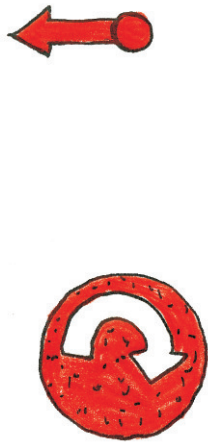


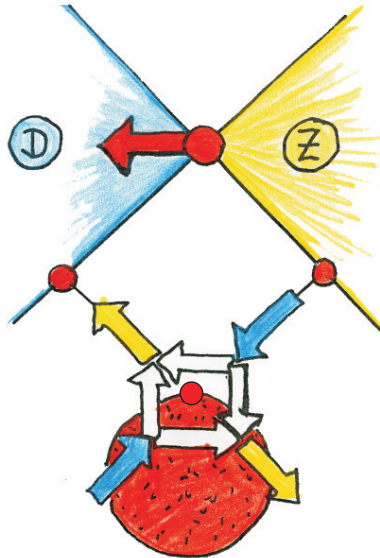
# Force Cones and Primary Points at the Torsion Anchor

C. Mattheck, J. Sörensen, K. Bethge, I. Tesari, R. Kappel

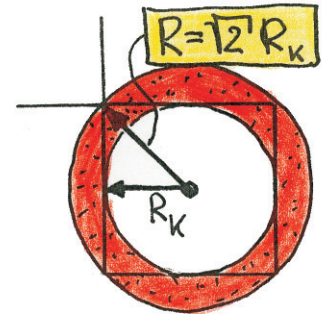
(A) Applied Load



(B) Force Cones



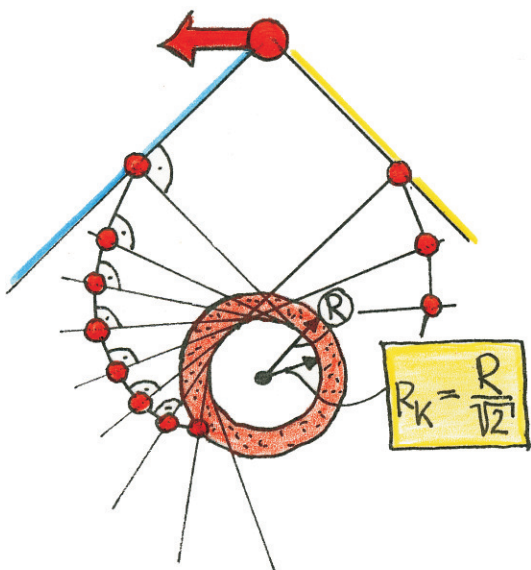
(C) Constructive Circle



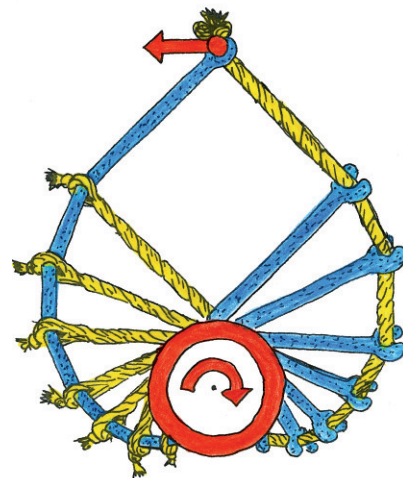
Force cones and primary points (●), where tensile- and compressive forces intersect at right angles.

The constructive circle (radius  $R_K$ ) enables simplified engineering of the torsion anchor using tangent lines. The loaded radius of the torsion anchor is  $R$ .

(D) String of Primary Points



(E) Visualization of the Principle



[1] C. Mattheck, J. Sörensen, I. Tesari: Kraftkegelmethode und Torsionsanker, <http://bibliothek.fzk.de/zb/berichte/Mattheck-Poster-100208.pdf>

[2] C. Mattheck, K. Bethge: Ein erster Versuch zur computerfreien Gestaltfindung mit der "Methode der Kraftkegel"

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