

Poles und strut-tied beam

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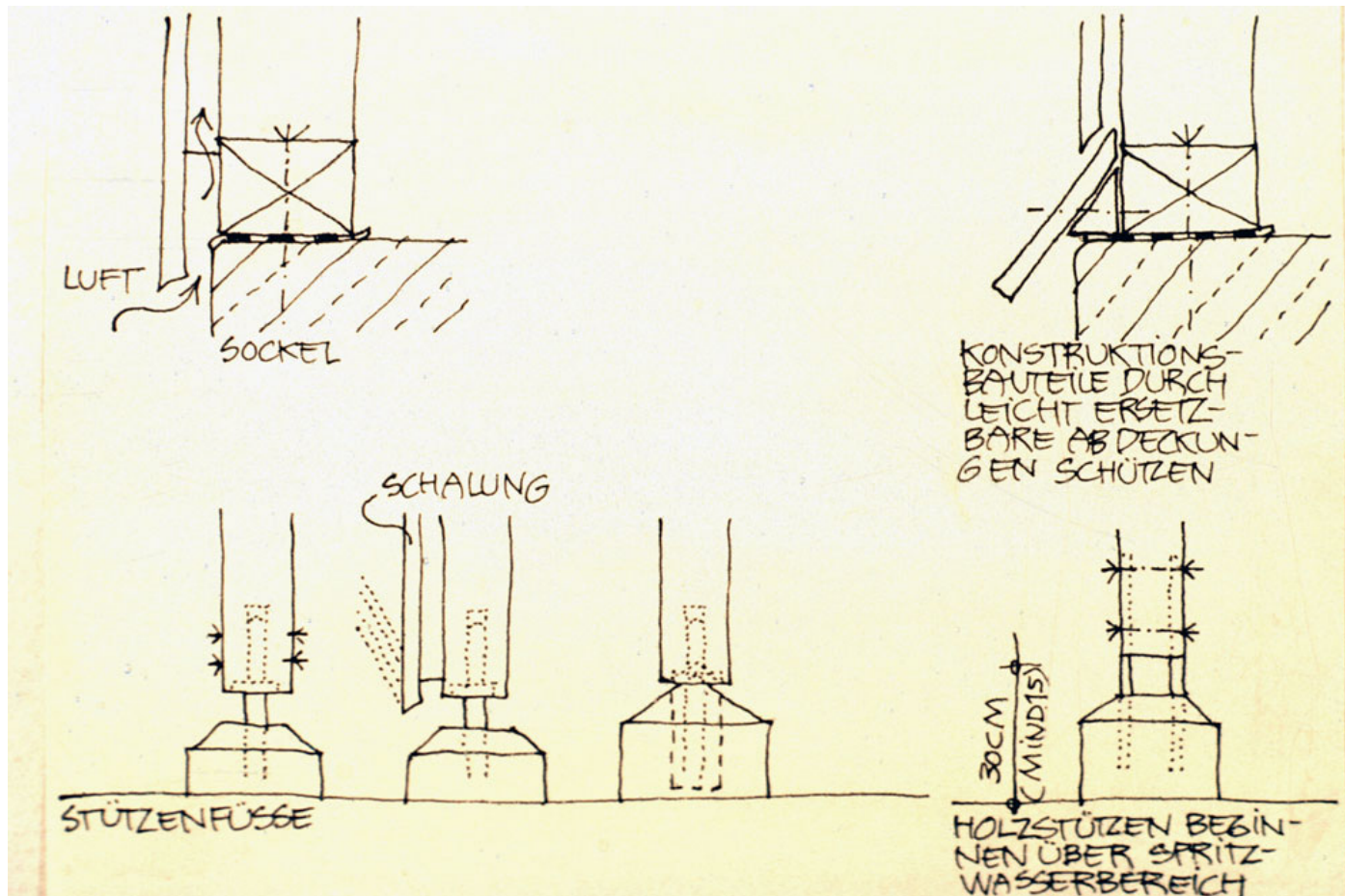






The foot of the pole

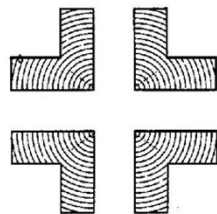
- The durability and the contact with the soil



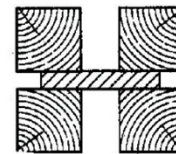
Massif wood pole



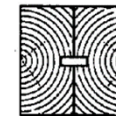
section carrée avec gorges de décharge



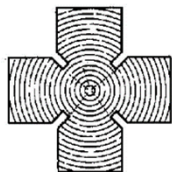
sections en L



section rectangulaire composée d'un bastaing et de quatre madriers



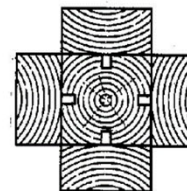
à partir de madriers à cœur refendu, avec gorge de décharge à l'intérieur



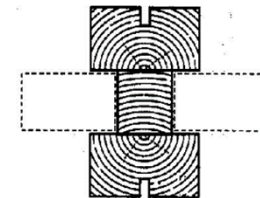
section en croix



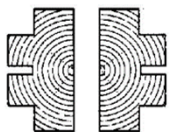
grand L



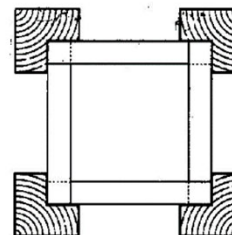
section en croix avec madrier et quatre bastaings



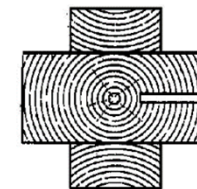
profil en I à partir de madriers



sections en croix à partir de profils à cœur refendu et gorge de décharge



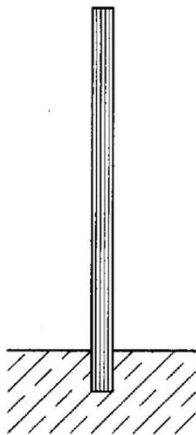
poteau non massif



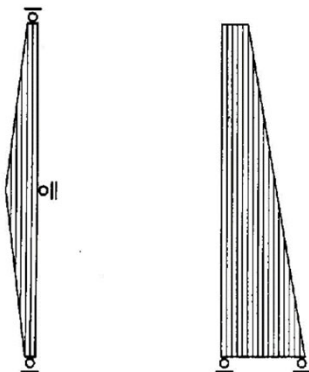
section en croix à partir de trois madriers

Glulam pole

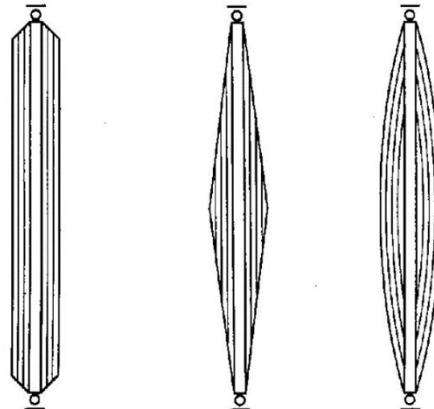
Formes de poteaux en élévation



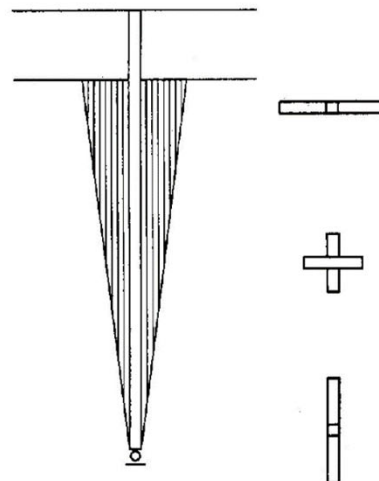
poteau encastré dans du béton



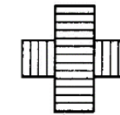
poteaux avec encastrement



poteaux sur appui articulé



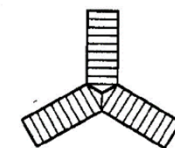
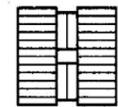
formes spéciales



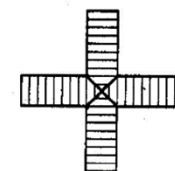
à éléments croisés



profils en I



poteau triangulaire non massif



poteau en croix

Anchored pole

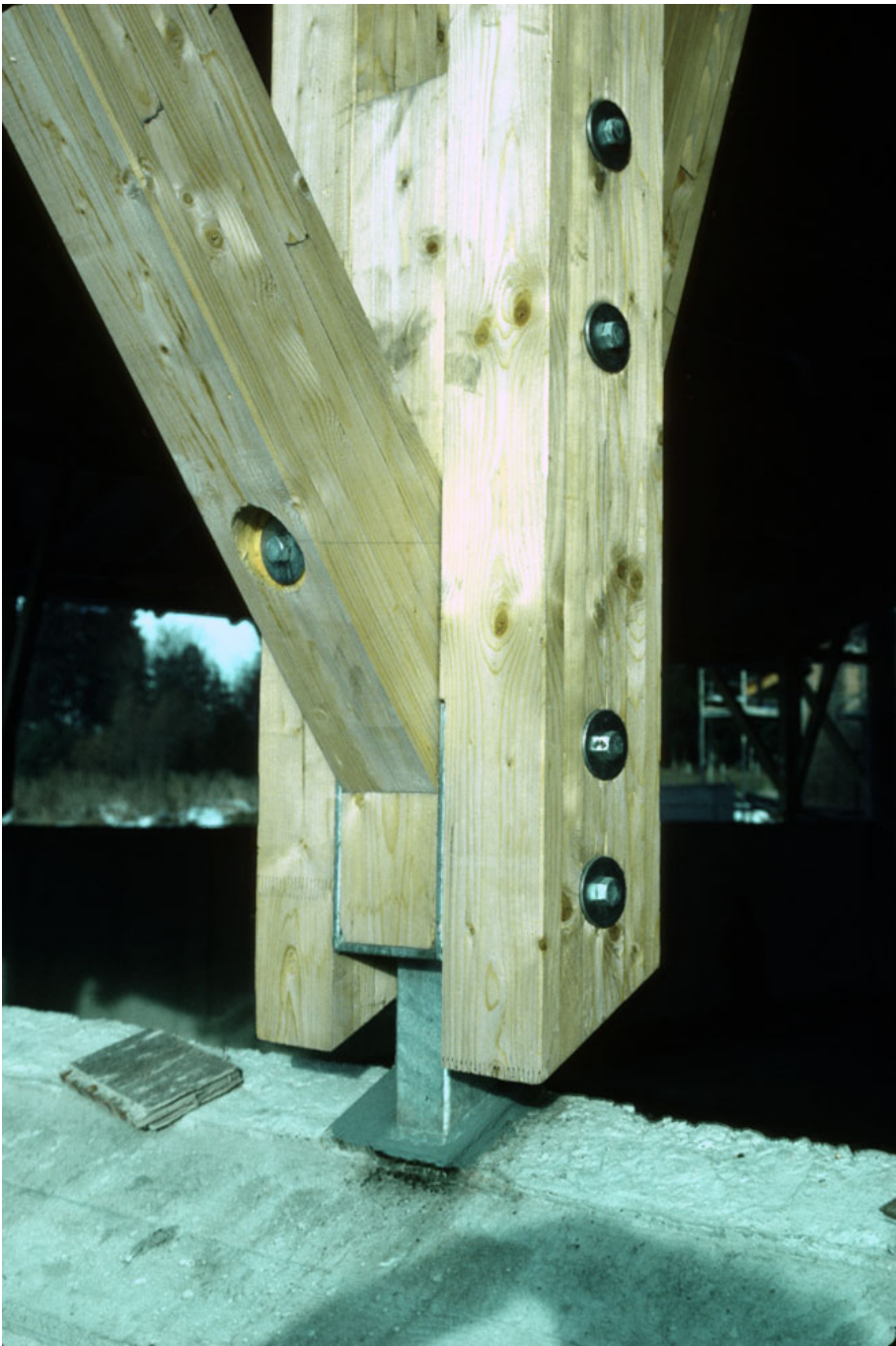
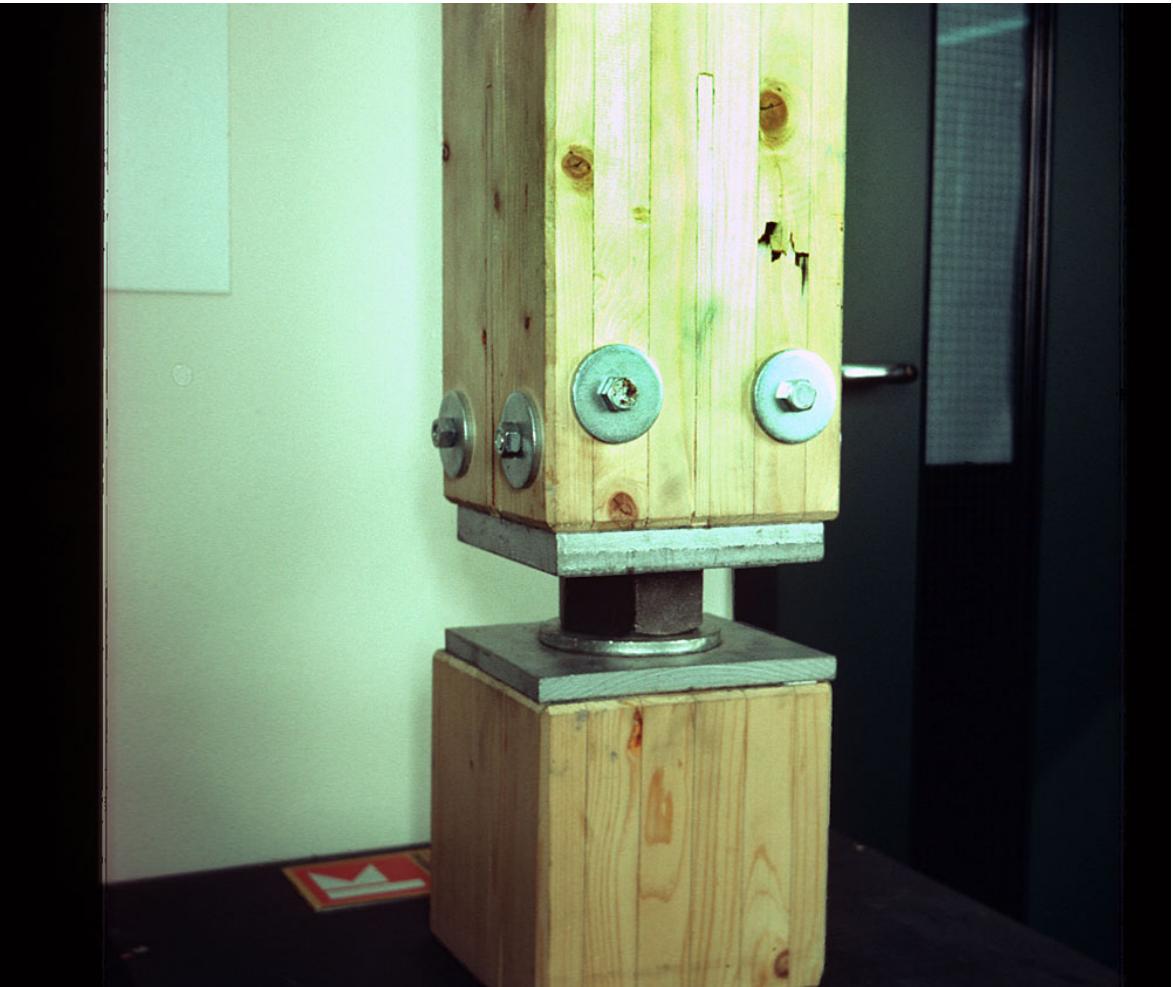
















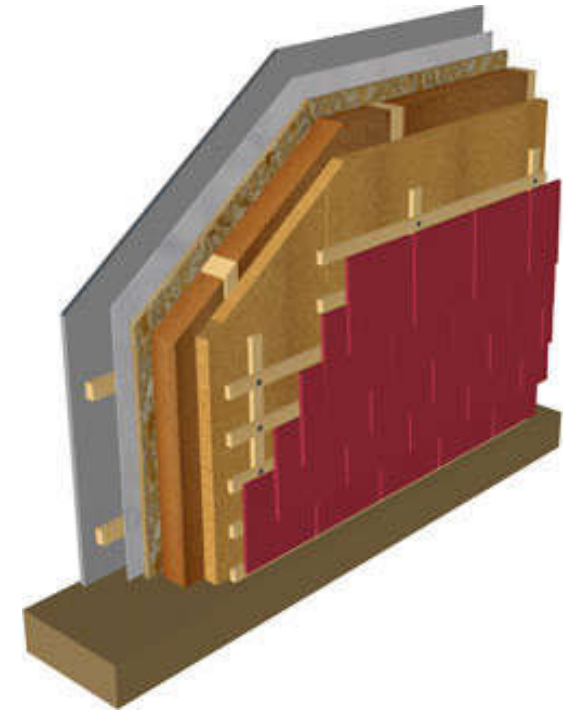








Wood frame – 2 by 4

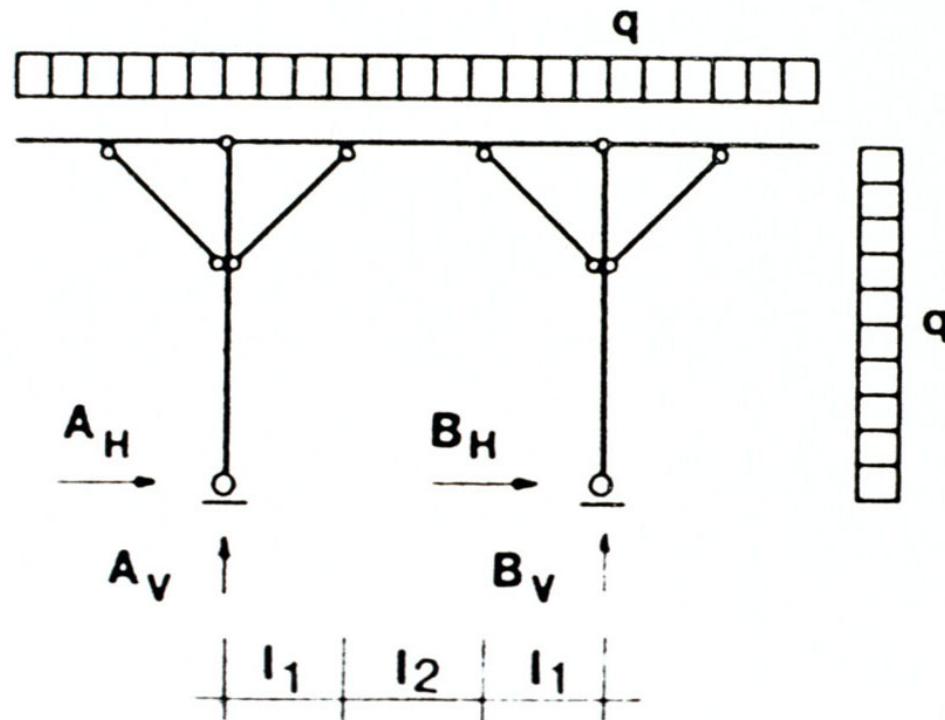


Wood frame – 2 by 4

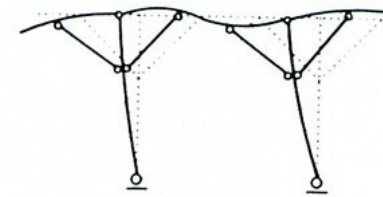


The system with cruches

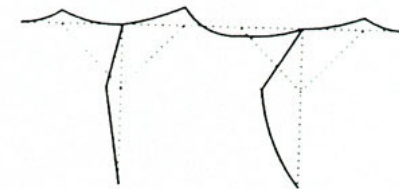
Beam with crutches



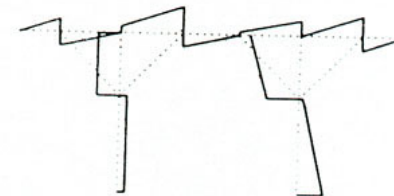
charges:
charges uniformément réparties,
horizontales et verticales



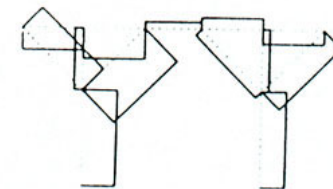
déformation



moments

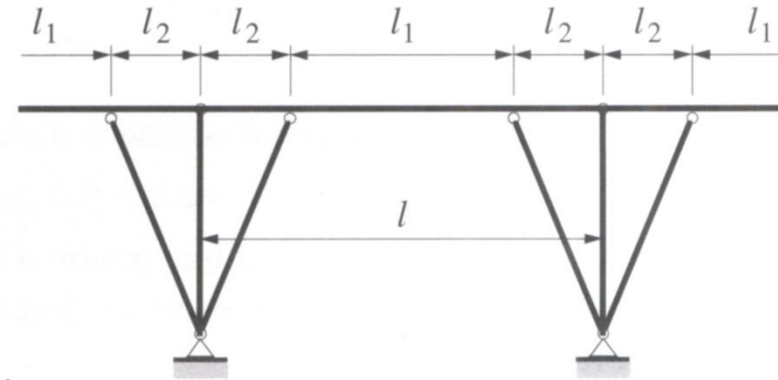
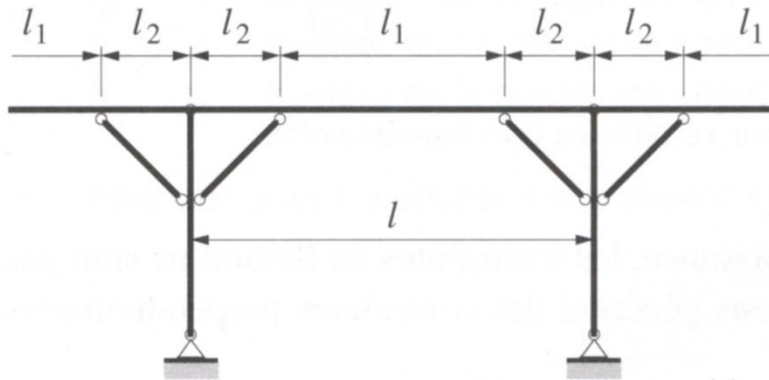


efforts tranchants

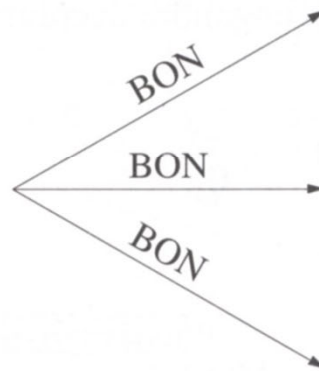
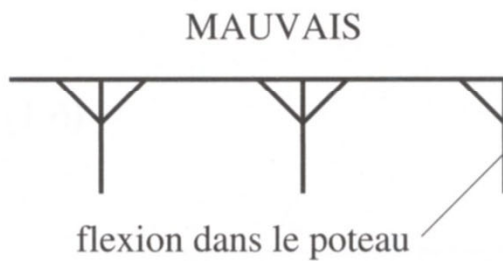


efforts normaux

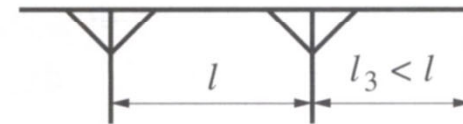
Conception



(a) Systèmes statiques.



jambe de force



diminution de la dernière travée

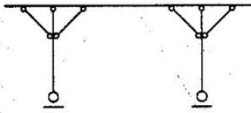


porte-à-faux

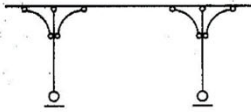
(b) Dispositions constructives.

Sytem with crutsches

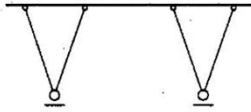
Contre-fiches



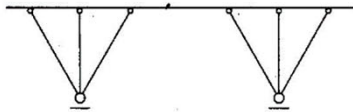
aisseliers simples



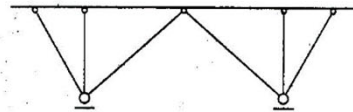
aisseliers cintrés



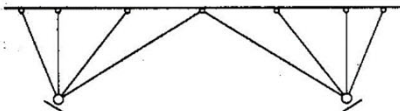
arbalétriers en V



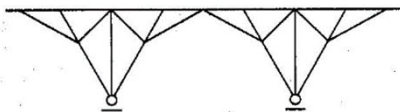
faisceau d'arbalétriers



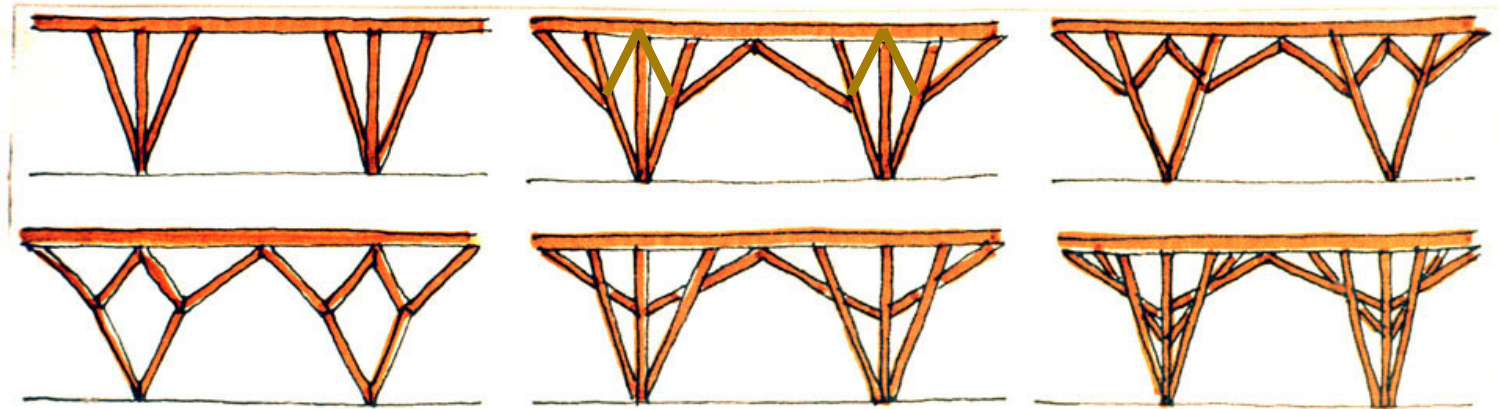
ouvrage à contre-fiches



ouvrage à contre-fiches multiples



ouvrage à contre-fiches avec aisseliers

















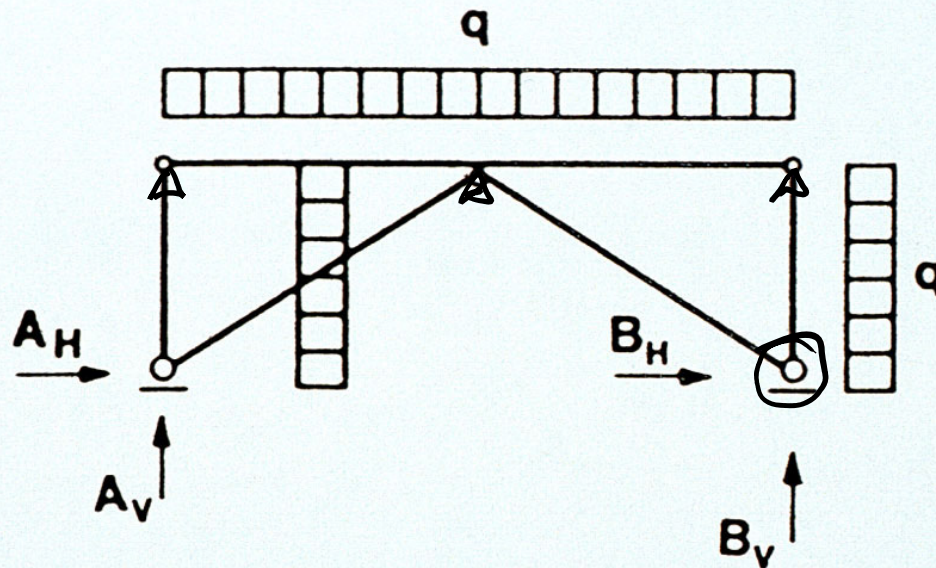




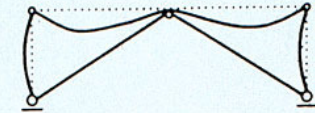


Girder with crutches

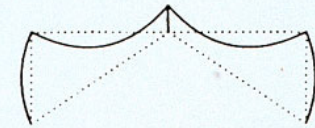
Fermes à contre-fiches



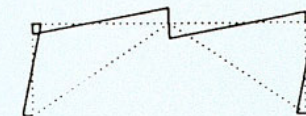
charges:
charges uniformément réparties,
horizontales et verticales



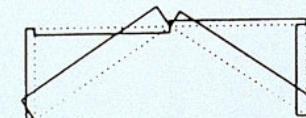
déformation



moments:
on calculera la membrure supérieure
comme une poutre sur deux travées
avec appui intermédiaire élastique



efforts tranchants



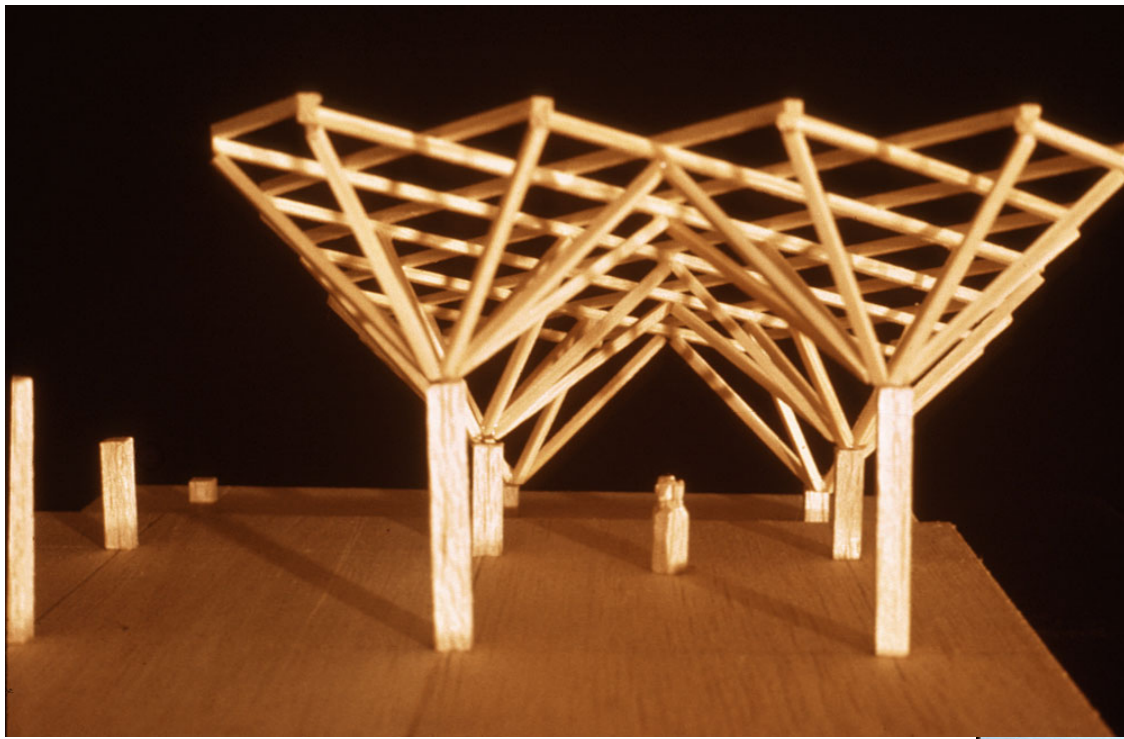
efforts normaux

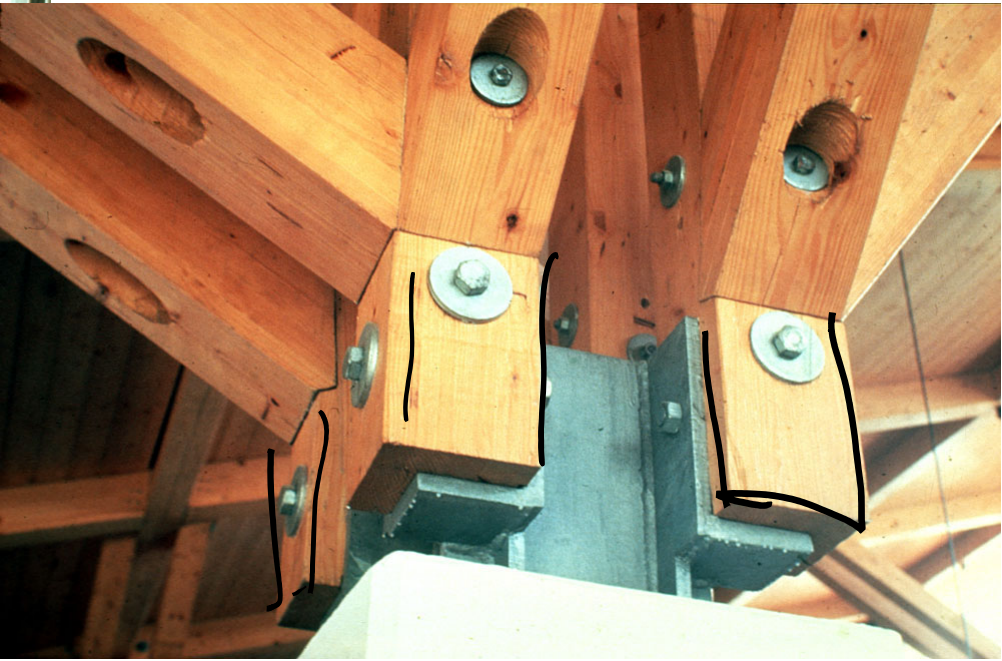




















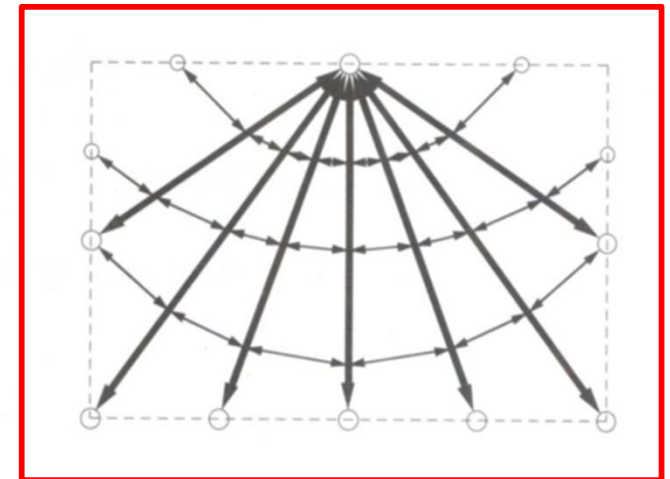
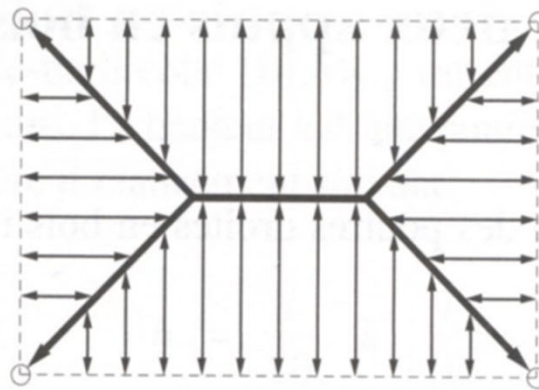
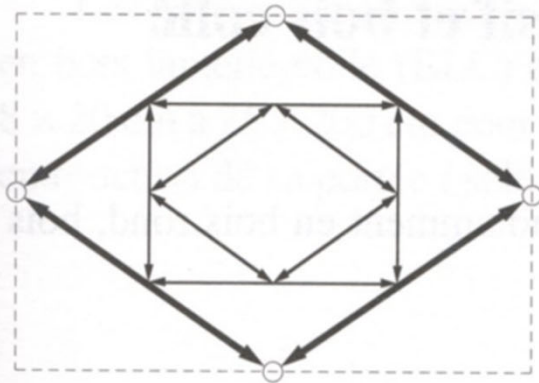
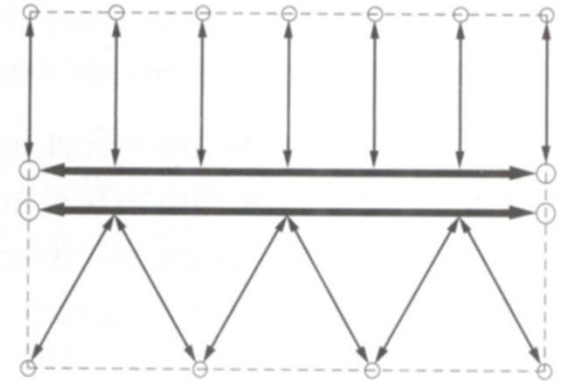
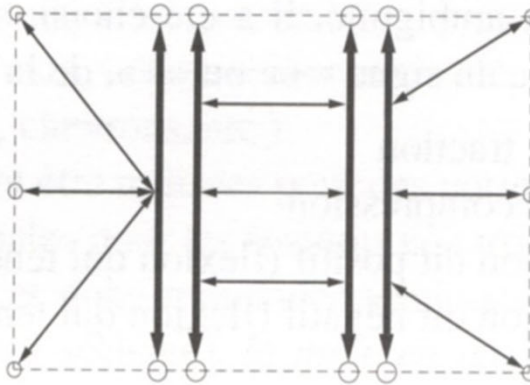
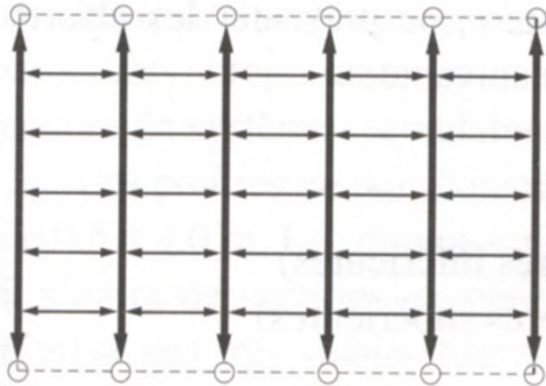










Radial support systems



 système principal
 système secondaire





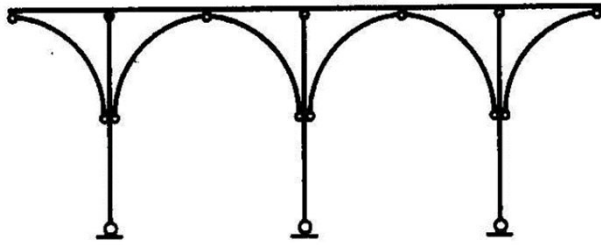




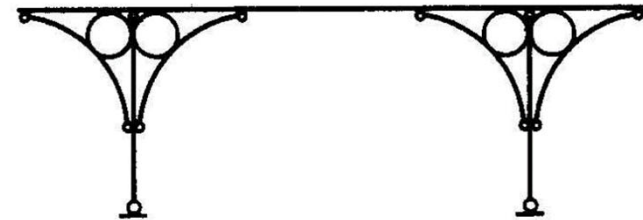




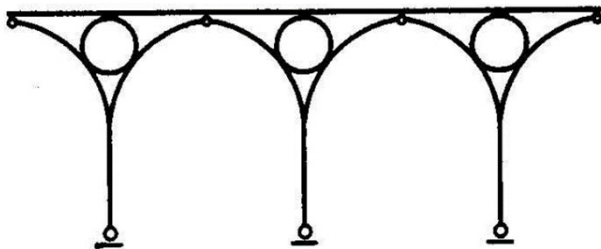
Structural systems with Rings



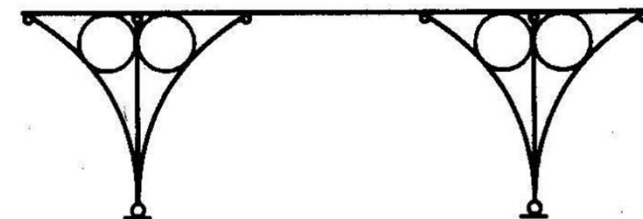
avec montants



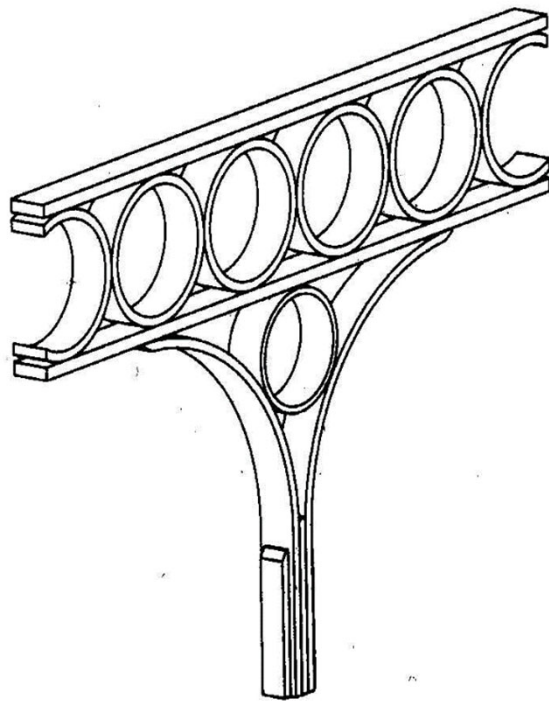
avec montants et anneaux



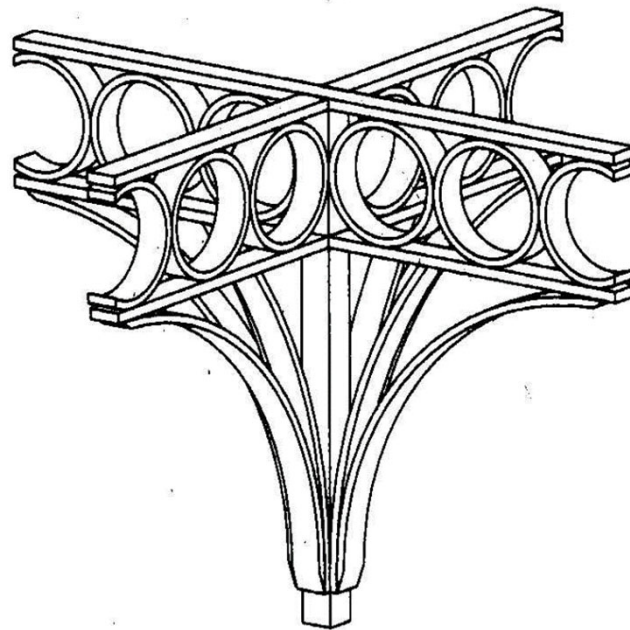
avec anneaux



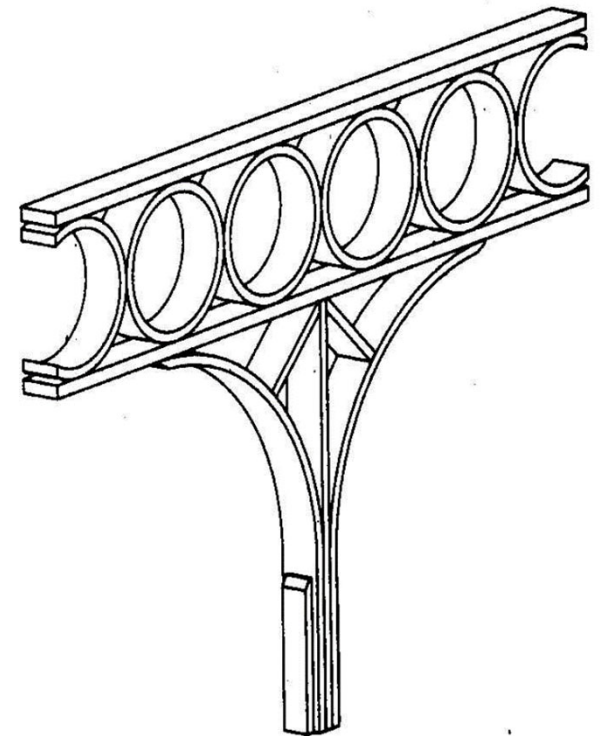
faisceau de barres avec montants et anneaux



avec anneaux de stabilisation



avec doubles aisseliers en rayons



avec planches de stabilisation contre le flambage

