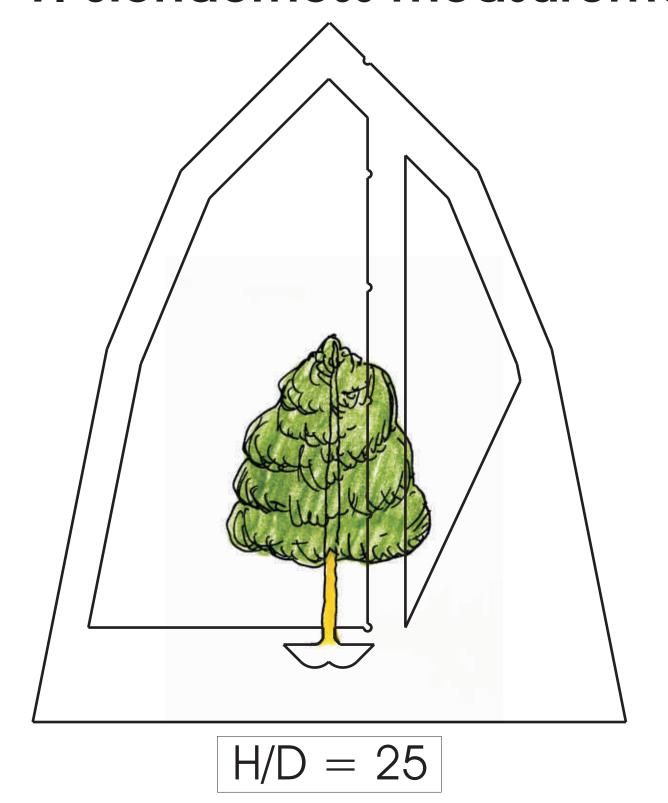
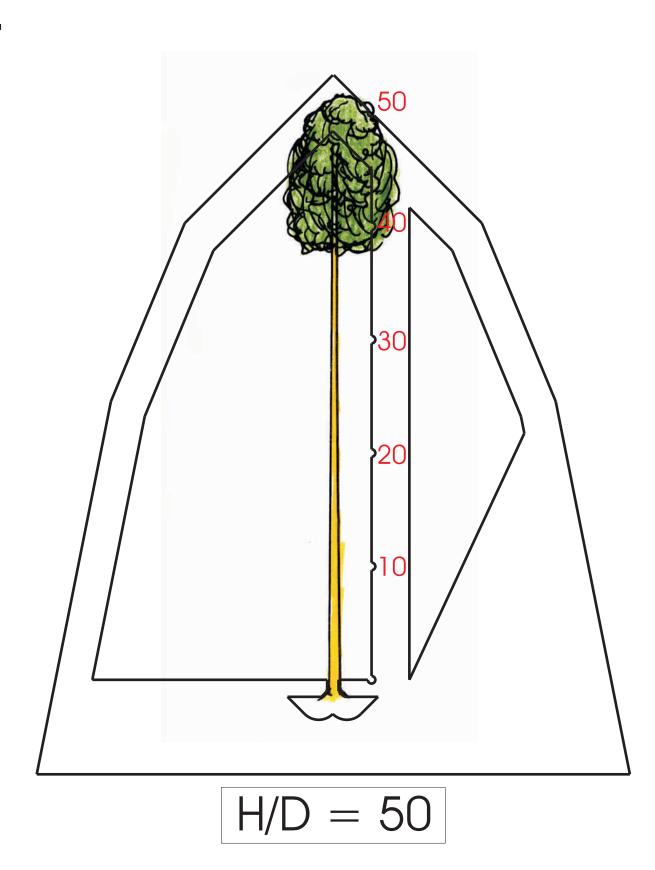


# A new multi-purpose tool for tree diagnosis

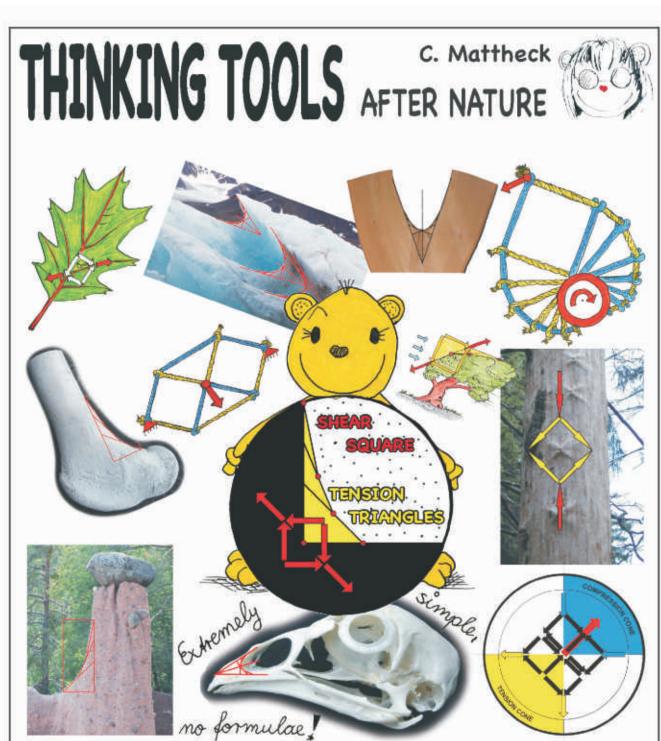
C. Mattheck, K. Bethge

### 1. Slenderness measurement





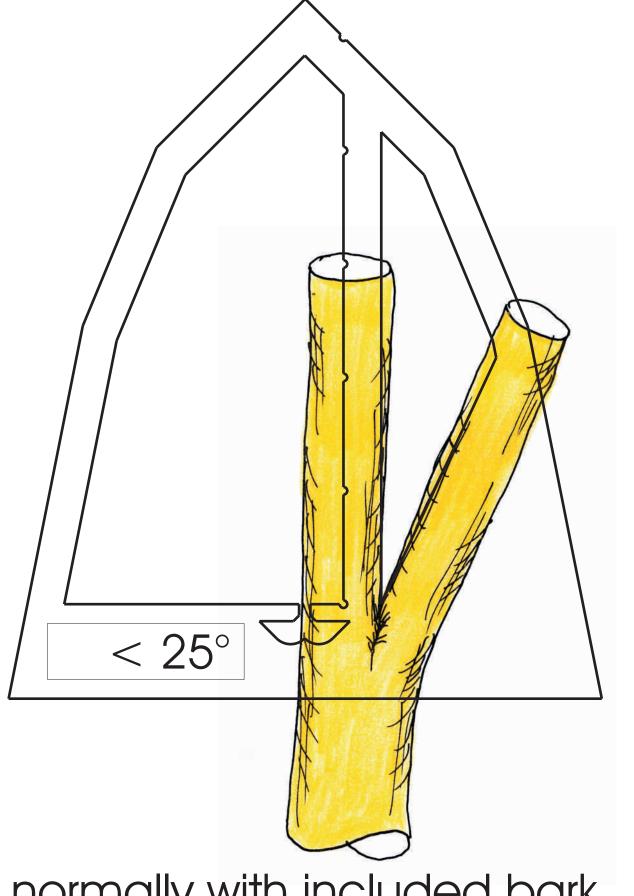




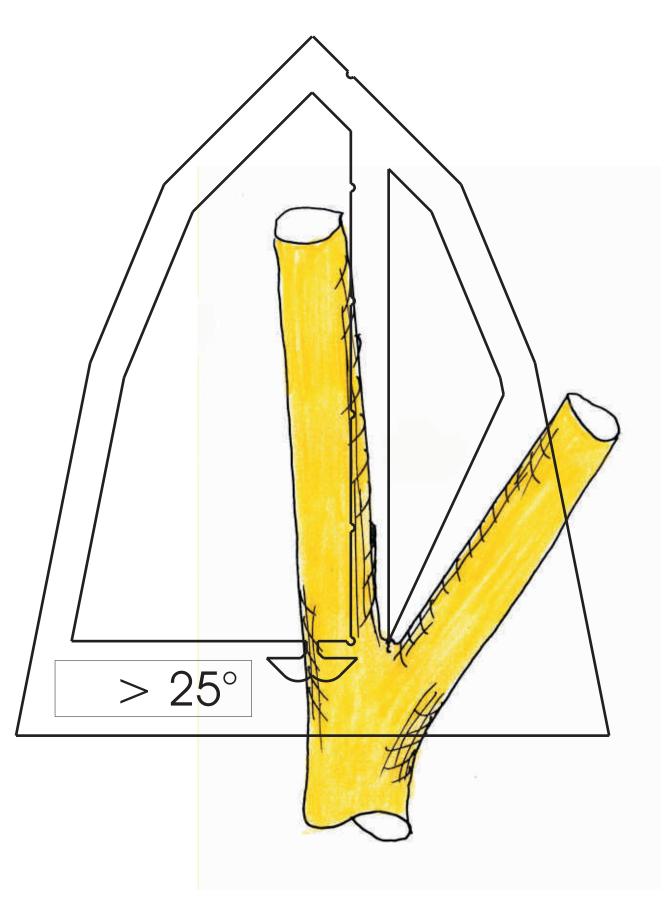
Literature: www.mattheck.de

Keep the tool in such a way, that a tree stem just above the buttress fits well in between the 3mm gap. Read the H/D-ratio at the notches (Mattheck, C., Updated field guide for visual tree assessment).

#### 2. Bark inclusion at tree forks

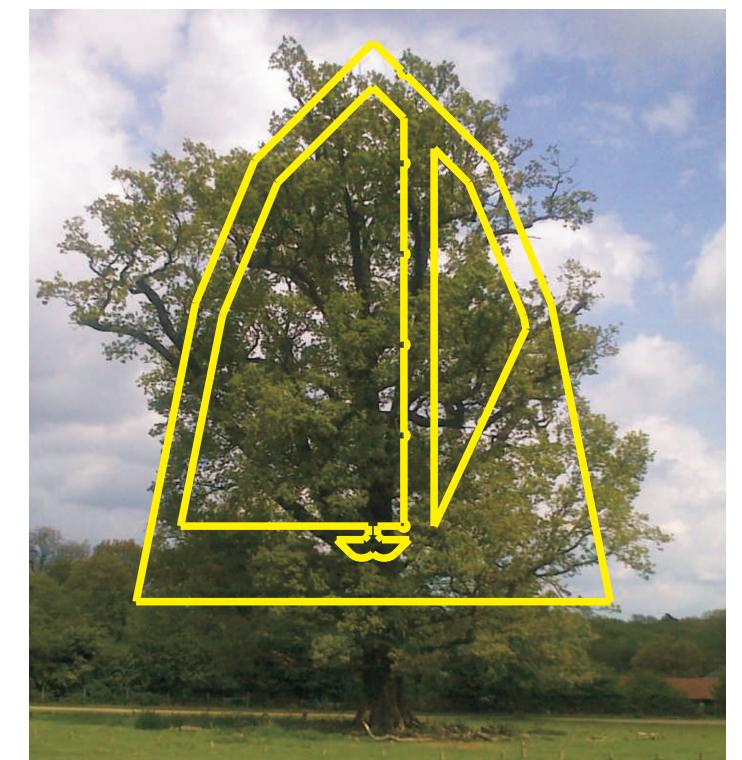


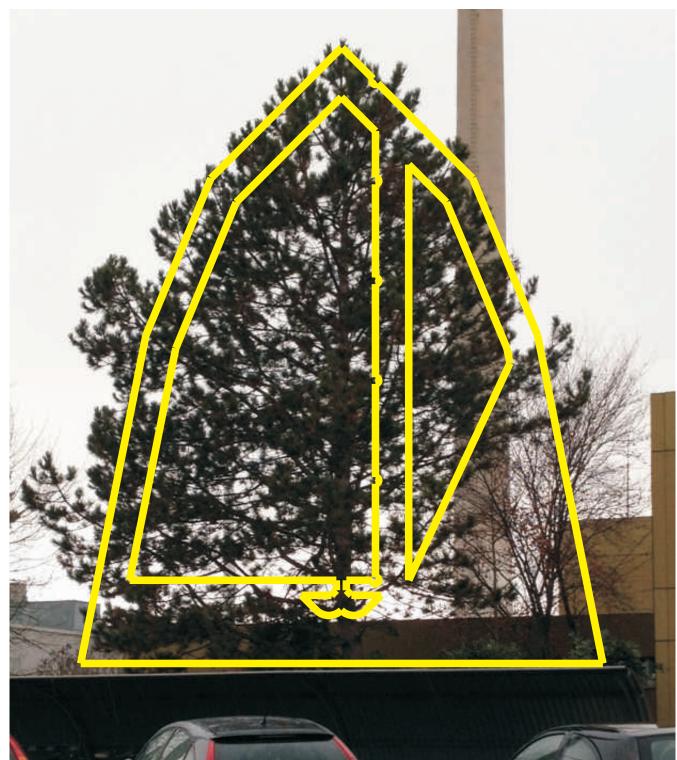
normally with included bark



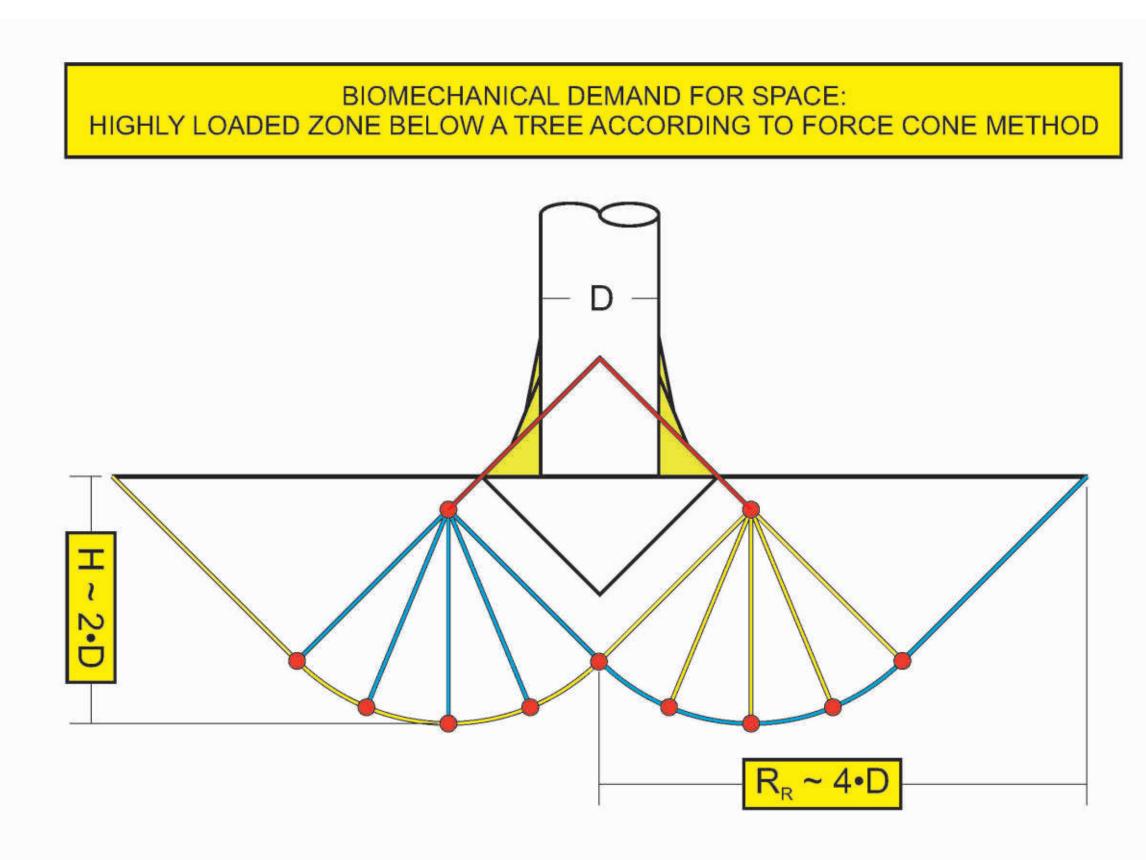
nomally no included bark

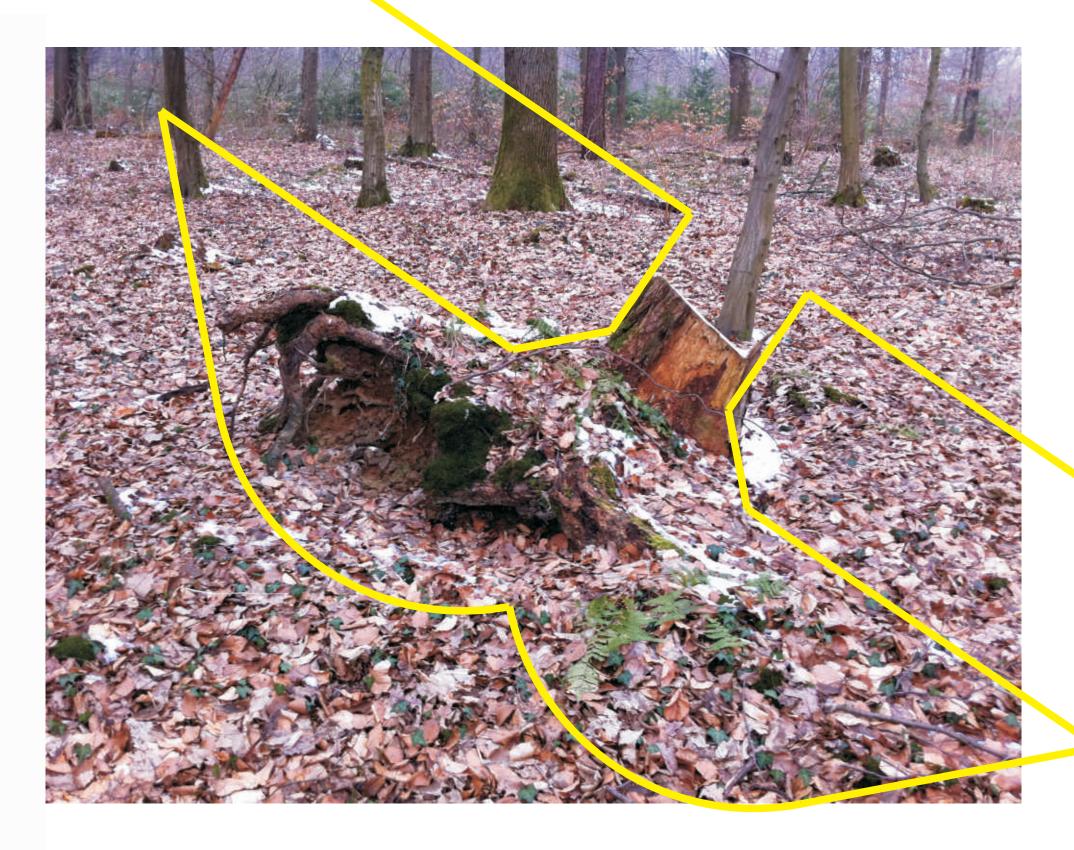
## 3. Pruning options - no dogma!





## 4. First assessment of windthrow and highly loaded zone according to force cone method







Attention: The message of the tool is no dogma. It is only the biomechanical aspect. It is urgent to regard the habitus of the species and the circumstances of the individual tree, the size of the potential pruning wounds, phototropism, etc. Not all trees must look alike!