Imperial College London

Remembering Professor AW Skempton

4th June 1914 - 9th August 2001

2nd ISSMGE President, from 1957

Richard Jardine & John Burland

March 2022

Recognising Skempton's contributions

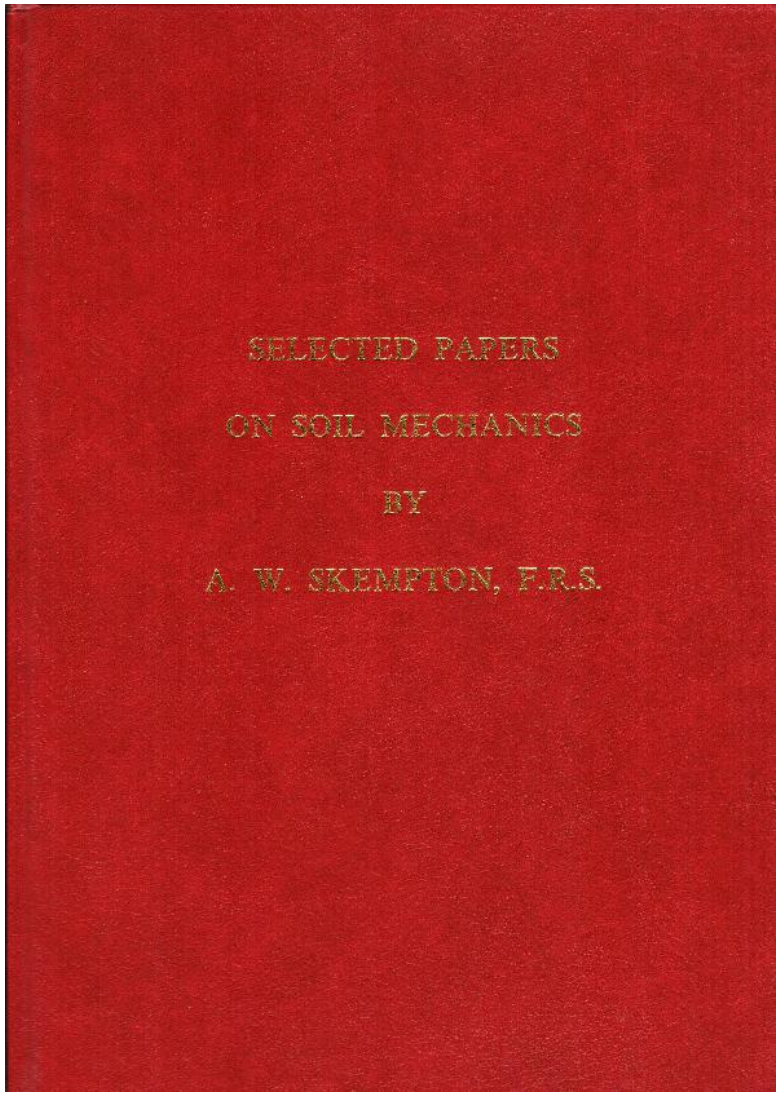
Skem's career summarised in:

https://en.wikipedia.org/wiki/Alec_Skempton

We offer here for ISSMGE more personal and technical volumes and events published and held over thirty years from 1984 to 2104 that commemorated his contributions and celebrated his life

We also signpost video material of him delivering a lecture to the UK Institution of Civil Engineers in 1994

1984 volume of re-printed papers



The Papers

See article from collected papers volume by Professor R E Gibson "Working with Skempton"

Working with Skempton

R. E. GIBSON

The Soil Mechanics Division of the Building Research Station had established by the end of the Second World War a pre-eminent position at the forefront of soil mechanics research in Britain. As a senior member of the scientific staff, Skempton had been invited in the autumn of 1945 to give a course of lectures on this new subject in the Civil Engineering Department at Imperial College. The need for this discipline to be taught was so great, and Skempton's lectures were so widely appreciated, that he was invited to join the staff at the beginning of the next academic year. Fortunately for us all he accepted. Within a year he had become the first Reader in Soil Mechanics in the University of London and Assistant Professor at Imperial College—a rare academic title which has now become defunct. Those few who held the title were invariably addressed as "Professor", so he became "Professor Skempton" at the remarkably early age of 33.

His first task was to build up a laboratory, and this was well under way when I arrived as one of his first research students in May 1947. Just after the war there was little money available for refurbishment and equipment, and in the main we had to make do with whatever could be made in our workshops or borrowed. Alan Bishop, who had been appointed as Skempton's assistant, brought on loan from the Metropolitan Water Board, a large and magnificent shear box which was put to constant use for tests on sand and gravel. In addition, a bank of three small shear boxes, also designed by Bishop, had just arrived from Farnell's, and Skempton immediately put me to work on these, testing clays. The consolidated "quick" tests were easy to carry out, but as no motor or gearbox had then arrived the drained tests required a handle to be turned smoothly, at an unbelievably slow rate, for a period of hours. Fortunately for me, all joined the queue to take their turn—Skempton included!

Those who have had an opportunity to work with Skempton on an engineering or research project have become aware first of his outstanding ability to reduce a problem to its essentials. A stimulating discussion invariably follows in which everyone joins: this seeks to identify the important questions to be answered and considers how best to go about this task. Understanding the need for opinions to be expressed freely, he guides discussion with a light touch, regarding himself merely as *primus inter pares*. Irrelevant remarks are allowed to pass: foolish suggestions call forth only mild disagreement; clever ideas are welcomed, but not unduly praised. This style reflects Skempton's innate consideration for others, his powers of judgement and his determination, rightly, to reserve for himself the final word. Conclusions are summarised succinctly and what needs now to be done is stated unequivocally.

Whenever he anticipates unusual difficulties this stage may be followed by consultation with those whose knowledge in special areas he respects. Never content merely to accept what he is told, he adopts the mantle of the student and questions them closely to reveal the path along which conclusions have been reached and, furthermore, to master for himself the details of the reasoning. He will not hesitate to acknowledge his inability initially to follow an argument, but will persist until its essence has been grasped and he has formed his own opinion. This unassuming and scholarly approach, entirely free from pomposity, makes a profound impression on his students and they, of course, warm and respond to it.

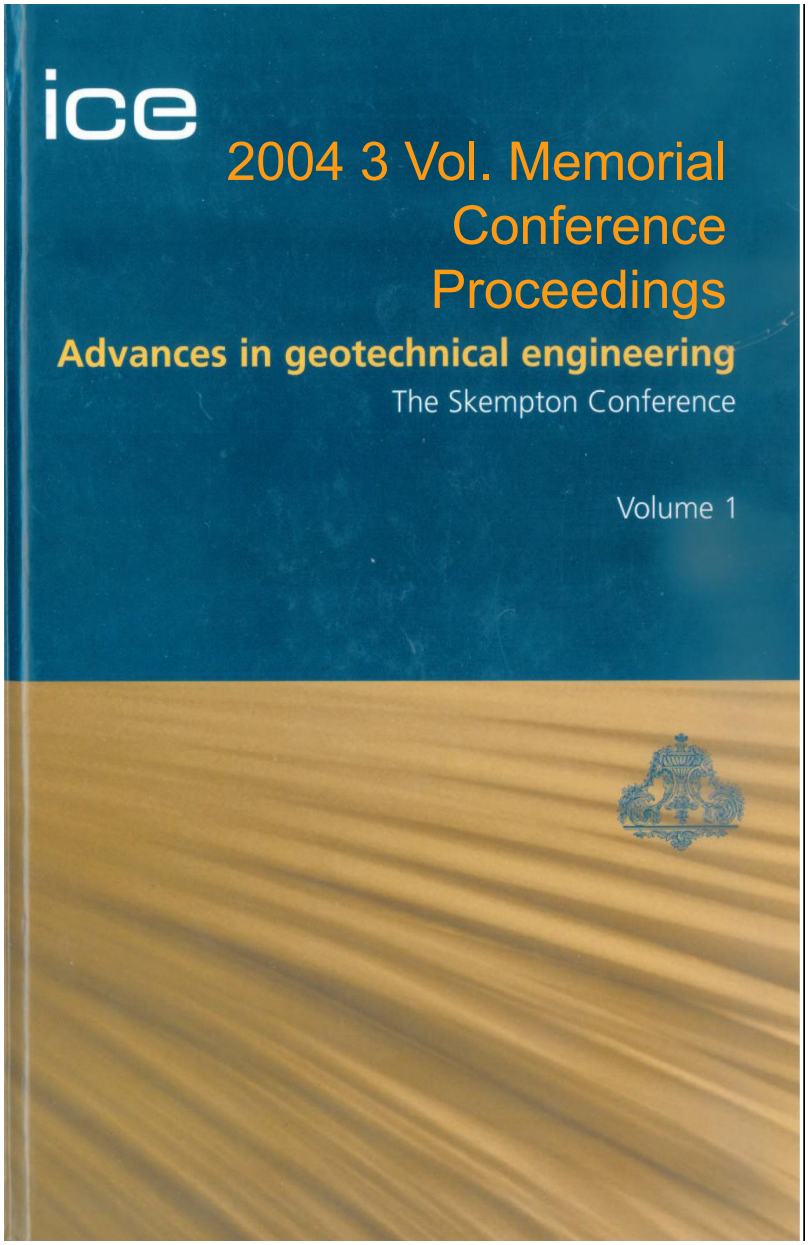
It was in this stimulating atmosphere that I had the opportunity to work with Skempton on several consulting jobs. One of these was in connection with the foundation design for a new grain silo at Durban (I.C. Report 1). This was the first

https://www.icevirtuallibrary.com/doi/abs/10.1680/sposm.02050.0004to pdf

Skempton's last major technical lecture, 1994

- Held with British Geotechnical Association (BGA) at 1994 at Institution of Civil Engineers, London
- In parallel with publication of Skempton, A. W. & Chrimes, M. M. (1994). "Thames Tunnel : geology, site investigation and geotechnical problems". Geotechnique 44, No. 2, 191-216.
- Video recorded and published by BGA
- Click the image to play video

Skempton memorial Conference, June 2004



Over 350 delegates at Royal Geographical Society, near Imperial College, London

https://www.icevirtuallibrary.com/doi/book/10.1680/aigev1.32644

Keynotes and state of the art papers by internationally leading academics

Personal reflections by several leading geotechnical engineers on ‘working with Skem’

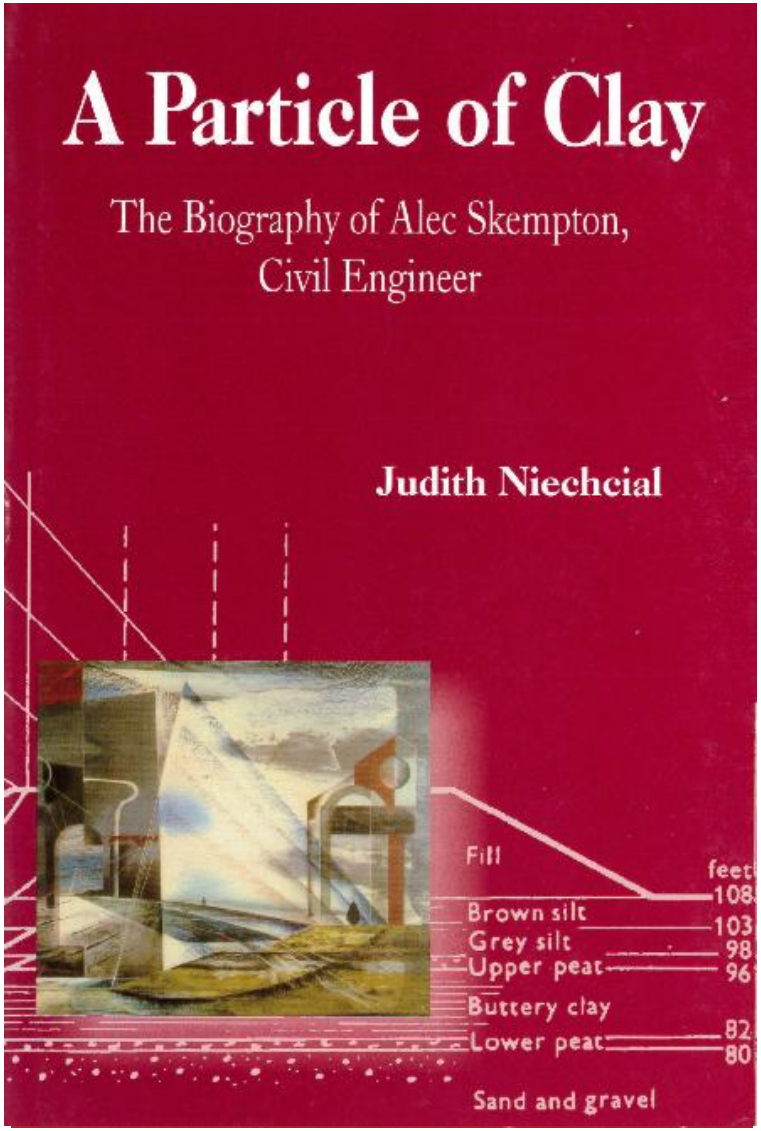
Creation at Imperial College of Skempton and Bishop’ Archive at Imperial College:

http://www.cv.ic.ac.uk/SkemArchive/index.htm

Publication of Biography by Skem’s daughter Judith Niechciel

https://www.amazon.co.uk/Particle-Clay-Biography-Skempton-Engineer/dp/1870325842

2004 Publication of Biography by Skem's daughter Judith Niechciel



https://www.amazon.co.uk/Particle-Clay-Biography-Skempton-Engineer/dp/1870325842

100th Anniversary of Skempton's birth

British Geotechnical Association Celebration
12th June 2014

Included talk on Skempton and an update on the behaviour of stiff clays

R Jardine: “On stiff clay research at Imperial College 2004-2014”

Hollow Cylinder Apparatus & Triaxial experiments

London clay: Heathrow-T5 study with Matthew Coop & David Hight

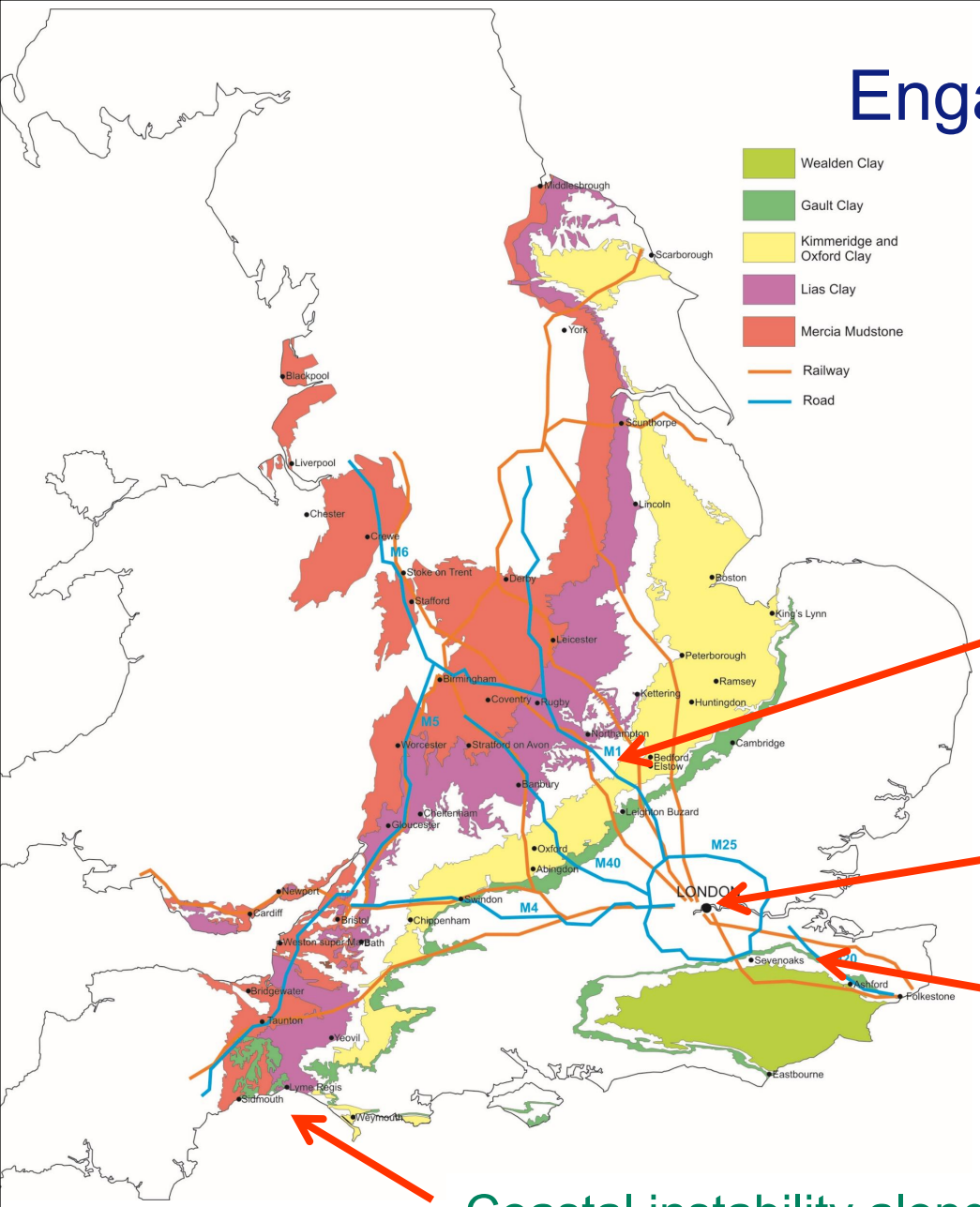
Three PhDs 2005-7: Liana Gasparre, Satoshi Nishimura & Nguyen Anh-Minh, Géotechnique papers 2007

Then Gault, Oxford and Kimmeridge clays: two 2012 PhDs, Géotechnique papers 2014-18

Amandine Brosse

Ramtin Hosseini Kamal

Engagement and motivation



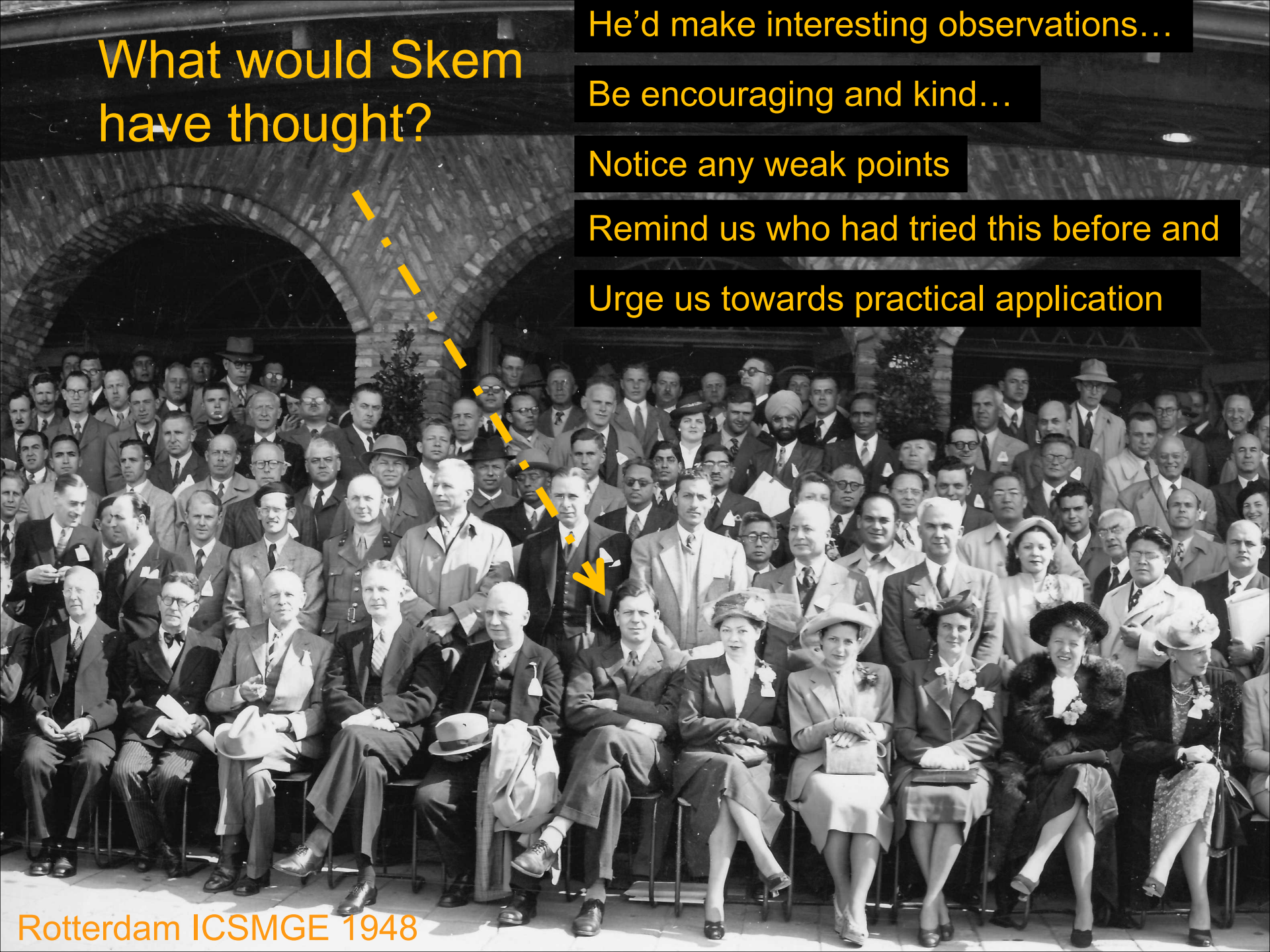
Effects of age and structure on shear strength and non-linear stiffness?

Main routes to North and West and key cities

Multiple projects in London: Heathrow T5, Crossrail etc:

Projects on Gault in Kent, M20; M25; HS1 etc

Coastal instability along Jurassic Coast, also Hinkley Point etc


What would Skem have thought?
He'd make interesting observations…
Be encouraging and kind…
Notice any weak points
Remind us who had tried this before and
Urge us towards practical application
Rotterdam ICSMGE 1948