

Book Review

Common Sense and Other Heresies

Selected Papers on Hydrology and Water Resources Engineering

by Vít Klemeš

(edited by C. David Sellars)

Published 2000 by Canadian Water Resources Association, PO Box 1329, Cambridge, Ontario N1R 7G6, Canada; www.cwra.org; 378 pp.; price Can\$50

Vít Klemeš authored some of the most important hydrological papers of the last few decades, and it is fair to say that he has a score of keen admirers. These admirers, along with many others, will be pleased to see an edited selection of twenty one of his best works. This book arose from the initiative of David Sellars and the Canadian Water Resources Association, who have done a splendid job of bringing together these important works in one accessible volume.

This well presented book consists of six chapters, each with the following number of papers: The Science of Hydrology (2), Hydrological Modelling (5), Hydrological Extremes (4), Risk, Uncertainty and Optimisation (3), Reservoir Storage (4), and Climate Change and Impact (3). The first chapter offers a philosophical perspective of modern hydrology, and whilst the others cover several specific areas, and are particularly useful for hydrologists working in those fields, they are also eye openers for the whole hydrological community.

The hallmark of Vít Klemeš's writings is his deep understanding of the nature of things, spiced up with incredible wit. This is what makes one laugh, when reading the most bizarre stories of modern hydrology gone astray: the fascination, and, conversely, the all-out disregard of statistics and mathematics, the misuse of terminology, inconsistencies, mixing fantasy with reality, blissful ignorance, wishful thinking, and plain conformism. The book has many pages and the amount of "bashing" is substantial, and well deserved.

My favorite papers are the provocative "Dilettantism in hydrology: transition or destiny?", the stimulating "The improbable probabilities of extreme floods and droughts" and, above all, the all revealing "Risk analysis—the unbearable cleverness of bluffing". This latter paper comes complete with an incredibly relevant quotation from Don Quixote, who together with Confucius and the Good Soldier Švejk often grace Vít's writings.

"The business of hydrology is to solve the water balance equation", declared Dooge, another distinguished hydrologist of the modern era. Vít Klemeš takes a mighty sweep at our prestidigitatory acts to keep this business going. It is well known that all raingauges in the world are underestimated, that evaporation pans are "the poorest devices imaginable for the measurement of evaporation" according to Halley of cometary fame, their inventor, and that we usually measure runoff with the precision of an educated guess. Despite this, we mostly pretend that everything is fine, and from time to time even attempt to make a science out of number juggling, which is the point where Vít comes in and reminds us that we are kidding ourselves.

The book offers numerous accounts of the internal workings of the hydrological establishment in the closing decades of the twentieth century. Vít is also very conversant with the literature of our young science, and here he unearths often forgotten pearls of hydrological wisdom.

Whilst everyone in the craft can scratch their heads at the number of idiocies that we commit daily, and which Vít points out with ruthless precision, the question is: what do we do now? Here, Vít offers "a few suggestions for a long-term cure that can prevent hydrology from joining alchemy and astrology in the annals of dilettantism."

The volume has certain drawbacks too. As Vít himself explains, a collection of papers is likely to be patchy, since it covers personal interests of the writer. Certain repetitions are also difficult to avoid. This, however, in no way diminishes the value of this volume as a tool for mental stimulation. Written with deep wisdom and unabashed erudition, this is one of the best examples of technical literature, when a distinguished theoretician, thinker, mathematician and humanist all combine in one person. Vít proves that technology and culture do not need to be at odds.

The book may serve as food for thought for all scientifically minded hydrologists although some “applied” hydrologists may find it hard going. However, all of us are well advised to try to understand Nature, and not spend our lives on the equilibristic act of building artificial labyrinths, which we then must strive to get out of.

It has been a long wait since 1970 and *Dynamic Hydrology* by Peter Eagleson. This classic textbook is now joined by a collection of essays which also reaches right to the heart of the matter. I would rank both these books as amongst the most important contributions to the *science* of hydrology in the twentieth century.

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Publications received by the Editor

The following publications have been received and may be reviewed in future issues of *Hydrological Sciences Journal*. Newsletters and journals are listed here in acknowledgement of reviews or publicity they have published of recent IAHS publications:

1. *Groundwater 2000 (Proceedings of the International Conference on Groundwater Research held at Copenhagen, Denmark, 6–8 June 2000)* edited by P. L. Bjerg, P. Engesgaard & Th. D. Krom. Published 2000 by A. A. Balkema, PO Box 1675, 3000 Rotterdam, The Netherlands.
2. *Open Channel Flow* by Subhash C. Jain. Published 2001 by John Wiley & Sons Ltd, Baffins Lane, Chichester, West Sussex PO19 1UD, UK.

Forthcoming papers

The following papers have been accepted for publication in forthcoming issues of *Hydrological Sciences Journal*:

- SERWAN M. J. BABAN & KAMARUZAMAN WAN YUSOF: Modelling soil erosion in tropical environments using remote sensing and GIS
- BERHANU FANTA, B. T. ZAAKE & R. K. KACHROO: A study of variability of annual river flow of the southern African region
- GIL MAHÉ, YANN L'HOTE, JEAN CLAUDE OLIVRY & GEOFFROY WOTLING: Trends and discontinuities in regional rainfall of West and Central Africa
- HAFZULLAH AKSOY, MEHMETCIK BAYAZIT & HARTMUT WITTENBERG: Probabilistic approach to modelling of recession curves
- A. MAHESHA: Effect of strip recharge of sea water intrusion into aquifers
- F. SÁNCHEZ-MARTOS, R. JIMÉNEZ-ESPINOSA & A. PULIDO-BOSCH Mapping groundwater quality variables using PCA and geostatistics: a case study (Bajo Andarax, southeastern Spain)
- ZEKAI ŞEN & AHMET OZTOPAL: Genetic algorithms for precipitation occurrence classification and prediction
- OGNJEN BONACCI: Monthly and annual effective infiltration coefficients in Dinaric karst: example of the Gradole karst spring catchment
- EMMA L. TATE, KEVIN J. SENE & JOHN V. SUTCLIFFE: A water balance study of the upper White Nile basin flows in the late nineteenth century
- SURENDRA KUMAR MISHRA & VIJAY P. SINGH: On the Seddon speed formula
- YADH ZAHAR & JEAN-PIERRE LABORDE: Génération stochastique d'averses et de leurs index d'érosivité: conception et validation d'un modèle pour la simulation temporelle de la dynamique érosive en Tunisie centrale
- C. K. JAIN: Adsorption of zinc onto bed sediments of the River Ganga: adsorption models and kinetics
- BELLIE SIVAKUMAR, RONNY BERNDTSSON & MAGNUS PERSSON: Monthly runoff prediction using phase-space reconstruction
- KWAN TUN LEE, CHIN-HSIN CHANG, MING-SANG YANG & WIE-SHENG YU: Reservoir attenuation of floods from ungauged watersheds