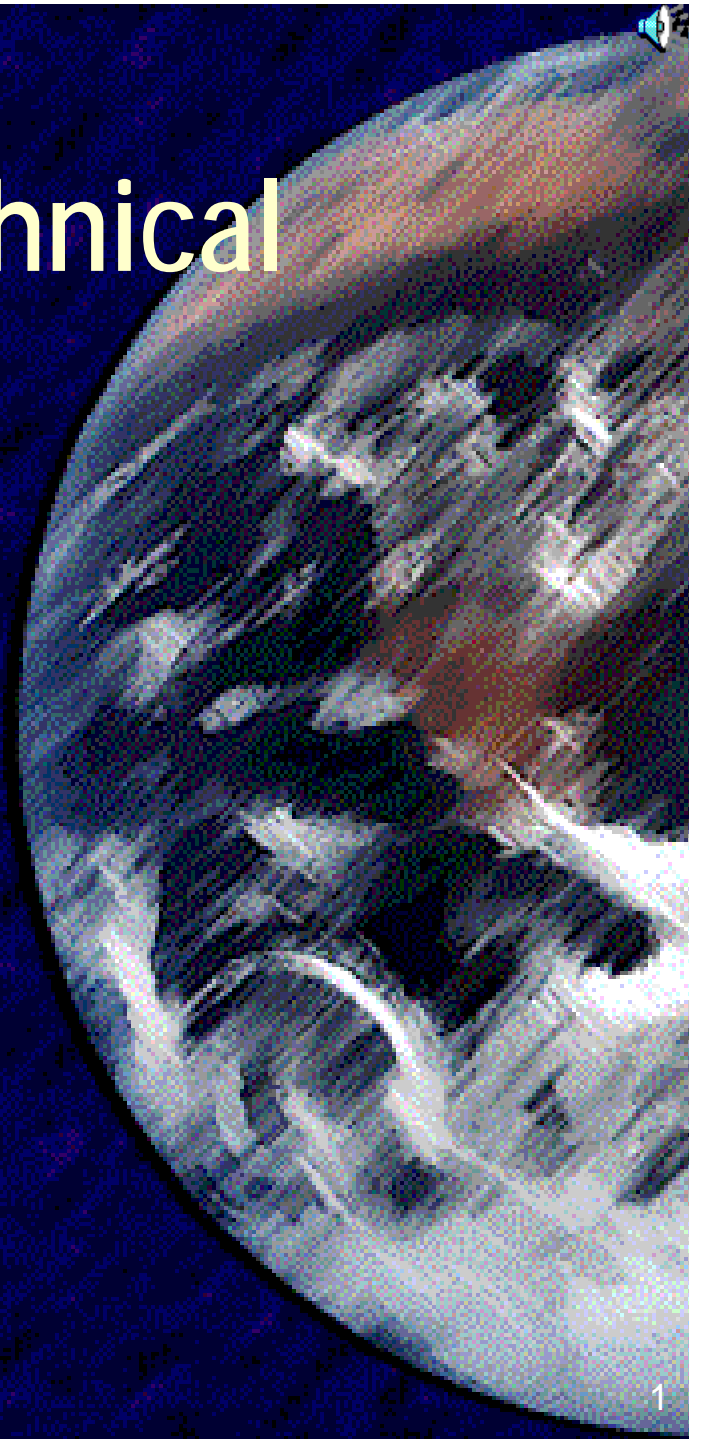


Introduction to Geotechnical Engineering (cont'd)



ground



Soil Testing

To know what lies beneath...

Soil Testing



Mobilizing the in situ test rig in some difficult situations

Soil Testing



Cone Penetration Test Truck – Lavarach Barracks, Townsville

Women in Geotechnical Engineering



Site investigation in Cairns, Australia – Dr. Kirralee Rankine (JCU)

JCU Dynamic cone penetration rig



Soil Testing

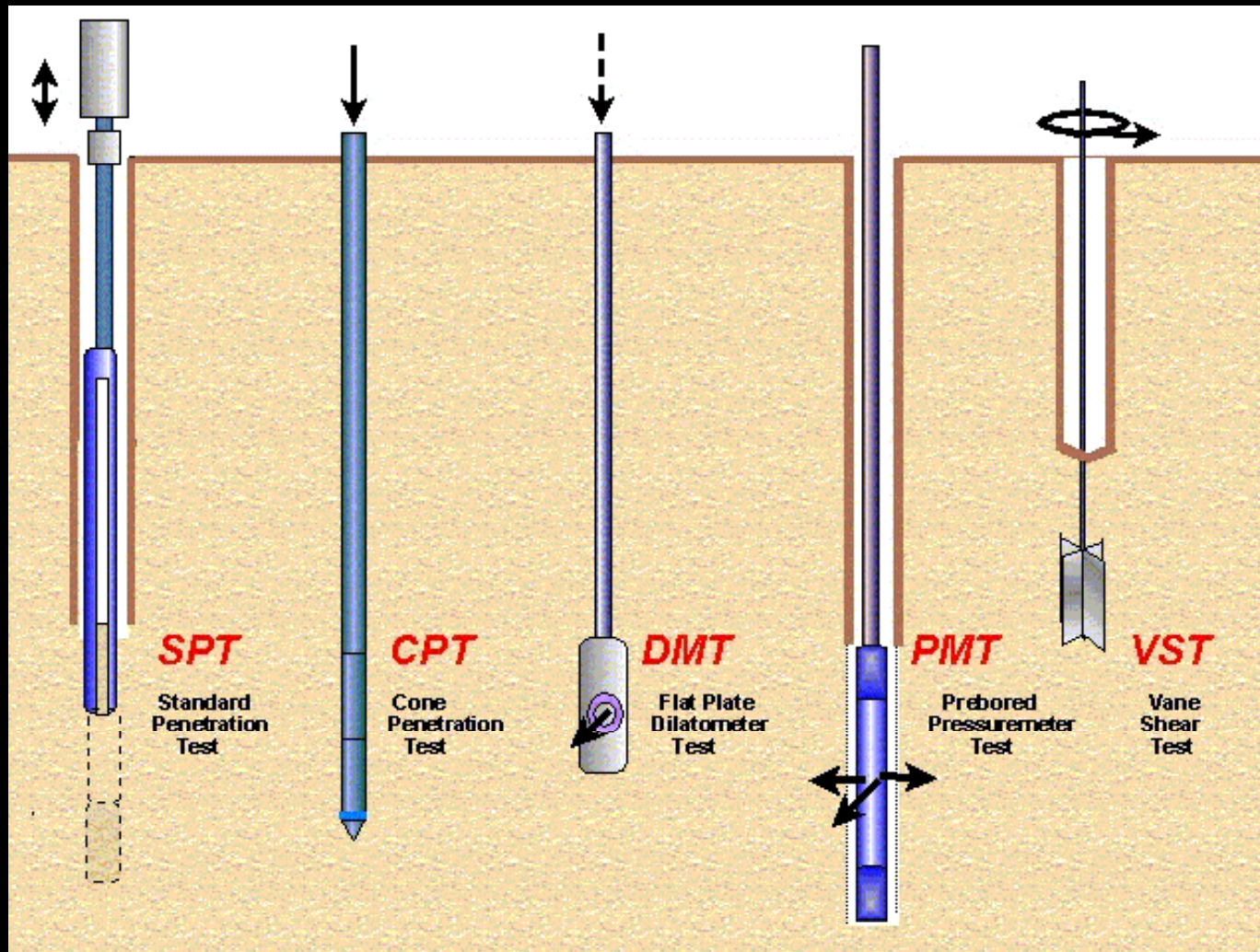


Vane Shear Test



Standard Penetration Test

Soil Testing



Variety of Field Testing Devices

Undisturbed Soil Samples



63 mm diameter samples from boreholes

Soil Testing



Triaxial Test on Soil Sample in Laboratory

Instrumentation

- ~ to monitor the performances of earth and earth supported structures
- ~ to measure loads, pressures, deformations, strains,...



Hall of Fame

Great Contributors to the Developments
in Geotechnical Engineering



Karl Terzaghi
1883-1963



C.A. Coulomb
1736-1806



WJM Rankine
1820-1872



A. Casagrande
1902-1981

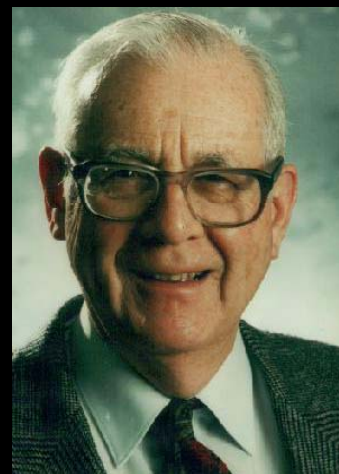
Siva's teacher in USA –
deserves gold frame



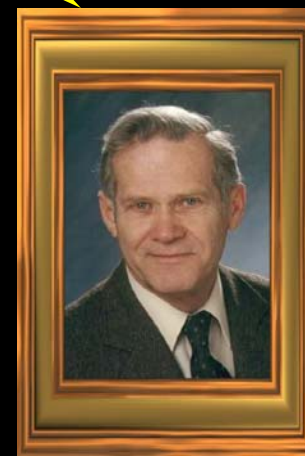
L. Bjerrum
1918-1973



A.W. Skempton
1914-



G.F. Sowers
1921-1996



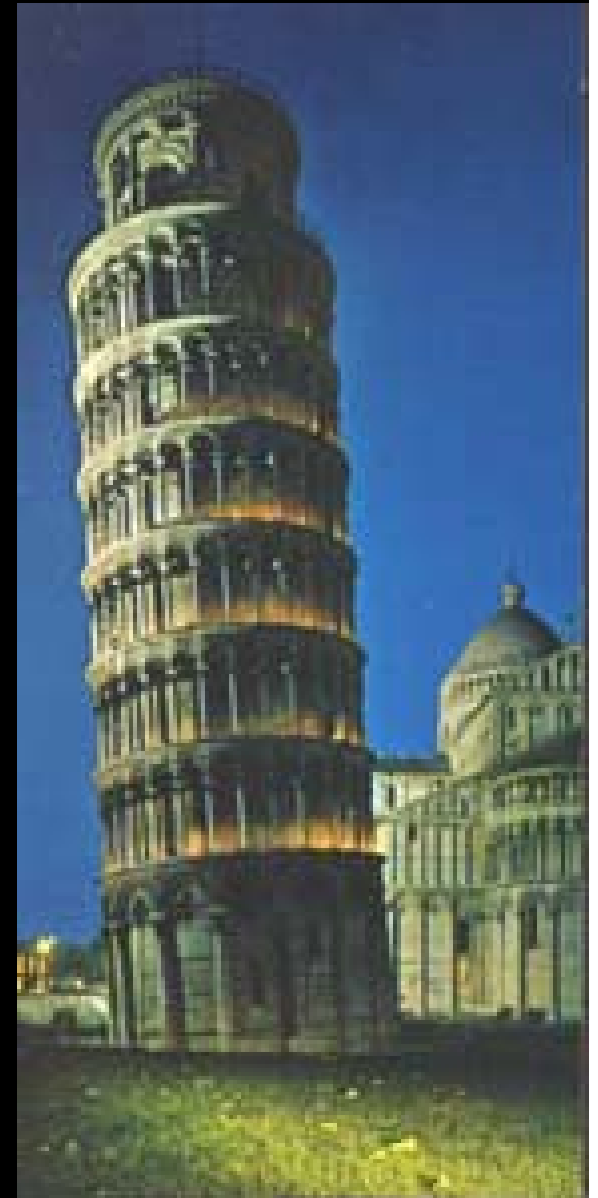
G.A. Leonards
1921-1997

Challenges

Geotechnical Engineering Landmarks

Leaning Tower of Pisa

Our blunders become monuments!



Hoover Dam, USA



Tallest (221 m) concrete dam

Petronas Tower, Malaysia

Tallest building in the world



Monuments



Failures – Pillars of Success



Malpasset Arch Dam in France – Failed in 1959

Some Suggestions

Attend the lectures.

It takes longer to understand
from the lecture notes

Develop a good feel for the subject.

It is practical, interesting and
makes lot of sense.

Some Suggestions



Work in groups.

Some Suggestions



Thou shall not wait till the last minute.

Exams

My mama always said, "An exam is like a box of chocolates; you never know what you gonna get"

