

# books

## **Water Well Rehabilitation: A practical guide to understanding well problems and solutions**

**Neil Mansuy, Layne Geosciences Inc.  
Verlag-Springer, Berlin, 1999. 174pp.  
Hbk. US\$59.95. ISBN 1 56670 387 5.**

A clear set of practical guidelines on well rehabilitation is sorely needed; after reading this book this need remains. A 'practical guide' implies that the information contained is sufficient to solve problems, and indeed the cover describes it as 'a field manual to enforce well-construction codes and provide guidance on preventive maintenance and periodic cleaning treatments'. In this case, it is rather similar to having a cookery book which omits all the weights and measures, and the cooking times. The author may have baked a great many cakes, but describing what one or two of them look like does not really help others to do the same.

Perhaps it is the transformation of workshop papers into a book, with much repetition of un-referenced and unstructured facts, and very few supporting figures, which makes it difficult to read. Still, an introduction to well construction which begins 'Consolidated formations are wells drilled with open hole completion', gives some indication of the level of confusion throughout.

There is a section on the longevity of rehabilitation treatments and associated economic considerations — something for which an analysis of practical experiences would be invaluable. Unfortunately, this part of the book is presented before any definition of problems or discussion of treatments, and provides no comparison of different treatments in terms of degree, longevity of effectiveness, or relative costs. The economic analysis is limited to posing the abstract question 'would it be cheaper to drill a new well?' and, with no examples, ends with the conclusion that a cost benefit analysis would be useful.

In order to rehabilitate wells, many treatments require the addition of chemicals, and various chemicals and processes — many of which seem to be proprietary brands linked to the author's company — are mentioned. However, there is no mention of required dosages for the application of acids, for example; of contact times, how to calculate dilutions depending on casing sizes and strengths of reagents; or safety precautions and the toxicity of chemicals.

The lack of any practical details is doubly frustrating as there are numerous references to a large database established by the company, which utilizes the results of its work on several thousand wells. This could make an invaluable basis for drawing up guidelines of great assistance to those in the field — but no details from the database are given. Conclusions are described verbally, with no supporting numerical or graphical evidence — evidence which could have been used as a tool in the diagnosis or design and costing of suitable treatments.

Overall, this is a puzzling book which seems of very little practical use. We passed it on to others working in the sector — development workers

and nuclear waste technicians who sit at opposite ends of a hydrogeological spectrum which requires knowledge of well rehabilitation — but this 'practical guide' could not be recommended by either, nor anyone sitting in the middle.

*Sally and Stuart Sutton  
Consultants*

## **The Collection of Household Excreta: Operation of services in urban low-income neighbourhoods Urban Waste Series 6, edited by Maria S. Muller, WASTE, Gouda, 1998. 74pp. Pbk. £15.00. ISBN 9 7482 5677 4.**

This publication aims to create awareness among individuals working in the sanitation sector, documenting excreta-collection practices in four urban areas in Tanzania, India, Ghana and China. Case studies, first presented at an international workshop in 1996, discuss different types of primary collection of human excreta, by both the private formal and informal sectors, the municipal administration, and even by suburban farmers.

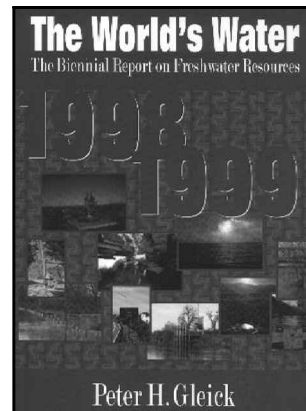
Overall, the case studies deal mainly with institutional rather than technical requirements. The first is Manual Pit Latrine Emptying Technology (MAPET) in Dar es Salaam. MAPET is a sanitation service that performs effectively where conventional sanitation tankers have no access. Scavenging in Ghaziabad, India provides the next case study — one which emphasizes the historical linkages of the *safai karmachari*, a socially deprived caste, who for centuries have been responsible for the collection of human excreta. Their story gives us some fascinating insights into the lives of scavengers and their role in Indian society. This is followed by a chapter on the collection and disposal of nightsoil illustrated by experiences in Accra, Ghana, indicating social stigmas similar to those found in India. By contrast, the chapter on the collection and disposal of excreta from public dry latrines, household dry-pit latrines and bucket latrines in China's Yichang City indicates not only the social acceptability of these workers, but the honour they receive as 'city beautifiers'.

Finally, a chapter summarizing the importance of excreta collection gives a clear overview of general institutional issues, and goes on to make a comparative analysis of the earlier case studies. Issues highlighted include service provision, tariffs and charges, land provision, and co-ordination of transfer and performance monitoring.

One element missing is a better examination of both the positive and negative aspects of excreta collection, specifically with a focus on the people. Although this book examines these aspects briefly, it offers no potential solutions to what are major dilemmas.

Overall, the book focuses on an issue that deserves much more attention from both international and national agencies and through which more of us will gain a better understanding of the complex underlying institutional issues associated with the collection of human excreta.

*Dr Mariëlle Snel, WEDC  
Researcher in Urban Services*



'Essential, rarely substitutable, and increasingly scarce, fresh water is emerging as a key determinant of food security, human and environmental health, and political stability. *The World's Water* offers a wealth of up-to-date water data and information, selected and interpreted by an experienced and astute analyst. Peter Gleick lays out critical water issues and developments in a cogent, user-friendly fashion that will benefit policymakers, researchers, students, and interested citizens. I will keep this book close at hand, not on a shelf across the room.'

Sandra Postel, international water specialist.

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