

ANDREW (ANDY) BARACOS (1925-2013)



Andrew Baracos was Professor of Civil Engineering at the University of Manitoba for 40 years and an active consulting engineer for almost 60 years.

Following childhood in Banff, he was an early MSc graduate in soil mechanics at the University of Alberta in Edmonton in 1949 at a time when the subject was a new and growing discipline. After his MSc program, Dean R.M. Hardy recommended his appointment to the University of Manitoba (UofM). There, he taught the first course in soil mechanics, set up a soil testing laboratory, planned new undergraduate and postgraduate courses, and started research projects that made important contributions to improving construction practice in Manitoba and elsewhere.

Andrew was the first specialist in soil mechanics in Manitoba. Shortly after his arrival, he initiated drilling and sampling on behalf of the Division of Building Research, NRC, at the Transcona Grain Elevator, which had failed during first filling in 1913. (At the same time, Ralph B. Peck had also mobilized drilling at the same site.) The results of these two site investigations contributed an important case study that supported the bearing capacity coefficients proposed by A.W. Skempton for shallow foundations on clay.

In those early years, the UofM encouraged its engineering staff to engage in consulting practice that contributed to their professional development. After the disastrous Red River flood in 1950, Andrew contributed actively to the Greater Winnipeg Dyking Board, subsequent Red River basin investigations, and studies of flooding and swelling/shrinking on house foundations.

Andrew Baracos and his professional colleagues helped establish a solid basis for consulting practice in the Lake Agassiz clays in Manitoba. Important topics included the stability of Winnipeg riverbanks, bridge foundations, an aqueduct in bedrock under the unstable banks of the Red River, pipeline crossings, foundations for large and small buildings, basement uplift, temporary support for excavations, water reservoirs, roadways and pavements, permafrost, and water power developments. His work with the Winnipeg Rivers and Streams Committee led to early recognition of the work of geotechnical engineers in riverbank projects.

Andrew's consulting activities also led to many successful research projects on riverbank instability, vertical ground movements related to swelling and shrinkage, damage to cast iron water pipes due to corrosion, compositional and structural anisotropy of Lake Agassiz clay,

and to the preparation of geological engineering maps in support of urban development in Winnipeg.

Andrew Baracos led the CIDA team that helped establish Khon Kaen University in Thailand in 1965-66. He was Head of Geological Engineering at the UofM from 1978 to 1983, and Visiting Professor at the Universities of Glasgow, Arizona, and Chiang Mai, Thailand. He was a long-time member of the Association of Professional Engineers of Manitoba (APEM, now APEGM) and served on Council from 1967 to 1971. He helped found the Winnipeg Soils Group, which later became a local section of the Canadian Geotechnical Society (CGS). He received a Fellowship from the Engineering Institute of Canada in 1978, and Awards of Merit from APEM in 1988, the CGS in 1989, and the City of Winnipeg in 1989. He retired from the UofM in 1989 and was appointed Professor Emeritus in 1997.

Since 1989, Andrew resided in Victoria, British Columbia where he enjoyed retirement, part-time consulting and the company of family and friends. His wife Mary died in 2001. They are survived by their children Paul in Victoria, British Columbia; Theodore in Paris, France; and Vickie in Edmonton, Alberta.

One of his early postgraduate students, Alv Dyregrov said, "All of us have maintained a respect and admiration for Andy. He has been a friend, and on occasion, a mentor for each of us."