

West Midlands Regional Group



The Midland Geotechnical Society

UNIVERSITY OF
BIRMINGHAM

Together, celebrating 50 Years of the Engineering Group

Feet on the Ground: Engineering Geology Past, Present and Future

Professor James S Griffiths
Plymouth University

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Engineering geology has a long and rich heritage and the United Kingdom has been in the vanguard of the development of the subject as a distinct discipline with the first book on the subject being published in London in 1880.

Since then engineering geology has been applied to projects around the globe and engineering geologists have become core members of planning, investigation, design and construction teams in the civil engineering and mining industries. However, in the past few decades we have seen numerical analyses increasingly being accepted as the answer to all geotechnical design questions; although as engineering geologists we are used to dealing with natural materials and processes and recognise that their inherent variability cannot always be reduced to a simple numerical value.

How do we ensure that any proposed construction works in civil engineering or mining take full account of this variability and the uncertainties that result? To enable engineering geologists to understand and describe these uncertainties are there fundamental skills that define an engineering geologist and, if so, how can these skills be taught or acquired? Also, in a world dominated by readily accessible data that can be downloaded and analysed for so many planned development sites how important are the field techniques of observation and mapping that an older generation of engineering geologists, including the author, considered their defining skill?

Concentrating on the role of engineering geology in relation to civil engineering these are amongst the questions explored in this paper leading to observations as to how the profession might develop in the future in order to meet the needs of society.

Tuesday 23rd September at 19:00

(Tea, Coffee and Sandwiches Available from 18:00 in Shell Lounge, Civil & Mech. Engineering Building)

**Howarth Building, Large Lecture Theatre (Room 101)
The University of Birmingham. B15 2TT**

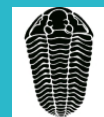
After 14½ years in industry, Jim joined Plymouth University as a lecturer in engineering geology in September 1993. He was promoted to Head of the Department of Geology 1995-2001; Head of the School of Earth, Ocean & Environmental Sciences 2006-9; Head of the School of Geography, Earth & Environmental Sciences 2009-2013; and was appointed Dean of Research & Innovation in May 2013. Jim was awarded his professorship in 2005. Despite spending 14 of his 20 years in academia as a manager he has continually taught specialist final year undergraduate modules in engineering/ applied geology and terrain evaluation for engineering practice.



And Followed By:



**PHOTOGRAPHIC CONTEST
2014 AWARDS CEREMONY**



Directions to Civil & Mechanical Engineering and the Haworth Building

We shall be meeting in the **Shell Lounge** for Tea, Coffee and Sandwiches prior to the commencement of the talk in the **Howarth Building, Large Lecture Theatre (Room 101)**.

From University Station, enter the Campus via the West Gate, proceeding between the Learning Centre (Red Zone, R28) and Computer Science (Yellow Zone, Y9).

The Howarth Building is the 2nd on your right (**Yellow Zone, Y2**), after Chemistry West (Yellow Zone, Y8), opposite the Biosciences Building (Red Zone, R27).

The **Shell Lounge** is located at the north end of **Yellow Zone** building **Y3** (Civil & Mechanical Engineering) on the main campus, best accessed via the underpass beneath the Howarth Building.

By Rail

Most cross-country services to Birmingham arrive at New Street Station. Up to six trains an hour departs New Street for the **University** on the cross-city line (ten minutes to University station, final destination Longbridge or Redditch). The Howarth Building is less than five-minutes walk from University Station.

By Bus

Numbers **61**, **X62** and **63** frequently call at the University's Main Edgbaston campus, departing from various locations within the City Centre.

By Taxi

There are taxi ranks at New Street Station and throughout the City Centre. The journey to the University takes about ten minutes.

By Foot or Cycle

The University's Main Edgbaston campus is easily accessible by bicycle or on foot.

Cycle parking facilities are provided in numerous locations across campus.

By Car

For SatNav purposes, the post code for the University is **B15 2TT**.

Approaching from the north west or south east along the M6

- Leave at Junction 6 (signposted Birmingham Central) to join the A38(M)
- At the end of the motorway, keep to the right, go over a flyover, then through some underpasses to join the A38 Bristol Road
- The University is on your right, two and a half miles from the City Centre

Approaching from the M42 north:

- Leave at Junction 8 to join the M6 northbound and follow the instructions above

Approaching from the south west:

- Leave the M5 at Junction 4 (signposted Birmingham SW) to join the A38
- The University is approximately eight miles from the motorway

Approaching from the M40:

- It is easier to turn south on the M42 and leave at Junction 1, heading north on the A38 Bristol Road
- The University is approximately eight miles from the motorway

Visitor Car Parking

Car Parking charges apply, in all locations, between 9:30am and 4:30pm Monday to Friday. During these times, visitors to campus are best parking in either South Car Park (accessed via Edgbaston Park Road) or North Car Park (access via Pritchatts Road).

On-campus parking is freely available after 4:30pm. Visitors should enter at the Main Gate and, if the barrier is down, press the buzzer and reference their attendance at a Talk at the given location. They should then be permitted access. Follow on-campus signage.

Edgbaston Campus Map

Index to buildings by zone

Red Zone

- R1 Law Building
- R2 Frankland Building
- R3 Hills Building
- R4 Aston Webb – A Block, Earth Sciences
- R5 Aston Webb – B Block
- R6 Aston Webb – Great Hall
- R7 Aston Webb – C Block
- R8 Physics West
- R9 Nuffield
- R10 Physics East
- R11 Medical Physics
- R12 Bramall Music Building
- R13 Poynting Building
- R14 Barber Institute of Fine Arts
- R15 Watson Building
- R16 Arts Building
- R17 Ashley Building
- R18 Strathcona Building
- R19 Education Building
- R20 J G Smith Building
- R21 Muirhead Tower
- R22 Main Library
- R23 University Centre
- R24 Staff House
- R25 Munrow Sports Centre
- R26 Geography
- R27 Biosciences Building
- R28 Learning Centre and Primary Care

Orange Zone

- O1 The Guild of Students
- O2 St Francis Hall
- O3 University House
- O4 Elm House

Green Zone

- G1 32 Pritchatts Road
- G2 31 Pritchatts Road
- G3 European Research Institute
- G4 3 Elms Road
- G5 Computer Centre
- G6 Metallurgy and Materials
- G7 IRC Net Shape Laboratory
- G8 Gisbert Kapp Building
- G9 52 Pritchatts Road
- G10 54 Pritchatts Road
- G11 Nicholson Building
- G12 Winterbourne House and Garden
- G15 Westmere
- G18 Priorsfield
- G19 Park House
- G20 Elms Plant
- G21 Park Grange
- G22 Elms Day Nursery
- Green Zone Conference Park**
- G13 Hornton Grange
- G14 Garth House
- G16 Lucas House
- G17 Peter Scott House

Blue Zone

- B1 Medical School
- B2 Institute of Biomedical Research including IBR West
- B3 Wellcome Clinical Research Facility (1st floor)
- B4 Robert Aitken Institute for Clinical Research
- B5 CRUK Institute for Cancer Studies and Denis Howell Building
- B6 Research Park
- B7 90 Vincent Drive
- B8 Henry Wellcome Building for Biomolecular NMR Spectroscopy
- B9 Medical Practice and Dental Centre

Yellow Zone

- Y1 Old Gymnasium
- Y2 Haworth Building
- Y3 Mechanical and Civil Engineering Building
- Y4 Terrace Huts
- Y5 Estates West
- Y6 Maintenance Building
- Y7 Grounds and Gardens
- Y8 Chemistry West
- Y9 Computer Science
- Y10 Alta Bioscience
- Y11 Chemical Engineering
- Y12 Biochemical Engineering
- Y13 Chemical Engineering Workshop
- Y14 Sport and Exercise Sciences
- Y15 Civil Engineering Laboratories
- Y16 Occupational Health
- Y17 Public Health

