



Dr J A Skipper
BSc PhD DIC CGeol FGS
Senior Partner
Senior Geologist

Areas of expertise

A specialist in ground investigation and interpretation of complex soils and rocks, especially in relation to tunnelling, foundation design of large or tall structures and large infrastructure projects. Areas of geological expertise include the geology of London and SE England, sediments of the Ice Ages and relict features (e.g sinkholes, landslips) worldwide, and the geology of complex terrestrial environments including wet soils and deserts.

Experience with GCG

Dr Skipper is a specialist consultant geologist and is the 18th Geological Society Engineering Group Glossop Medallist. Dr Skipper was invited to join the Geotechnical Consulting Group in July 2007, and was made a Senior Partner in 2017. She is very active as a senior consulting geologist on the ground investigation and construction for many major tunnel projects such Crossrail, Crossrail 2, the Thames Water Tideway Project, the Lee Tunnel, the Northern Line Extension, and she is on both Geotechnical Review and Formation Expert Panels for High Speed 2. Other recent projects include investigations of very large Drift Filled Hollow features, tunnel lining deformation and sand ingress for London Underground, landslip projects throughout the UK, and major construction projects throughout the UK, Europe and the Middle East.

Areas worked

UK, Ireland, Spain, North and West Africa.

Previous experience

Following a first career in crisis resource management, Dr Skipper gained a degree in Geology with Engineering Geology at The University of Greenwich with First Class Honours in 1993. After university lecturing experience she joined an overland expedition to Algeria and Niger with the University of Chicago, where she gained experience of the geology of the Atlas Mountains, Saharan and sub-Saharan environments.

In 1995, she began a PhD at Imperial College studying stratigraphy and sediments of the Lambeth Group, which were at that time poorly understood. For this she worked with engineers on a wide range of tunnelling and infrastructure projects including the Jubilee Line Extension, Channel Tunnel Rail Link (HS1), M11 Link Road, and Newbury Bypass, using this experience to produce a new interpretation and model for the Group. On completion of her PhD she co-authored a landmark paper on the lithologies of the Lambeth Group in 2000.



GEOTECHNICAL CONSULTING GROUP

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From 2000 to 2002, Dr Skipper worked as a geological consultant in engineering whilst pursuing research in stratigraphy and mineralogy at the Natural History Museum, London. She was involved in providing expert input into a range of ground investigations including Stratford Box (Channel Tunnel Rail Link/HS1), and the developing Crossrail and Tideway projects. During this period she first led her range of widely attended Continuous Professional Development (CPD) and field training programmes in stratigraphy, which she continues to develop and deliver at GCG. Such courses were run for the Geological Society and many leading organisations in the industry, with some of them now being a requirement for major projects.

In 2002 Dr Skipper joined the Dublin Port Tunnel Project as senior geologist for Haswell. She introduced a system of rigorous logging, recording and interpretation techniques for all open cut and tunnelled sections in the faulted and rafted Carboniferous limestone and glacial tills of this 5.6km long project. This method permitted the use of a novel open cut tunnel method using the Observational Method, which led to savings of 250,000 euros. Following this work she lead-authored a paper revising the glacial stratigraphy of the Dublin area.

Between 2003 and 2007 Dr Skipper was Consultancy Leader at the Natural History Museum, London, where she set up an Engineering Geology consultancy offering specialist stratigraphical and mineralogical services. She worked as a geological advisor on a wide range of projects for clients and was invited to act as a Peer Reviewer for the Channel Tunnel Rail Link/HS1 collapse in Stratford. Undertaking training in Acting as an Expert Witness during this period, she provided expert advice on a number of legal cases in engineering and shipping.

In December 2010 Dr Skipper received the Geological Society Engineering Group Award. In January 2012 she was invited to give one of the prestigious Geological Society Shell Lectures on the subject of 'Reconciling Past and Future Worlds: Geology and Ground Engineering'. Dr. Skipper has lectured in a number of countries world-wide and has appeared on the BBC 6 o'clock News as a geological authority. Dr Skipper achieved Chartered Geologist status in 2011 and has been a CGeol Scrutineer since 2017.

Professional bodies

The Geological Society of London (Chartered Geologist. Committee Member of Engineering Group 2002-5)

The Geological Club of the Geological Society of London

The British Geotechnical Association

The British Tunnelling Society

The Geologists' Association (Council Member 1993-96)

Education/Research

PhD, Imperial College, London, 2000

BSc (1st Class Honours), Geology with Engineering Geology, University of Greenwich, London 1993.

Scientific Associate, Natural History Museum, Department of Palaeontology/Department of Earth Sciences.

Awards

- ERASMUS award to fund European fieldwork studying metamorphic and structural geology in Belgium, France and Germany (1993).
- Geological Society Engineering Group Award (2010)
- Geological Society Engineering Group Glossop Medal and 18th Lecture (2017)