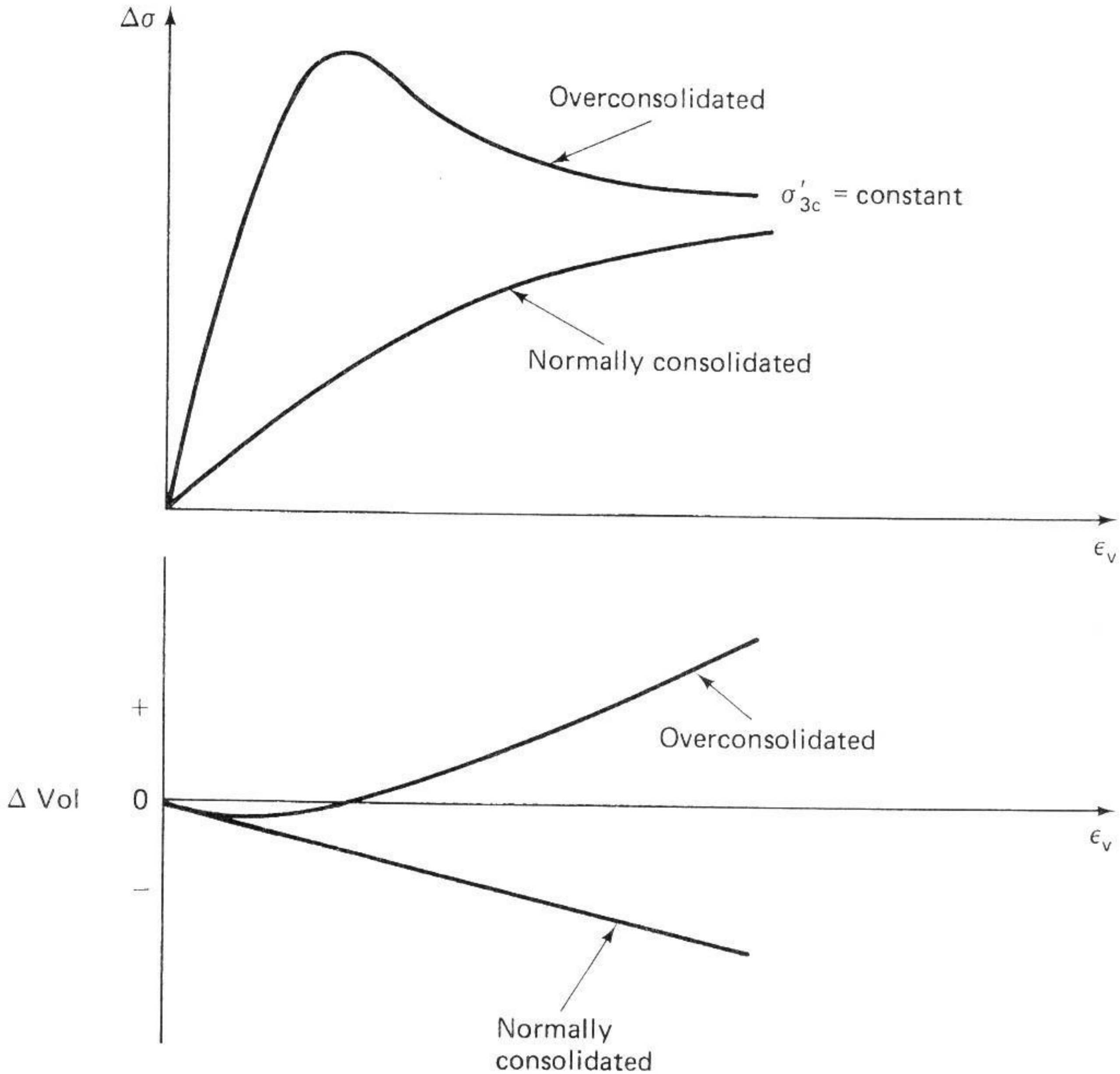
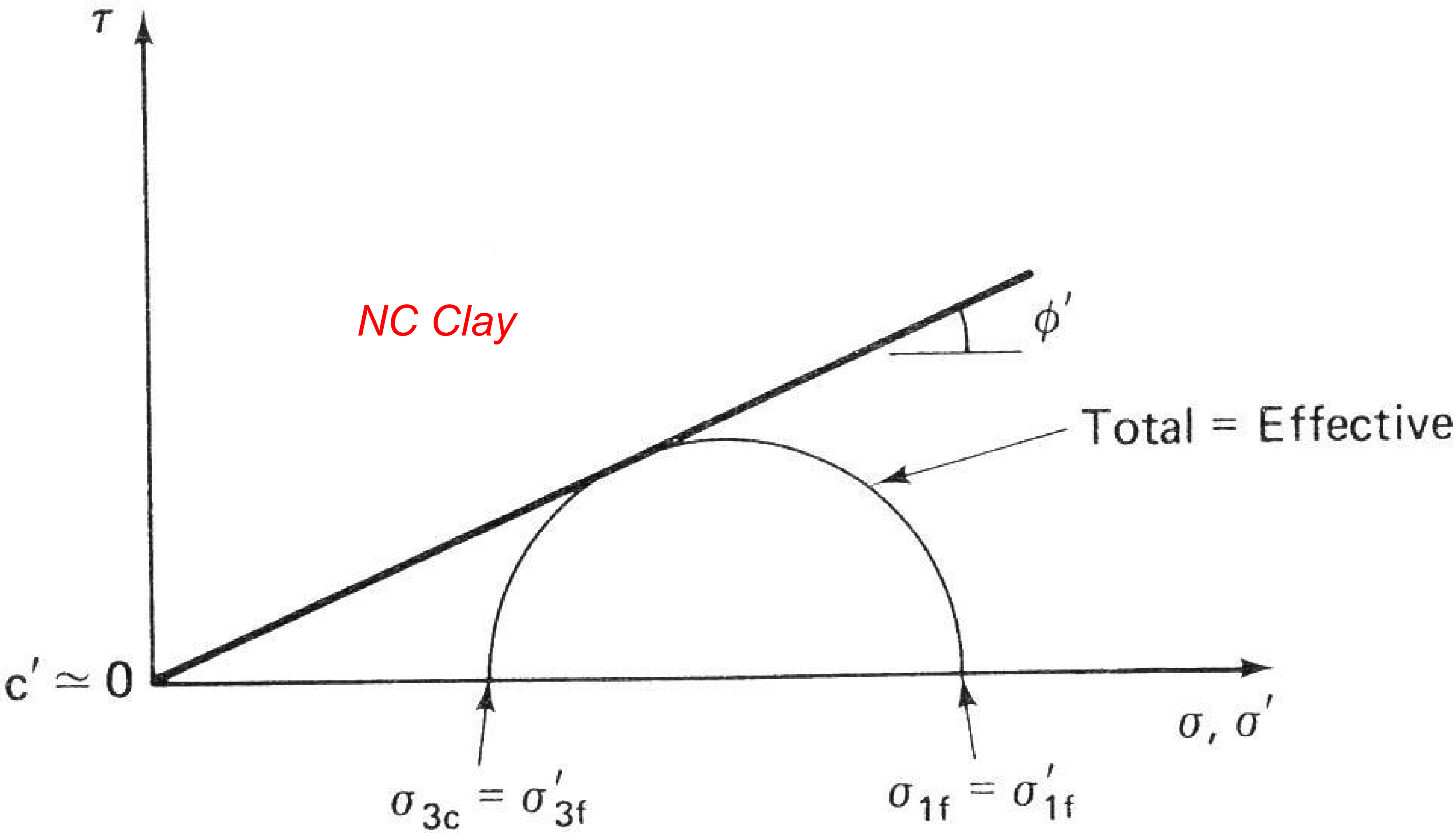
# Shear Strength of Clays



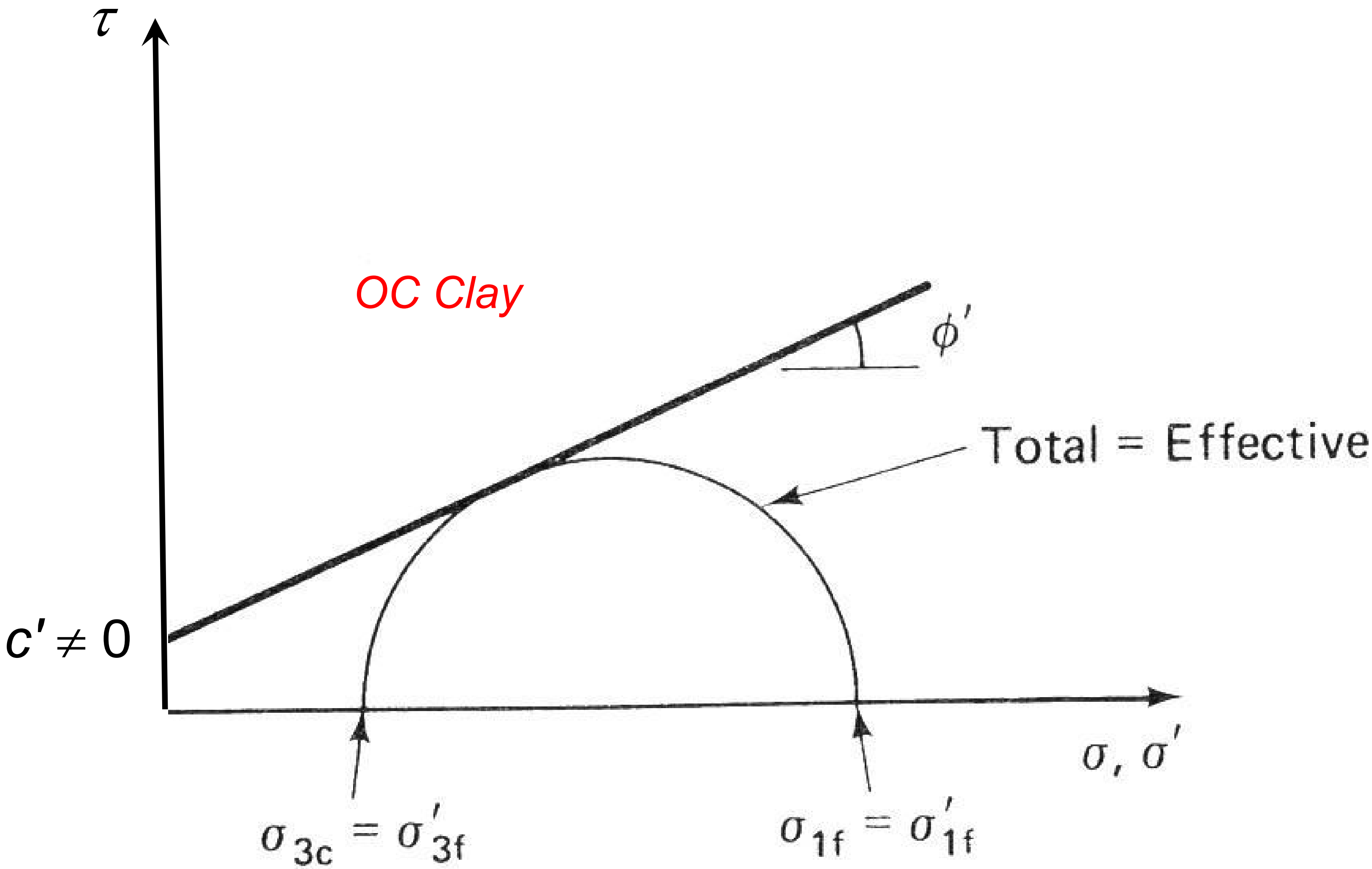

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

# Consolidated-Drained (CD) Triaxial Compression Test

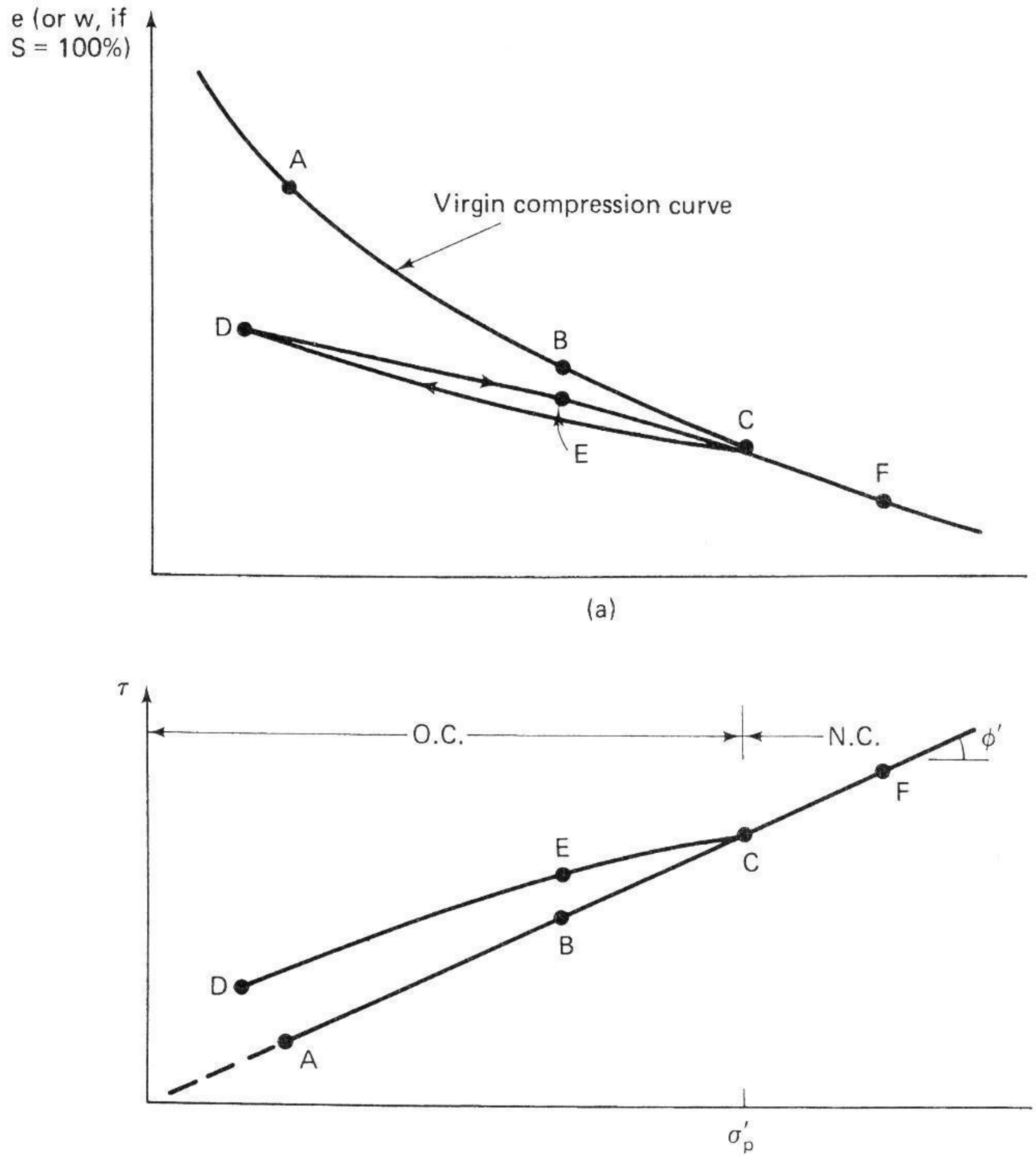



(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

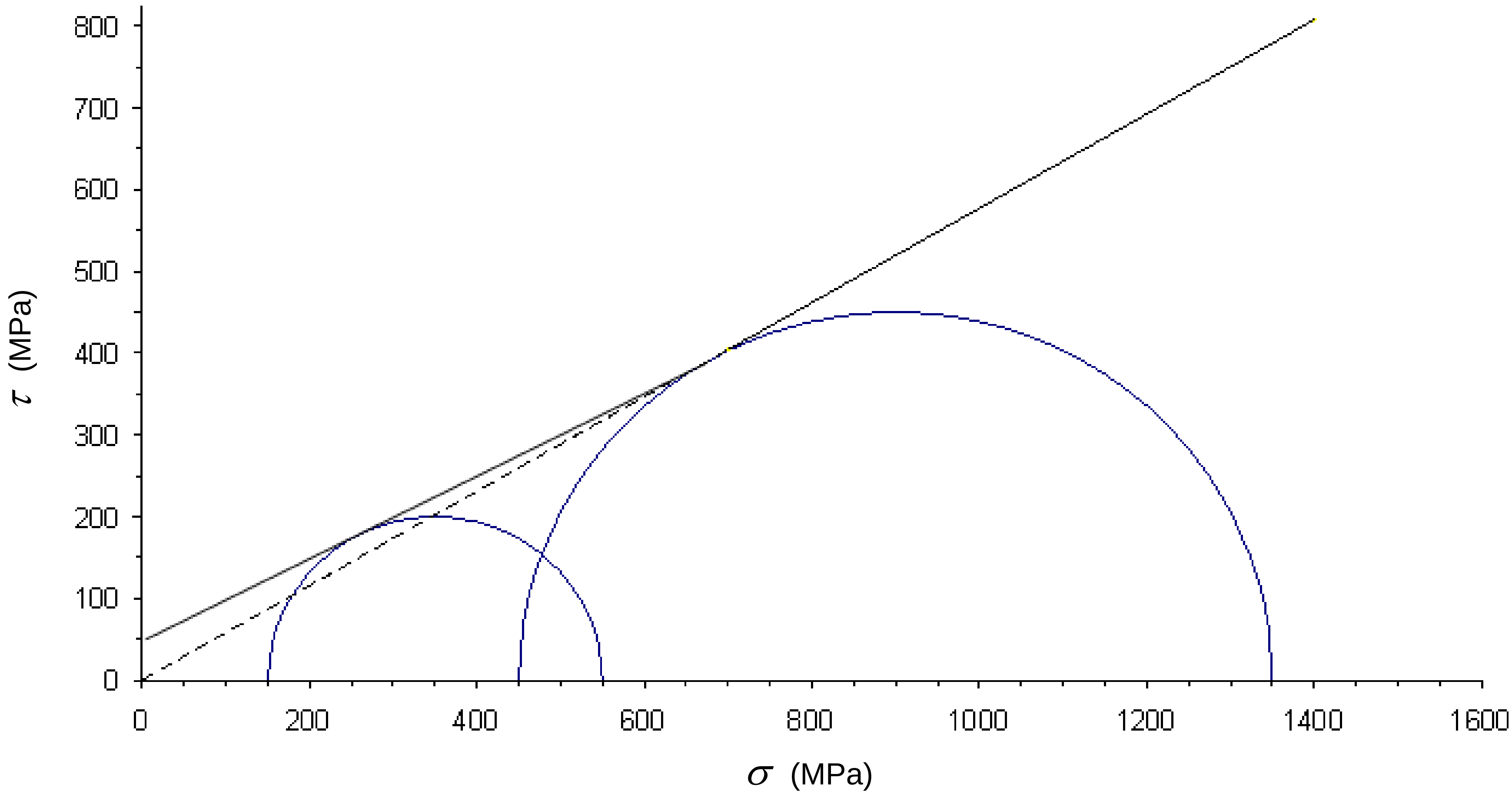
# Consolidated-Drained (CD) Triaxial Compression Test



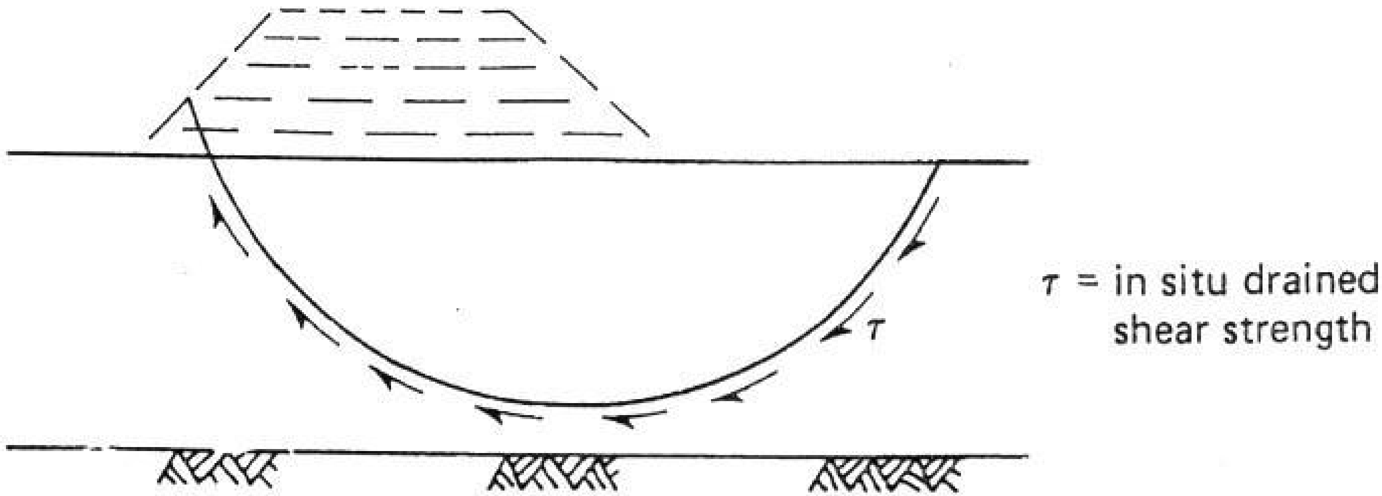

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)




(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

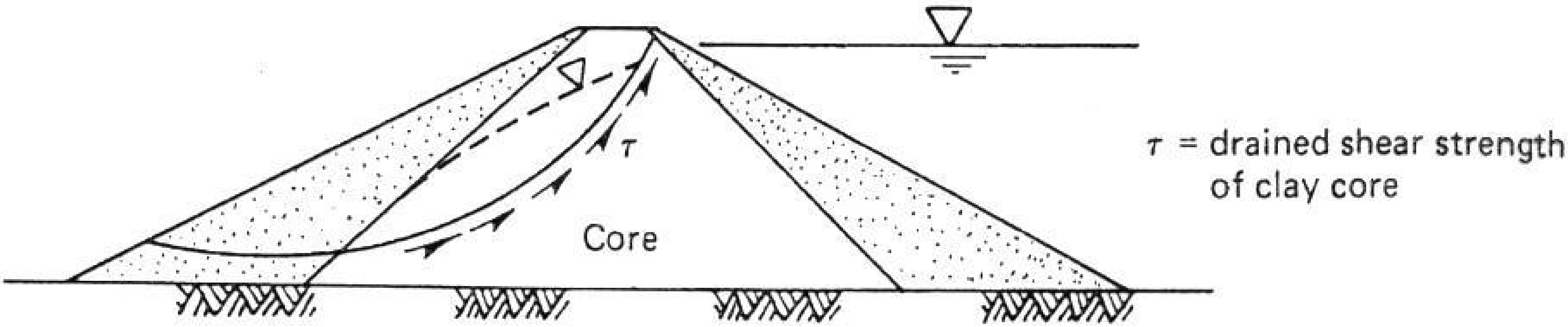


800
700
600
500
400
300
200
100
0
τ (MPa)
0
200
400
600
800
1000
1200
1400
1600
σ (MPa)



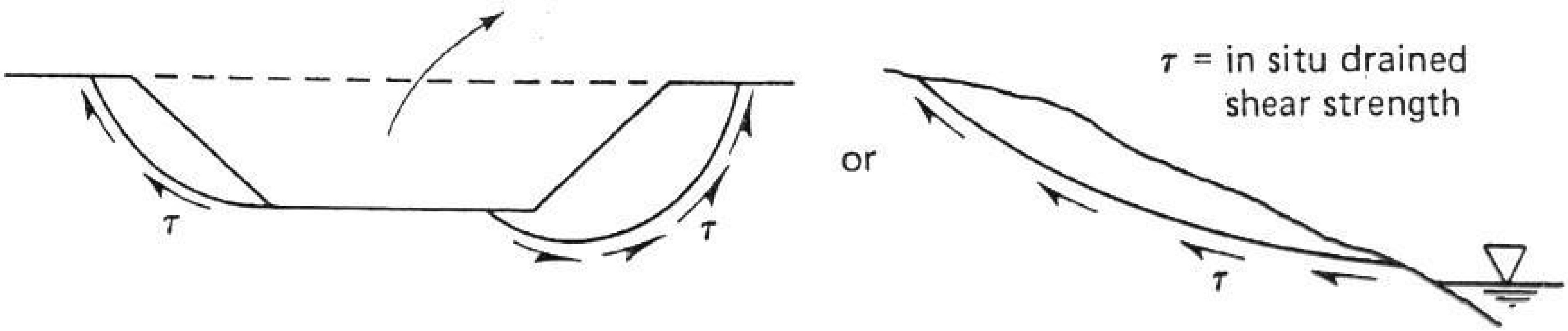

(a) Embankment constructed very slowly, in layers, over a soft clay deposit

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)




(b) Earth dam with steady-state seepage

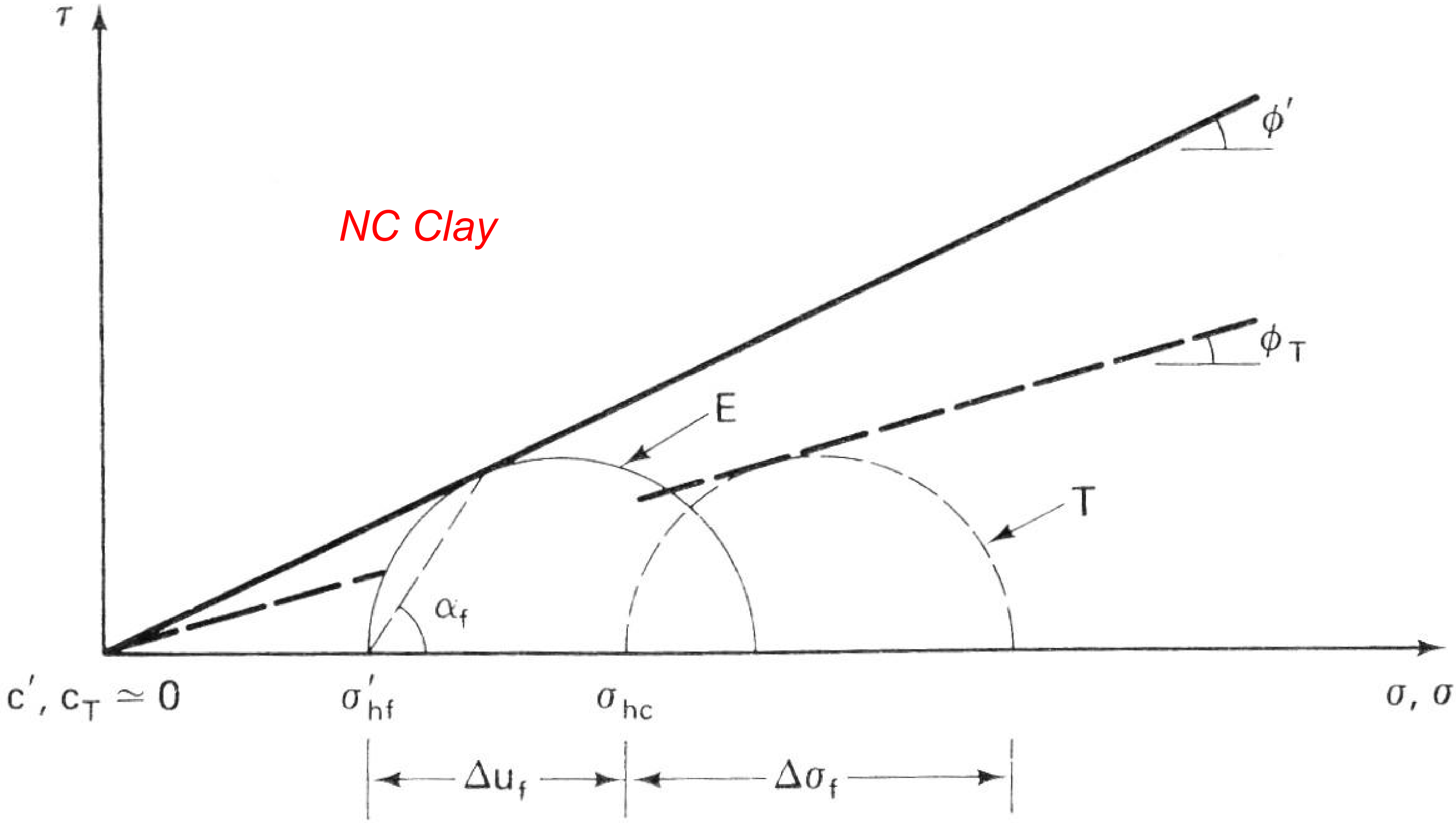
(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)



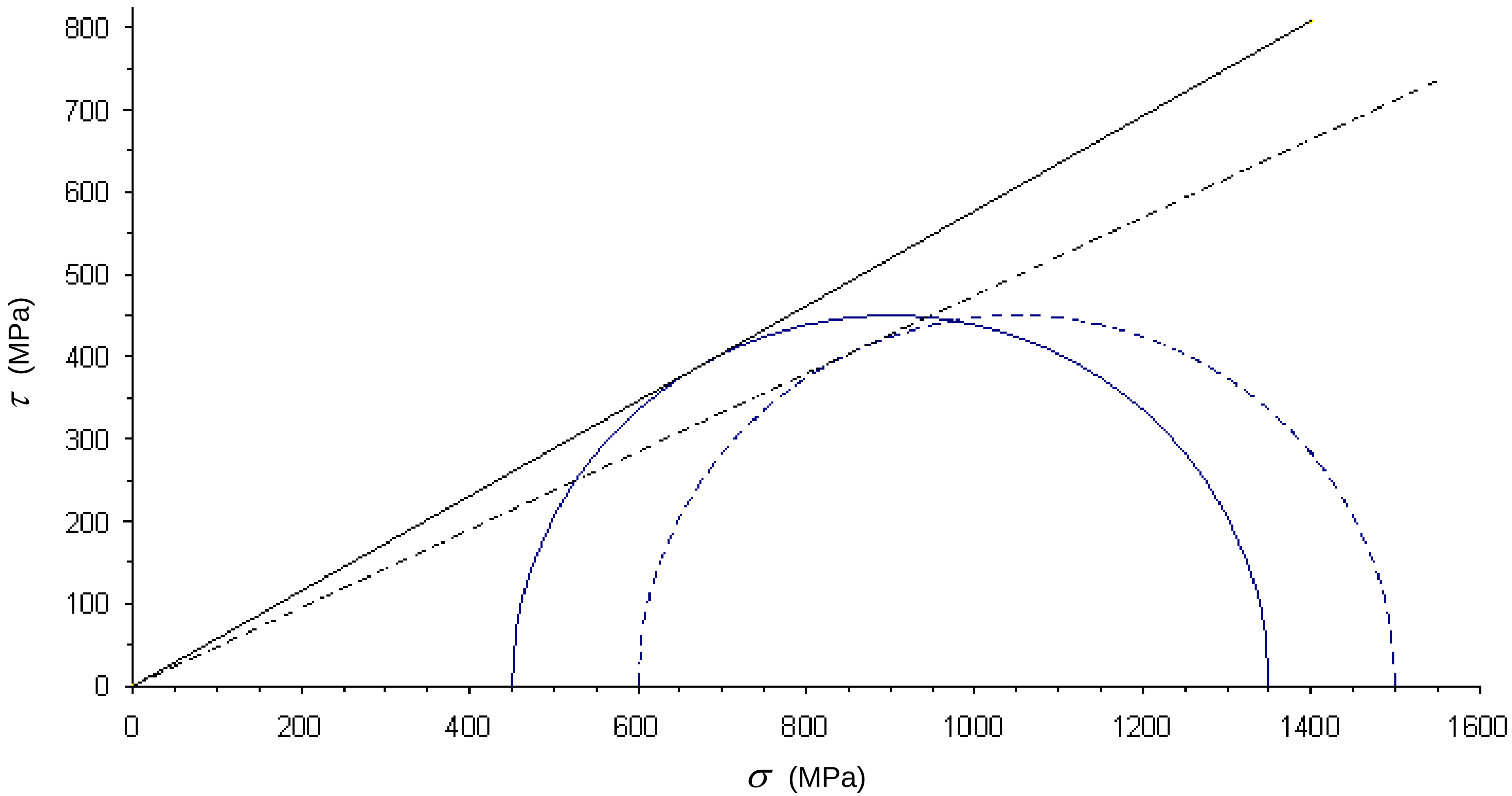

(c) Excavation or natural slope in clay

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

# Consolidated-Undrained (CU) Triaxial Compression Test




(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)



800
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τ (MPa)
0
200
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800
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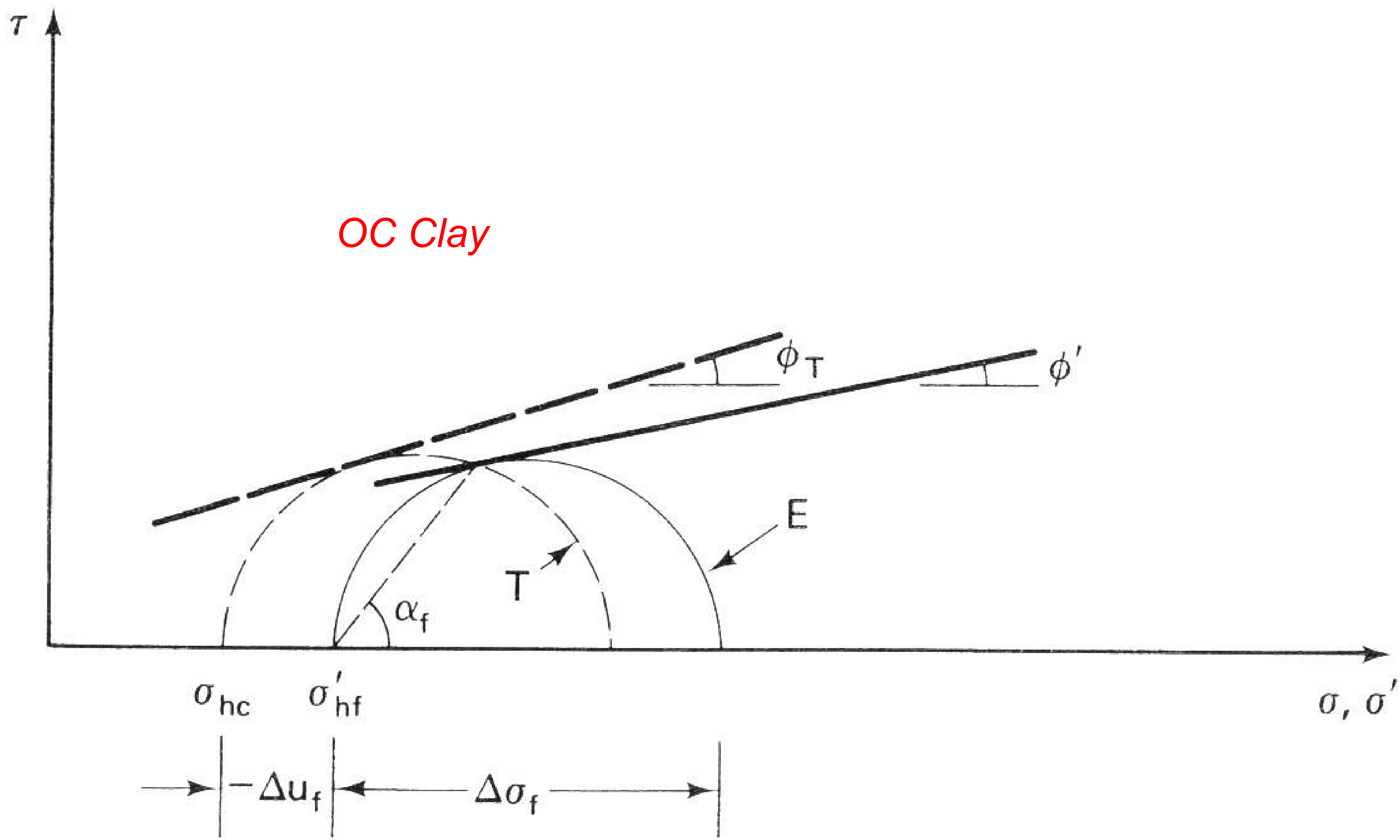
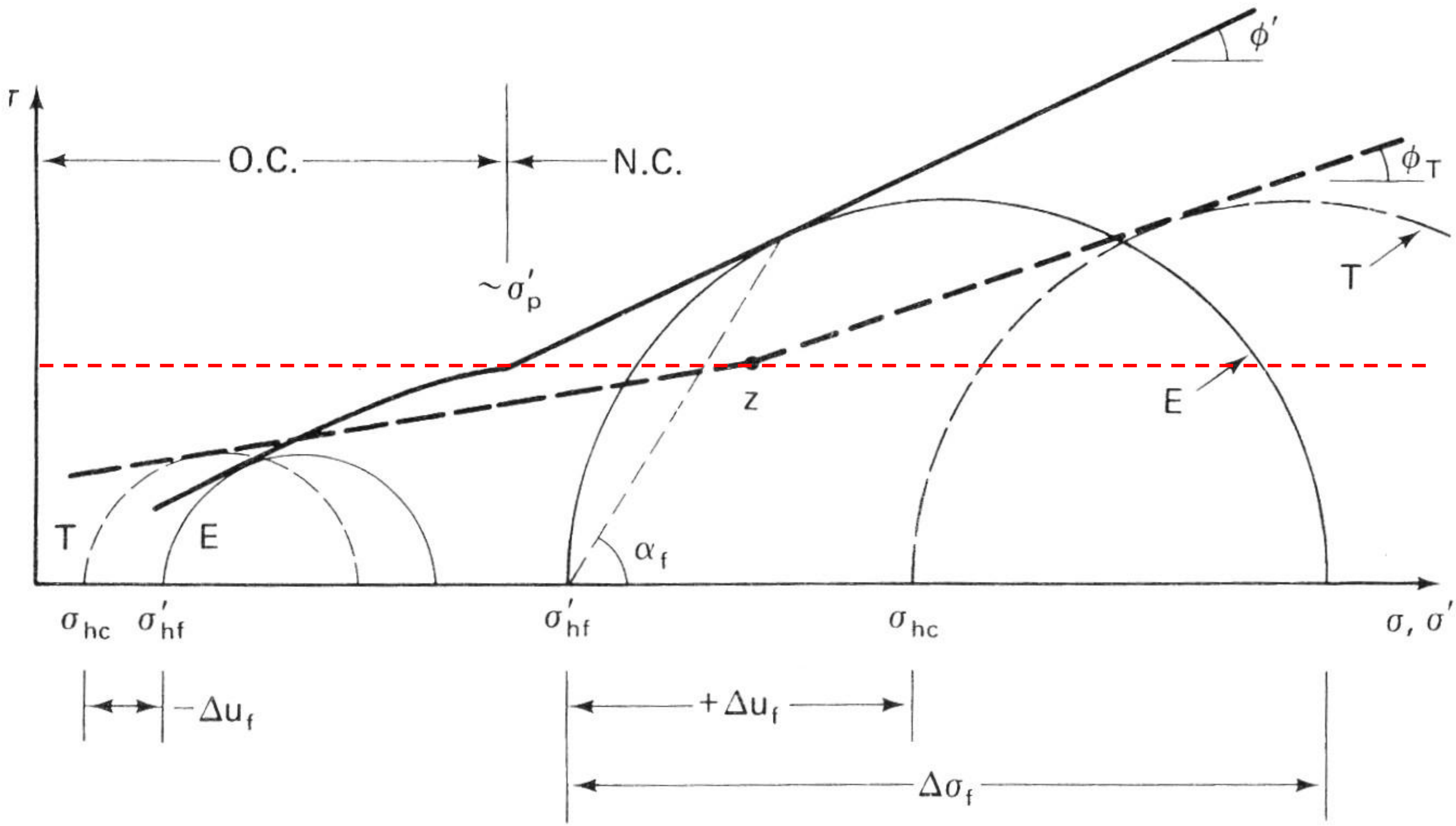
1200
1400
1600
σ (MPa)

Consolidated-Undrained (CU) Triaxial Compression Test

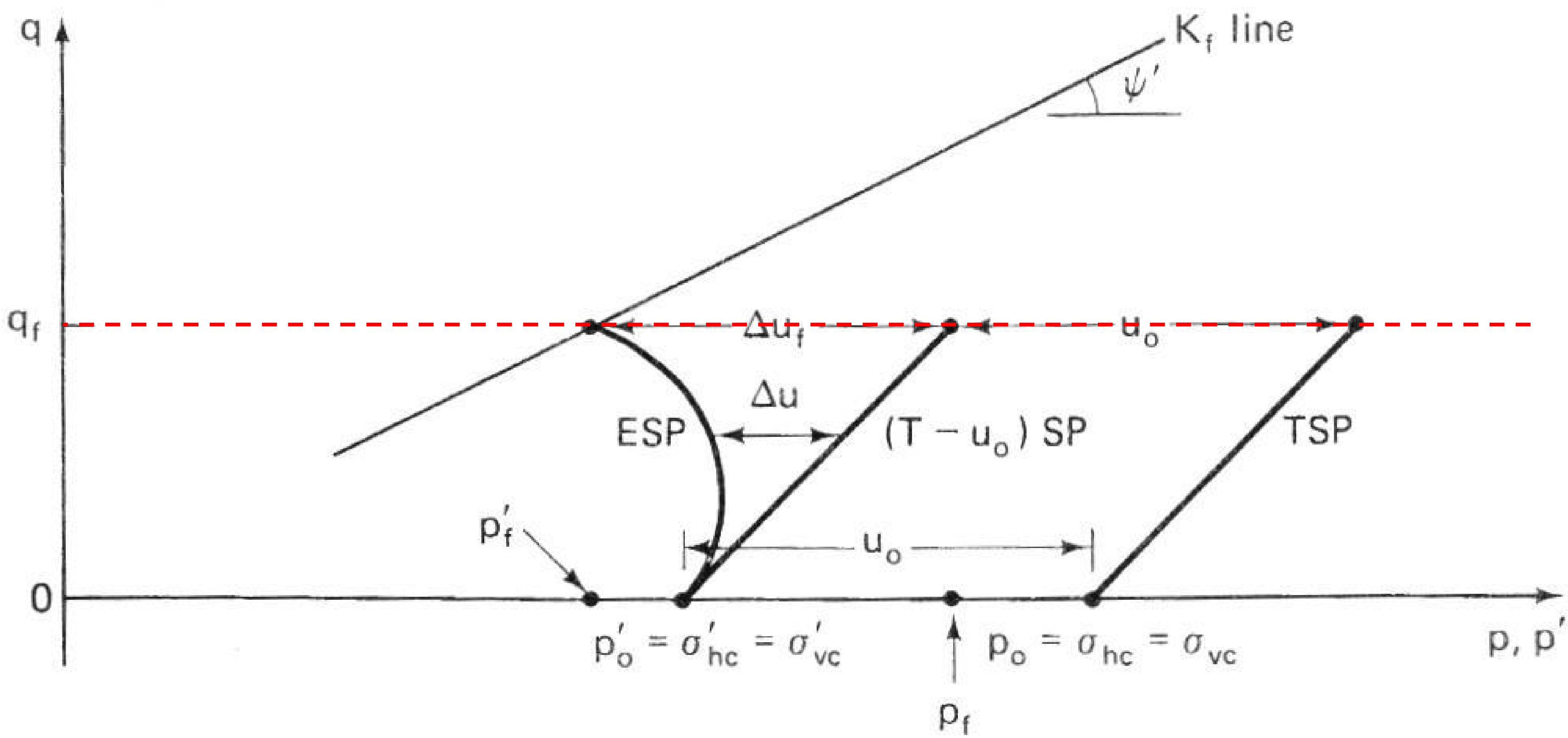



(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)



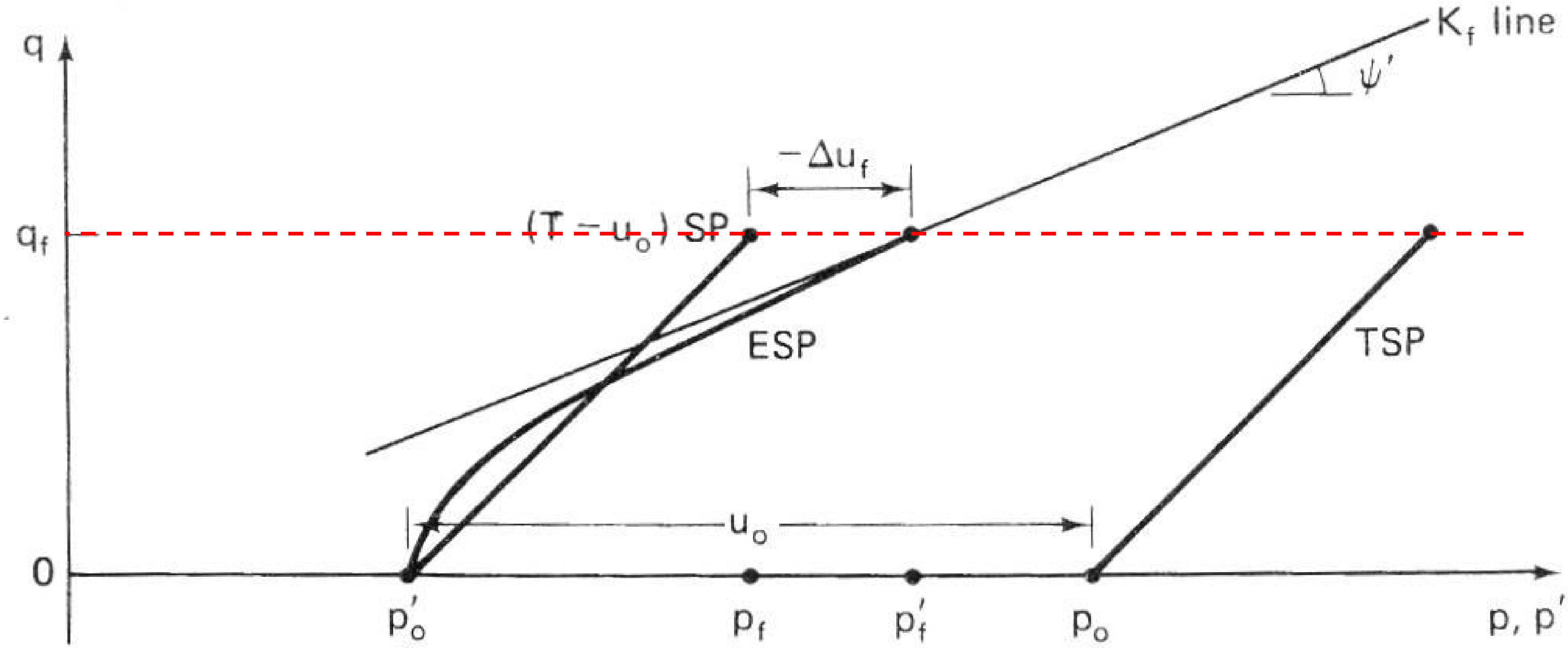

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

# CU Test w/ Backpressure Saturation on NC Clay

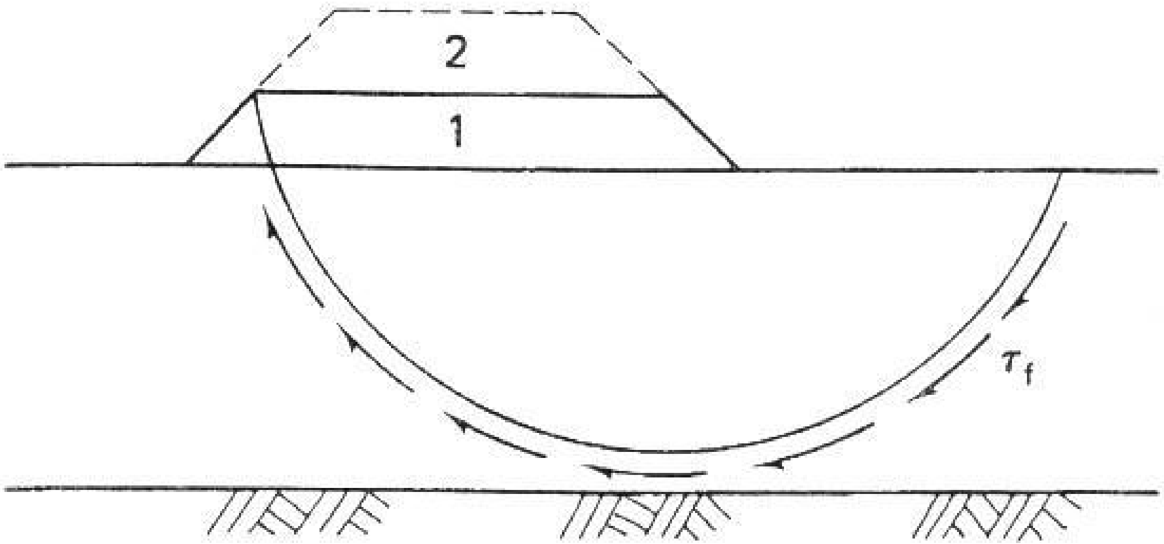



(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

# CU Test w/ Backpressure Saturation on OC Clay



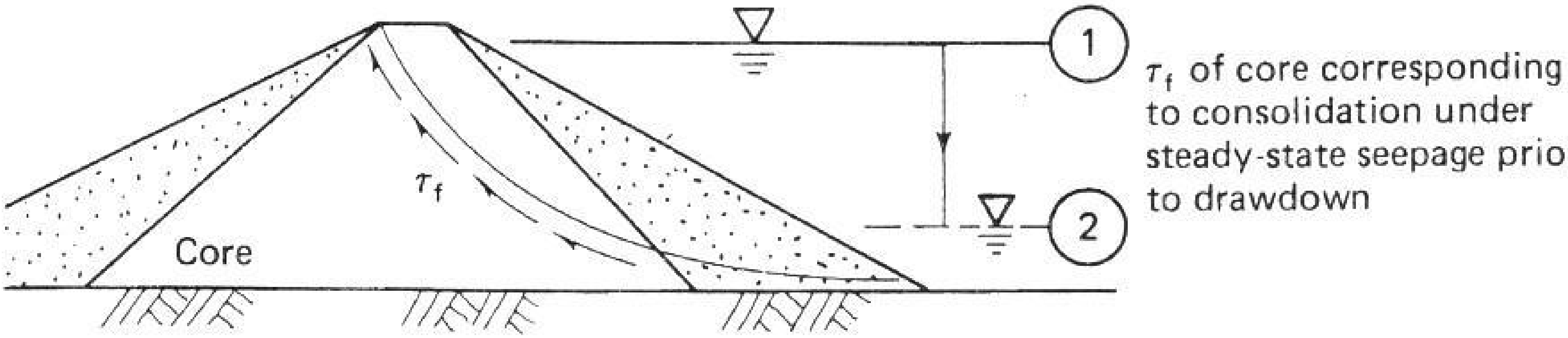

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)




$\tau_f$ = in situ undrained shear strength after consolidation under layer 1

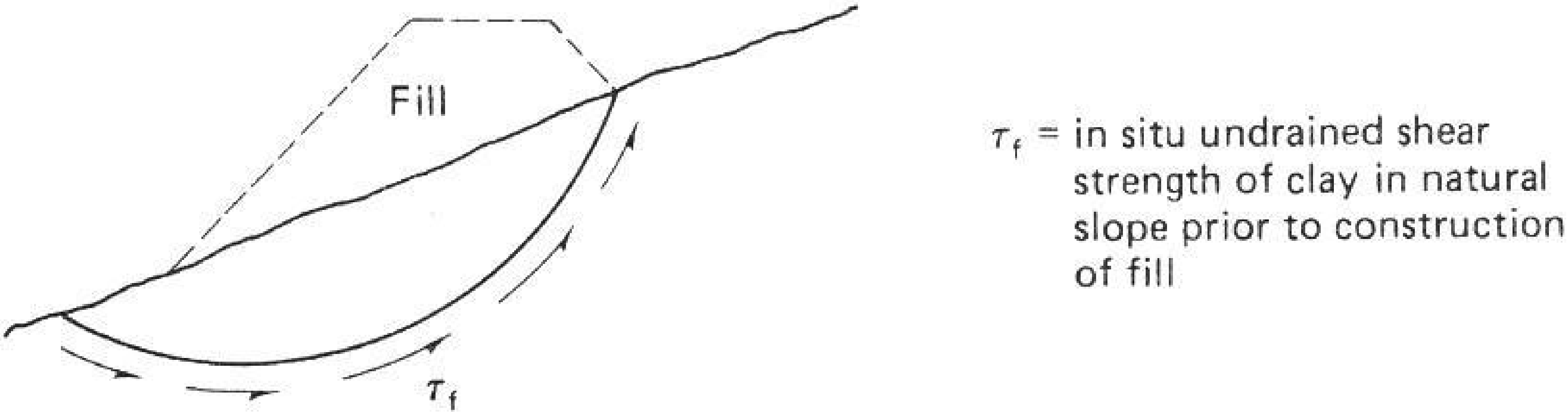
(a) Embankment raised (2) subsequent to consolidation under its original height, (1).

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)




(b) Rapid drawdown behind an earth dam. No drainage of the core. Reservoir level falls from ① → ②.

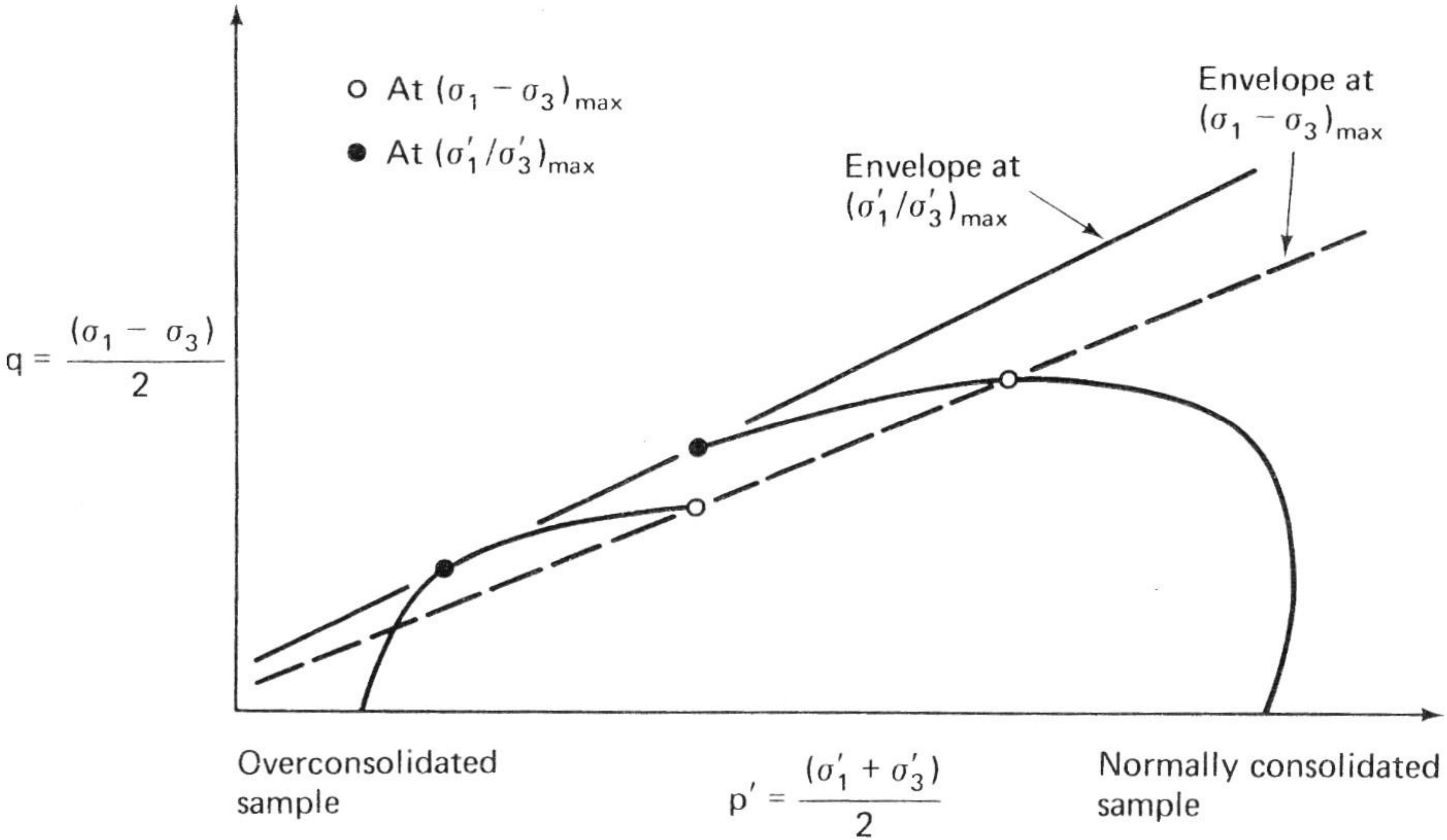
(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)



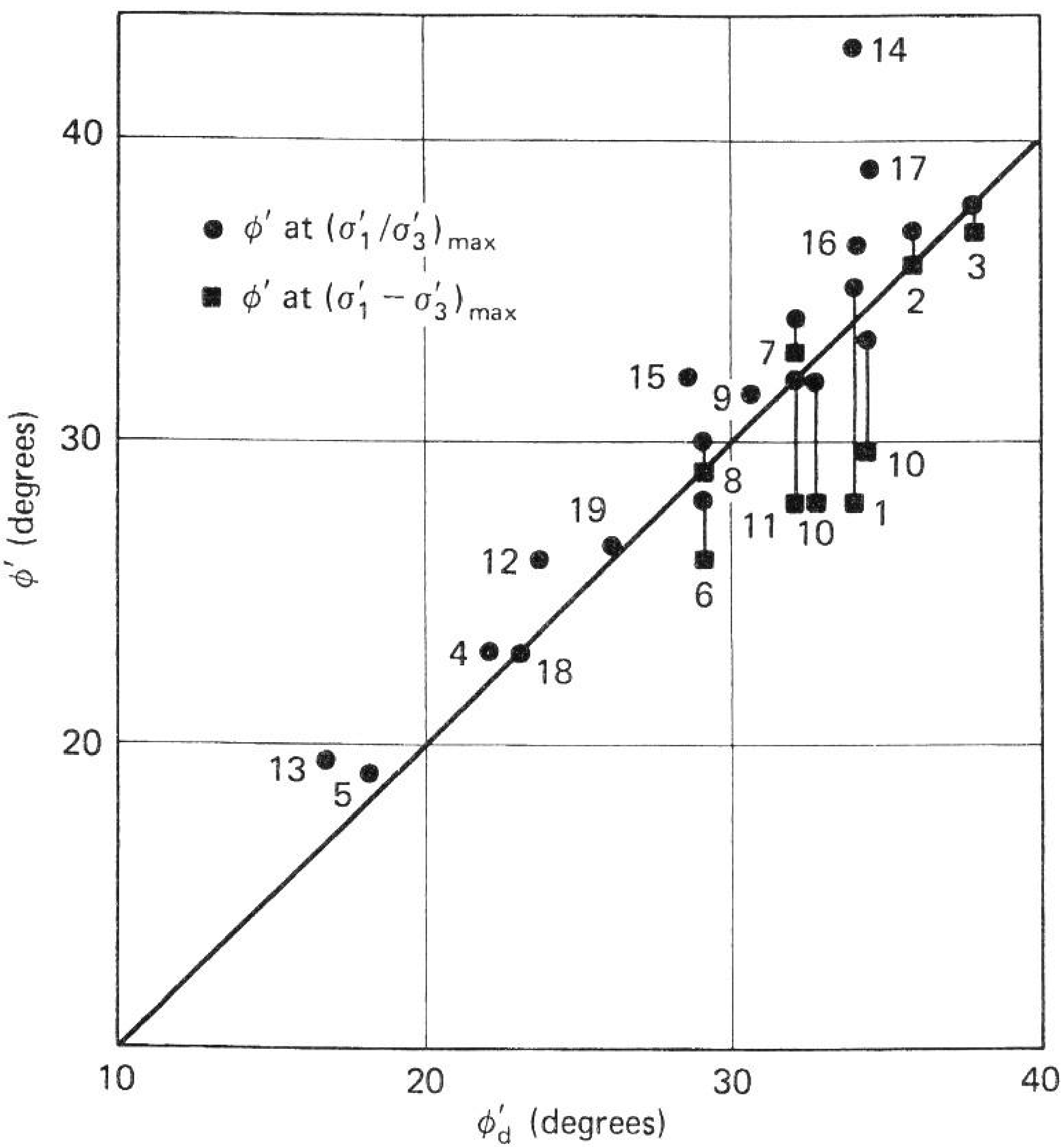

(c) Rapid construction of an embarkment on a natural slope.

(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)

# Tests on Sensitive Clay




(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)




(Holtz & Kovacs, *An Introduction to Geotechnical Engineering*, 1981)