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INGENIEUR-/SACHVERSTÄNDIGEN-BÜRO
BÄUME | HÖLZER | KONSTRUKTIONEN | JAHRRINGE

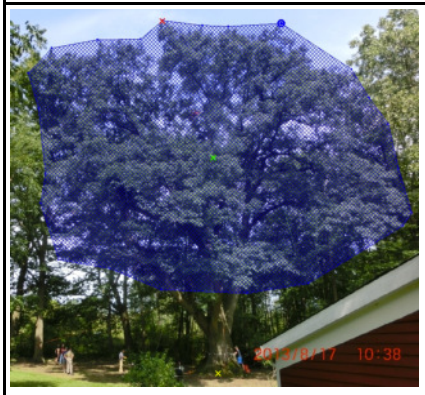
ENGINEERING & EXPERT OFFICE
TREES | TIMBER | STRUCTURES | TREE-RINGS

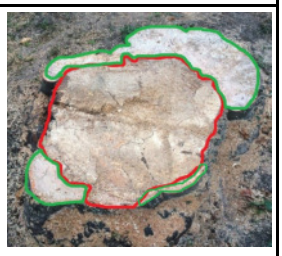
UNTERSUCHUNG	BÄUME, HOLZ, KONSTRUKTIONEN	EXAMINATION	TREES, TIMBER, CONSTRUCTIONS
ENTWICKLUNG	MESSGERÄTE, SOFTWARE, METHODEN	DEVELOPMENT	DEVICES, SOFTWARE, METHODS
BERATUNG	SEMINAR, SCHULUNG, VORTRAG	CONSULTATION	SEMINARS, TRAINING, LECTURES

Tree-safety-assessment and evaluation

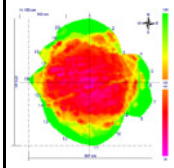
a workshop, guiding from misleading concepts and confusion ...

H>20m & BHD<40cm ➤ "Stability<50%" & H/D>50
According to the two major competing tree-risk evaluation concepts (SIA & VTA), these trees would have to be felled although no defect is present. If this would be correct, many intact young trees would have to be removed precautionary.





Shell wall ratio t/R<1/3! **but:** "Basic stability>300%"
Which shell-wall thickness is relevant for safety evaluation, when the SIA online calculation determines sufficient safety?



Tree height >20m
BHD >250cm
Shell wall <10cm
➤ t/R<1/10!!

But: SIA online calculation: "basic stability >5000%" and required shell wall =1cm!

Sometimes, even competing concepts of tree-safety evaluation lead to similarly absurd results for the same tree. Often, their application leads to contradictory results - leaving arborists in confusion, the more so as these concepts are promoted by allegedly neutral scientists. Thus, arborists need own knowledge and sufficient self-confidence to assess and evaluate tree-safety, to explain and to defend their decision and recommendation.

... to a real understanding of tree-biomechanics ...

Based on real research by independent neutral scientists (Niklas, Spatz, Telewski, Boddy, Evans, Fratzl, Schweingruber, Eckstein, ...) tree-biomechanics can be explained in simple words, so that arborists can identify tree-risk myths as such and can evaluate tree-safety more reliable.

... for a better assessment and more reliable evaluation!

Practical application of the real principles of tree-biomechanics allows to evaluate tree-safety in many cases by assessing visual properties of the trees or by using simple tools. In difficult/important/complex cases, proper application of one or several technical diagnostic devices (resistance drilling, sonic tomography, pull-tests) support biomechanically competent arborists in determining the trees condition, in evaluating tree-safety and recommending action to be taken.

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2017.11.21 / fr