

Professor ROLF SELMER-OLSEN in memory.

Professor Rolf Selmer-Olsen, the founder of engineering geology in Norway, passed away on October 16th 1989 at the age of 70.

Rolf Selmer-Olsen studied geology at the University of Oslo, and graduated in 1947. After some years at the State Road Administration, he came to the Norwegian Technical University, Trondheim, where he started development of the new field called Engineering Geology.

In Norway, this was a period with heavy activity in hydropower development. Rolf Selmer-Olsen foresaw early the need for engineering geology methods to deal with the many tunnel and cavern excavations going on. He used the opportunity to visit the numerous tunnels and underground hydropower stations being constructed, and with his bright intuition coupled with his fantasy and practical experience, he gave valuable advice for many tunnelling projects having difficult ground conditions. Many stories still exist on how he solved various tunnelling problems.

Professor Selmer-Olsen made large contributions in the field of engineering geology. He did fundamental works in analysing the geological factors causing stability problems in underground openings by describing jointing features and their influence on stability. He also made contribution to classification of weakness zones and showed how they can be predicted. By his pioneering work in the understanding of rock stress problems, swelling clay gorges, and water leakages, he showed how many tunnelling problems can be solved on site during the excavation.

Professor Selmer-Olsen developed his main ideas already in the 1950`ies. During the 1960`ies and 1970`ies he refined and developed the methods further, and formed the field of engineering geology as it exists in Norway today. Many of these "old" ideas are now being presented internationally, and attract attention in many countries.

Norwegian engineering geology and underground design practices are based on principles developed by Professor Selmer-Olsen. His contributions to his field of profession, made during a long and active professional life, make him a pioneer and call for our gratitude and deep respect today.

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