

Exhibition produced
by WELL

In recognition of World Water Day, 22nd March 2006

WATER AND CULTURE

The Department for International Development (DFID) hosts:

DRAWING WATER

An exhibition of illustrations on water
and sanitation in low-income countries

Illustrations by Rod Shaw
Words by Brian Reed



WELL



DFID Resource Centre
for Water, Sanitation and
Environmental Health

Exhibition catalogue

WATER AND CULTURE

Water plays an important part in our cultural life: in art, in religion, in our sense of place. Rivers provide inspiration for artists and poets. Architects and gardeners value the reflections, light and sound of water. Religions revere holy rivers and sacred springs, and treasure the cleansing properties of water to symbolize spiritual renewal. Rivers and lakes are a source of pride and an image of urban identity.

Providing a contrast to the positive images of pure water is the darker view of wastewater and sanitation. Although not so visible, this is still part of our culture but it can be a taboo subject. There are restrictions on when and where we can carry out a basic human activity. Unclean? Hidden? Shameful? Toilets can be the domain of the dispossessed — the task of cleaning them is often given over to the socially excluded. The toilet is the canvas for the graffiti artist, the subject of ribald remarks, not romantic verse.

For millions of the world's poor however, the reality of water and sanitation is one of poor quality, or no access at all to sanitation facilities. Helping to improve access does not just depend on technology, or on resources and rights, but also on an understanding of how we value and view these services. Such values and views vary from culture to culture. Art and architecture, religion, music, literature and drama all need to feature in the complex mix that will lead to improvements in the provision of safe water and adequate sanitation for everyone.

This exhibition brings art and engineering together. It presents a series of images by Rod Shaw from his book *Drawing Water*, illustrating how the skills of an artist can contribute to international development. In a review of the book, the journal *Waterlines* recently noted that "part of the enduring problem of getting sanitation onto an equal footing with water is that people are either embarrassed or they laugh about it. These illustrations invite neither response, and Shaw should be thanked for making plain a subject that is too often avoided or skirted around".

Brian Reed
Water, Engineering and Development Centre
Loughborough University, 2006

Collecting water

Women play an important part in managing household water supplies. The fear of social exclusion, however, can limit the decisions women will be prepared to make about improvements in a service that will benefit them.

Although a burden, collecting water can be a social activity so it is critically important to account for the social impact of any proposed improvements.



Bringing water closer to home

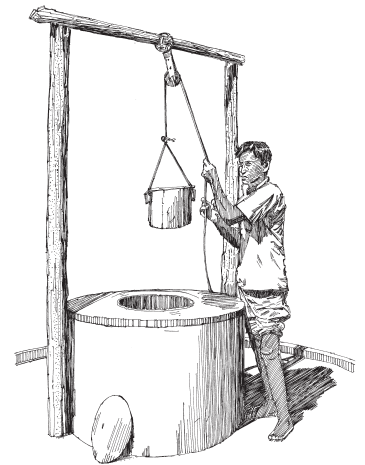
Water is heavy and it can become contaminated when carried home. Collecting water is time consuming — time that could be spent working, at school or resting. Having to go and collect water means that little water is used for washing and cleaning.

Engineers can help to bring water closer to people, improving not only the quality of the water, but also the quality of their lives.

Improving wells

Improved access to water can be provided by using very simple technology. A wall, a lid, a simple pulley and a bucket can improve the access to the water in a well and help to protect the water quality.

What is not so simple, however, is to understand the cultural needs of the local community, especially the need for information and education. It is vital to ensure that basic testing, monitoring, maintenance and management skills that are required to make such effective improvements sustainable are provided from within the community itself.



Drinking water

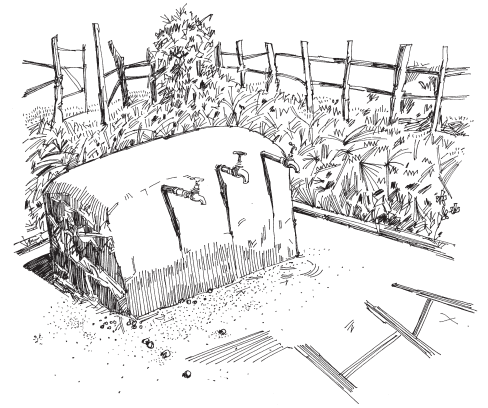
Everybody needs to drink water – but some people have specific needs. Whilst the different roles of women and men in relation to water and sanitation are well documented, it is not always easy to understand these needs.

It is often easier to identify the physical and social constraints of the young and old, rich and poor, and people with or without disabilities than it is to fully appreciate the importance of gender.

Designing standposts

A simple piece of urban design can reflect the culture of an area. Well-maintained water points prevent pollution and flooding but also display a pride in the local environment. The design of a standpost should account for local needs and customs.

How people collect water (whether in small buckets or in large jerry cans) should affect the location of the tap on its stand. A high tap with somewhere to rest the container will make life just that little bit easier for people who carry water on their heads or on their backs.



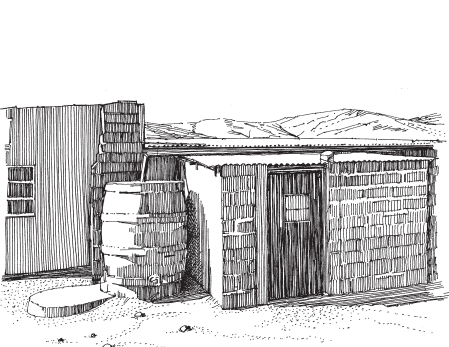
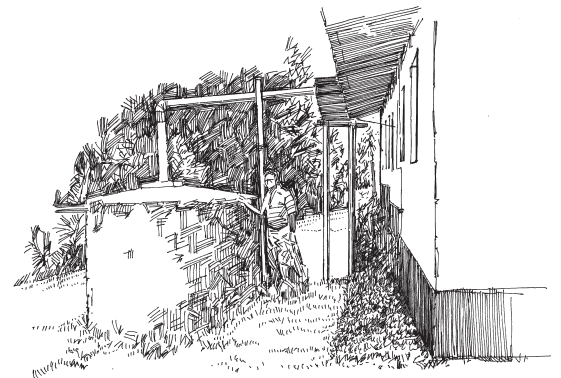
Water sources

People with poor access to water in the house may use more than one source of water. This will depend on a number of factors including the distance from home to the source, ease of access, water quality and what the water is to be used for.

Water is not just needed for drinking, cooking and cleaning, but also for the pleasures of bathing and swimming, or for washing before prayers.

Rainwater collection

One of the most informal ways of obtaining water is to collect rainwater. By using basic containers and simple guttering, a reasonably clean supply of water can be collected right next to the house. This may only provide water for a few months of the year, but will nevertheless provide respite from the drudgery of water collection.



Responding to demand

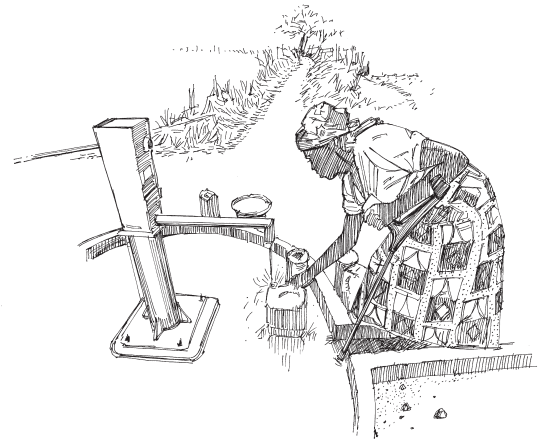
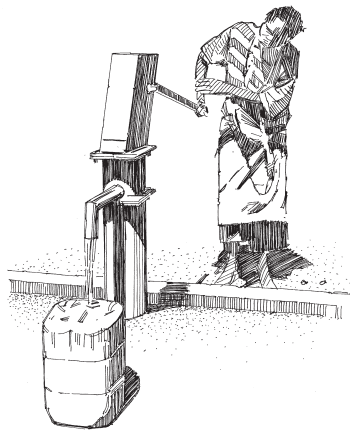
Whilst a simple rainwater harvesting system may be affordable and convenient, saving somebody (normally a woman or child) the burden of collecting water, it may be rejected as being too basic, either by officials, community leaders or donors.

Improved systems should be based on the demands of the user, not on textbook designs.

Collecting water from handpumps

There have been significant technological improvements to handpumps over the last thirty years, but there is still a need to consider the ways in which water is collected from a handpump. Handpumps have to be used by the whole community — by women, children, the old, and the disabled.

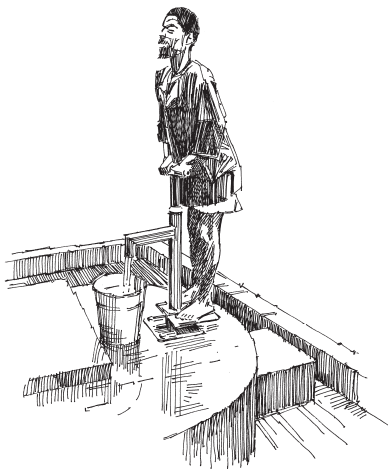
But handpumps only extract water from the ground. Water still needs to be collected in a suitable container, without wasting too much, and then be carried safely home.



Maintaining handpumps

Without support, a community will have to be able to look after and maintain its own handpump. This requires organization, fundraising, knowledge and access to spares.

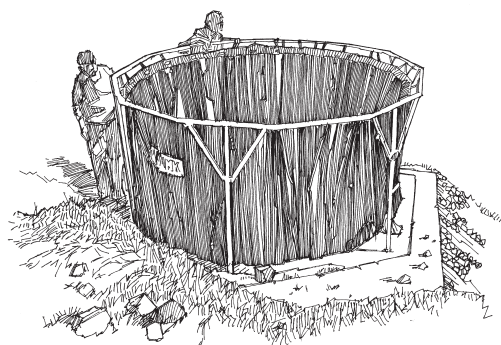
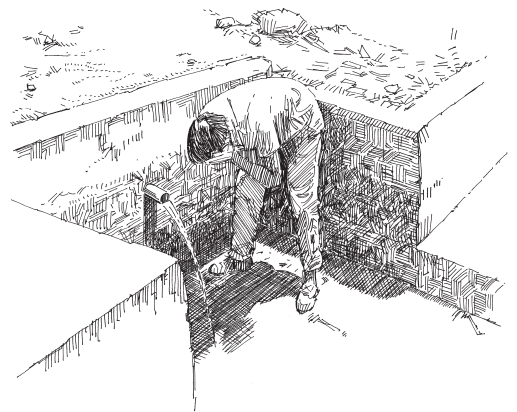
There may yet be a need for external assistance, however. The community may not have the capacity to undertake major repairs and the quality of the water will need monitoring at intervals to ensure that it is still fit to drink.



Springs

Water springing out of the ground has a magical quality. It generates a sense of wonder as nature provides a source of clean, life-giving water. The influence of religion and folklore can be used to help maintain the quality of the water. Respect for the spring can encourage people to keep the area upstream clean.

A protected spring situated within a fenced compound will provide easier access, improve drainage and also prevent animals from contaminating the source.



Water in emergencies

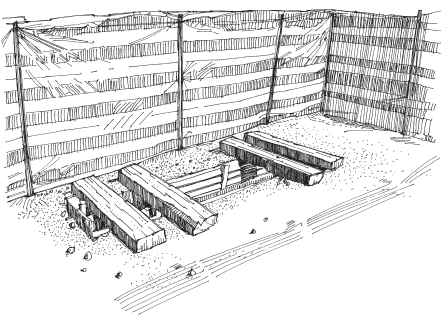
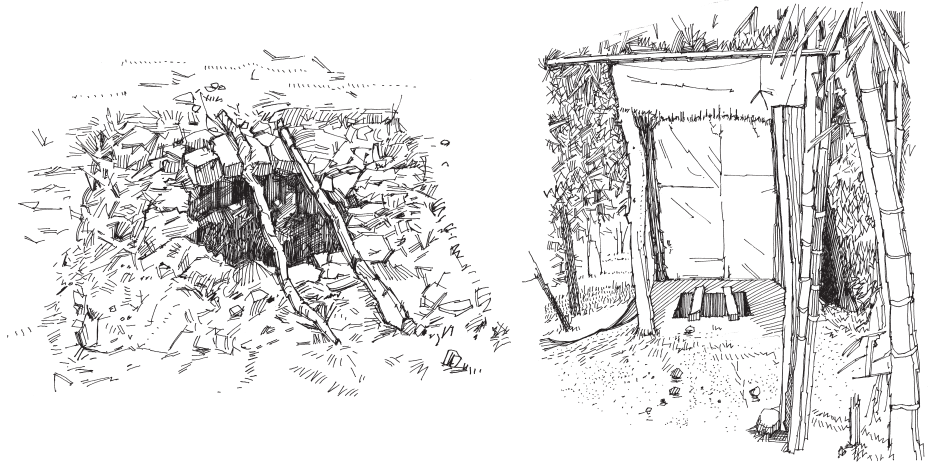
Clay water jars and gothic brick water towers can be things of beauty, but modern materials can provide a quick fix during an emergency. The local potter may be an artisan, but a plastic bowl or plastic bottles are easier to keep clean. Using a plastic bucket with a tap will help to keep hands clean before and after meals.

A packing case full of plastic sheeting and a few metal poles can be turned into a water tank in a matter of minutes. Time matters in a crisis.

Basic latrines

It doesn't take much to make a difference. Using a simple pit for defecation will reduce the risk of water pollution. A simple screen provides privacy, allowing access to sanitation for women all day so they don't have to wait until dusk.

A basic latrine can be the start of a healthier, more dignified life, even if it is not seen as a 'proper' toilet.



Trench and bucket latrines

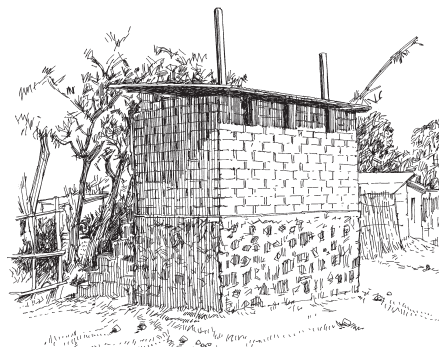
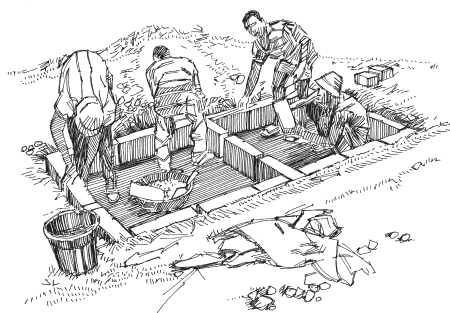
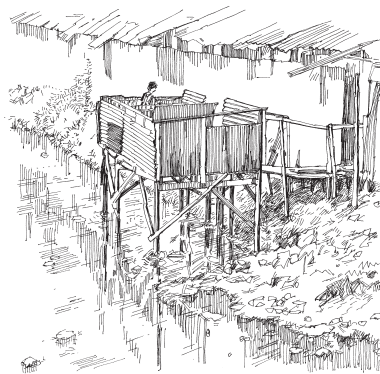
Refugees need toilets fast. A couple of planks and a plastic screen may not be much, but they still do the job.

Bucket latrines may be appropriate in some circumstances, but only if there is a cultural willingness to deal with faecal matter.

Overhanging and pour-flush latrines

Designs of latrines reflect people's circumstances. A location next to, or over, a river allows the toilet to discharge directly into the water. Designs can vary from makeshift structures to beautifully tiled bathrooms, but such latrines are a serious health hazard for people living downstream.

A cultural preference for using water for anal cleansing encourages interest in the pour-flush latrine, where a simple water seal keeps smells in the pit and flies out.



Raised latrines

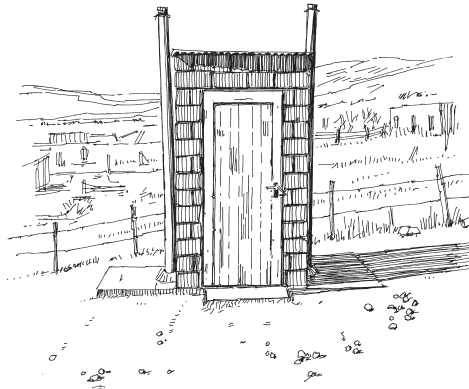
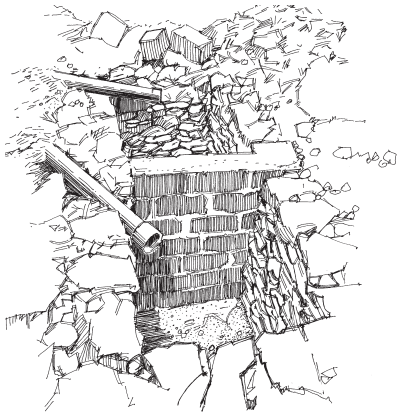
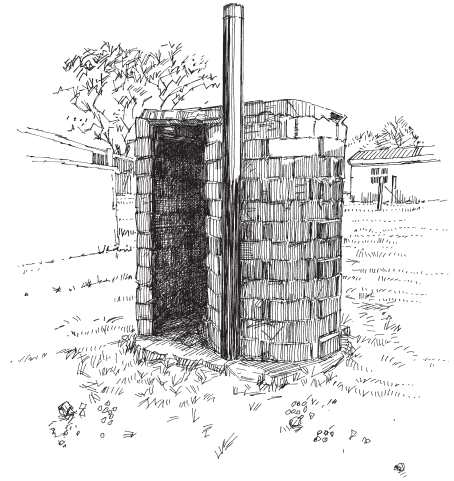
Without transport or affordable housing near to their employment, the poor often end up living in areas that are unsuitable — areas that flood or are situated on hard, rocky ground. People living in these areas still need latrines, and one answer is to build up, not down.

However, although a raised latrine will be suitable for some, it may not be particularly private and may be inaccessible to people with mobility difficulties.

Ventilated improved pit latrines

Whilst reasons for providing a latrine include the safe disposal of faeces without polluting the groundwater, when people are asked what features they would like to see in a pit latrine design, issues of flies and smells are mentioned first.

Ventilated improved pit (VIP) latrines can control flies and odours, but they are dark inside. There may be fewer flies, but what about spiders and snakes?



Twin-pit latrines

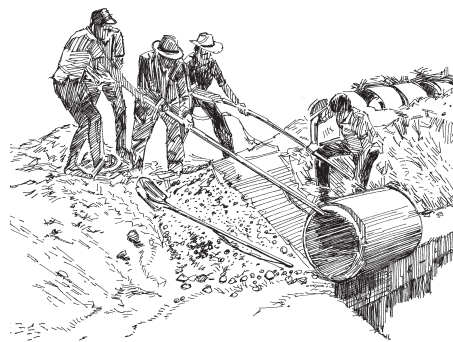
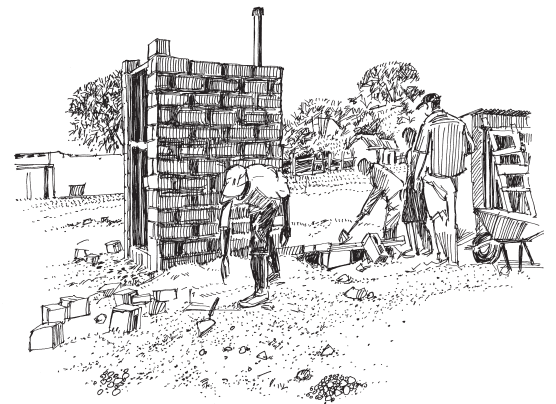
Pit latrines are not a 'no-maintenance' option. Eventually they fill up and need to be replaced or emptied. A twin-pit latrine makes emptying easier. Whilst the second pit is in use, the faecal matter in the first pit can be left to decompose before removal.

Cultural reluctance to handle such material, however, can be a barrier to the adoption of this technology, even though human waste can be used as a soil compost.

Investing in people

Providing adequate water supplies and sanitation is not just about bricks and mortar. The most vital resources are those of experienced and motivated people who can turn simple physical materials and financial funds into a life-giving and life-enhancing asset.

A trained workforce has to be in place if the Millennium Development Goals are to be attained.



Foundations of sustainable services

There is more under the surface than pipes and pits!

Cost recovery, capacity building, policy development and evaluation are just some of the other elements that form the foundation of appropriate, sustainable services.

DRAWING WATER

In 1988, John Pickford, co-founder and Leader of the Water, Engineering and Development Centre (WEDC) at Loughborough University invited me for an interview for the post of Editorial Assistant. Drawing skills featured in the job description, so with a degree in Fine Art behind me and an interest in international development, I thought I might be in with a chance. I asked John if he would like me to bring along to the interview a portfolio of my artwork for inspection. To this he replied: "Just bring along any drawings you've done of people sitting on the toilet!"

I was somewhat taken aback by his response, and wondered whether this really was the job for me. But I was also curious. Needless to say, my portfolio was missing the vital collection of images that would sway the appointment in my favour. Not sure whether John was joking or not, I hurriedly produced a few sketches and set off to attend the interview.

I soon discovered what WEDC was about. It had an established reputation as one of the world's leading centres for education, training and research concerned, principally, with improving access to water and sanitation for the poor in low- and middle-income countries. I was immediately struck by 'the human touch' which pervaded the ethos of WEDC and realized that this was intended to spill over into the publications which WEDC produced. Not only were technical illustrations used to convey information, line drawings were to be used to describe the context of a subject in an approachable way, and also to enliven the page.

With the advancement of printing and publishing technologies throughout the 1990s, I questioned whether black and white line drawings were still an effective means of visual communication. After all, the advent of desktop scanning and digital photography meant that photographs were now easy to drop into documents. There were (and still are), however, problems associated with using photographs. They are usually country or culture specific and do not withstand multiple-generation copying. Both factors are limiting for materials intended for wide distribution in developing countries. Furthermore, particular features of a subject can be emphasized and given focus using an illustration. My doubts over the continued relevance of line drawings were finally put to rest when I researched the issue during the course of studying for my postgraduate degree. Many accounts suggest that the pictorial style most easily understood by people who have had relatively little exposure to pictures are shaded line drawings.

In 2004, I was commissioned by the World Health Organization and UNICEF through their Joint Monitoring Programme to prepare a set of illustrations on a broad range of subjects relating to water supply and sanitation in developing countries. They were produced to feature in educational materials for staff as they train to conduct household surveys designed to report global estimates of access to water supply and sanitation. This project provided the opportunity for me to gather together the line illustrations I have produced over a number of years and to present them in a book and on a compact disk as a resource for others.

This exhibition *Drawing Water* carries the same title as the book. It presents a selection of images which illustrate the ways in which many people living in poor communities throughout the world manage to meet the most basic of human needs.

Rod Shaw
Water, Engineering and Development Centre
Loughborough University, 2005