

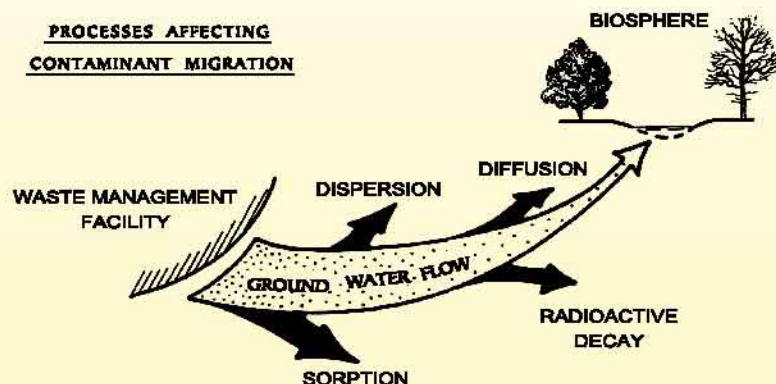


THE FOURTH LUMB LECTURE

Geo-Environmental Aspects of Groundwater Pollution



PROCESSES AFFECTING
CONTAMINANT MIGRATION



Presented by Professor John A. Cherry

10:30 a.m. (Tea Reception at 10:00 a.m.)

October 14, 2006

Loke Yew Hall, Main Building

The University of Hong Kong

Hong Kong, China



About the Speaker

Professor Cherry holds geological engineering degrees from the University of Saskatchewan and the University of California, Berkeley and a Ph.D. in hydrogeology from the University of Illinois. He was a faculty member at the University of Manitoba for four years before joining the faculty at the University of Waterloo in 1971 where his research focuses on field studies of the migration and fate of contaminants in groundwater and groundwater remediation. He co-authored the textbook "Ground Water" with R.A. Freeze (1979) and co-edited and co-authored several chapters in the book "Dense Chlorinated Solvents and Other DNAPLs in Groundwater" (1996). In addition to research concerning subsurface contaminant behaviour, he has participated in development of several technologies for groundwater monitoring and remediation and co-holds several patents. He is a Fellow of the Royal Society of Canada and has received awards for groundwater contamination research from scientific and engineering societies in Canada, the United States and the U.K. He held the Research Chair in Contaminant Hydrogeology at the University of Waterloo (1996-2006) and is currently the Director of the University Consortium for Field-Focused Groundwater Contamination Research, established in 1988.

Synopsis

Groundwater represents 97 percent of the world's freshwater resources and provides the drinking water for most of the populations of North America, Europe, Africa and Asia. In most regions, groundwater rather than surface water offers best prospects for meeting the increasing demands due to population increase and industrial expansion. Both surface and groundwaters have major contamination problems, however the specific chemicals causing the groundwater contamination are not those causing the river or lake contamination. This lecture examines the origin, nature and fate of groundwater contamination due to industrial, municipal and agricultural sources impacting unconsolidated aquifers and fractured bedrock. Thousands of different chemicals have been released to ground, but only a small fraction of them pass through the soil into the groundwater zone and, of these, only several chemicals commonly cause extensive contaminant plumes. Overall, the subsurface environment provides strong attenuation capacity due to combined effects of dispersion, sorption and degradation, but in adverse circumstances large parts of major aquifers have become contaminated. In the past 25 years, groundwater scientists and engineers have made much progress towards an understanding of groundwater contamination. The challenge now is for this knowledge to more effectively serve the global quest for sustainable development and management of groundwater resources, including use of the groundwater environment for disposal of deleterious substances including nuclear waste.

Programme

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| 10:00 a.m. | Tea Reception |
| 10:30 a.m. | Welcoming speech |
| 10:40 a.m. | Introduction of the Speaker |
| 10:50 a.m. | Lumb Lecture by Professor J.A. Cherry |
| 12:00 p.m. | Vote of Thanks |

About Professor Lumb



Professor Lumb became a lecturer in the Department of Civil Engineering, The University of Hong Kong in 1954. After 32 years of service at The University, he retired in 1986. Many of his ex-students have fond memories of him as a modest teacher who preferred to keep a low profile. He dedicated his life towards the 'dawning' of geotechnical engineering in Hong Kong and received numerous awards in recognition of his great contributions.

Registration and Enquiries

FREE ADMISSION - all interested are welcome. No prior registration is required. Attendance certificates and free parking will be available. For enquiries, please contact:

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