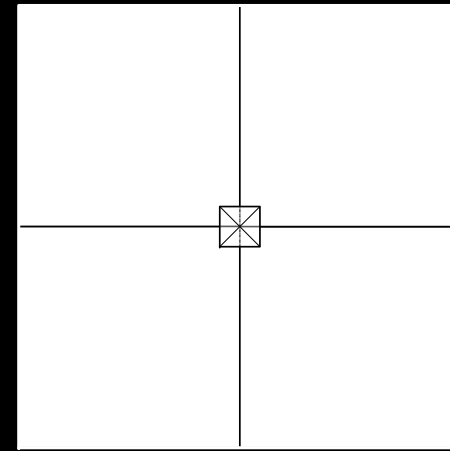


# Robustness of column – slab system

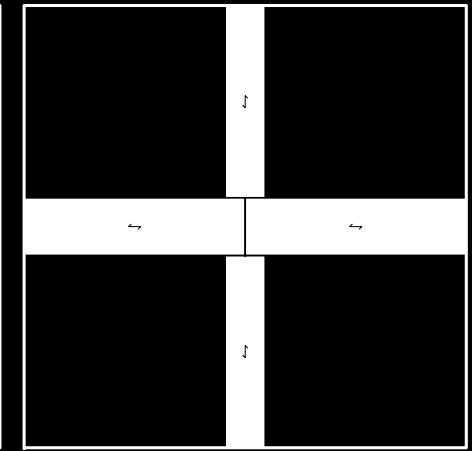
Jørgen Munch-Andersen  
Danish Timber Information

# Traditional design – 4 slabs on 1 column

Horizontal section



Vertical section



Lower column supports slabs  
Upper column supported on slabs

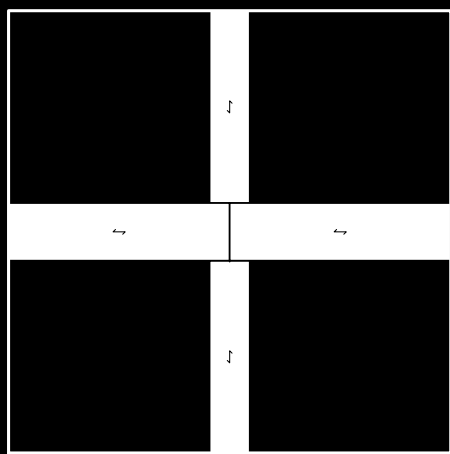
# Traditional design

But slabs also support columns (horizontally)

Failure of one slab:

- upper column might lose support
- eccentricity of vertical load might cause failure of lower column

i.e.: not robust



# Better design

Continuous column

Failure of one slab:

- Upper part of column still supported, also horizontally by the 3 other slabs
- Less sensitive to eccentricity

i.e. : More robust  
(failure of column still causes collapse)

