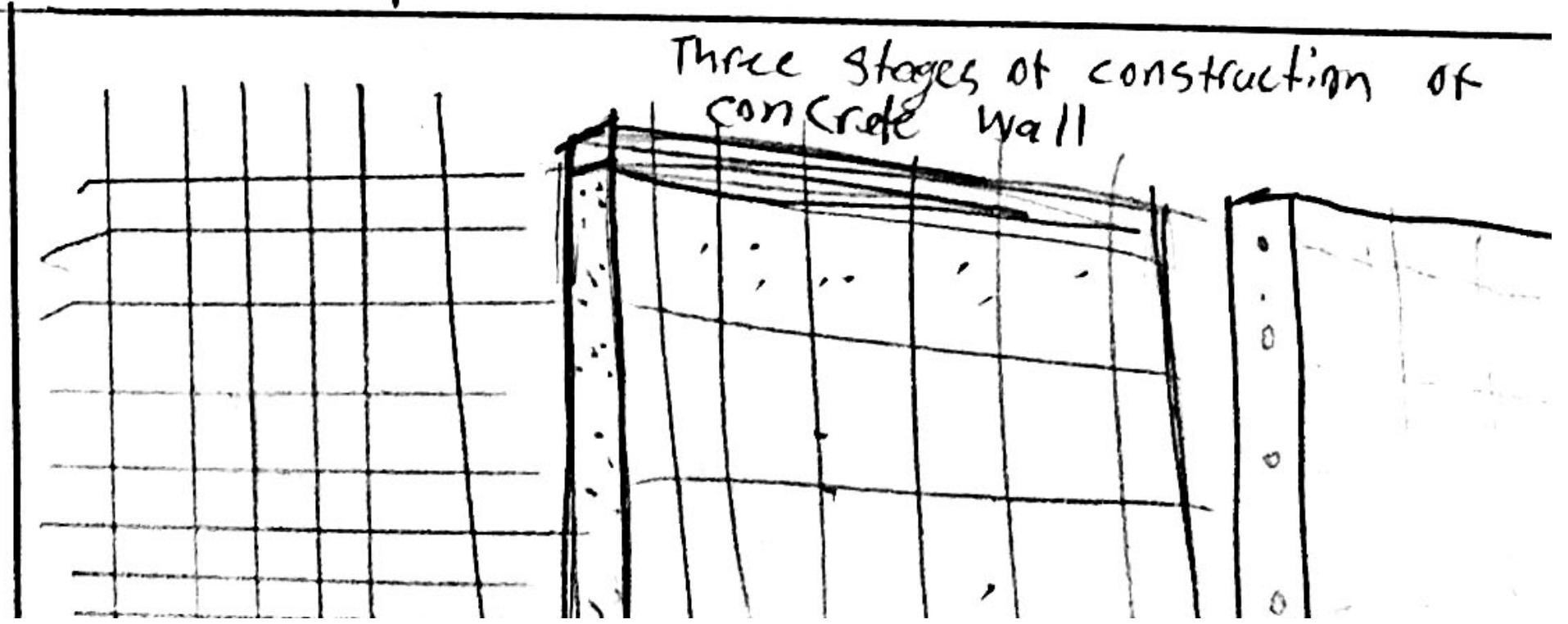
Compression in concrete





Under loading, the prestressed beam becomes flatter, but all the concrete still acts in compression, and no cracks appear.



In a reinforced concrete beam, less than half the concrete is in compression and cracks will appear in the bottom of the beam under full load.

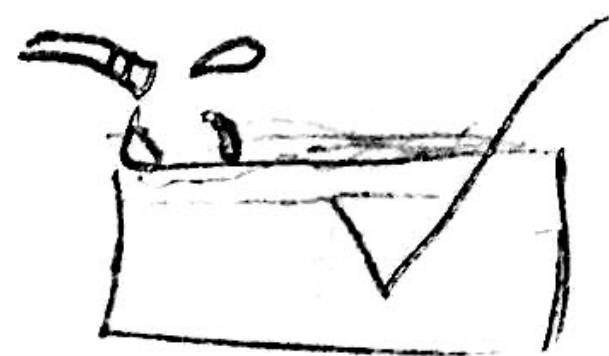
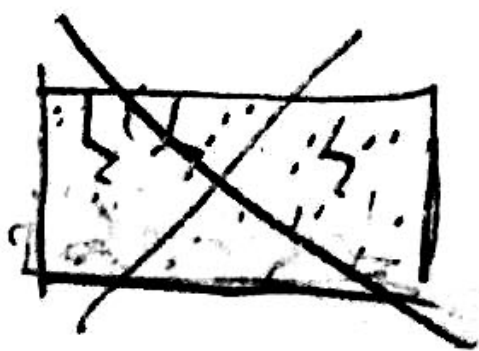


Jamel Sannon

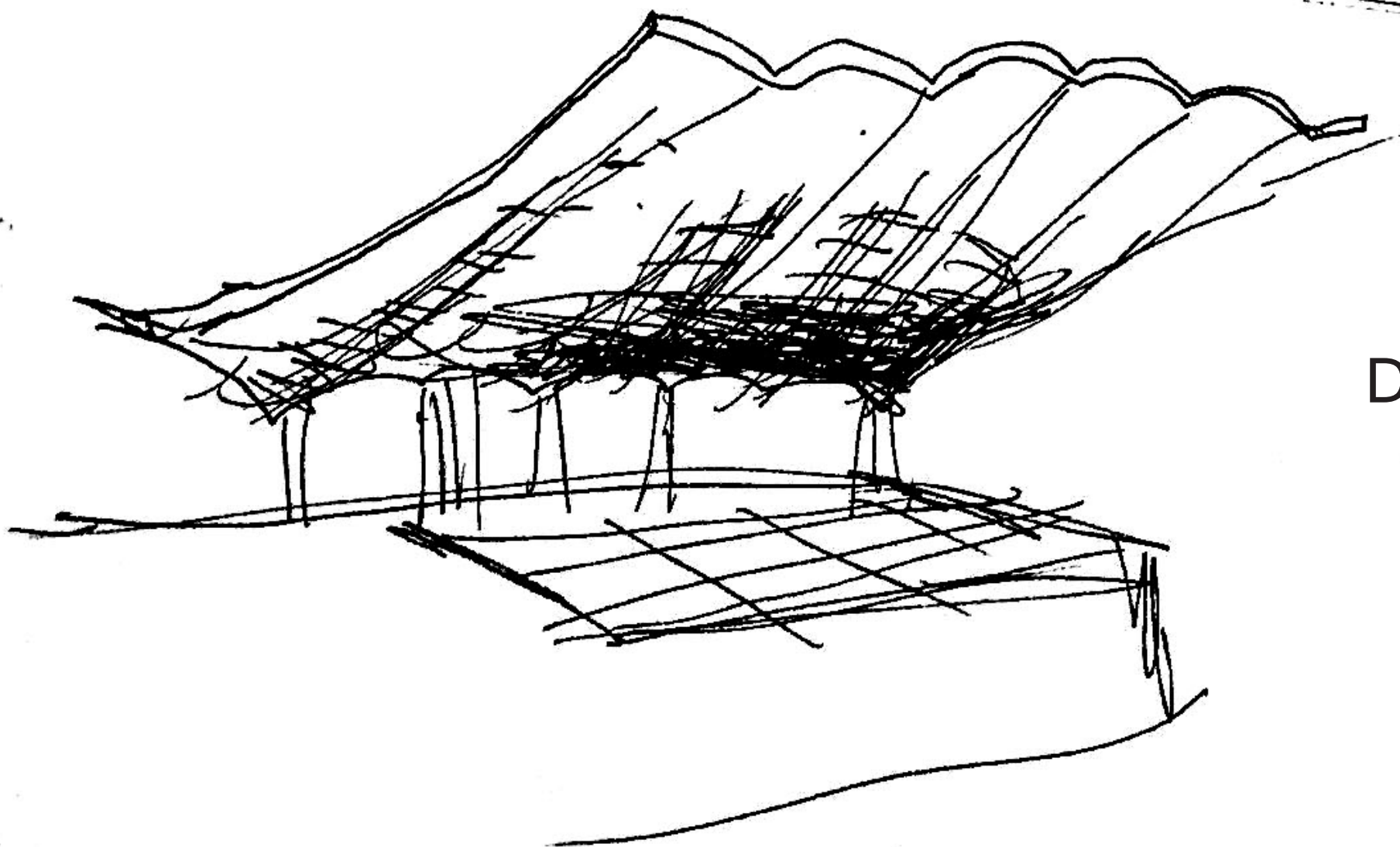
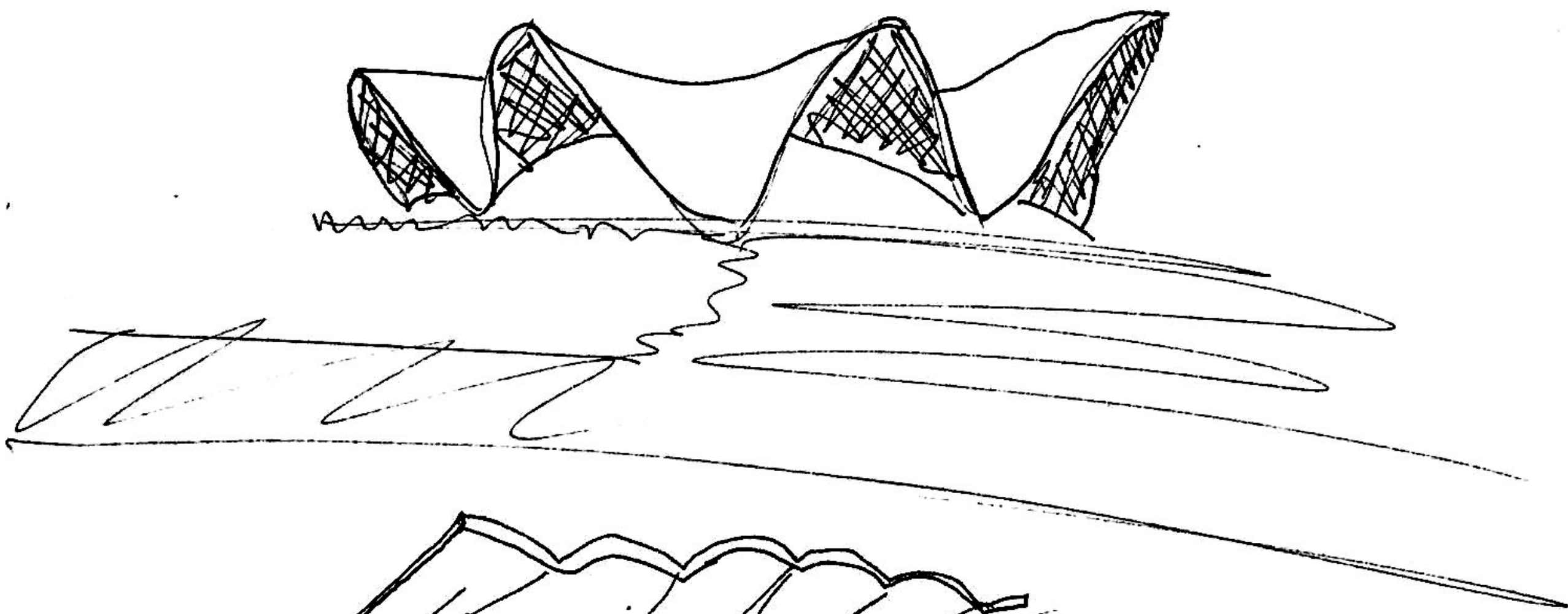
- Concrete next to water is one of the most used materials in the world.
- Cement is a component to concrete.
- It was discovered by silica and limestone being mixed while at a certain temperature, along with iron and alumina.
- Curing - Drying
- Potable = Drinkable.
- Cement is a binding agent.
- Compression 
- Tension 
- Concrete has 0 tensile capability
Steel is good in compression and tension although it is stronger, concrete is cheaper.
- it takes hours before cement dries
- concrete takes 28 days.

- Fly ash can be added and used to dry concrete quicker.

- water is sprayed over the top of cement so it dries the ~~the~~ same time as the bottom and not crack



- PSI = Pounds Per Square inch



Designs made with concrete