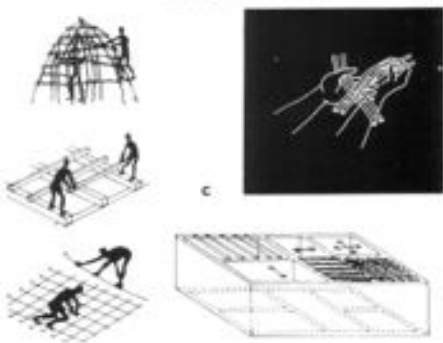
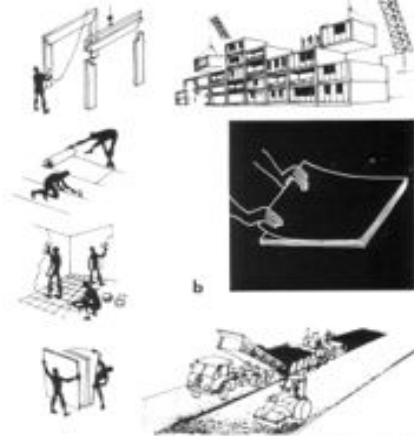
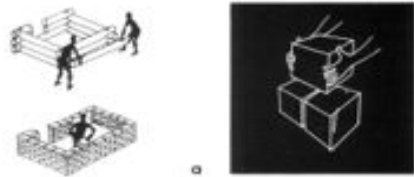


Materiali per l'Architettura (6CFU)

Prof. Alberto De Capua, coll. Arch. Valeria Ciulla



MpA 4 I principi e i procedimenti costruttivi

Il processo costruttivo

L' **ORGANISMO EDILIZIO** è un “apparato costruttivo” teorico.

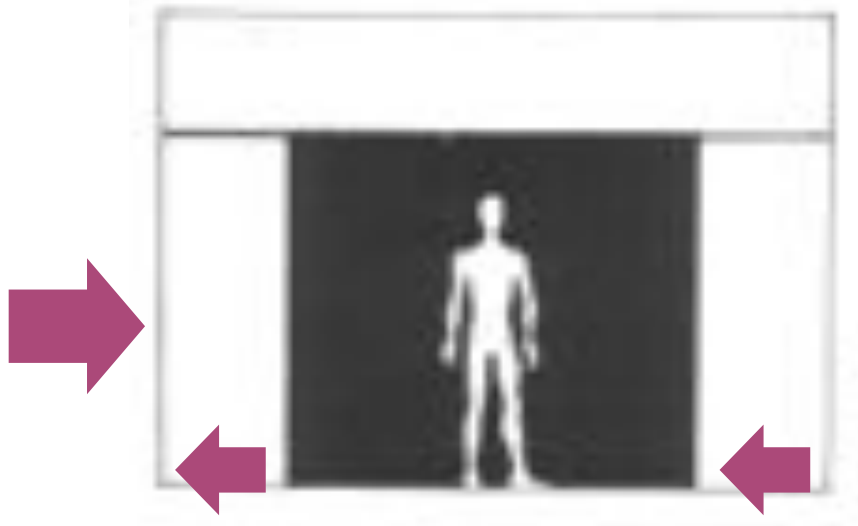
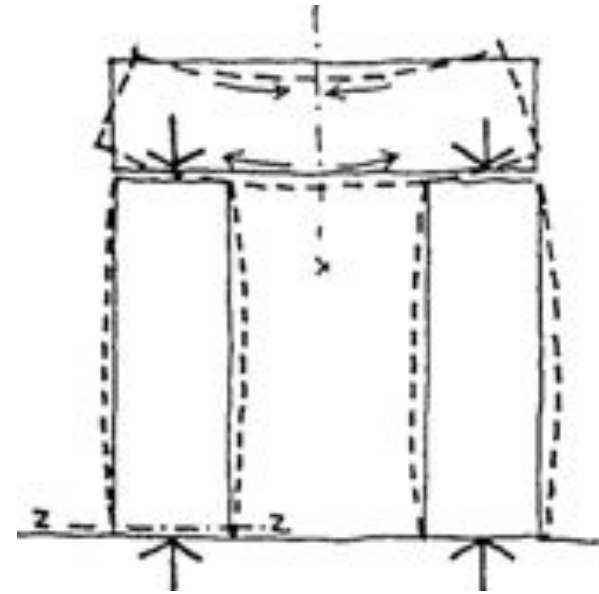
Il **PROCESSO COSTRUTTIVO** è invece l' insieme delle lavorazioni necessarie per realizzarlo.



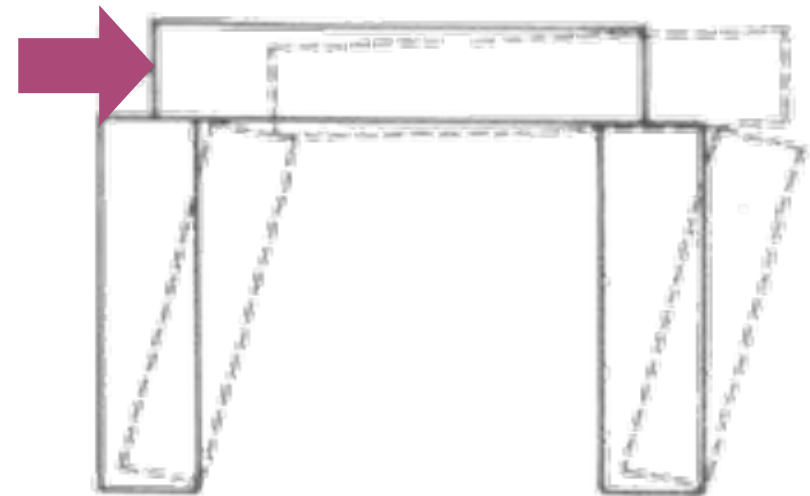
I fattori che influenzano il **processo costruttivo** sono:

1. la lavorabilità dei materiali
2. la loro utilizzazione ai fini di garantire la *sicurezza della costruzione*
3. la loro utilizzazione ai fini del *comfort ambientale*
4. l' aspetto

Principi complessi: il "trilite"

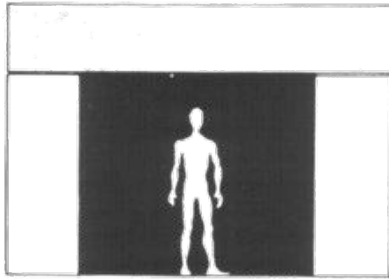


Verifica allo scorrimento



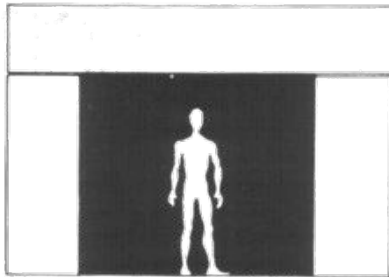
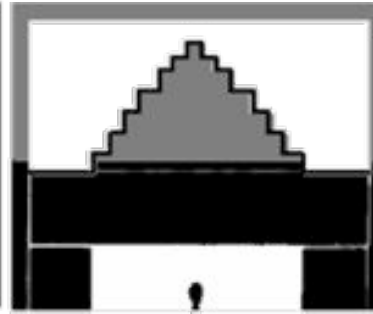
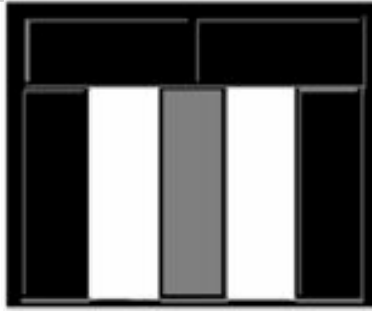
Verifica al ribaltamento

Principi complessi: il “trilite”



Rinforzo architrave:

1. Aumento sezione
2. Infittimento (riduz. Luce)
3. Triangolo di scarico

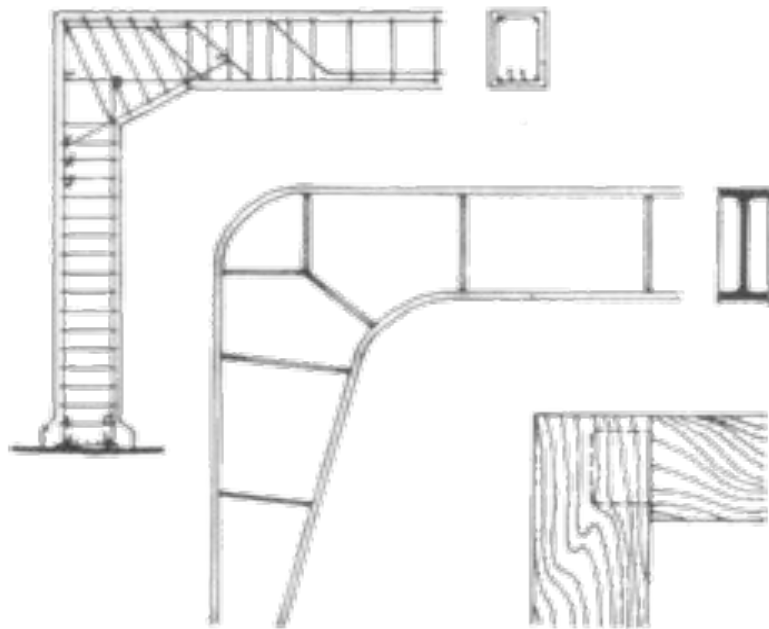
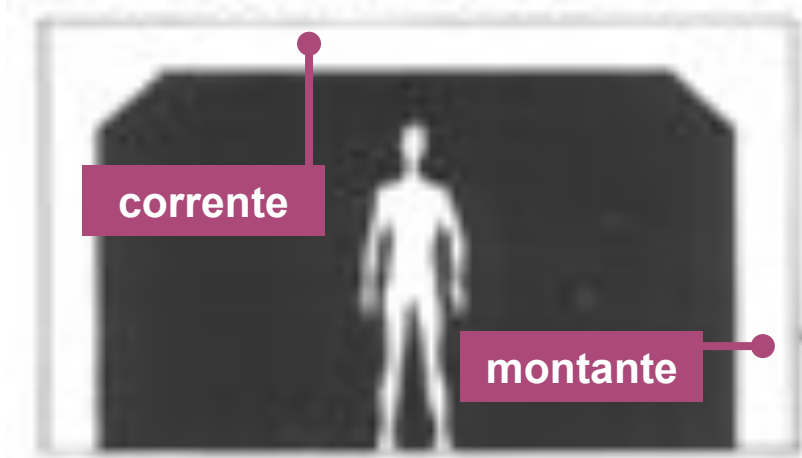


Rinforzo piedritti:

1. Aumento sezione
2. Allargamento base
3. Infittimento



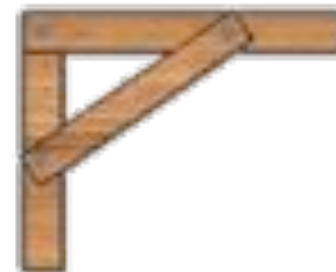
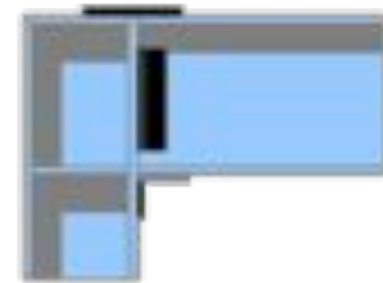
Principi complessi: il "telaio"



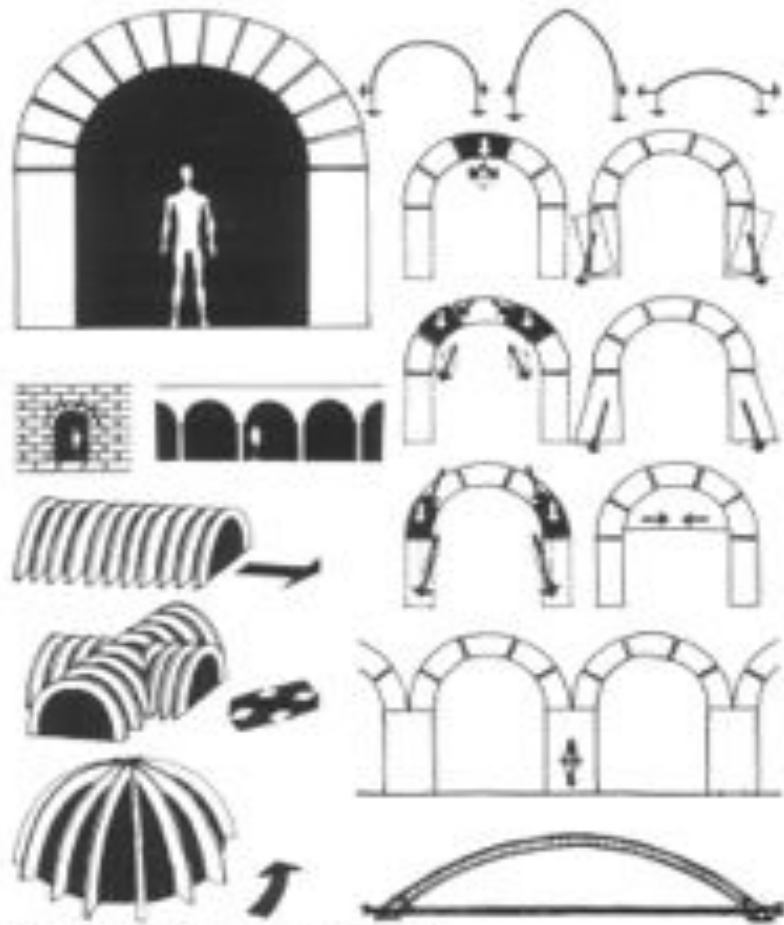
Incastri: telai in c.a., acciaio e legno



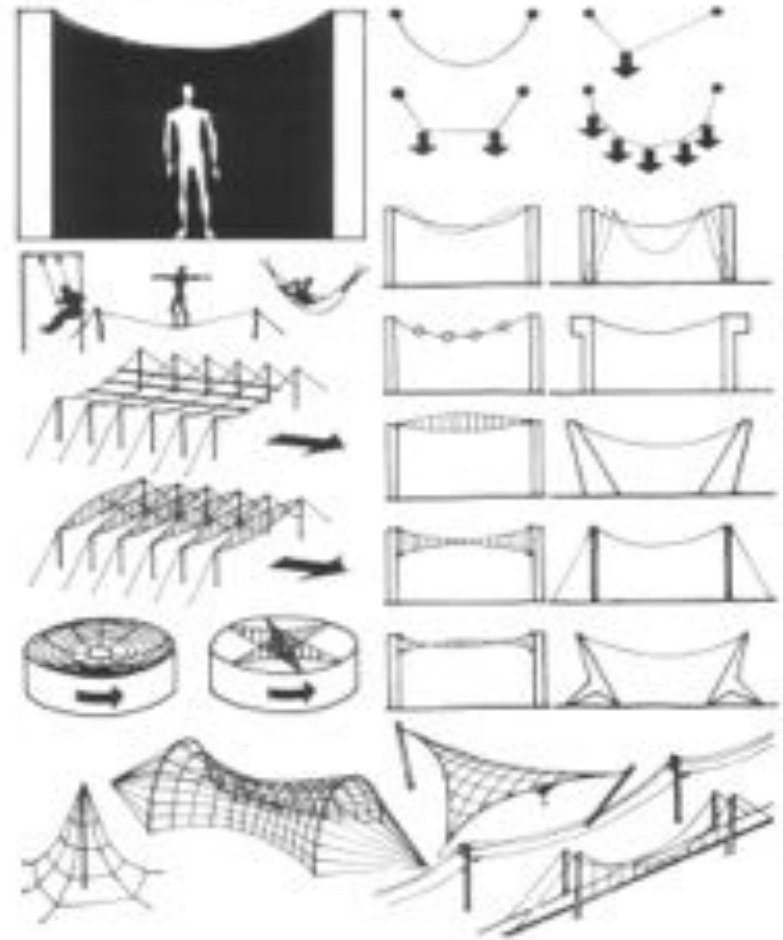
Tipi di incastro



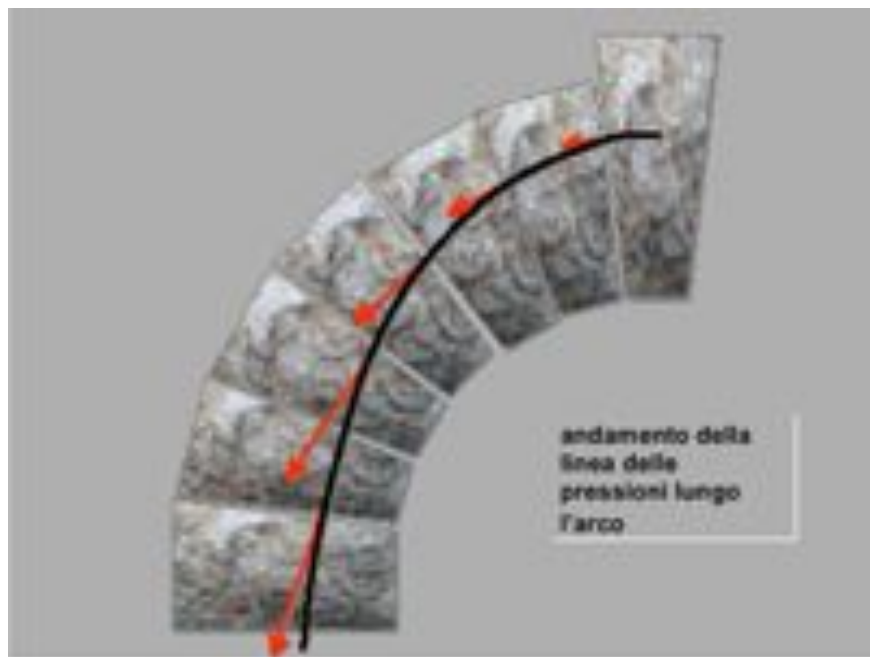
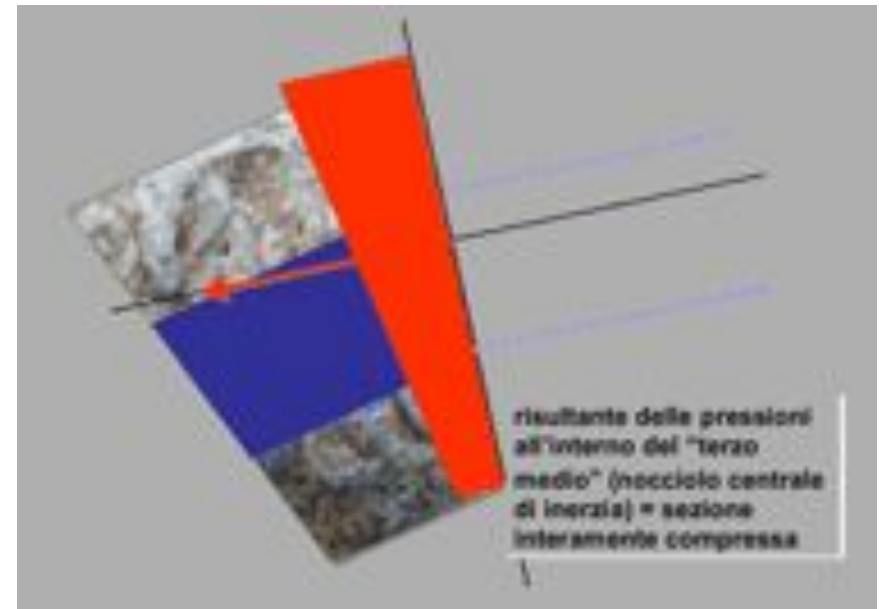
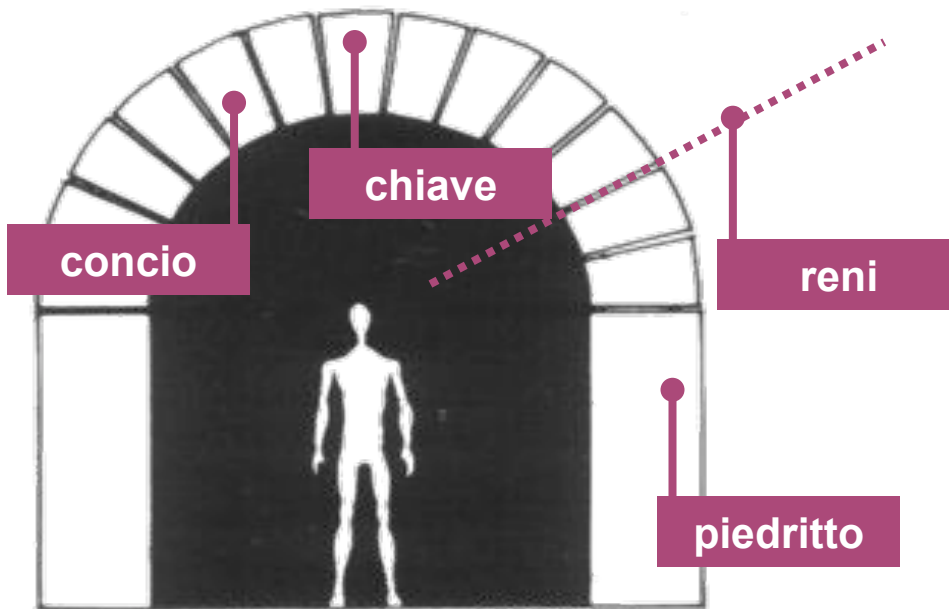
Principio dell' "arco"



Principio del "cavo"

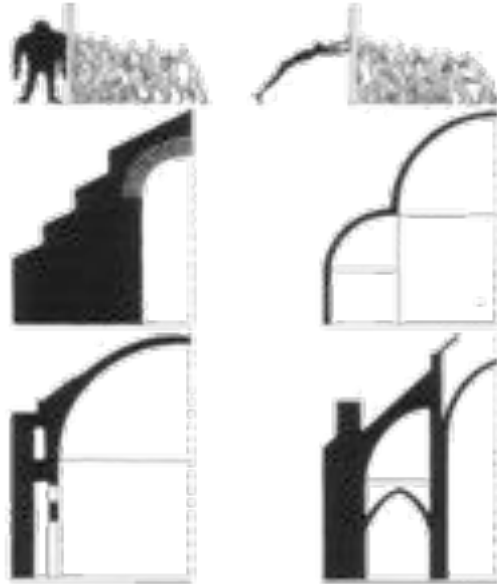
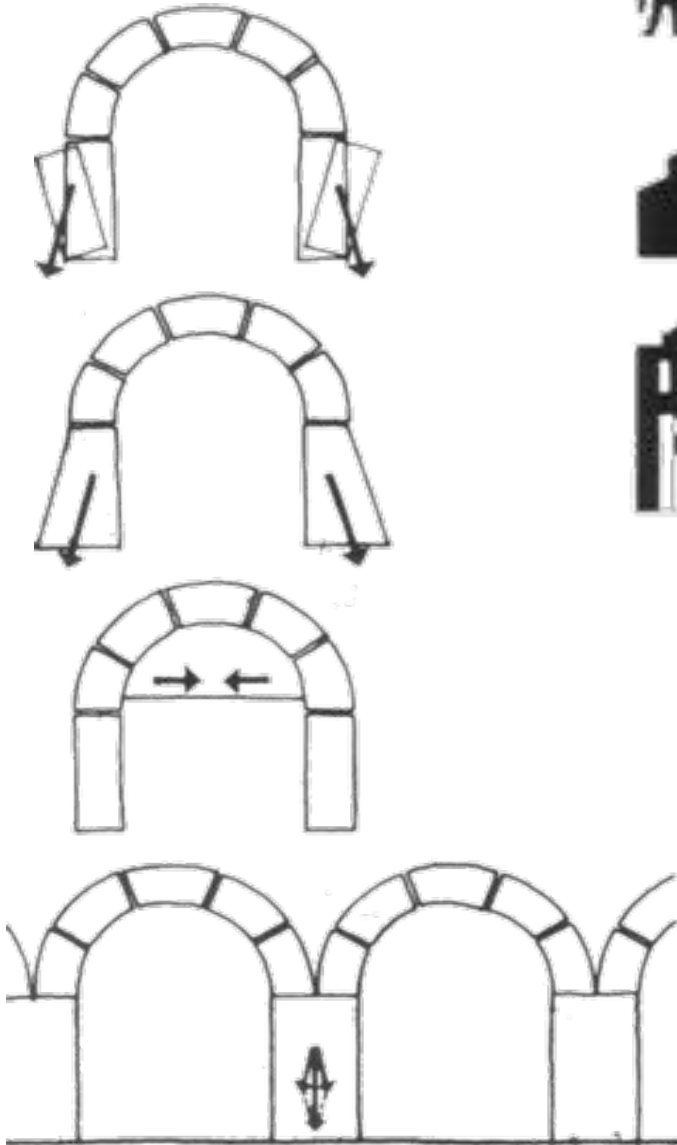


Principi complessi: l' "arco"



Principi complessi: l' "arco"

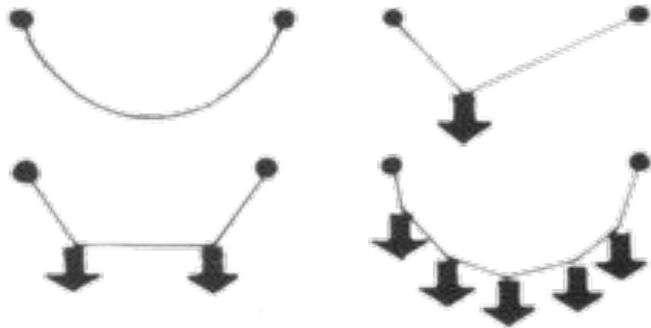
Stabilizzazione dei piedritti



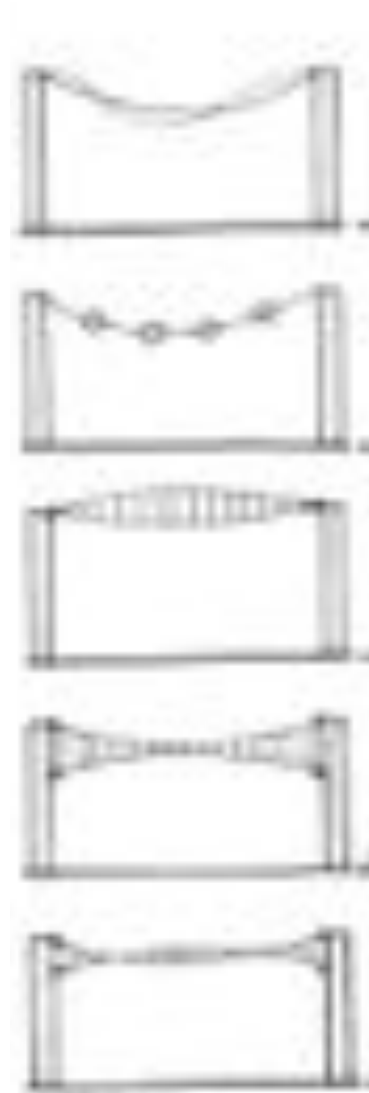
Resistenze passive e resistenze attive



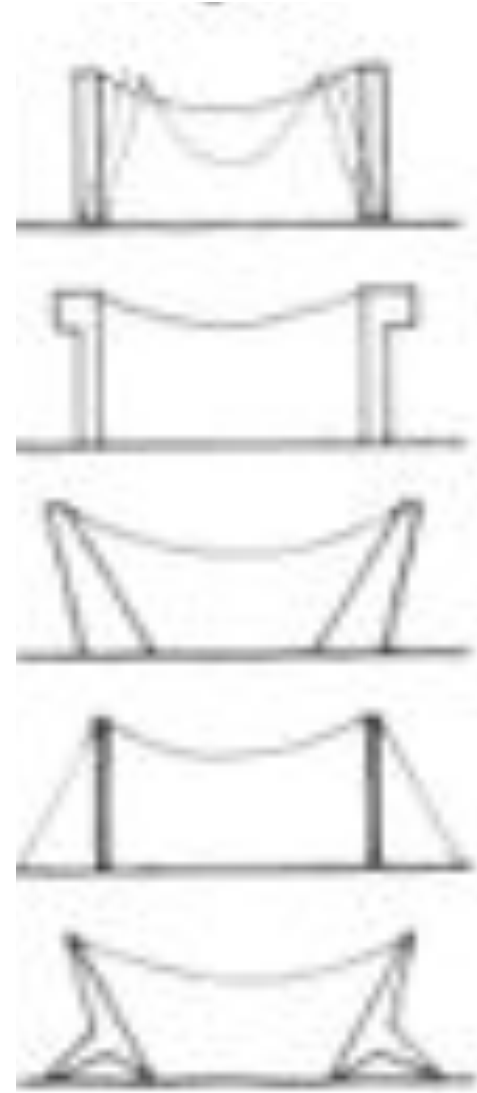
Principi complessi: il “cavo”



configurazione



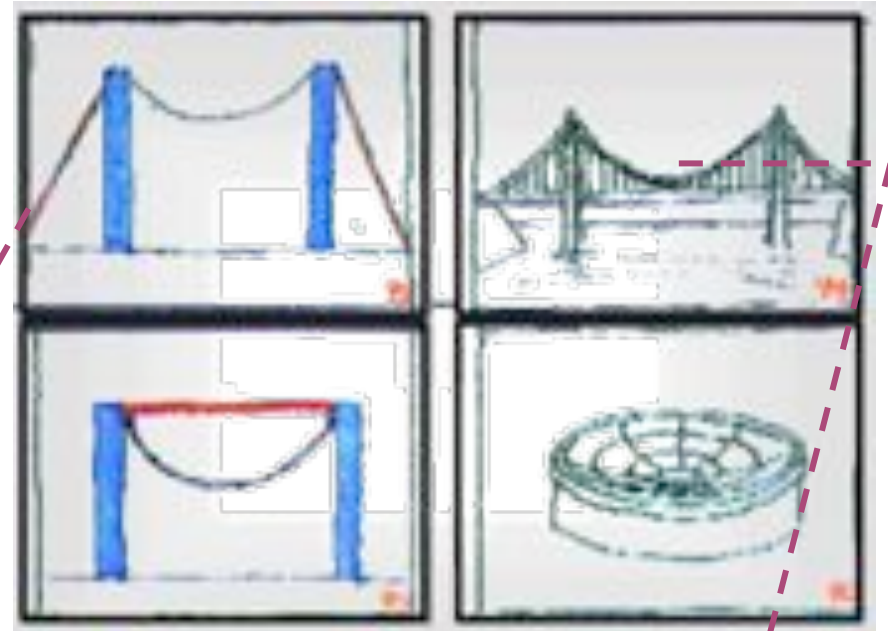
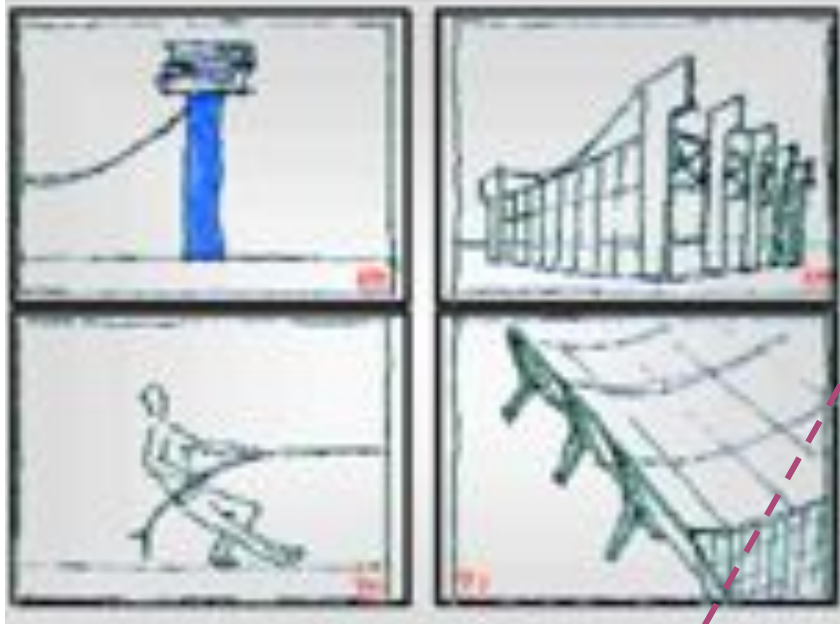
stabilizzazione



pedritti

Principi complessi: il “cavo”

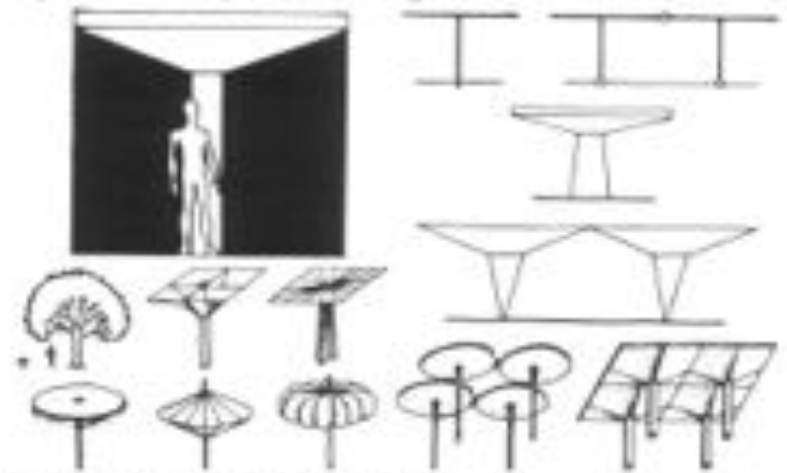
Stabilizzazione dei piedritti



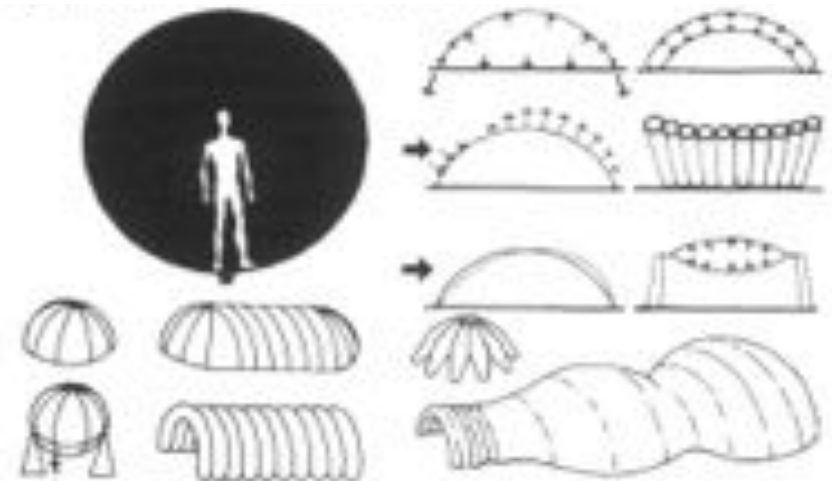
Principio del “triangolo”



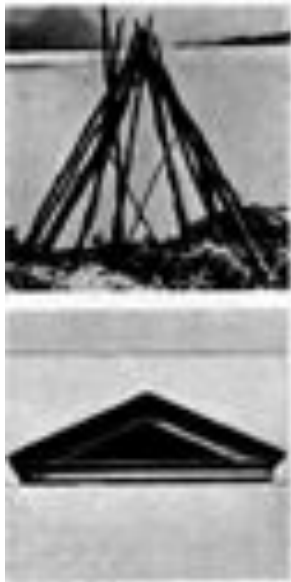
Principio del “fungo”



Principio dello “pneumatico”



Principio del “triangolo”. Alcuni esempi



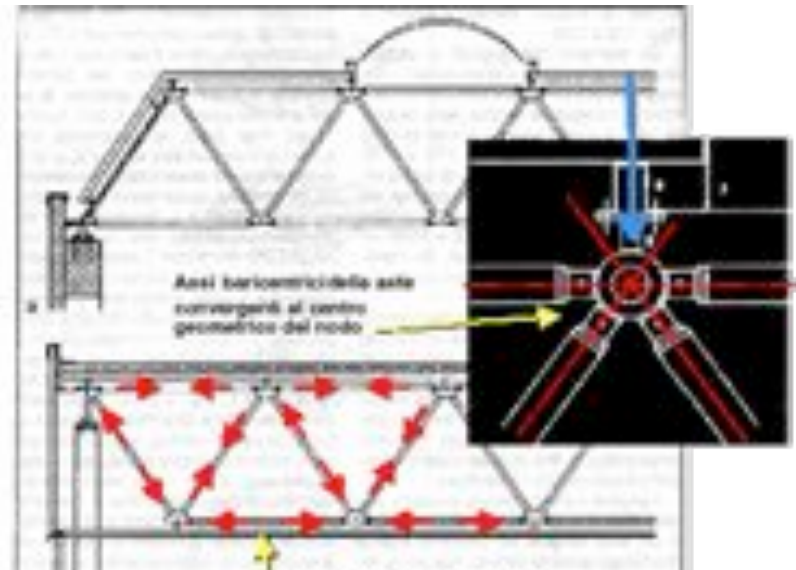
Organismi ad involucro globale a capanna



Copertura a timpano



Capriata

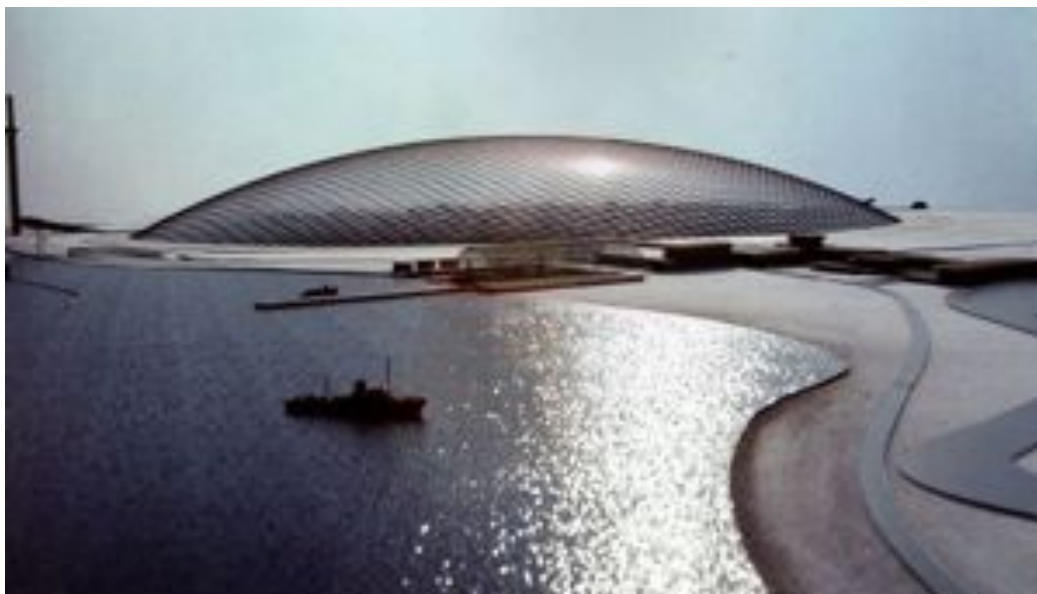


Elementi reticolari

Principio del “fungo”



Principio dello “pneumatico”



City in the Arctic, 1971, Frei Otto

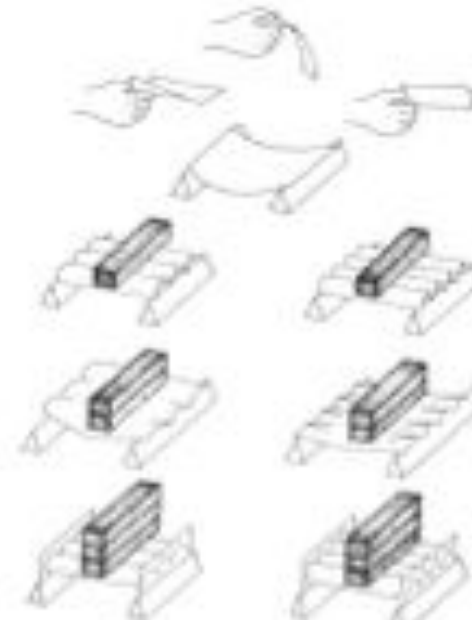


Nuovo stadio di Monaco, 2006, Herzog e DeMeuron

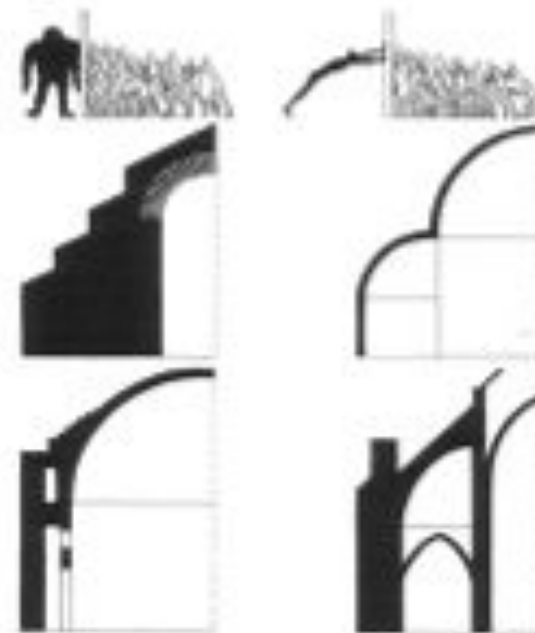
Rapporti tra sollecitazione e deformazione



Resistenza per forma



Resistenze passive e resistenze attive

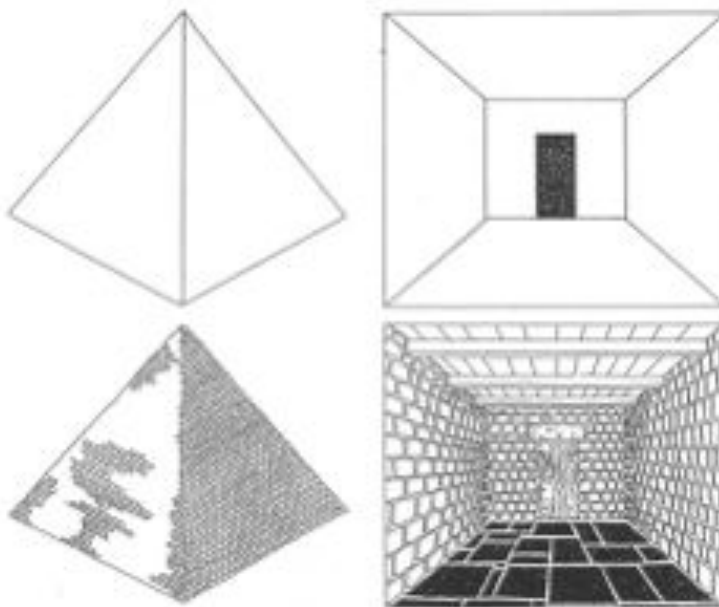


Aspetto dei materiali

Si possono distinguere due principi:

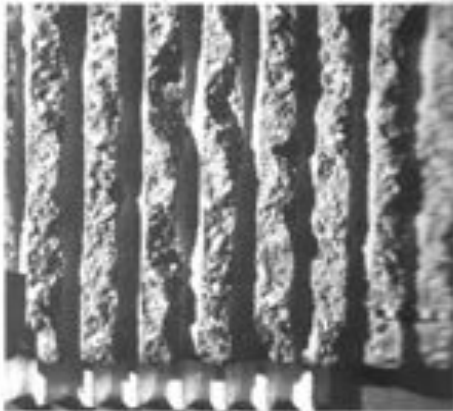
1. Principio materico (elementi materiali lasciati in vista);
2. Principio geometrico (superficie e volume, uso di intonaco, vernici).

I due principi possono comunque coesistere.



Principio geometrico e principio materico

Il materiale e la percezione della forma



Il materiale e la percezione della forma

