



THE CENTRAL SCOTLAND REGIONAL GROUP OF THE GEOLOGICAL SOCIETY

Notice of event: Tuesday 25 October 2016

Royal Over-Seas League, Over-Seas House, 100 Princes Street, Edinburgh, EH2 3AB

6.00pm for 6.15pm

Control the Drainage: the Gospel accorded to Sinkholes *based on the 16th Glossop Lecture (2015)*

The Glossop Lecture is the most prestigious lecture of the Engineering Group of the Geological Society and is delivered by an invited, eminent, engineering geologist. The requirement for the presentation is that it should highlight the contribution made in the application of engineering geology to civil engineering. Tony Waltham was invited to present the 16th Glossop Lecture entitled "Control the drainage: the gospel accorded to sinkholes" in 2015.

The CSRG is delighted to welcome Tony to Edinburgh where he will give a presentation based upon his 2015 lecture and the subsequent paper published in the Quarterly Journal of Engineering Geology and Hydrogeology. This work intends to further some of the explanations of karst processes, and to shed some more light on the world of limestone. By exploring this topic in detail it is hoped that the nature of karst as a geo-hazard becomes better understood, paving the way to reduce this hazard where it impacts on construction projects. Having visited engineering projects taking place on karst in many parts of the world, Tony has been made aware of how little is known by many civil engineers about karst, cavernous ground and sinkhole hazard.



More information on the Central Scotland Regional Group can be found on our [webpage](#).



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Presenter: Tony Waltham BSc, DIC, PhD

Tony Waltham left Imperial College, London in 1968 with a first degree in geology and a PhD in mining geology. By then he had taken up the pastime of cave exploration and had, therefore, left London for the Yorkshire Dales. He took up a lectureship in the institution now known as Nottingham Trent University, where he taught miners until Britain's coal industry died. He then moved from a fading mining department into a thriving civil engineering department. Through immersion in this new profession he moved gradually into engineering geology.

Meanwhile his cave exploration continued, largely in the Yorkshire Dales, but also in the distant lands of limestone. The combination of teaching engineering geology and a growing understanding of limestone ground from beneath led to research in the specialised field of geo-hazards, in particular sinkholes and collapsing caves. This evolved into consultancy work in engineering geology, with a focus on karst, in which Tony is recognised as one of the world experts.

His long list of published works includes numerous academic papers, accounts in more popular style, and more than a dozen books. His book *Foundations of Engineering Geology*, now already in its third edition, was first published in 1994 and is extremely popular with students and professionals alike, due to its accessibility and excellent presentation. It is the course text in most universities in Britain, and has been translated into several foreign languages. It seems to find a place in a host of civil engineering offices, and has made a significant contribution to engineering geology being recognised by other disciplines.

As lead author of *Sinkholes and Subsidence: Karst and Cavernous Rocks in Engineering and Construction*, Tony compiled an in-depth review of the processes, geo-hazards, mitigation measures and potential remediation of sinkholes, and other styles of ground failure in karst. If this has made construction engineers more aware and appreciative of holes in the ground then it will have succeeded in its aims.

Tony's work has made a significant contribution to communicate geo-hazards, and in particular the processes that are active beneath the ground surface of a cavernous karst, to on-site engineers all over the world. He has been awarded a Winston Churchill Fellowship (for cave exploration in the Himalayas), a Cuthbert Peek Award from the Royal Geographic Society (largely for work on the Gunung Mulu Expedition to Borneo), a Bisat Medal from the Yorkshire Geological Society (for contributions to applied geology) and a Halstead Medal from the Geologists' Association (for contributions to geological communication).

In between bouts of sinkhole assessment, Tony has pursued various lighter interests, editing the *Mercian Geologist*, sitting on the board of *Geology Today*, leading geological tours, managing his Geophotos picture library, lecturing on cruise ships, and still studying the caves of the Yorkshire Dales.

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