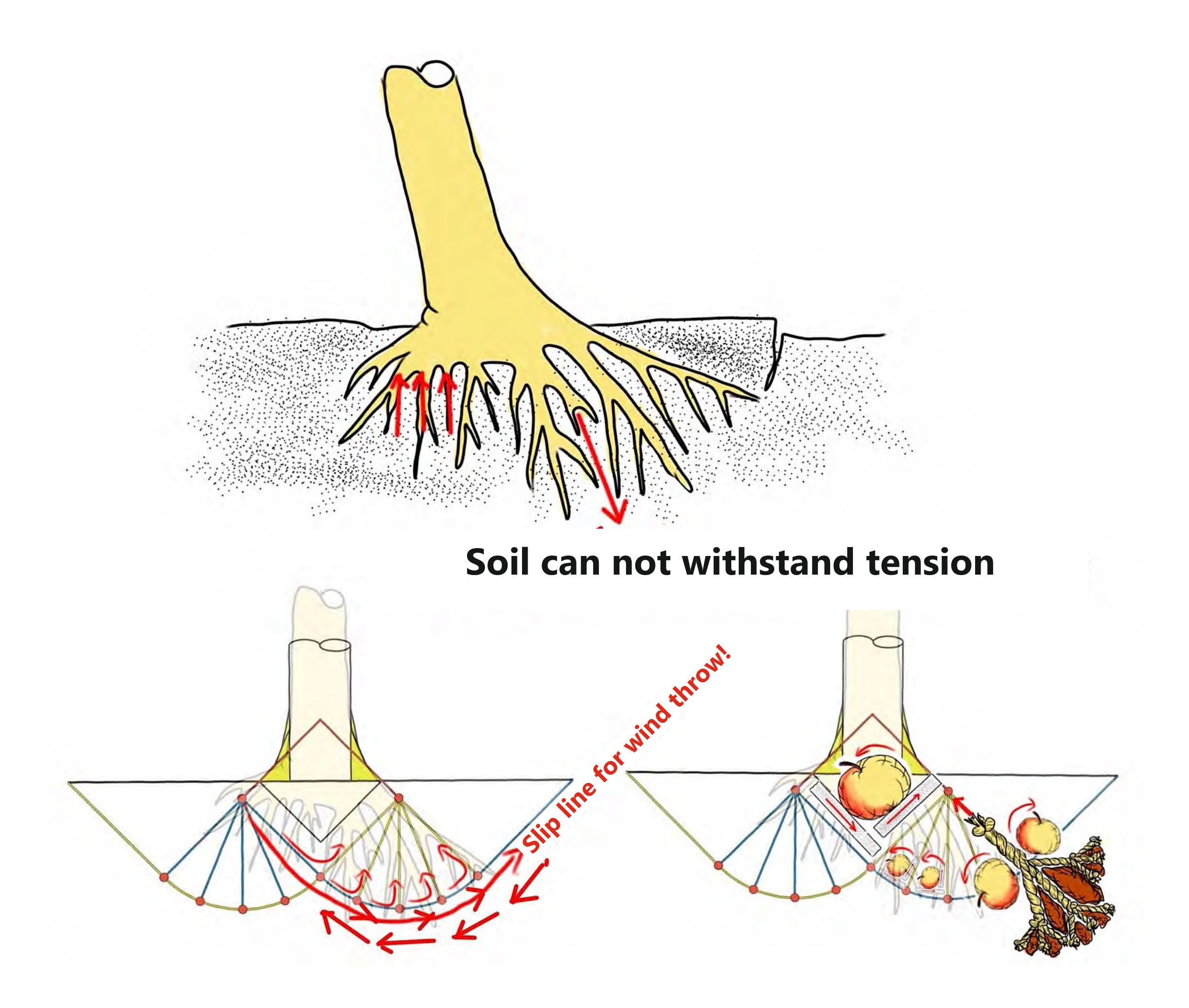


Anchoring on strong and stiff soil

C. Mattheck, K. Bethge, K. Weber, I. Tesari



The tree anchors by shear. But where there is shear, there are also whirls (cf. apples).

Tension of the roots is transformed into compression of the soil, leading to an increased shear strength of the soil and the slip line.

Summary: The root-initiated tension is transformed into shear. Soil knots at the root end compact the soil and increase its shear resistence.