IWM 2000 SESSION 6
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Discussion of shaft resistance in micropiles has continued during this workshop by arguing, if shaft resistance in compression and in tension is equal or not. Anyhow why should they be equal, because the stress state in ground does not remain equal in ground (Fig. 1).

That is why my conclusion is:

High grouting pressure and short term load tests lead to risky results for permanent tension loads. Anyhow above yield dilatancy of surrounding soil layer may increase the horizontal stress σ_h considerably, which makes interpretation of test loading results difficult. But dimensioning of permanent structures shall be below the yield, where is no dilatancy.

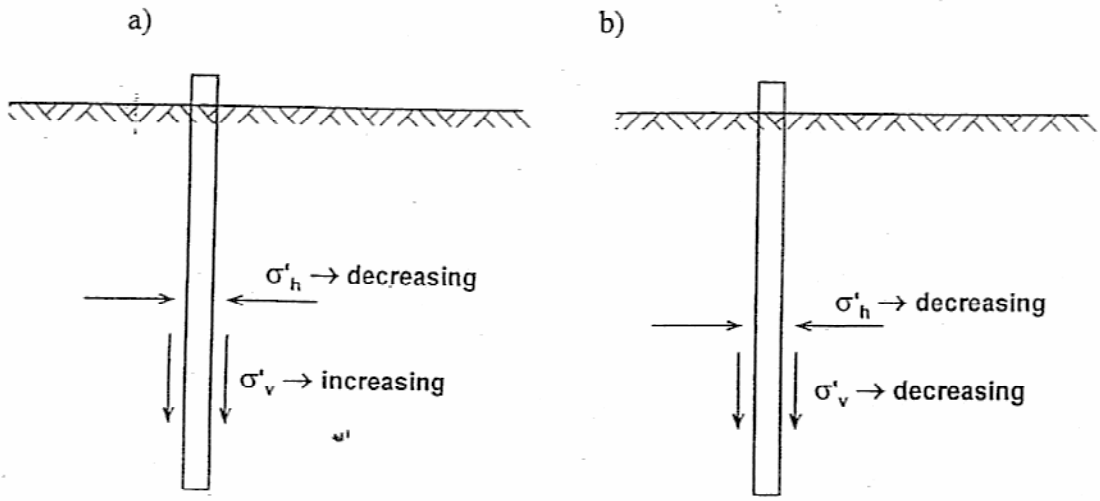

Fig. 1 Stress state in ground round micropile: a) in compression and b) in tension.