

John I. Adams (1925-2022)

By Grant F. Smith and M.A.J. (Fred) Matich



John Adams was born in Toronto in 1925. After completing his secondary school education, he served for two years in the Royal Canadian Air Force training as a navigator. He then went on to study engineering at the University of Toronto where he had the privilege of studying under Robert Legget. He graduated with a BSc degree in Civil Engineering in 1949 and began his professional career with the Research Division of Ontario Hydro in the same year. After four years as Project Soils Engineer on the St. Lawrence Power Project, John returned to Toronto to participate in geotechnical studies for large projects which eventually included major hydraulic, fossil fuel, and nuclear fuel power plants and related facilities.

His career at Ontario Hydro spanned more than 40 years during which his responsibilities grew progressively from Soils Engineer to Group Manager-Civil Design, Architectural, Geotechnical and Hydraulic Engineering Departments. Since the operations of Ontario Hydro are province-wide, and thus span a significant variety of soil conditions, John gained experience in many different applications of geotechnical engineering to both practical design and construction problems, as well as research. For example, his experience involved dealing with non-routine soil conditions ranging from peat to stiff fissured clay to glacial till. From a design standpoint, John's applications of geotechnical engineering ranged from restoration works of older concrete dams experiencing age-related internal and external deterioration to the major challenges presented by the design and construction of the below-lake tunnels for the cooling water intakes of the Darlington and Bruce Nuclear Stations. His experience in construction included an unprecedented type of engineered cofferdam built by dumping till in water. He also participated in geotechnical investigations and research in an array of projects associated with transmission lines. John shared some of his experience through 33 published technical papers, a few of which are listed below.

John had a commendable record of interest, and involvement in many capacities, in the activities of the Canadian Geotechnical Society, beginning with his membership in the fledgling Toronto Soil Mechanics Group in 1949. As he advanced within the society, he became progressively, Chairman of the 26th Annual Canadian Geotechnical Conference in Toronto (1973); Regional Director (1976-79); Vice-President (1978-80), and President (1980-82). Between 1985 and 1988, he served as Editor of Canadian Geotechnical News in *Geotechnical News*.

During his time as President, John was involved in a number of important initiatives. In 1981, with the CGS's Directors, John requested Jack Clark (then CGS past President) to chair a small committee to consider the best way to record the history of the geotechnical profession in Canada. In the course of this task, 70 prominent geotechnical professionals of the day were interviewed, the results of which are available today. In the early 1980s, under John, and later his presidential successor Tony Stermac (1983-84), the CGS presented a series of seminars across Canada on the Canadian Foundation Engineering Manual and its use. The intent was to solicit suggestions for revisions and additions to the 1978 First Edition and prepare a Second Edition. This was prepared and published in English in 1985 and French in 1989, with the involvement of the CGS Foundations Committee. In 1981, John was Co-leader of a CGS delegation to the, then, recently opened, People's Republic of China. Also in 1981, John assisted in arranging Canada's representation in the Symposium on Geotechnical Aspects of Offshore and Nearshore Structures at the Asian Institute of Technology in Thailand. This was done through the then Associate Committee on Geotechnical Research and its Subcommittee on Marine Geotechnical Engineering.

John's achievements were recognized by his peers. He received the Robert F. Legget Award (now Medal) at the CGS Annual Conference in Edmonton in 1985. In 1989, he was one of the first recipients of the John B. Stirling Medal awarded by the Engineering Institute of Canada, in recognition of his leadership and distinguished service at the national level.

For many years, John held a private pilot's licence and enjoyed flying his own plane.

John passed away in October 2022. He is survived by his wife Barbara and his three children: David, Linda, and Peter, together with five grandchildren and four great grandchildren. Linda and Peter also enjoyed careers with Ontario Hydro.

Examples of projects and research studies that John was involved with are identified in the following partial list of published papers that he authored or co-authored:

- 1960. Tests on Glacial Till, National Research Council of Canada's *Proc. 14th. Canadian Soil Mechanics Conference*.
- 1962. Frost Heaving of Small Footings, *Hydro Research News*, Vol. 14.
- 1963. Till Cofferdam Dumped in Water, co-authored with D.J. Bazett, Engineering Institute of Canada's *Engineering Journal*.
- 1968. The Ultimate Uplift Capacity of Foundations, co-authored with G.G. Meyerhof, *Canadian Geotechnical Journal*, Vol. 5.
- 1969. The Shear Behaviour of Stiff Fissured Clay, co-authored with K.Y. Lo and J.L. Seychuk, *Proc. 8th International Conference on Soil Mechanics and Foundation Engineering*, Mexico City.
- 1972. A Study of Anchorages for Transmission Tower Foundations, co-authored with T.W. Klym, *Canadian Geotechnical Journal*, Vol. 9.
- 1973. The Lateral Capacity of Deep Augered Footings, co-authored with H.S. Radhakrishna, *Proc. 9th International Conference on Soil Mechanics and Foundation Engineering*, Moscow.

The following is a short personal tribute to John submitted by two of his former employees, Chuck F. Lee and Boro Lukajic.

We both were employees of Ontario Hydro when John Adams was a geotechnical department head. In that capacity, John displayed strong management skills and managed to create opportunities for career growth and advancement for his employees. Furthermore, he was able to effectively communicate complex technical concepts to younger less-experienced engineers. He can be credited for increasing our visibility, potential for promotions and leadership roles.

John's legacy spans many hydroelectric dam projects, from Northern Ontario to Niagara River and St. Lawrence Seaway. Two notable hydro power projects he was involved with were Sir Adam Beck-II, in the Niagara Gorge, and the Saunders dam, on St Lawrence River.

In the nuclear energy field, John played a pivotal role in defining geotechnical criteria for designing and constructing cooling water tunnels under Lake Huron and Lake Ontario.

John's legacy in his contribution to geotechnical engineering and hydro/nuclear energy remains unmatched.



L to R: Boro Lukajic, John Adams, Richard Hasty, Earl Taylor, Chuck Lee and Roger Chan. Photo taken in 1992