the Courier UNESCO

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Striking peace on troubled waters

SEPTEMBER 11, 2001
MAKING SENSE OF THE ATTACK

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IN THIS ISSUE

Shockwaves

After the initial shock of the attacks on September 11,three words have been repeated like a mantra: war, civilization and Islam.Such reductionism more often than not prevents considered analysis of the context in which this abominable act was committed (p. 3). Several articles in this issue provide leads for undertaking such urgently needed reflection,though they were not planned as reactions to the atrocities in New York and Washington. From Jerusalem,the Palestinian scholar Sari Nusseibeh dreams that his city, ravaged by violence, may fulfil its destiny and bring peace to nations (pp. 4-9).Pierre Sané, a senior UNESCO official and former secretary-general of Amnesty International,explains why Durban was a success in the fight against racial discrimination, which lies at the source of many current frustrations (pp. 10-12).Dirty money is a weapon of terrorism:the United Nations is preparing a convention against corruption,a scourge fed by globalization (pp. 39-41).“Digital convergence”unites all means of communication onto a single medium. This technical revolution goes hand in hand with increasing economic concentration,undermining the critical importance of pluralism (pp. 39-41).In an interview, Malian griot Sotigui Kouyaté,one of Peter Brook’s longtime actors, shares a deep commitment to cultural encounters (pp. 47-51).Such cultural mixing is hard to come by in contemporary art, despite its claims to being universal (pp. 42-43).And while education is a key to transmitting knowledge and fostering critical thought,its role may be increasingly endangered by the ageing population of teachers (pp. 13-15).
The dossier also brings a message of hope. While many have predicted that wars this century will be fought over water, recent and distant history points to the contrary:this precious resource nourishes dialogue rather than conflict (pp. 16-38).

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CONTENTS

OCTOBER 2001

PEOPLE AND PLACES

4 **Jerusalem: childhood truths**
A Palestinian scholar from one of Jerusalem’s oldest families dreams that his city might one day outshine human differences.
Photos by a student collective from Al-Quds University, text by Sari Nusseibeh

VIEWPOINT

10 **In defence of Durban**
The Durban conference against racism was the target of much unfair criticism, argues Pierre Sané, who led UNESCO’s delegation.

EDUCATION

13 **A hard sell for teaching**
In industrialized countries, teaching is a greying profession. Attracting a new generation starts with addressing some deep-set grievances. Cynthia Guttman

15 **Chicago’s headhunting drive** Julie Blair

Focus

©: J.-L. and F. Ziegler/Bios/Still Pictures, London

Striking peace on troubled waters

The one resource we can’t live without is becoming ever more scarce. Will wars be fought over water, as they have been over oil? The thesis is provocative, but overlooks the fact that hostile countries have almost always managed to strike deals on the rivers flowing across their borders. From the Danube to the Nile, this dossier highlights the ways in which water is used to extinguish fires rather than ignite them.

Detailed table of contents on page 16

ETHICS

39 **On the tracks of a global vice**
Fed by rapid globalization, the scourge of corruption has become top priority for the United Nations. Michel Bessières

CULTURE

42 **Contemporary art: who calls the shots?**
A handful of rich countries dominate the art scene, despite the appearance of an increasingly internationalized market.
Interview with Alain Quémin

MEDIA

44 **When the media meet as one**
The era of digital convergence promises to be a giant upheaval in the way people communicate, relax and work. John Vince

46 **All power to the barons?** Interview with Robert McChesney

TALKING TO…

47 **Sotigui Kouyaté: the wise man of the stage**
His career spans many cultures, but Malian actor Sotigui Kouyaté is first and foremost committed to sharing Africa’s living traditions.

Erratum: the photo caption published on page 40 of our previous issue should have read as follows : “Street children, gathered voluntarily by Russian officers, take part in an informal rehabilitation programme which includes a military training component.”

September 11, 2001

Making sense of the attack

Close to 7,000 dead, nearly all of them missing. The world's sole superpower struck at the heart of its economic life and defence system, something that no state at war with the U.S. had previously managed to achieve. A whole new scale of destruction, marking the advent of "hyper-terrorism." Suspects linked to obscure transnational networks believed to centre around a billionaire warlord, hidden in a country that could not be more different from America. No admission of responsibility. The September 11 attacks were unthinkable. For this very reason, the shockwaves that ensued have been unprecedented.

First thoughts went to the victims, their families and the nation, in a spirit of unreserved solidarity. Then, once rescue operations got underway and public security measures were taken, came disbelief, rage and resolve, but also, on a more diffuse level, the time for introspection and doubt.

American military forces are mobilizing and Operation "Infinite Justice," (renamed "Enduring Freedom") has been launched. But to deliver what kind of justice, within what legal constraints and against whom? Doing justice to the victims and preventing more violence by dismantling terrorism is a legitimate and imperative obligation. But the wall of an American Muslim insitute bears an anonymous warning: "An 'eye for an eye' leaves everyone blind." Retaliation against fanatics using force alone succumbs to their logic. The military and security response can only be fair, and thus effective, if it is part of a global answer to the key question: how and why did we come to this?

So far, the words that are repeatedly cited— war, civilization and Islamism—stand in the way of profound analysis. The first word is inappropriate, since wars are fought between nation-states. The second has a painful history that can be traced back to the Enlightenment, when humanity was divided into the "civilized" and "barbarians" in order to legitimize Western conquests. This war-cry of "civilization" came to paper over colonial expansion. Today, use of this word in the singular suggests that the world contains only one civilization, relegating all others to an inferior or even non-existent status. The third term, Islamism, describes a political and religious movement advocating expansion of and respect for Islam. The term is increasingly confused with its violent extremes, which are condemned by most Muslims. To line up this skewed definition with the words "war" and "civilization" is to adopt exactly the same way of thinking as that embraced by the alleged culprits. Actions that stem from such an interpretation inevitably lead to a dead-end.

Reactions to the attacks as gleaned from the international press offer a starting point for reflection. They point to significant fault lines. The attacks were clearly a trauma for Americans, as well as for many people, mostly living in developed countries. A very small number of people openly displayed abominable joy. A larger group, while empathizing with the victims, looked upon these attacks as one more instance—albeit a more dramatic one—of a plague of violence affecting the entire planet. This time it had hit the U.S., as it had already struck many other countries. Yet perhaps the greatest number of people around the world showed no more than indifference, as if these events were happening on another planet, or did not break with life's daily routine.

More than half a century ago in London, when German bombs were still raining upon the city, diplomats and an educated group of men and women gathered to reflect upon the unthinkable events of their time. Why and how, in the heart of "Christian Europe," in the country with the most educated population, could Nazism surge and the Holocaust take place? What new world order could prevent a return to barbarism? Their answers are cast in UNESCO's Constitution. They found that a denial of reason unleashed a denial of human dignity. They attributed this to barriers erected between people, which gave rise to "mutual incomprehension." Their answer lay in a voluntary mission that called for the development of the "free exchange of ideas and knowledge" for the "purposes of mutual understanding"—the "United Nations." They sought to give meaning to a world that had gone adrift by restoring "the moral and intellectual solidarity of mankind."

True, the historic context was starkly different from today. True, the world has strayed from the path traced by these visionaries. One probably explains the other. But do these differences invalidate the visionaries' conclusions and render their path impracticable?

THE UNESCO COURIER
September 25, 2001

A new day begins in the Holy City.

Jerusalem: childhood truths

PHOTOS BY A STUDENT COLLECTIVE,TEXT BY SARI NUSSEIBEH

THESE PHOTOSARE SELECTED FROM A PROJECTCONDUCTED BY STUDENTS FROM AL-QUDSUNIVERSITY IN JERUSALEM, OFWHICH SARI NUSSEIBEH ISTHE PRESIDENT

At rest in the garden of the Dome of the Rock.

© SCAC, Jerusalem

Following André Chouraqui's vision of Jerusalem in last month's Courier, Al-Quds university president Sari Nusseibeh, whose family holds the keys to the Holy Sepulchre, spins a childhood tale that has lost none of its profound resonance

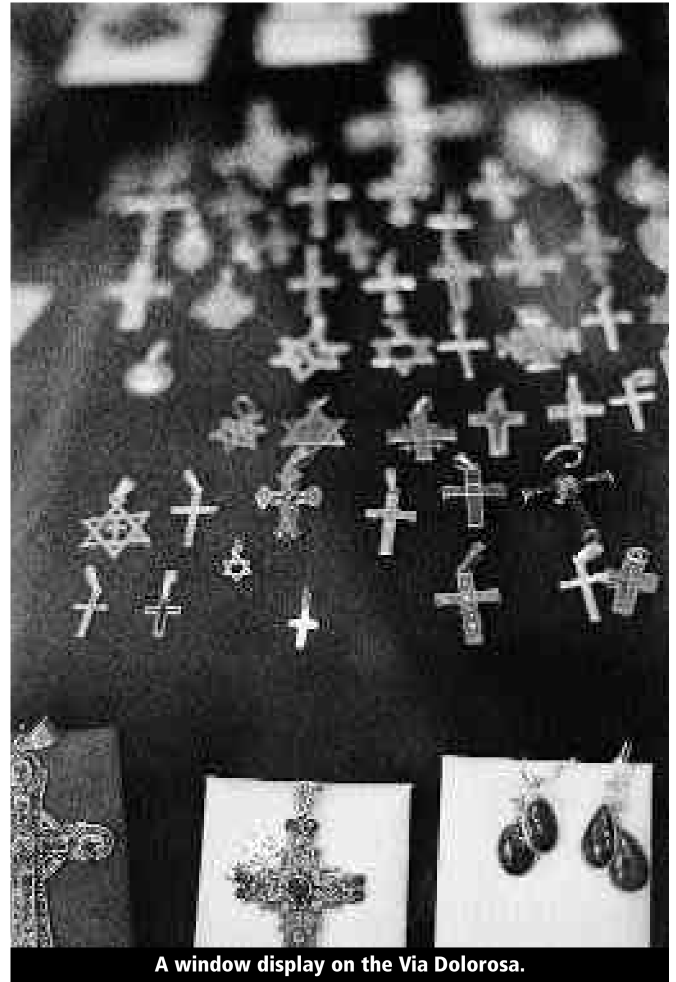
Sometimes when I am asked how my family—a Muslim family named after "Nussaibah," a female warrior-companion of the Prophet from Medina—ever came to hold the keys to one of Christianity's holiest sites in Jerusalem, the Holy Sepulchre, I smile indulgently. Then, I begin by saying: "Well, there are a few traditions in the family concerning this, but let me begin with this tale…".

The story I then spin out is an innocent mixture of fact and fiction,a mosaic of the subjective and the objective, which has been imprinted in my sub-conscious ever since my early childhood. For me, this is the essence of the identity of Jerusalem—a beautiful mosaic of tales spun out from a misty past, rooted in events, whether real or presumed,and constituting the fibre of the hearts and souls of its inhabitants.

One such tale of which I am particularly fond, encapsulating as it does the magical relation between Man and the City, is that of the Caliph Umar's entry into Jerusalem in 638 A.D. It is a tale that seeped deeply into my consciousness during my childhood, resounding year after year in my ears and mind, but cumulatively gathering with it and impressing upon me a particular moral; one ▶

Jerusalem: childhood truths

Sunlight and shadows over the eternal City.



A window display on the Via Dolorosa.

Jerusalem can still outshine human differences and reign supreme.

which, because of its association with Islam's origin in the City, is fundamental to my self-identity as a Muslim Jerusalemite.

The almighty Caliph of Islam, I have been led to believe, being totally overawed by the prospect of entering this sanctified City, would only deign to arrive at its gates unarmed. Leaving his fierce and victorious warriors behind, accompanied only by his aide and one beast of burden, he approaches the City peacefully and by foot, to be cordially received by its Christian Guardian, Bishop Sephronious. On his journey towards the City, the story goes (and I take this also to be a fundamental part of the tale), the Caliph and his man-servant exchange places to ride their single camel.

Much of history is made of what happens next. To me, the ▶

IN SEARCH OF THE TIMELESS

During a course given by French photographer Luc Chéry*, students in literature, architecture and archaeology from Al-Quds University experimented for the first time with another form of "writing"—photography. Working on the theme "Jerusalem, my city," they meandered down narrow lanes and into markets, equipped with throwaway cameras, in search of subjective, timeless shots. The result, a collection of 35 photographs from which the present illustrations are selected, will go on show in Jerusalem, Ramallah, Gaza and Nablus, as well as in several capitals of the region. ■

* In partnership with the cultural service of the French General Consulate, the Al-Ma'mal Foundation for Contemporary Art and the Centre for Studies on Jerusalem.

© SCAC, Jerusalem

A monument to the dead in the Salah Eddin cemetery stands alongside a shopping district.

Jerusalem: childhood truths

The Souq al Qattanin,or Cotton Merchants' market.

mystery of Jerusalem is already engraved in the above tale. Laid out before me, I immediately see the moral contours of a cosmic design, mapping out and balancing the relation between the Man and the City, between Earth and Heaven. At one end of the design stands the Conqueror and First leader of Men. But his size is diminutive. His submission is total. His humility and self-denial are complete. At the other end stands the Golden but "conquered" City. Its size is majestic. Its form is imperial. Its heavenly walls totally impregnable, impervious but to the pious, who enter it submissively and with humility. It is not another stone-habitation to be submitted and conquered by force. It is the penultimate earthly stepping stone in the journey of the humble and pious towards their Creator.

I look at this drawing in awe and wonder. Not here do I find the signs of pomp and glory of earthly warriors. Nor here in the drawing do I see the details of blood, battle and plunder. There is a peaceful absence of human force and violence. There is only the City's divine supremacy, illuminating the path to God.

A jewel box of moral tales

I take a look back to reevaluate or understand the approach of the Caliph and his man-servant. It takes but a second for me to realize the other significant message, the other universal value in this childhood tale: the equality and brotherhood between men. Regardless of their respective earthly stations, Caliph and man-servant are equal before God. And, as equals, they naturally come to share their earthly utilities.

This is certainly no Roman Emperor riding golden chariots surrounded and protected by soldiers and servants, nor a Cleopatra or Pharaoh carried regally on the shoulders of beautiful Nubians belonging to a sub-race, in celebration of Man's mighty conquests: it is, rather, a humble servant of God, piously seeking to be received by Him. Jerusalem—the stones and the inhabitants—is a jewel-box of such moral tales. The mosaic intercrosses time and space, stone and soul, reality and dreams. It is impossible not to hear the throbs of your heart, not to pierce through present sounds and smells to the point of contact with the images and sounds of the past, as you tread through the ancient cobbled streets of history.

You may see soldiers and guns parading through the streets of the present. You may see anguish or pain or suffering. You may sense bigotry, or bias or misplaced self-righteousness. But somehow, you manage to gaze right through these and other images of human contortions, from this period or from other grim periods of Jerusalem's history, to see Jerusalem as its real, heavenly self, as a City of unity and piety. And as you gaze at this eternal Jerusalem with the eyes of faith, you manage

somehow to imbibe differences and imbalances, distilling into your own identity other peoples' pains, tales and histories. For, what is a Jerusalemite if not a complete human being, a human being stripped of earthly prejudices, of racism and bigotry, a human being sufficiently purified to be received by God?

I would like to believe, in spite of the contortions of the present, that Jerusalem can still outshine human differences and reign supreme; and that Jews, Christians and Muslims can still make Jerusalem fulfill its destiny of bringing peace unto the nations. I believe the secret to this dream lies in a childhood tale. It is the tale of Umar: that men who would venture to step into the earthly Jerusalem, in fulfillment of the beckoning of God, should behave towards each other as equals, and be prepared to share their earthly means of entry to the divine world. ■

© SCAC, Jerusalem

Jerusalem's thousand and one spices.

Returning from school through the market of the Damascus Gate.

In defence of Durban: racism is back on the agenda

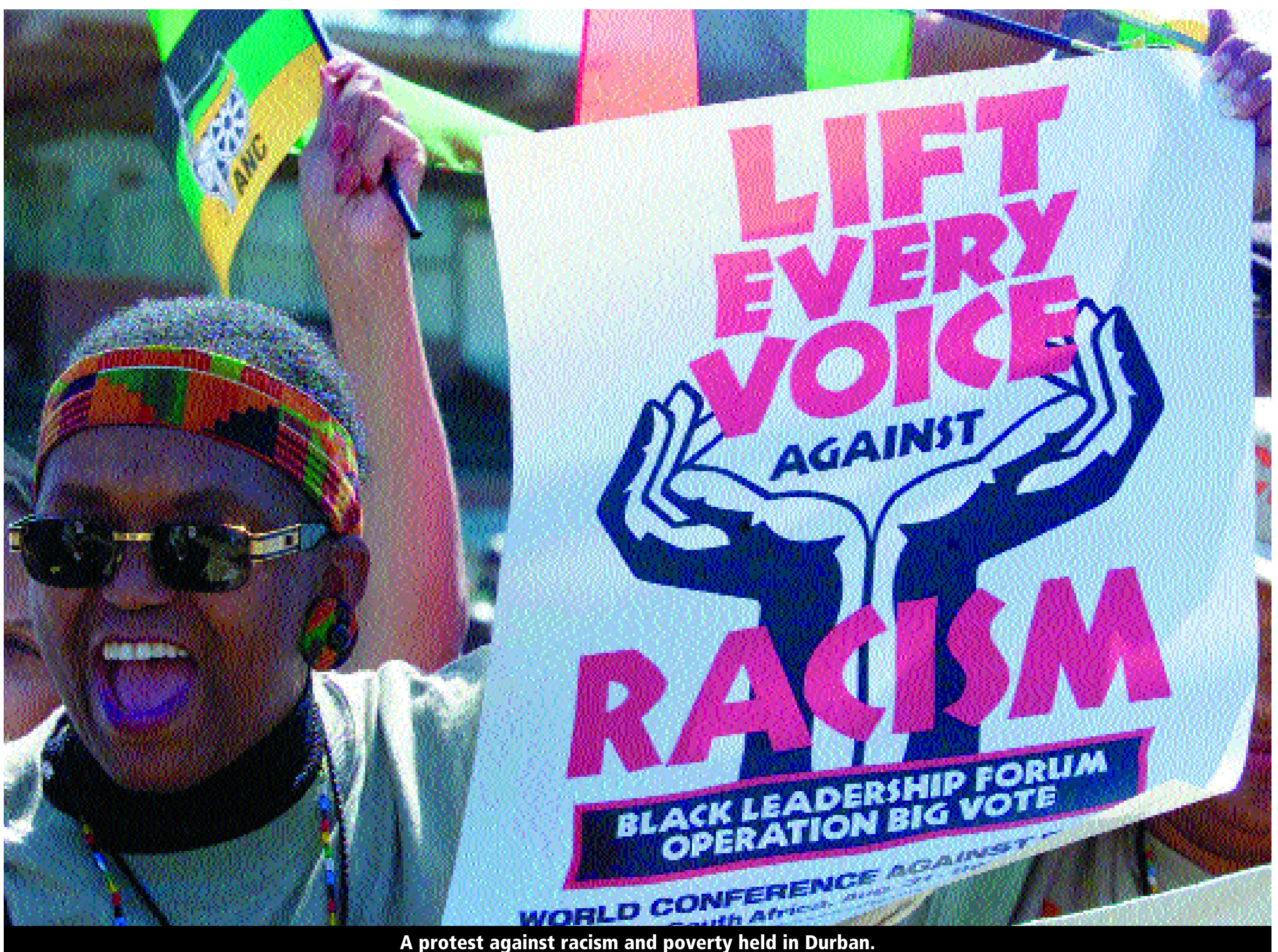
"Total fiasco," "a congregation of the converted," "a lot of hot air"—the media's verdict on the Durban conference against racism was a harsh one. It was also unfair, says Pierre Sané, who led UNESCO's delegation

PIERRE SANÉ

ASSISTANT DIRECTOR-GENERAL FOR SOCIAL AND HUMAN SCIENCES OF UNESCO AND FORMER SECRETARY-GENERAL OF AMNESTY INTERNATIONAL

Since racial segregation ended in the United States and apartheid was abolished in South Africa, many governments have denied the existence of racism in the world, and particularly in their own societies. Despite this, a world conference against racism, racial discrimination, xenophobia and related intolerance in Durban, South Africa, (Aug. 31-Sept. 7) managed to draw delegations from 170 countries. It was an extraordinary admission by those who took part that racism exists in all societies.

The job of the conference was to point to new kinds of racism[1] that today affect immigrant workers, asylum-seekers, refugees, displaced people, those with HIV/AIDS and others. It was also intended to denounce moves towards "genetic discrimination," for example when a firm asks a future employee for his or her genetic imprint with the excuse of looking for possible "abnormalities." The Durban conference brought debate



© Juda Ngwenya/Reuter/Max PPP, Paris

A protest against racism and poverty held in Durban.

up to date on all these points.

These kinds of political gatherings invariably give rise to trials of strength, and there are failings. The final documents in Durban do not mention the biggest group of human beings affected by discrimination—South Asia's 260 million *dalits,* or untouchables. Neither was there mention of black people living in Arab countries, nor of the Palestinians.

Putting faces on the victims

But many "invisible" victims did show their faces to the world at the conference. Seemingly trivial but really very telling was a delegation of "Pygmies," who came to publicize for the first time at a world conference the threats to their society from war in Central Africa. Afro-Latins—people of African origin from Colombia and Venezuela—also spoke of their suffering.

The presence of delegations of Roms, Gypsies, Sindis and other travelling people—all victims of a racism ignored by the international community—were able through their links with NGOs to have their say in the conference's final declaration and action plan. Many other victims were clearly identified. Now it is up to governments to do something about them. This was a significant achievement for the conference.

Some critics have singled out the "catch-all"nature of the gathering and claimed that it was submerged by disputes of "questionable relevance"—arguments about whether reparations should be made for slavery, or whether Israel should be condemned on the grounds that Zionism is racist.

The task of the conference was to list the causes of racism, and slavery was seen in this context. The slave trade and colonialism were probably legitimized by racism and in turn encouraged it. They were denounced in these terms. And for the first time, the international community recognized that slavery and the slave trade were "appalling tragedies in the history of humanity" and that they formed a "crime against humanity."

All this is only a start. UNESCO, for example, argues that people have a duty to remember the past and is calling for scholars to be allowed access to all records so that the extent and effect of the slave trade can be conclusively assessed. It is also asking that school textbooks reflect the importance of this tragedy and its criminal nature.

Hidden guilt

The conference had no brief to work out details relating to the controversial issue of compensation for slavery during its 10-day session. But it carried out its job by making a declaration of principle over the "moral obligation" to pay financial compensation for wrongs committed,and for me that is stronger than a "legal obligation."

Giving the status of victims to Africans, who were the objects of this trade, finally enables their descendants to lift their heads high, while allowing the descendants of those who committed the crime to end their silence. I have always regarded development aid as the unhealthy product of a secret feeling of guilt. With the crime recognized for what it is, such aid can be replaced by fair compensation that will put the parties involved on an equal footing.

For the first time, the international community recognized that slavery and the slave trade formed a "crime against humanity"

Some people think the Palestinian issue was intrusive, but it was inevitably going to come up in Durban at a conference organized by the UN High Commissioner for Human Rights. For delegations from Arab and Muslim countries, the issue is one of human rights, discrimination (some Israeli laws discriminate in this way), violence against a people and violation of the right to self-determination. It is in the news and had to be raised,as apartheid was in its day.

The United States and Israel, who were against allowing the issue onto the agenda, withdrew from the conference. But the agenda was democratically drawn up by all the working groups. If a topic appeared relevant to the aim of the conference, they could decide to include it for discussion. They did so, and the final conference declaration expressed "deep concern" over "the increase in anti-Semitism and Islamophobia in various parts of the world," while emphatically rejecting any equivalence between Zionism and racism.

A moral re-armament

Can we trust the countries that promised the conference they would fight racism? The first test will be whether they come up with national plans to do so, along with a budget, identification of perpetrators and victims, legislation and a timetable for action. They have said they will. To help them, the conference has drawn up a list of "best practices," such as banning all kinds of discrimination in the workplace and in housing, devising ways to measure progress in education by the most disadvantaged groups, and assuring that those who file complaints about racism (especially concerning the police) are protected.

All this might seem wishful thinking. But all world conferences—Rio on the environment and Beijing on women's rights—have ended the same way, namely with a declaration and a plan of ▶

TEN YEARS OF WORLD CONFERENCES

1992. UN Conference on Environment and Development (Rio de Janeiro)

1993. World Conference on Human Rights (Vienna)

1994. International Conference on Population and Development (Cairo)

1995. World Summit for Social Development (Copenhagen)

1995. Fourth World Conference on Women (Beijing)

1996. Second UN Conference on Human Settlements (Istanbul)

1996. World Food Summit (Rome)

2001. World Conference against Racism, Racial Discrimination, Xenophobia and Related Intolerance (Durban) ■

A FORUM OF SOUND AND FURY

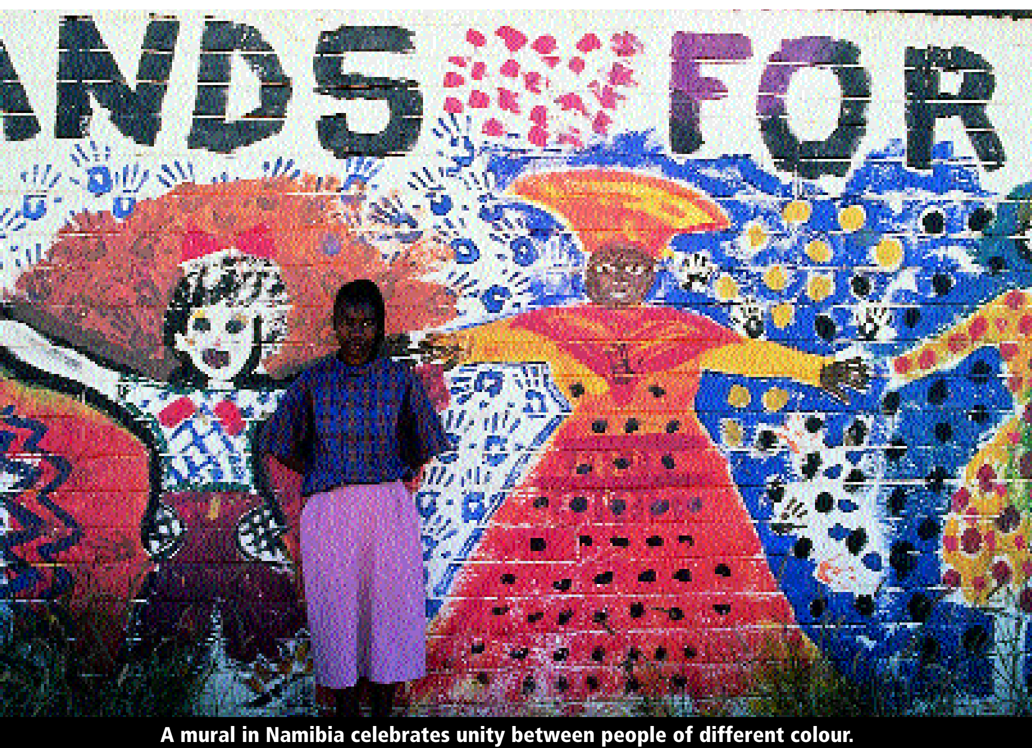
Durban gave the final proof: the gatherings of NGOs that are now part and parcel of all major UN conferences are turbulent affairs. To make matters worse, they are often infiltrated by "false NGOs," associations created especially for the event by undemocratic states, political parties or industrial lobbies. But even so, these assemblies are valuable hothouses that have facilitated the gradual emergece of a "global civil society" intent on talking on equal terms with the powers that be.

Durban, the first major conference of the 21st century, formed the latest instalment of a series of similar events (see p. 11) over the last decade, meetings that have heralded the ascent of non-governmental representatives into the management of international affairs. They may be accused of squandering funds (budgets vary from two to 10 million dollars each), but today's UN conferences are no longer mere stages for states to lock horns. Aside from revealing the differences between governments and other parts of society (such as NGOs, cities and businesses), the summits also vent the disputes within civil society itself. The Rio Earth Summit in 1992 was the first occasion in which NGOs, until then excluded from large global gatherings, played an significant part in shaping debate—even if their representatives were shunted several kilometres away from the official conference. But all the same, they were there in force (over 2,500 of them), denouncing injustice, blaming market economics for its undesirable effects and proposing "alternatives."

Sometimes, as in the 1993 Vienna conference on human rights, activists have been granted a presence on the official podium and a voice in the final decision-making process. In Beijing, in 1995, they made the front page, which is more than can be said of the official conference discussions on women's rights. For the very first time, Amnesty International's then secretary-general, Pierre Sané, held a press conference in China.

As the summits have continued, these NGO forums have grown in importance and diversity, often with the approval of the UN. Termed the "gringo forum" at Rio due to the preponderance of groups from the northern hemisphere, these meetings have since welcomed a much greater presence of delegates from the developing world, testimony to the upsurge of southern NGOs. ■

action that is not binding but which is based on existing conventions and law. The aim of such gatherings is to get countries to re-commit themselves—a kind of moral re-armament—towards working together to solve a problem that depends on international cooperation. Nobody forces governments to take part in these events. But the fact that negotiations over the final declaration were so tough shows exactly how important countries thought it was. By signing that declaration, they pledged their word and their credibility, and agreed to make regular reports on how their promises were being put into effect. Everything also depends on how far civil society—the 1,000 NGOs who attended the conference—get involved. When they get back home, they can say to their government: "You've signed. Where's your action plan?"



©Ioan Klatchko/Gamma, Paris

A mural in Namibia celebrates unity between people of different colour.

Some people accused these NGOs of going to extremes in Durban, to the point of stifling debate. But there was plenty of impassioned argument at the conference. It was only natural for associations supporting murdered victims to lose patience with the "realism" espoused by governments. So the debates were very lively, but not violent.

The conference put the fight against racism on the agendas of all NGOs. Governments have made progress too by joining a democratic debate ultimately aimed at the shared management of global society. Durban was worth it. ■

1. *See* UNESCO Courier, *September*

The single most important influence on learning.

©Francis Demange/Gamma, Paris

A hard sell for teaching

In the industrialized world, teaching is a greying profession and burnout rates run high.Attracting a new generation starts with tackling some deep-rooted grievances, which go well beyond better pay

CYNTHIA GUTTMAN

UNESCO COURIER JOURNALIST

Like religion,a calling often sets students on the path to teaching, but today, the fervour of times past is waning, leaving schools across the developed world scurrying for teachers.

Countries are scouting far from home to fill vacancies, turning the profession into a global marketplace, with recruiting grounds stretching from Russia to South Africa and New Zealand. Some have even relaxed immigration rules to attract candidates.

Governments have also taken to investing in television advertising campaigns, with such slogans as “Everybody remembers a good teacher” (England), “Be a teacher, be a hero” (U.S.) or the more cryptic “Teacher. What if the future was you?”(France).

Advertising may not suffice for raising the beleaguered status of teachers. Once they’ve scratched the surface, many novices put the key under the door. In the United States, up to 50 percent of teachers leave the profession within the first three to five years, a trend echoed in several other industrialized countries. At the present rate, the gaping hole left by an ageing population of teachers is unlikely to be filled naturally. In most OECD countries, the majority of primary and secondary school teachers are above 40. The U.S. has to renew two-thirds of its teaching force in the next decade. In France, also faced with a steady retirement of staff, enrollment on teacher training courses is down 20 percent.

Ageing aside, similar patterns prevail in most countries, with economic growth fuelling the “brain drain.” Scientific disciplines are the hardest hit, as university graduates are lured to private business by more attractive salaries. Even in the public sector, the OECD has found that other professions tend to be better off than primary school teachers. In Canada, the latter earn less than a draughtsman or social worker.

Rising expectations

While front-page stories about children being sent home or schools switching to four-day weeks are common because of staff shortages, the real issue, says the OECD’s Paulo Santiago, is about declining quality. As he underlines, research shows that teachers are by far the single most important influence on student achievement. If this is true, it does not augur well for many pupils, especially those worst-off.

▶

In the U.S., up to 60 percent of teachers who work in poor neighbourhoods are not certified. More than half the country's physics teachers don't have a major or minor degree in the subject; for math teachers the proportion is 33 percent.

In country after country, a paradox is in the making. On the one hand, standards are being raised and new curricula introduced in the name of the knowledge economy. "Things that you used to see in senior high school now appear in younger classes, because we're trying to cram in more and more," says the general secretary of the Canadian Teachers' Federation.

On the other, teachers continue to be faced with large classes, mounting expectations and poor professional training. "We frequently have to update our knowledge, especially in the sciences, and this is not taken into account by institutions," says a representative of the French secondary teachers' union (SNES). In Britain, the government lowered national targets in math for 14-year-olds after schools complained that the demands were unrealistic.

Demands for a greater say

What tends to exasperate the profession is that these targets often rhyme with stricter checks on teachers. In the UK, for example, teachers are expected to prepare detailed lesson plans for inspections and monitoring. "You have to prove that you're doing what the government has set down," says Jeff Holman of the British National Association of Head Teachers. "There is a sense that someone is always looking over your shoulder."

His concern is shared by his peers in other countries. "Leading politicians say we should leave schools in the hands of professionals, then they turn around the next week and say that students need more training in history or again in maths because we're lagging behind the rest of Europe," says Alf Lindberg, of the Swedish Teachers' Union. "There's a palpable sense," according to SNES' Denis Paget, that "governments no longer look towards teachers as people who are creative, but as executors of a programme."

For the OECD's Santiago, "the main problem is that teachers don't have enough autonomy and decision-making power. They don't have much of a say about the curriculum and teaching methods. For any activity, the most important thing is motivation, and that comes from incentives."

Incentives, however, are an explosive issue. So far, governments have mostly opted for "soft" ones. Sweden is offering training for unqualified teachers. Britain has introduced bursaries for trainee teachers and offered to pay off their student loans over their first ten years on the job. In certain short-staffed subjects, potential candidates are lured by "golden hellos," while affordable housing has also been promised in the country's prosperous southeast.

"There's a palpable sense that governments no longer look towards teachers as people who are creative, but as programme executors"

Incentives become a much thornier issue when sacrosanct salary structures are touched. Teachers' wages are traditionally based on education level and years of service. Arguably, the snail's pace of pay rises adds to some of the profession's gripes. The alternative of tying wages to student achievement and teachers' performance in the classroom is political dynamite. Timid experiments with performance pay are being carried out in a handful of U.S. school districts, while in Saxony (Germany) the education minister stepped down over an attempt to introduce this system.

For now, there are less politically risky options. "Strategies are really crucial," says Mildred Hudson, head of Recruiting New Teachers, a U.S. non-profit organization. "We've known this was going to be a problem, but we didn't plan properly." Coaching for apprentice teachers, scholarship support, fielding students at the high school level and scouting for talent in community colleges have all enjoyed modest success. Many in the profession also admit that it's high time to "recognize that adults can go through two, three or four careers in their lifetime," says Hudson "We don't know how to bring those adults into the classroom and there's definitely a pool out there."

Governments might have woken up late to the crisis, but shortages are now climbing high up on the political agenda. Education was a bone of contention in recent elections in Britain and the U.S., while in Sweden, a country heading for the polls, a recent Gallup survey revealed that 78 percent of those interviewed put education ahead of health care and unemployment as a leading concern. In France, also gearing up for elections in 2002, schools have so far not been cited as a hot campaign topic. "Public debate is very weak," laments Monique Vuaillat, the former head of SNES. Then again, the shadow of an economic slowdown might lure some talents toward a profession they'd once have shunned—at least until the going gets better. ■

COMMUNITY BUSINESS

Lined with houses and gardens, the Dutch town of Almere hardly looks like a place where teacher shortage might be an issue. And yet, it's more acute here than anywhere else in the country. "Between last Christmas and the summer, at any given time, three or four schools were forced to lock their doors for one or two days a week," says Netty Tiemersma, head of the local education board.

Almere has arisen in less than 25 years on the outskirts of Amsterdam, growing rapidly into a middle-class town of 160,000 people, with a majority of young families. Against the backdrop of a national shortage, teachers have been hard to come by. Instead, Almere has come up with other solutions, such as team teaching. Primary schools have hired assistants from different walks of life and bumped up class sizes to 40 or 50 pupils. Teachers divide them into sub-groups and rely on their assistants for learning activities. In the longer run, assistants may receive teaching qualifications. The strategy, now being tried out in other towns, is winning support, with retired teachers and part-time bankers knocking on Almere's school doors. The board stands ready to "interview anyone interested in working in education." ■

Wybo Algra, journalist for the Dutch daily Trouw

A HARD SELL FOR TEACHING

Chicago's headhunting drive

The "windy city" has embarked on an aggressive drive to court teachers, often weary of working in a district where a majority of students live in poverty

JULIE BLAIR

REPORTER AT EDUCATION WEEK (U.S.)

Three years ago, administrators in the Chicago Public Schools did little more than advertise available teaching positions in local newspapers in an attempt to recruit educators.

This academic year, they'll spend more than $2 million on the endeavour, dispatch headhunters throughout the nation to locate talent, and develop a partnership with the city to provide affordable housing for those they hire.

"In a seller's market, we have to go out there and woo people," said Carlos Ponce, chief human resources officer for the school district. Critics, however, warn that ambitious recruiting efforts must be coupled with well-funded retention policies. "You can recruit all you want and have wonderful incentives, but if working conditions are not palatable, teachers are going to leave," said Barnett Berry of the National Commission on Teaching & America's Future, a panel of educators, public officials, business and community leaders charged with analyzing the national teacher shortage.

Corporate tactics

Like many urban school districts in the United States, the Chicago Public Schools has overhauled its approach to attract and retain teachers. Of the 26,000 educators now on the payroll, 17 percent will be eligible to retire next year, Ponce said. And while the state of Illinois produces more than enough teachers to meet demand, only a handful want to take on the challenges of working in America's third-largest school district, where 94 percent of the 432,000 students enrolled are believed to live in poverty, a figure based on the number of free lunches distributed. Many students are black or belong to Hispanic and other minority groups, and administrators are desperate for educators to reflect this diversity, as well as for those who are bilingual, qualified to teach special education, mathematics, science, or are willing to work in schools located within the poorest neighbourhoods.

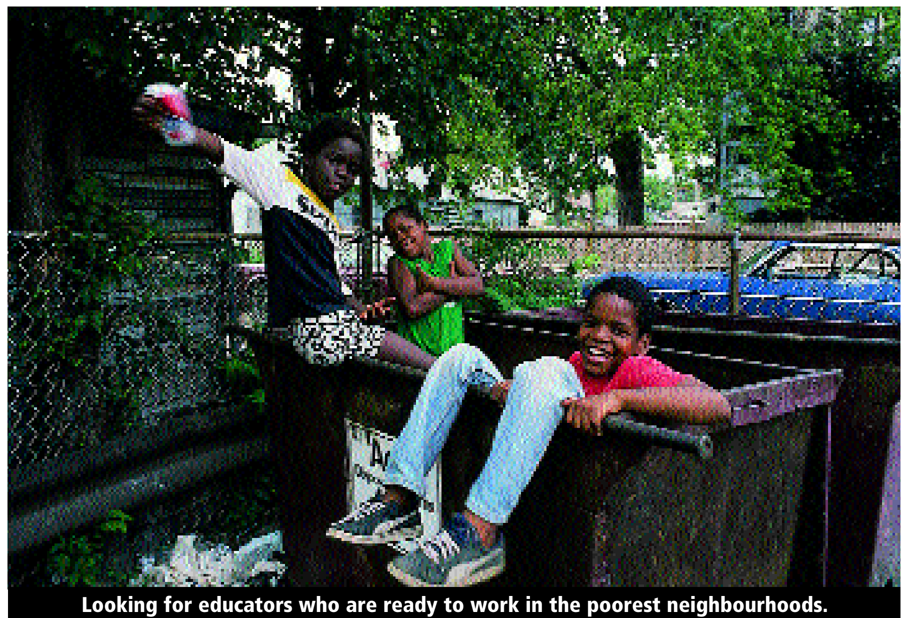
"In the past, we used to just sit back and wait until teachers came to us," Ponce said. "What we did [during the 1998-99 school year] was to institute a corporate-style recruiting programme." That meant allocating significantly more dollars and manpower to recruitment efforts and thinking creatively about meeting the needs of rookie educators. The recruitment budget was increased from $500,000 to $2.1 million over the past three years, and 12 recruitment officers now do the work once assigned to two, Ponce said. This year, they'll travel to 60 colleges and universities around the country to attend job fairs, a strategy never before implemented.

Furthermore, the headhunters are offering competitive packages. Beginning teachers with bachelor's degrees can earn between $35,521 and $39,365 their first year; those with master's degrees can pull in between $37,981 and $41,825. Educators also have the choice of two types of medical plans and may be eligible for a college debt cancellation programme offered by the federal government, provided they choose to work in a shortage area. To make the deal even more attractive, the district has instituted a pilot programme to provide up to $5,000 in salary advances to be repaid over a teacher's first few years of work. Future plans include embarking on a partnership with the city to provide housing assistance for teachers in a city where the cost of living is high.

To date, the strategies appear to be working, Ponce said. "During the 1998-99 school year, we brought in 1,900 teachers," he said. "In 1999-2000, we did 2,200. This year, we're shooting for 3,000."

Experts, however, point out that there is no research available to determine which strategies are most cost-effective. "We're getting a number of takers on these things, but we don't know what the long term impact will be," said Susan Melnick of Michigan State University.

Success depends on making lasting changes within the system, she said, from higher wages and better training to effectively manage the difficulties of the modern-day classroom. That will all come in good time, Ponce said. "None is happier than me about the national teacher shortage because it has allowed us to



Looking for educators who are ready to work in the poorest neighbourhoods.

© J. Hilary/Rapho, Paris

STRIKING on trou

Contents

18 **Sabre-rattling among thirsty nations**
Interview with Aaron Wolf

20 **A thirsty world**

22 **A Jordanian fire extinguisher**
Amy Otchet

22 **If common sense prevails**
Gershon Baskin and Nader El Khatib

26 **A tale of two dams**
György Moldova

28 **The tide turns in Central Asia**
René Cagnat

30 **Taming the Nile's serpents**
Khaled Dawoud

32 **South Asia: sharing the giants**
Sanjoy Hazarika

34 **The Kalahari's underground secrets**
Amy Otchet

37 **Negotiating with nature: the next round**
Michèle Ferenz and Lawrence E. Susskind

Will wars be fought over water, as they have been over oil? The fear has been expressed by high-ranking UN officials and state leaders. The short answer is that no military force in the world has ever managed to "capture" a river basin and the only full-fledged water war dates back over 4,500 years (pp. 18-19). "Water by its very nature is used to extinguish fires, not to ignite them," says Jordan's Munther Haddadin, who negotiated one of the most historic water agreements ever signed (p. 22).

In the Middle East, thirsty nations have no choice but to cooperate. Despite the bloodshed between Israelis and Palestinians, the two sides regularly meet to assure water supply in the West Bank, while informal talks continue on a plan to share the region's resources (pp. 22-25).

From the Danube (pp. 26-27) to the Nile (pp. 30-31), mighty rivers have been used as pawns in the Cold War. Yet today, as countries like Egypt, Ethiopia or the republics of Central Asia shake free from this legacy, they are learning to trust one another by trading in the economic benefits of water, like hydroelectricity or irrigation supplies. Just by studying an aquifer or a river, states like Namibia and Botswana (pp. 34-36), or India and Bangladesh (pp. 32-33), are shedding their mutual suspicions. There are no magic formulas in hydrodiplomacy, but slowly, a new alliance is forming between lawyers, technicians and the people closest to the resource (pp. 37-38). Together, they are devising ways of sharing the one natural resource that we cannot replace, or live without.

Dossier concept and coordination by Amy Otchet, UNESCO Courier journalist

PEACE bled waters

OPINION

DON'T CRY WOLF

JEROME DELLI PRISCOLI
SENIOR POLICYANALYST AT THE INSTITUTE OF WATER RESOURCES, U.S. ARMY CORP OF ENGINEERS

There is no denying the potential violence surrounding the current water crisis. About 40 percent of the world's population live in river basins shared by two or more countries. These basins comprise more then 50 percent of our planet's landmass. Only a fool would be surprised to find competing claims over water. Yet this interdependence does not inevitably lead to war over water.

The "water war"thesis may actually help create the very conflicts it seeks to avoid. It is usually presented as a growing number of people vying for less and less water. However, the current crisis is not about an absolute limit, but about distribution. For water to reach people at the right place and time, a government must have access to technology, knowledge and money as well as the institutional capacity to distribute this essential resource.

The wealthy North cannot approach the South by saying, "Conserve water! Don't develop the resource. Don't use water-saving technologies to grow food. And for God's sake, reduce population!" This message may be based upon good intentions but it reinforces a sense of panic and the notion of a zero-sum game, in which one side must compete against another for water. It is a message to the bullies, "You better get yours first!"

By focusing on looming water wars, we fail to see water as a tool for preventive diplomacy. For example, a river basin forces us to rethink notions of inter-dependence. Instead of fearing it as weakness, we use it as a network to better respond to the tests of nature. By exchanging information on events like a flood or drought, states can reduce the potential danger. This flexibility addresses the basic, almost primordial fear that has driven humans to become toolmakers and engineers: fear of uncertainty in a harsh environment. While often challenging the engineering mentality, this same fear inspires environmental concerns. Somehow water forces us to go deeper, beyond adversarial relationships, to confront what we really share—an instinct for life.

Water is one of our enduring human symbols of life, regeneration,purity and hope. It is one of our potent links with the sacred, with nature and with our cultural inheritance. It offers a medium for a global project that unifies humanity in a single cause for peace, stability and ecological sustainability. The water war thesis takes us in the opposite direction. It denies the universal acceptance of water as a common good.

The water war thesis has raised consciousness of the resource. But we are in danger of crying wolf too often. This thesis plays to human fears—fears of change, fears of deprivation, fears of limits, fears of violence and indeed primordial fears of death. It is time to move beyond fear to action. Leaders need to rediscover and harness water's capacity to generate wealth, its potential for multiple uses and reuse, its great convening power, its ability to provide the learning ground for building civic culture.

Perhaps we need to "go back to the future"and look at how water has been used in order to redefine the goals of water leadership. Water holds the potential for both conflict and cooperation—the choice is ours ■

Sabre-rattling among thirsty nations

Aaron Wolf*, an American geographer, dispels the scare-mongering of a looming war over water by sifting through just about every related conflict and treaty in history

INTERVIEW BY AMY OTCHET

UNESCO COURIER JOURNALIST

Just about every journalist writing about water will evoke the spectre of past and impending wars over the resource. You have searched for and analyzed every international water agreement signed and "incident" reported. When was the last time two states formally went to war over water?

The only recorded incident of an outright war over water was 4,500 years ago between two Mesopotamian city-states over the Tigris-Euphrates in the region we now call southern Iraq. Since then, you find water exacerbating relations at the international scale. But you also regularly find hostile states—such as India and Pakistan or the Israelis and Palestinians—resolving water conflicts even while disputes rage over other issues.

We also analyzed every reported water incident between two states that we could find anywhere in the world's 261 international river basins in the past 50 years. Two-thirds of a total of 1,800 events involved cooperation, like conducting joint scientific investigations or signing over 150 water treaties.

Turning to the negative events, we found that 80 percent consisted of verbal threats and posturing by state leaders, which was probably aimed at their own internal constituents. In 1979, Egyptian president Anwar Sadat said: "The only matter that could take Egypt to war again is water," in reference to the Nile. King Hussein allegedly said the same thing for Jordan in 1990.

Yet in the last 50 years, there have only been 37 events in which people actually shot at each other over water. Of those, 27 were between Israel and Syria over the Jordan and Yarmouk rivers.

But critics argue that you cannot look to history to predict the future because of unprecedented stress on increasingly scarce water supplies.

I cannot think of a worse case than the Tigris-Euphrates or the Jordan River. All of these countries have run out of water. They have the means to divert their neighbour's water and the enmity between them couldn't get much worse. Yet they have all come up with agreements.

States have gone to war over oil, why not water?

Strategically, water wars don't make sense. You cannot increase your water resources by going to war with a neighbour unless you are willing to capture the entire watershed, depopulate it and not expect a tremendous retaliation.

But water has been used as a weapon and target in war.

That's a totally different issue, which happens all the time. During the Gulf War, Iraq destroyed most of Kuwait's desalination plants and the Allied coalition intentionally targeted Baghdad's water supply and sanitation system. Serbian engineers reportedly shut down Pristina's water system in Kosovo before NATO arrived in 1999.

Yet you must distinguish between water as a source of conflict, as a resource and as a weapon. We've gone to war over oil. Yet you wouldn't put that event in the same category as the military use of a flame thrower or even napalm.

You cannot increase your water resources by going to war with a neighbour

So where does this water-war talk come from?

A lot came from the post-Cold War period, when the Western military asked, "what do we do now?" That is when this whole environmental security movement took off. By around 1992, a lot of political scientists began writing that resource scarcity in general was going to lead to warfare. It's very tempting to see water as a source of conflict once you begin to understand what it means to society and ecosystems. But in emphasizing the value of the resource, these analysts overlooked the subtleties involved.

You argue that water by its very nature induces co-operation between states. Can you give an example?

The Oslo Accord between Israelis and Palestinians actually came out of backroom talks among water people from the region who met in Zurich in 1990—I believe. The water people introduced their political counterparts to one another and actually hatched out the process, which led to the accord.

This kind of scenario happens regularly because

** Director of the Transboundary Freshwater Dispute Database project (http://terra.geo.orst.edu) and associate professor at Oregon State University*

water naturally flows into other realms. States along the Nile began by talking about water and are now working towards an agreement that includes roads, electricity and other infrastructure (see pp. 30-31).

You maintain that the "red flag" for international water is not water scarcity but one country's attempt to dominate an international river. Most of these conflicts usually revolve around plans to build a major dam. But this kind of project generally requires assistance from organizations like the World Bank, which evaluate proposals according to environmental and ethical criteria. By pulling the purse strings, can't these organizations prevent water conflicts from arising?

What you're suggesting has been the case. But as more private capital takes over investment in these projects, the ethical and environmental criteria of the development banks is no longer an issue. Turkey, for example, is diverting private and public capital to fund one of the most contentious projects, known as GAP, which envisages the construction of 22 dams and 19 power plants on the Tigris-Euphrates and its tributaries. The same is true for the Narmada dam in India and China's Three Gorges project.

The Tigris-Euphrates is regularly cited as a flashpoint for a possible war. How can anyone induce Turkey, probably the most powerful state in the region, not to pursue its own interests to the detriment of its downstream neighbours, Iraq and Syria?

© Kai Wiedenhöfer/Lookat, Zurich

A potential flashpoint? Turkey's GAP dam project.

Everybody keeps talking about the Tigris-Euphrates as a potential flashpoint, but what's really interesting is that in 1991, NATO actually asked Turkey to shut the flow of the Euphrates towards Iraq. But the government refused and basically said, "You can use our air space and bases to bomb Iraq, but we won't cut off their water."

Since the 1970s, Turkey, Syria and Iraq have had an implicit agreement, which Turkey continued to respect even while building the dams. And despite the rhetoric, Syria and Iraq both recognize that they benefit from those dams because they even out the river's flow and extend their farmers' growing season. Turkey wants to be seen as a fair, good neighbour for several reasons, including NATO pressure as an ally, internal politics and attempts to join the European Union. The difficulty lies in making the implicit agreements explicit.

Water professionals maintain that you have to manage a river basin as a whole. But multilateral water treaties must be a nightmare to negotiate. Which are more effective—multilateral or bilateral agreements?

The more people in the room, the more difficult it is to reach an agreement, especially when you are dealing with a country's sovereignty. Take the Jordan River as an example: Syria and Jordan have an agreement, Jordan and Israel have an agreement, Israel and Palestinians have an agreement—several sets of bilateral agreements for a multilateral basin which is managed fairly efficiently, although the Palestinians will eventually claim and probably get greater water rights.

A new way of solving water conflicts, some economists argue, is to set up an international water market. But then again, we can look to the recent conflict in which the U.S. has argued that Canada must sell its water resources under the terms of the North American Free Trade Agreement—a proposition that Canada rejects. What is the value of treating water as an economic resource when trying to resolve a conflict?

Economists can highlight and quantify the benefits flowing from water, like hydroelectricity, and help build what we call a "baskets of benefits." For example, the U.S. and Canada have an agreement in which the U.S. has flood control dams within Canadian territory. The U.S. pays Canada for that benefit. It is generally easier and more equitable to allocate the benefits than the water itself.

Economists also remind us of the need to recover the cost of water delivery, treatment, storage and so on. But we're often pushed to think in terms of water markets—buying and selling water as a commodity even though this has never happened internationally in a practical sense. As someone who is committed to water emotionally, aesthetically, religiously and for ecosystems, I am reluctant to think of water as just another economic good. ■

Let not a simple drop of water that falls on the land go into the sea without serving the people.

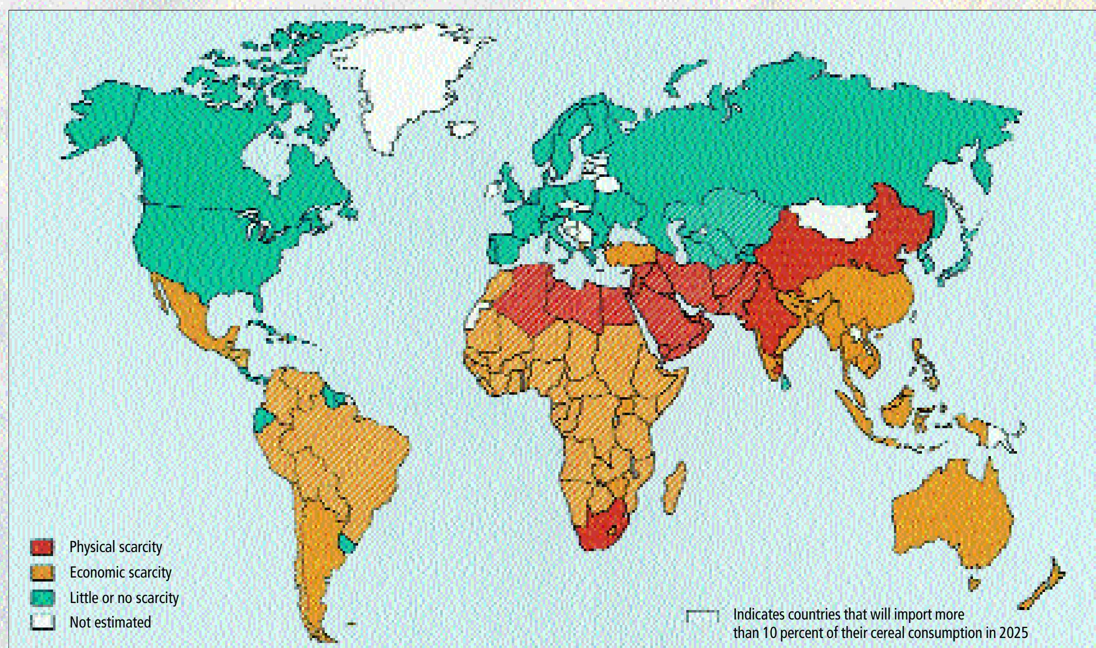
Parakkama-Bahu I,
King of Sri Lanka
(1153-1186)

A thirsty world

The population is not only growing but using more water, even though the world's total supply remains the same. This scarcity could put a major brake on the world's development this century

If states substantially invest in water-related infrastructure and management policies, we can expect the projections presented below.

Yet despite these efforts, many countries will still face "physical water scarcity in 2025:" their water needs will outstrip supplies no matter what measures are taken. Others will be faced with "economic water scarcity:" they will lack the financial and institutional capacity required to increase their water supplies by 25 percent.



Projected water scarcity in 2025.

Source: World Water Forum 2000

TAKING STOCK TO BETTER MOVE AHEAD

Nearly ten years have passed since the Rio Earth Summit of 1992 alerted the world to the importance of "water" on the international development agenda. Since then, assessments of global water resources indicate that water scarcity will increase dramatically during the next decades, with a disproportionate effect on developing countries. Demand is growing, and with it, competition among different users. Unless we change the way we think about and manage our water resources, both people and planet could suffer irreparable damage. Already, the lives and well-being of millions of people are constrained by water.

The World Water Assessment Programme (WWAP)—established in 2000 and endorsed by 23 United Nations agencies with a stake in water—is part of the global effort to seek integrated approaches and sustainable solutions to human development problems. Hosted at UNESCO, it responds to concerns expressed by the international community at the World Water Forum in The Hague (2000), and builds on the challenges identified in the Ministerial Declaration that followed.

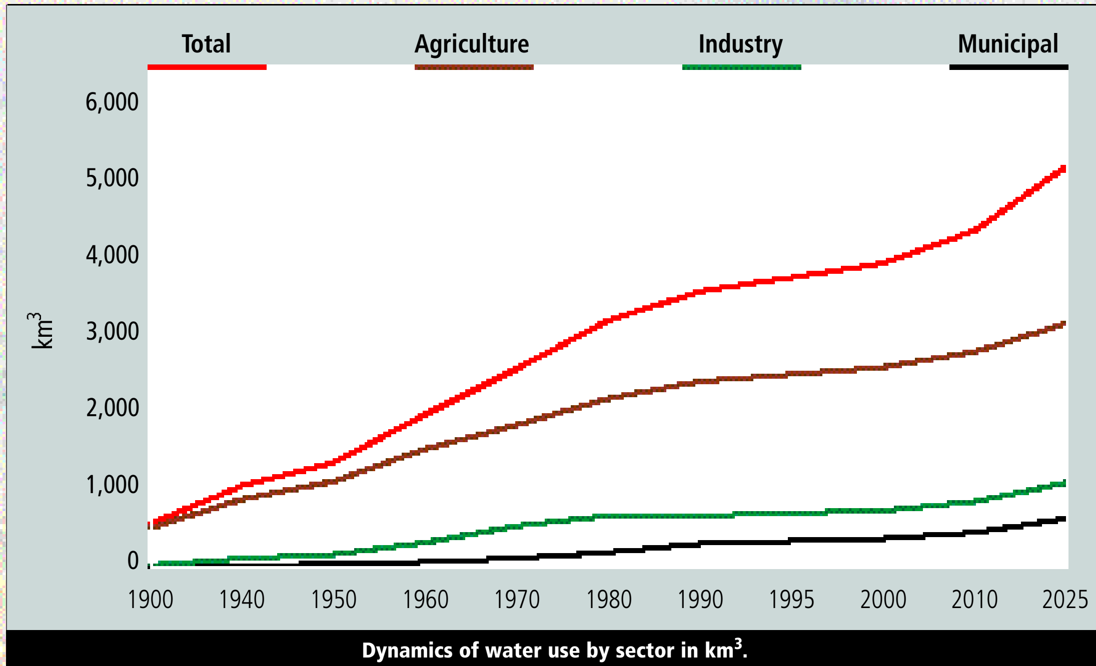
A key component of the project will include the World Water Development Report, which will not only assess the state of the world's water resources but monitor the progress in meeting its growing demand. The first edition of the report will be published in 2003.

Within the WWAP framework, a project has recently been launched to help dispel the myth that increasing water stress will inevitably lead to international conflicts or potential "flashpoints," namely along the world's 261 international river basins "shared" by 145 countries. Although water offers potential for conflict, it also provides a powerful tool for cooperation. Hence the title of the new PPCP project: From Potential Conflict to Cooperation Potential. A series of studies, publications and educational activities will focus on the social, cultural, scientific and political complexities involved in transboundary water resources. ■

http://www.unesco.org/water/wwap

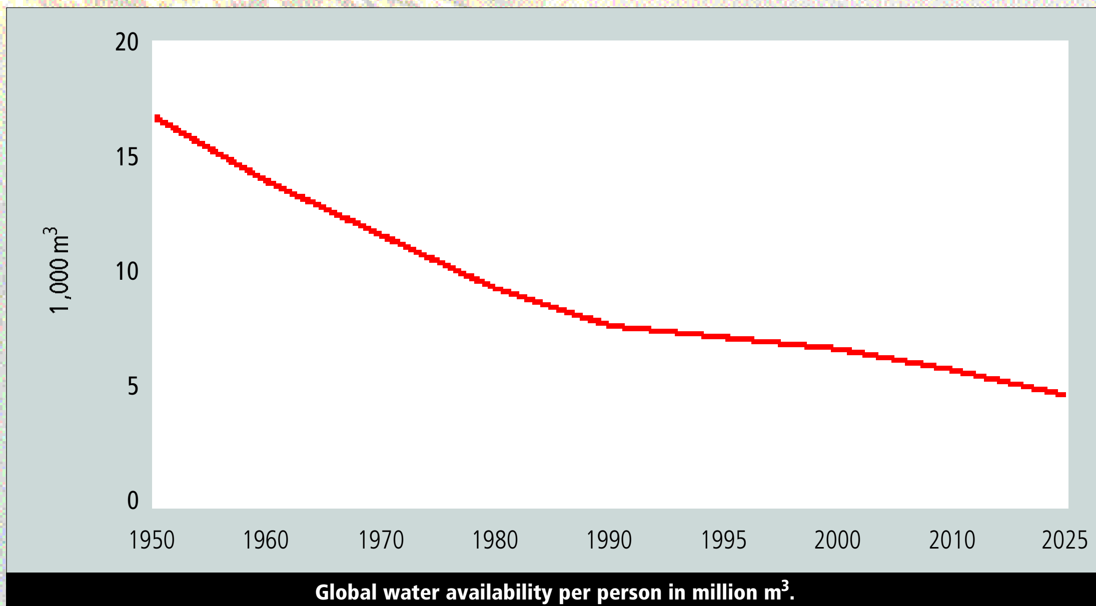
Links to all UN partner agencies are found under "partners" on the WWAP home page.

A brochure about the Programme and the World Water Development Report is also available on-line in English, French, Spanish, Russian, Arabic and Chinese.



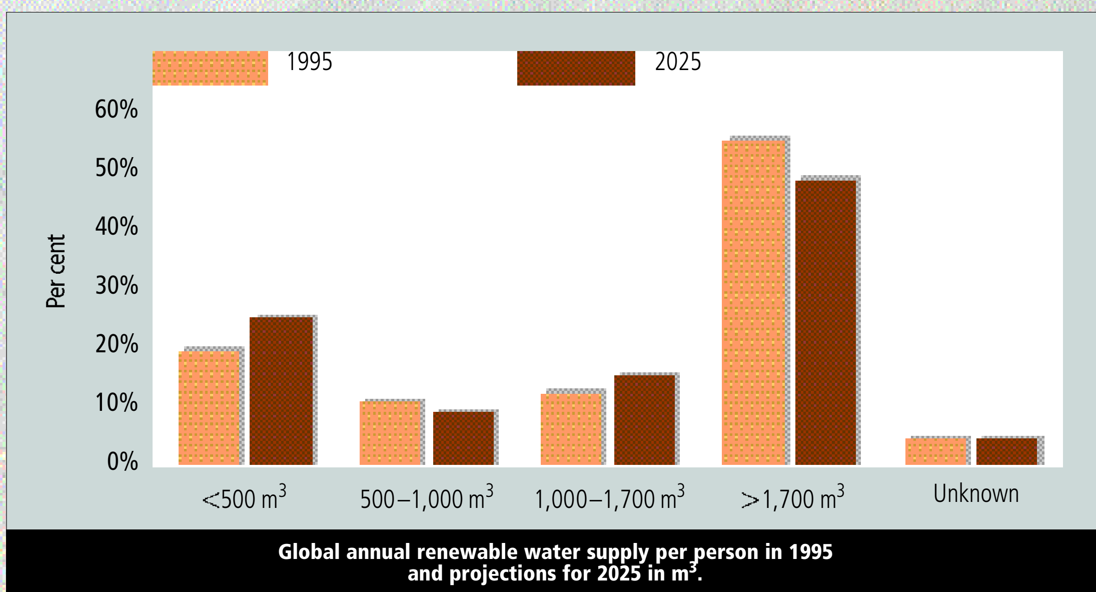
Dynamics of water use by sector in km^3.

◀ Since 1900, world population has doubled yet the amount of fresh water used has increased more than six-fold. Agriculture is by far the largest consumer of water, mostly because of the spread of irrigation. Two-thirds of all the water consumed in the world goes to farming, a share expected to shrink only slightly by 2025. More efficient irrigation techniques are clearly the first and crucial step to reducing water use.



Global water availability per person in million m^3.

◀ Today, there is about 6,800 m^3 of water available per person on a yearly basis. If current trends continue, only 4,800 m^3 will be available in 2025. This is an optimistic calculation because it is based upon estimates of all the water flowing in rivers after evaporation and infiltration into the ground. It does not take into account the minimum required to maintain river ecosystems, for example. Nor does it reflect the difficulty in accessing all of this water or its extremely unequal distribution.



Global annual renewable water supply per person in 1995 and projections for 2025 in m^3.

◀ When per capita water supply is less than 1,700 m^3 per year, an area suffers from "water stress" and is subject to frequent water shortages. In many of these areas today, water supply is actually less than 1,000 m^3 per capita which causes serious problems for food production and economic development. Today, 2.3 billion people live in water-stressed areas. If current trends continue, water stress will affect 3.5 billion—or 48 percent of the world's projected population—in 2025.

A Jordanian **fire extinguisher**

An insider's view on one of the most historic water agreements ever signed—the deal between Israel and Jordan

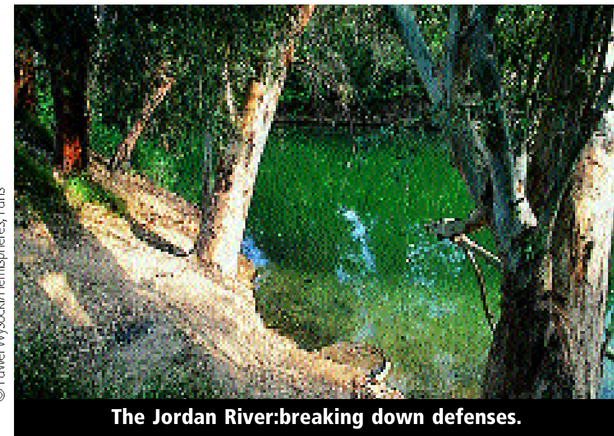
AMY OTCHET

UNESCO COURIER JOURNALIST

By parking his purple 1979 Caprice further upstream he diverted the attention of the Israeli patrols on the opposite bank of the Yarmouk. Slowly he made his way along the Jordanian side of the river, until he reached a large eucalyptus tree where a dozen men waited with ropes, axes and spades. Barely speaking, they lowered him down the six metres to the water's edge, before following him, one by one. "Give me that axe," he told the crew leader. "In the name of God, the Merciful and Most compassionate," he said in a low voice, before striking deep into the enemy—a sandbar over 20 metres wide which had been diverting part of Jordan's water share to Israel. It was 1984, ten years before the two states would sign a peace treaty that included one of the world's most famous water-sharing agreements. The man who played a key role in masterminding it also led that expedition.

"Whenever I think back on it, I choke," says Munther Haddadin, former water minister of Jordan. While clearly proud of his axe-wielding adventure, Haddadin doesn't recommend it as a standard negotiating technique. Instead, the civil engineer with a penchant for international law offers more subtle, yet no less demanding lessons learned from hammering out the historic water treaty with Israel.

"The trick is to try to transform the entire show into a positive sum game, so that both sides view themselves as winners," he says. For example, "a major concession



© Pawel Wysocki/Hemisphères, Paris

The Jordan River:breaking down defenses.

If common **sense** prevails

Despite sealed borders and gunfire, Israeli and Palestinian experts continue to meet on the sidelines in an attempt to hammer out a way of sharing their blue gold

GERSHON BASKIN AND NADER EL KHATIB

RESPECTIVELY CO-DIRECTOR OFTHE ISRAEL/PALESTINE CENTERFOR RESEARCHAND INFORMATIONAND DIRECTOR OFTHE BETHLEHEM-BASEDWATER ENVIRONMENT DEVELOPMENT ORGANIZATION

As the violence between Israelis and Palestinians spirals and cooperation is considered an act of treason, both sides continue to work together on a single issue: water. In February, six months after the intifada erupted, Israel and the Palestinian Authority (PA) jointly called upon their people to keep water and wastewater infrastructure out of the cycle of destruction. The reason is simple: both of their systems are intertwined.

The Israeli-Palestinian Joint Water Committee, set up under the Oslo Agreements, is probably the only common framework to survive the past year. Despite sealed borders and gunfire, the committee regularly meets to deliver water in the West Bank, where many wells and springs have gone dry, especially as the current drought scorches a second year. Talks and action revolve around practical issues—repairing pipes or delivering chlorine. Yet plans to construct new wells, which the Palestinians desperately need

on our part was the recognition of Israel. I had to make the Israelis feel secure but at the same time use this weakness as a card in my sleeve."

Tales of poisoning

As Haddadin explains, all of the states along the Jordan River had agreed to their rightful share of water in a plan drawn up with the assistance of an American diplomat in 1955. However, the technical resolution wasn't translated into a political accord because it would entail tacit Arab recognition of the state of Israel. Once Egypt broke this taboo in 1979, Israel was anxious to continue the peace process and turned to Jordan. To some extent, water served as a bridge in opening discussions between the two states: a drought-stricken Jordan was losing part of its rightful share of the Yarmouk River to Syria and Israel.

At first, Haddadin kept contact to a minimum, only discussing immediate technical problems, like the famous sandbar, under the auspices of the United Nations Truce Supervision Organization. With military escorts looking on, Haddadin and his Israeli counterpart would meet midstream, standing in two feet of the river's water. Slowly, they got in the habit of pulling up sandbags to talk at a makeshift picnic table along the Yarmouk. But it wasn't until 1991 that the formal peace process began and Haddadin began hammering out major water-sharing proposals.

Whether meeting in a hotel lobby in a foreign capital or the garden of Jordan's Crown Prince, "always avoid a stand-off," says Haddadin. When Israelis balked at his demands for more water, he would "beat around the bush" on economic grounds. "Let us see who can afford to increase their supply by pumping or desalinating water," he would ask in order to highlight the gap in per capita income between the two countries. "Do you think you will live in peace when your neighbour is starving?"

During the three years it took to forge a deal, Haddadin earned a reputation as a staunch negotiator and a hothead capable of exploding unexpectedly, which he laughs off as a "skill" to destabilize his opponents. But as he notes, you cannot just seal a deal, you have to sell it. With kid gloves, he informed his fellow officials that they didn't own the country's namesake and would have to share the water of the Jordan River Basin. Despite personal attacks (namely false rumours that his American wife was Jewish), Haddadin proudly watched the signing of the peace treaty with its water annex in 1994 and later became minister of water and irrigation.

But Haddadin would pay for this glory in 1998, when residents of West Amman found cloudy water running through their taps after a treatment plant failed to handle high levels of algae. The water didn't pose a serious health threat but it did spread a noxious mix of nationalism and fear, as tales of Israeli poisoning spread through the media and ordinary grapevines. "The panic was orchestrated from within Jordan to bring down the government," says Haddadin, who decided to resign as minister. Since then, he has gone on to set the record straight in his new book.* While highlighting his own role, the real heroes are the Yarmouk and Jordan Rivers. In the words of Haddadin: "Water by its very nature, is used to extinguish fires, not to ignite them." ■

* *Diplomacy on the Jordan—International Conflict and Peaceful Resolution* (Kluwer Academic Publishers, Oct. 2001)

RIVER FLOWS

JORDAN

Length: 322 km
Source: Mount Hermon
Mouth: Dead Sea
Countries: Israel, Jordan, Lebanon, Palestinian Territories, Syria

YARMOUK

Length: 80 km
Source: Jordan-Syria border
Mouth: Confluence with the Jordan River
Countries: Israel, Jordan, Syria

and were promised in Oslo, have been abandoned. The violence of the past year has killed the formal discussions on redistributing water supplies and recognizing Palestinian sovereign rights over natural resources. The Israeli government no longer considers water to be a technical issue but a matter of national security. According to the hawks, Israel's very existence depends upon military and political control of the Palestinian Territories, especially the West Bank which provides for 25 percent of Israeli water needs.

Talking dollars and cents

This obsession with security is certainly not new in Israel. Even before the intifada, environmental issues were cast as threats, sold to the public as "water security" or "food security." The Western press in particular has towed this line, peddling stories about water inevitably killing prospects for peace. Yet the truth of the matter is that hydrologists and civil engineers on both sides have been steadily developing possible long-term agreements. While formal discussions of these plans are now taboo, technicians and government experts from across the region are continuing to meet quietly, beyond the reach of hawks on all sides. Here is an outline of a plan we have in mind.

First a bit of background. Palestinians each have about 85 cubic metres per year for all of their needs—domestic, industry and agriculture. Average use among Israelis is 447 cubic metres per year. In the West Bank, about 25 percent of the population doesn't have running water, even though this area is relatively rich in groundwater thanks to the Mountain Aquifer, from which Israel pumps about 85 percent of its yield. Here lies the heart of the dispute.

The famous Mountain Aquifer actually consists of three different ones—situated in the east, northwest and west of the mountain. The media tends to paint the Eastern Aquifer as a political minefield, yet the path to resolution is far from tortuous. The Palestinians can rightfully claim absolute sovereignty over the aquifer ▶

© Wendy Sue Lamm/Contrasto/Gamma, Paris

Can this trade expand? Farmers setting up irrigation for agriculture in Jiftlik Valley, near Nablus.

If you listen to water, learn its language, then water will bring you knowledge of all beings and living things.

Yves Thériault, Canadian writer (1915-1983)

which lies entirely within their territory. Byinstalling pumps after 1967,Israel has apparently contravened international rules concerning military occupation. The decision to give up this aquifer is not as painful as it might seem. It is the poorest of the three in terms of water quantity and quality.

The rest is not so clear-cut, as seen with the Western Aquifer, the largest of the three. About 80 percent of the recharge basin—the area in which rain and streams trickle down into the aquifer—lies in Palestine. However, that water naturally flows underground into Israel, where most of it is pumped.

Palestinians claim that they own the water because it originates in their territory. At the same time, Israelis invoke the cardinal international right of historic use—they were the first to tap into and develop this source about 80 years ago through an agreement with the British Mandate (in a concession to a Jewish contractor).

For years, thirsty governments in the Middle East have been trading in "virtual water"

Debates over water rights generally turn in circles. While there is clearly a need to recognize both sides' sovereign rights to natural resources, international law and common sense directs us to find a "reasonable and equitable" use of the water. How do you determine a fair deal? You cannot quantify a right to water, but you can calculate the need for it.

Everyone—Palestinians and Israelis—should be entitled to a minimum of 100 metres^3 per year for domestic and industrial use. To do this, Israel would have to reallocate 100 to 200 more million metres^3 of water each year to Palestinians. No state leader wants to give up control over a resource, especially one so precious and politically explosive as water. But there is another way of evaluating the trade-off: in dollars and cents.

Water equals money. Each cubic metre of water in Israel is worth an estimated \$0.20/m^3. So the water in dispute amounts to between \$20-40 million a year—or about 0.05 percent of Israeli GDP. This isn't worth fighting over. It is money well spent.

The economic value of water is obviously not new in the Middle East. For years, thirsty governments have been trading in "virtual water"—economists actually calculate the water it takes to grow fruit and vegetables. So by importing tomatoes and oranges, for example, governments are actually buying cheap, bio-degradable packets of water. It's a lot easier and cheaper to import a tonne of fruit and vegetables than the water it takes to grow it.

We want to expand this trade. To begin with, Israeli farmers can no longer earn a living by feeding their country, which is accustomed to a costly Western lifestyle. Not so for the Palestinians. Both Israel and the Palestinian Authority currently allocate about 80 percent of their respective water supplies to agriculture. In Israel, farmers make up about three percent of the labour force and contribute three percent of the GDP. In Gaza and the West Bank, a third of workers depend upon agriculture, which accounts for about a third of the GDP. So it is no surprise to find that Israel buys the entire surplus from farms in the West Bank and Gaza, providing

for one-twelfth of the country's fresh fruit and vegetable needs. We suggest that they both use this trend to their advantage and that of their neighbour, Jordan.

Over the next 10 to 15 years, all three parties should agree to increase the supply of irrigation water in Palestine and Jordan. There are several options for finding the extra water within the Jordan Valley: a redistribution of supplies from the Mountain Aquifer and the Jordan River. Rain-harvesting, treated wastewater and improved infrastructure (40 percent of water is lost to leaky pipes in some Palestinian municipalities). New sources further afield might also open up. For example, Lebanon might sell water from the Litani River which could be stored in Lake Tiberias. The new Unity Dam, under construction by Jordan and Syria, also holds potential.

Desalination: the saviour?

No one loses in this proposal. Palestinians and Jordanians see a steady increase in the number of agricultural jobs at a time of staggering unemployment. They also gain a guaranteed market for crops and by cultivating more land, Palestinian farmers lay the seeds for new settlements. We are not suggesting that Palestine base its economy on agriculture in the long-term. No country in the Middle East can afford to do so financially or environmentally. But after decades of occupation, Palestinians cannot be expected to leap-frog economically.

Despite Israel's cultural attachment "to making the desert bloom," the state will have to cut back on farming. By allocating more water to Palestinians and Jordan, it would not only gain a secure source of cheap fresh food, but the country's hi-tech industry would grow by selling irrigation technologies as well as high-profit seeds, fertilizers and pesticides.

Finally, the international community could "reward" such a regional plan by setting up an international fund for research and development in water desalination. For this is clearly our most likely option in the very near future.

In the next 20 to 30 years, the Israeli and Palestinian populations are expected to double as their respective diasporas immigrate to the region, especially with formal recognition of a Palestinian state. Every drop of fresh water will be required to fulfill domestic needs. Desalination will be the saviour. Today the process costs about \$0.65/m^3, which is still far too expensive, especially for agriculture. (In the Middle East, a cubic metre used for irrigation brings an economic return of just \$0.50 to \$1.00). Yet it is still cheaper than importing from the region's hydrological baron, Turkey, which has proposed constructing a "peace pipeline" to deliver and sell its blue gold at \$0.95/m^3.

This proposal may appear to be a naïve attempt to deny the escalating violence. Yet from where we stand, it would be absurd and even criminal to give up on our work. In the very near future, technicians from both sides and beyond will be meeting outside the region to continue to informally discuss and refine this proposal. Contrary to popular belief, water in the Middle East is not a source of war, but ingenuity. ■

THE DEHYDRATED WEST BANK

Based upon a new report by B'Tselem—the Israeli Center for Human Rights in the Occupied Territories—released in July 2001.

In the West Bank, 218 villages—home to about 200,000 people—are not connected to a single water network. This is why just about every yard in the area has a cistern where families store the rain water they have collected from the rooftops of their homes. However, they can usually only live from supplies during the rainy season between November and March.

In the summer months and sometimes even the winter, most residents have no choice but to buy water from vendors who own private tankers. Even villages with running water often rely on this commerce because of the irregular supply during dry months. The owners of the tankers buy most of the water from Palestinian municipal water networks and the rest from Israeli settlements and Palestinian-owned private agricultural wells (which are not subject to any quality control).

This water market is completely unregulated—"market forces" alone set the prices. While a household connected to a water network will pay the equivalent of about a dollar per metre^3 , a vendor will charge between \$3.50 and \$9.50 for the same amount. This financial burden is like a noose around the neck of many families, who have lost their primary source of income since the intifada.[1]

According to B'Tselem, some village residents can no longer purchase water from the tankers. In the summer, the women and children of these families cross military checkpoints and blocked roads to fill bottles and jerrycans with water from nearby springs.

The West Bank contains 114 springs, most of which are primarily used for irrigation. The most bountiful springs lie in the Nablus and Jericho districts (52 springs). The others are generally quite poor, especially given the current drought. For example, the Auja spring, north of Jericho, has totally dried up over the last three years. Despite decreasing rainfall, an Israeli well continues to pump the aquifer that feeds the spring for the benefit of nearby Israeli settlements. The situation has devastated Palestinian agriculture in Al Auga, whose farmers used to rely upon the spring for irrigation water.

In general, the springs are not just poor in terms of quantity but also quality. The Palestinian Authority does not control the water, despite the high risk of pollution by sewage from nearby towns and villages as well as from Israeli settlements and industrial zones. The very source of a spring can be at risk as the pesticides and fertilizers used by local farmers seep into the ground. ■

1. According to the Palestinian Central Bureau of Statistics, in the first quarter of 2001, the median income of a household in the Occupied Territories fell by 48 percent, unemployment increased from 11 percent before the intifada to 38 percent, and the percentage of families living in poverty increased to 64 percent, compared to 21 percent before the intifada.

A tale of **two dams**

An author renowned for his sense of humour takes a grim view of a political row between his native Hungary and Slovakia in which the Danube is held hostage

GYÖRGY MOLDOVA

ONE OF HUNGARY'S BESTSELLING AUTHORS, WHOSE SERIOUS WORKS INCLUDE "THE DANUBE IS BURNING"

We may thank rivers for life: bringing water to drink, to nourish our fields and to carry our boats. There is only one problem: they are exceptionally suited to forming borders. Instead of uniting people bound for a common destiny, suspicious nations, often incited by clashing politics, glare at each other like wolves from opposing shores. I have seen such venom flowing along the Danube between Hungary and Slovakia.

The Danube has always been a tempestuous force, bringing alternating waves of calamity. Either it was too abundant, forcing entire villages to seek higher ground, or it was too feeble, leaving fields to wither and causing a sudden halt to navigation.

The Roman emperors Tiberius and Trajan were the first to hire civil engineers to devise ways of protecting their banks from the fickle Danube. Many would follow their example, but it was not before the 20th century that the technicians would muster the power and tools to tame the river.

By 1951, serious plans were underway to build a series of dams along the Danube in Hungary and Czechoslovakia. The Soviet Union was anxious to alter the river's shallow reaches which were hampering the shipment of its goods in Eastern Europe. At that time, few questioned the wisdom of "correcting mother nature" and it was considered a scientifically proven fact that a river the size of the Danube required not just one dam, but several. Otherwise, sediments would collect and disrupt navigation and damage embankments, causing bridges to collapse. It would take another 20 years to iron out the technical and financial arrangements but in September 1977, the Republic of Hungary and the Czechoslovak Socialist Republic signed a now infamous treaty to build the Gabcikovo-Nagymaros dam system.

RIVER FLOWS

DANUBE

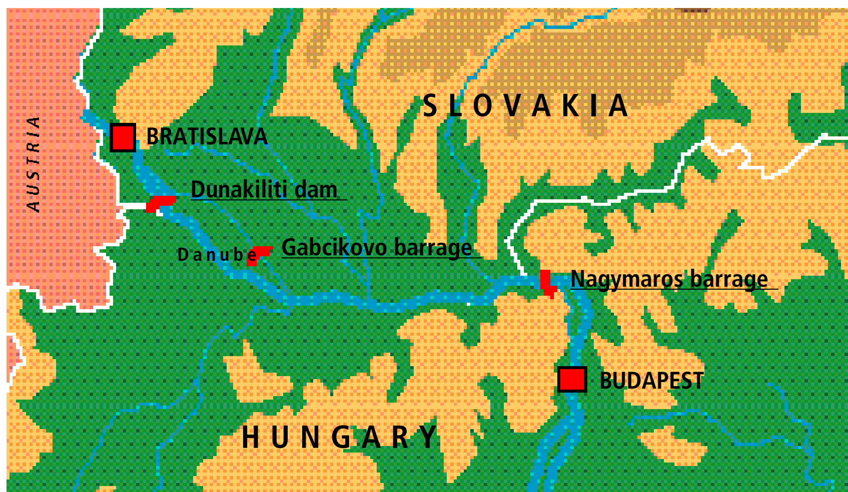
Length: 2,850 km

Source: Confluence of the Breg and Brigach rivers in the Black Forest

Mouth: Black Sea

Countries: Austria, Bulgaria, Croatia, Germany, Hungary, Romania, Slovakia, Ukraine, Yugoslavia

Population around the river basin: 85 million



Grinding the axe of the opposition

The region was clearly suffering. Authorities recorded more than 100 days of shallow waters a year, which damaged the wild flora and left several hundred ships stranded along a 250-kilometre stretch of the river. While the project was originally intended to improve navigation, it grew to include hydroelectricity as the oil shocks of the 1970s intensified.

A large reservoir would be built at Dunakiliti, which straddled both countries. From there, a 17-km canal would divert 90 to 95 percent of the Danube's flow to a hydroelectric dam and powerplant in Gabcikovo in Czechoslovakia. About 100 km downstream in Hungary at Nagymaros, another power station and dam would even the river's flow.

Construction began in 1978 based upon plans drawn up by world-famous Hungarian, Slovak and Austrian water experts, against whom accusations of a technical nature could hardly have been raised—not so against their political inclinations, as it was later revealed.

By the end of the 1980s, the powers waiting to relieve the socialist system of Eastern Europe lurked in the shadows. Yet they could hardly demand the departure of the occupying Soviet army, or indeed a multi-party system. Instead, they demonstrated on environmental grounds and found an obvious target in the ongoing construction of the Gabcikovo-Nagymaros dams. It was like a chink in the system's wall into which the opposition could wedge its demolition axe, held at the ready.

Protestors marched en masse down the streets of Budapest and along the banks beside Nagymaros. Anybody who had anything to do with the project was declared a Stalinist, or worse, a traitor to his country. As public pressure intensified, the Hungarian government decided to suspend the half-finished construction. The culmination came in 1990 when the right-wing government took power and unilaterally cancelled the treaty.

But the Czechoslovak side paid no heed to the Hungarians and carried on with the work further upstream. The authorities unilaterally decided to divert a 25-kilometre stretch of the Danube, which served as part of the border between the two countries, into its own territory, where another dam was built to replace the one intended for Hungary. Gabcikovo would not be as powerful as planned, but it would be operational.

Fish in the mud

Protest marches similar to those in Hungary had no effect. History was not on the demonstrators' side. As Czechoslovakia divided into two parts, Slovakia came to see Gabcikovo as the symbol of their independent state, born in 1993.

By the end of October 1992, the Danube was diverted and the main channel stretching across Hungarian territory suddenly lost 90 to 95 percent of its water. Signs indicating the river's water level were left standing on dry land. Groundwater levels in surrounding areas dropped by two or three metres days after the Danube stopped feeding its streams. Fish were trapped in the old basin, left to asphyxiate in the mud.

The Hungarians could not believe the drama unfolding before them. Extremist elements spoke of blowing up the obstructing dam. Fortunately, this threat was soon replaced by negotiations fostered by the European Community, which was already panicked by bloodshed in the Balkans. Both sides sat down to talk, yet the balance of power was skewed in Slovakia's favour. With firm control of the lion's share of the river's water supply and energy output, it took little notice of Hungarian wishes. In April 1993, the dispute was submitted to the International Court of Justice in The Hague.

In 1994, the Socialists came back into power in Hungary but could hardly back out of the court case, which was hailed as a landmark: for the first time, the court would rule over an environmental dispute. But this case was about politics, not water. And so the court handed down an ambiguous decision in 1997, which both parties could interpret to their advantage. The 1977 treaty was still valid, according to the ruling, but each side was at fault for acting unilaterally—Hungary for pulling out and Slovakia for continuing with the construction. They were called upon to negotiate in good faith. Even though the court had no way of enforcing its ruling, both sides returned to the negotiating table. Anxious to join the European Union, the two governments wanted to show their wealthy Western neighbours that they could resolve their disputes in a civilized manner. The outline of a mutually acceptable agreement was drawn up to finally complete the project and resolve key environmental concerns.

Once again, politics intervened. Hungary's right-wing opposition joined forces with the "storming" Greens and together they organized mass demonstrations. For a second time in less than a decade, they managed to use the same weapons to force the government to back down. Yet this time, the Socialist government was keeling before the final deathblow of parliamentary elections in 1998.

© Tamas Revesz/PA/Lineair, Arnhem

Hand in hand: protestors around the Gabcikovo dam region.

Weak resolve

In their manifesto, the right-wing elements at the helm of the new government promised to remedy the Danube. Yet three and a half years later, not a single worthy step has been taken. Hungary has however, been spending millions of dollars to take down the half-built dam and might be forced to spend millions more to compensate Slovakia for pulling out of the deal. There is talk of forming more committees or returning to the International Court of Justice—a sure sign that both countries are still not committed to resolving the situation. Their true colours will inevitably show soon—both will hold parliamentary elections in 2002.

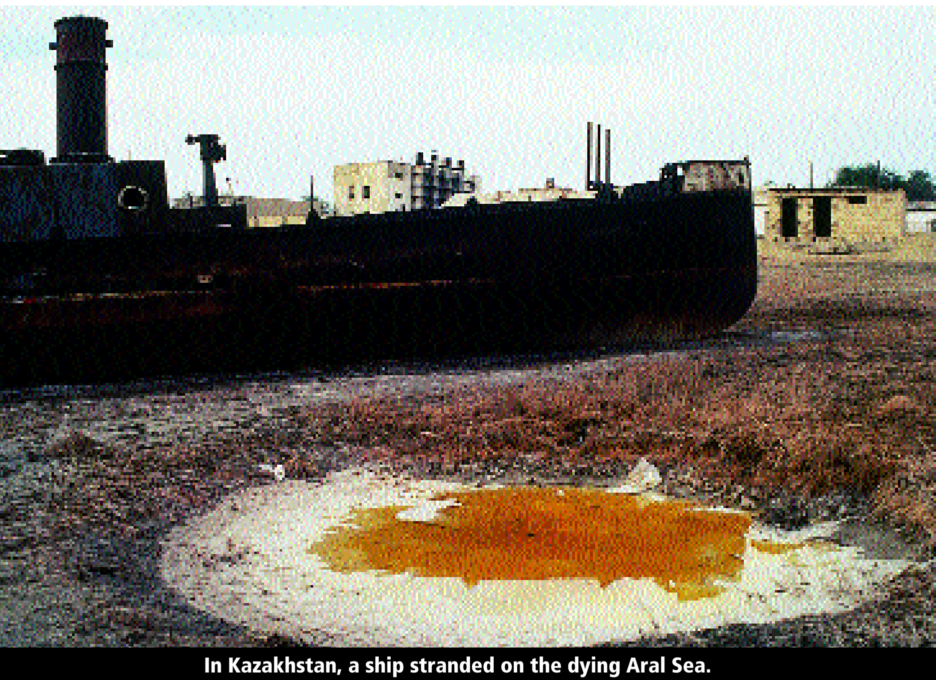
Take a stroll along the two banks of the Danubian basin today and you will see that the Gabcikovo region in Slovakia is thriving, while on the Hungarian side, the land which was supposed to store water has been overrun by weeds. And the Danube? The Danube carries not water, it carries politics, dirty politics. ■

The tide turns in Central Asia

Geography, the Soviet legacy and population growth are forcing the five countries of Central Asia to cooperate closely in a region where water is still used as a weapon

RENÉ CAGNAT

AUTHOR OF LE MILIEU DESEMPIRES (LAFFONT, PARIS, 1981), LA RUMEUR DESSTEPPES (PAYOT, PARIS, 1999) AND A BOOK OF PHOTOS, VISIONS D'UNFAMILIER DES STEPPES (TRANSBORÉAL, PARIS)


In Kazakhstan, a ship stranded on the dying Aral Sea.

© Pieter Stemerding/Still Pictures, London

Last winter, as usual, I found myself without gas in my apartment in Bishkek, the capital of Kyrgyzstan, and I cursed neighbouring Uzbekistan for cutting it off at the worst possible moment. Once again, I was going to freeze for weeks on end. What I didn't know was that this time, Kyrgyzstan was readying to hit back by using "the weapon of water"as never before.

The Kirghiz simply opened the flood-gates of their dam at Tokhtogul, which supplies water to both Uzbekistan and Kazakhstan via the Syrdaria river. Their excuse was that they had to feed their hydro-electric power stations to make up for the gas that had been cut off. But the Kirghiz meant business. The flood-waters swept away the embankments in Uzbekistan's Ferghana valley, where people did not expect nearly so much water in the winter. Further north the river was blocked with ice, so the surge of water was diverted as it is every winter towards the Aidarkul Basin.

This has been going on for three decades, with more water each year. Greater use of hydro-electricity in winter means the power stations discharge a lot of waste water downstream. As a result, the basin, which was once a desert, has turned into a huge and useless lake that is 200 kilometres long and 30 km wide, and which contains 16 km^3 of water that would otherwise have flowed into the Aral Sea, where it is badly needed.[1]

Trading off water and gas

This year's "revenge" flooding was the biggest ever. It lasted two weeks, yet drew only a few complaints from the Uzbeks. The Kirghiz replied, tongue in cheek, that after releasing so much water they could no longer guarantee a supply in the summer. The response from Tashkent, the Uzbek capital, was swift. Five days later, the two countries sat down to negotiate. Ten days after that, I had gas in my kitchen again.

The media was pessimistic about the talks. But on July 12, it was announced that "the water problem has been solved." The deputy prime ministers of Kazakhstan, Kyrgyzstan and Uzbekistan signed an agreement for the "sensible use of water and energy resources." Even though this "understanding" was limited to a year's duration and was drawn up by purely technocratic ministries, it opened the door to multilateral exchanges instead of the previously annual bilateral accords. In exchange for electricity and water from Kyrgyzstan, the Kazakhs will provide 400,000 tonnes of coal and the Uzbeks an undisclosed quantity of gas.

But the big event came a few days later. A law published in Bishkek on July 29 about "the inter-governmental use of water resources, dams and other water-related installations" took the region into a whole new era. Modelled on the 1992 Dublin Declaration, the law stated that "water has an economic value in all its competing uses and should

be recognized as an economic good.”

From now on, so long as the Kirghiz can get their neighbours to respect the agreement, the other countries will have to pay not just for the water—making it a real commercial product—but also for maintenance of installations and for the hydraulic technology. If the region’s economic powers react intelligently, there will be a crackdown on wasting water—a major revolution that could put an end to the sort of Soviet-era vices that still taint the behaviour of ordinary people.

Absence of meters and availability of free water for irrigation has led to enormous wastage in both town and country. General inertia and the abundance of water produced by giant Soviet installations have killed off the art of irrigation learnt over centuries. When water is provided, it is done so only in huge quantities that harm both vegetation and people. Parched soil becomes marshland. Thirsty people are soon plagued by mosquitoes. But nobody complains or criticizes.

General inertia and the abundance of water produced by giant Soviet installations have killed off the art of irrigation learnt over centuries

The same apathy mixed with irresponsibility—rooted in people’s attitudes for decades—has produced utterly inadequate installations from one end of the water supply chain to the other. Water leaks from dams and canals. The much-vaunted Turkmen canal has no concrete foundation, and so loses as much water in the Karakum Desert it crosses as it provides for local irrigation. Excess irrigation water is never drained, so the landscape in Central Asia is dotted with stretches of waste water or marshland, while at a lower altitude, the starved Aral Sea is slowly dying. But the new law could put an end to this scandalous history of waste.

A historic weapon

Will the people of Central Asia rally to support it? Individually yes, collectively only maybe. But their rulers must realize the danger and take action, or else water will become a powerful weapon in a region where cities were once swept away because an enemy—Genghis Khan—diverted rivers towards them, and oases were destroyed because an invader—Tamerlane—smashed irrigation canals.

After a centuries-long war between the Uzbek emirates of Bukhara and Kokand for control of the river Zeravshan, the Russians did not manage to seize Bukhara until 1868, when they had cut off its water supply. The Soviets made things worse first by creating small mountainous states such as Kyrgyzstan and Tajikistan that had copious amounts of water, and states that were more powerful or wealthy—Kazakhstan, Uzbekistan and Turkmenistan—but which had less water. A series of dams were then built along the borders between the two groups of states.

In 1911, about 15 million people lived in Turkestan, a region of central Asia that includes Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, the southern part of Kazakhstan and Chinese Xinjiang. Today there are 73 million inhabitants, and the figure could top 100 million by 2025, imposing an even greater burden on the water supply. The Aral Sea is still disappearing because of bad water management. One hopes the same thing will not happen to several endangered oases, such as the one at Bukhara.

The solution lies in closer cooperation between the five Central Asian countries. Only this can produce the mutual sacrifices needed if the water is to be shared. ■

1. *The Aral Sea was once fed by two rivers, the Syrdaria and the Amudaria, until major installations built under Soviet rule diverted them to irrigate cotton plantations. Today the sea is half its original size and contains only a third of the water it used to.*

River Flows

SYRDARIA

Length: 3,078 km

Source: Confluence of the Naryn and Karadaria rivers in the Tian Shan Mountains

Mouth: Aral Sea

Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan

Population around the basin: 13.4 million

AMUDARIA

Length: 2,620 km

Source: Confluence of the Vakhsh and Pandj rivers in the Pamir Mountains

Mouth: Aral Sea

Countries: Afghanistan, Tajikistan, Turkmenistan, Uzbekistan

Population around the basin: 15.5 million

Taming
the Nile's serpents

Guzzled by Egypt but generated in Ethiopia, the waters of the Blue Nile have long been a source of sabre-rattling. A new plan might finally put an end to the spectre of a river war

KHALED DAWOUD

CORRESPONDENT FOR AL-AHRAM (CAIRO)

Legend has it that at the time of the pharaohs, the people of Egypt sent gifts up the Nile to the kingdom of Ethiopia to placate the Gods that fed the river's source. Egypt had, and remains to have, good reason to be grateful: some 86 percent of the water that flows down the Blue Nile to irrigate the arid North African country emanates from floodplains on Ethiopian territory.

Yet the one-way river flow between Egypt and Ethiopia—as might be expected between a country that craves water and a country that supplies it for free—has not always resulted in such harmonious exchanges of gifts. In 1979, Egypt's then president Anwar Sadat made the Nile's fate into an urgent issue of national security. "The only matter that could take Egypt to war again is water," he said in reference to Ethiopia's plans to tap into its one precious natural asset.

The potential for conflict over the water is undeniable. Some 95 percent of the Egyptian population is packed onto the fertile ribbon of land along the banks of the Nile and its delta, the country's only water sources of note. Desperately poor and underdeveloped Ethiopia, in contrast, has suffered periodic droughts since the 1970s, causing the loss of millions of lives. The Blue Nile[1], emerging largely from Lake Tana in the Ethiopian highlands, has long been eyed as a possible source for irrigation, hydroelectricity and general economic growth in a country whose population is set to boom. At present, Ethiopia consumes a mere two percent of the water available to it.

Water always flows toward the areas of least resistance.

Moses Isegawa, Ugandan writer (1963-)

Water distribution between the two African neighbours has always had a political edge, but by the time of Sadat's sabre-rattling remarks, a different rivalry was poisoning relations. After flirting for a decade with the United States, Ethiopia found itself ruled in the 1970s by Colonel Mengistu Haile-Mariam's Marxist regime. Soviet experts invited by the colonel began studying the feasibility of damming the Nile's tributaries and exploiting its water, provoking Egypt into threatening that any dams built would be destroyed by military force.

"Although such threats gave rise to the commonly held notion that future African wars would be over water, the fact is that these tensions were a spin-off of the Cold War," argues Rushdie Saeed, one of Egypt's most prominent experts on water issues.

Since the end of the Cold War, however, the Nile waters have continued to prompt regular diplomatic spats. The early 1990s, for example, saw Sudan and Egypt at loggerheads following alleged efforts by the Sudanese government to overthrow Egypt's president, Hosni Mubarak. Sudan and Ethiopia formed a joint Blue Nile Valley Organization and pledged to study several major infrastructure projects with or without Egypt's approval. Once again, Mubarak resorted to threats of military intervention.

Though a marked improvement in relations between Cairo and Khartoum has since calmed nerves, diplomats and experts are convinced that only a lasting settlement will bring peace to the Nile's coveted waters. Until now, only one agreement has been signed by Egypt and its neighbours—the Nile Waters Agreement of 1959 between Sudan and Egypt, itself based on a deal made by the region's colonial powers in 1929. Ethiopia was not even mentioned in the accord.

Yet the case for some more equitable distribution of the river waters is mounting by the day. Besides

© S. Morgan/Spooner/Gamma, Paris

Lining up for water in Ethiopia, a nation

Ethiopia's traumatic droughts and destitution, studies point to a staggering rise in the country's population: current data suggest that the population will increase from 61.4 million at present to 186 million in 2050. Given that only 1.7 percent of the country's arable land is irrigated (compared to 100 percent of Egypt's), an exponential rise in demand for water is only to be expected.

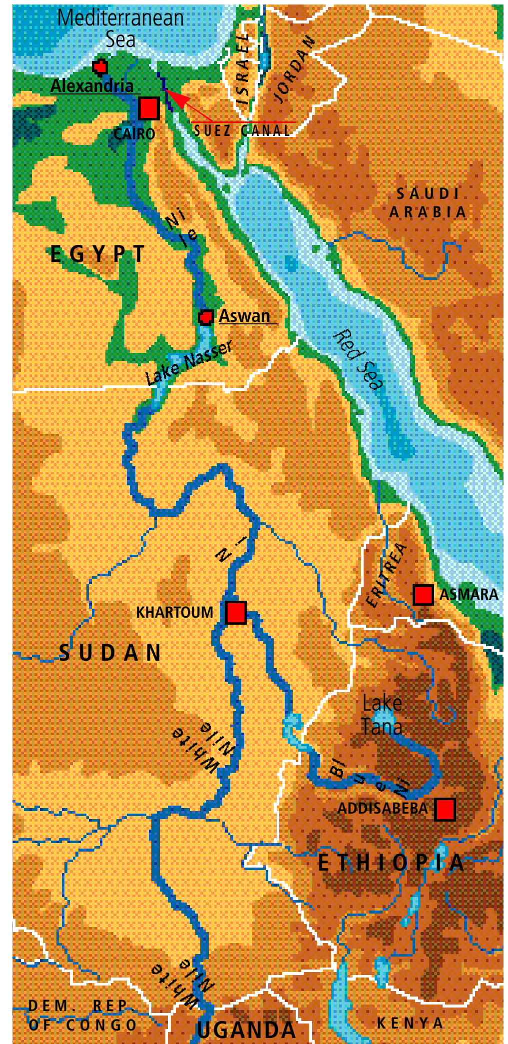
A durable solution might not be too far off. In July of this year, and after five years of preliminary talks, the 10 states of the Nile basin—including Egypt, the Sudan and Ethiopia—announced that they had secured World Bank money for a series of programmes to explore how the river's waters can best be shared. The Nile Basin Initiative (NBI) has launched several such studies, due to be followed by loans worth at least three billion dollars.

Thrashing out differences

"The River Nile still has a great potential which is not yet exploited and which can be a great benefit to the people of the Nile basin," said Egypt's minister of public works, Mahmoud Abu Zied, in a recent interview. "Each country is entitled to an equitable share from the river without causing appreciable harm to the other riparian states"

Underpinning the initiative is the experience of states surrounding the Mekong River in Southeast Asia. Since 1957, Vietnam, Laos, Cambodia and Thailand have been members of a commission charged with economic development of the river basin. Despite political differences between the nations and an absence of formal treaties, the body has helped convert the Mekong into a source of regional integration instead of rivalry: the Nam Ngum hydropower plant, completed in Laos in 1971, provided electricity to the home country and covered 80 percent of Thailand's needs, even during the violent conflicts that followed inauguration.

With this precedent in mind, the World Bank hopes the Nile's waters might usher in a similar spirit of co-operation. Which is not to say that members of the programme have been pulling their punches. "There are questions such as how to calculate future quotas. Should it be according to the size of the territory or the size of the population, or possibly the availability of other water resources?," wondered one Egyptian official who took part in a recent NBI meeting in Geneva. "We all have different ideas for answers and this remains to be resolved."



Ethiopia has already started building a series of small dams to tap the Blue Nile water. According to officials involved in the projects, these dams will benefit nations downstream by protecting Sudan from over-flooding and reducing the silt accumulation suffered by Lake Nasser dam in Egypt. But Egypt's Saeed is unconvinced by their arguments. He insists that it is in fact more dangerous for the silt to be stopped than for it to flow with the water: should the former occur, he says, the river might gain in energy and cause havoc in the northern reaches of the Nile.

Saeed also takes issue with Ethiopia's claims that the new dams will enable the government to sell electricity to neighbouring countries. "Which countries Ethiopian officials have had in mind is difficult to determine, however, as none of Ethiopia's neighbours are industrialized nations or great consumers of electricity," he observes.

All parties now admit, however, that their differences of opinion are better thrashed out at the negotiating table than left to the generals. What promised to be Africa's next war might just have become Africa's latest remedy. ■

1. *The Blue Nile originates in Ethiopia, the White Nile in Uganda. The confluence of these two rivers is near Khartoum, in the Sudan. Approximately 86 percent of the Nile water flowing into Egypt is from the Blue Nile.*

hard hit by periodic droughts since the 1970s.

River Flows

NILE

Length: 6,693 km from its remotest headstream, the Luvironza River, Burundi; 5,588km from its major source, Lake Victoria in East Africa

Mouth: Mediterranean Sea

Countries: Burundi, Democratic Republic of the Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Uganda

Population around the basin: 89 million

South Asia: sharing the giants

Three of the world's mightiest rivers flow through countries of the Indian subcontinent. Despite strife and war, several landmark agreements have been reached, but fresh disputes are looming

Farmers in the Tibetan village of Zangri try to salvage their barley crop after the Tsang-po burst its banks.

© Sanjoy Hazarika, New Delhi

SANJOY HAZARIKA

Senior fellow at the Centre for Policy Research, an independentthink tank based in New Delhi. Former reporterforthe New York Times out of South Asiaand author of five books, ofwhich his latest, Rites of Passage (Penguin Books India, 2000)

Regional cooperation appears difficult to come by in South Asia. There have been four conflicts between India and Pakistan since 1947, clashes on the Indo-Bangladesh border and accusations about India's overwhelming influence. When the South Asian Association for Regional Cooperation (SAARC) was established in the 1980s to provide a forum for discussion primarily on trade, contentious topics like water resource negotiations were totally excluded from its brief. Yet, South Asia has a commendable record in the realm of water-sharing, developed through a combination of civil society presure, political sagacity and technical co-operation.

Countries had one precedent in the field. The Indus Waters treaty, signed between India and Pakistan in 1960, is a landmark as far as water-dispute resolutions go. The dispute can be traced back to the Partition of the Indian sub-continent in 1947. The Indus river begins in the Himalayan mountains of Kashmir on the Indian side, flows through the arid states of Punjab and Sindh, before converging in Pakistan and joining the Arabian Sea south of Karachi. The source rivers of the Indus basin remained in India, leaving Pakistan concerned by the prospect of Indian control over the main supply of water for its farmlands. The newly formed states could not agree on how to share and manage the cohesive network of irrigation, which was impossible to partition.

Brokered by the World Bank, the treaty, which covers the largest irrigated area (26 million acres) of any one river system in the world, has survived two wars and provides an ongoing mechanism for consultation and conflict resolution through inspections, exchange of data and visits. The treaty

demonstrates how functional cooperation on both sides is not impossible to achieve, though most other contentious issues remain deadlocked.

New breakthroughs were made in the 1990s over water-sharing in the region. In December 1996, recently elected governments in both India and Bangladesh decided to resolve decades of acrimony over the sharing of the waters from the Ganges, one of the most culturally and economically significant rivers on earth. The breakthrough came after years of political stalemate and bitter rhetoric at the public level, alongside quiet work behind the scenes by water specialists, politicians and scholars on both sides at the non-governmental level. The result was the 30-year India-Bangladesh water-sharing agreement, signed in 1996.

Bangladesh, being in the downstream and delta portion of a huge watershed, has been most vulnerable to the water quality and quantity that flows from upstream. The way rivers are used in one country can indeed have far-reaching effects on nations downstream.

When India built the Farakka Barrage in the 1960s, Bangladesh (then East Pakistan until its independence in 1971), watched helplessly as it wreaked havoc. In the dry season, the barrage blocked the natural flow of water into the country, causing drastic water shortages. And in the rainy season, sudden water releases caused floods and extensive damage, including the loss of property and human lives.

Early warning systems

The principal objective of the 30-year treaty is to determine the amount of water released by India to Bangladesh at the Farakka Barrage. The water-sharing arrangements, primarily for the dry season, are specified to the last drop and depend on the river's flow. It aims to make "optimum utilization" of the waters of the region, and relies on the principles of "equity, fair play and no harm to either party," with a clause for the sharing arrangements to be reviewed every five years.

Spurred on by the success of this treaty, India resolved yet another riverine dispute, this time with Nepal, in 1997. The Mahakali River treaty settles Nepal's entitlement to water flows and electricity from the Indian side, improving on a 1992 agreement. The treaty, however, has run into opposition from various Nepali groups, who claim it is still unfair to the country's interests.

Although these various agreements point to steady regional cooperation on water-sharing, another dispute may be looming on the horizon. This time, it centers on the Brahmaputra, the other great river of this region, which flows through Tibet (China), India and Bangladesh over a distance of nearly 3,000 kilometres. Although no dispute has broken into the open, the issue of information sharing has strained relations between the three countries. The problem is that even the most basic data is not disclosed.

The results have been tragic. In the summer of 2000, a landslide in Tibet caused a dam to collapse, unleashing a 26-metre wall of water that destroyed every bridge on the Siang, as the Brahmaputra is known in the Indian border state of Arunachal Pradesh. The water then rushed through the Indian state of Assam and, within a week, devastated parts of Bangladesh. Human casualties were light but damage to property was extensive. An effective early-warning flood system is a goal that all three governments must therefore work towards.

Tapping the potential

According to Indian officials, the Chinese had not shared any information on the build up of water pressure and the heavy rains in the upstream catchment area of the river, known as the Tsang-po in Tibet.

Concern is also being voiced about purported Chinese plans to divert the waters of the Tsang-po with the help of nuclear tunnelling. This appears to be a Chinese move to assess international reaction to the possibility of a dam on the river to tap its huge hydro-energy potential.

Cooperation on river waters could significantly improve the lives of millions of people. In the case of the Brahmaputra, it is not so much a question of sharing the waters as of tapping the waterway profitably for mutual benefit, primarily for transport, commerce and industry.

One example: through cooperation, Assam's famed tea could be shipped downstream to Bangladesh and sent to other parts of the world. Oil from the Numaligarh refinery, also in Assam, can be exported in river barges to meet Bangladesh's energy needs. These simple but effective measures would generate employment and revive the economies of marginalized communities. ■

River Flows

BRAHMAPUTRA

Length: 2,900 km

Source: Kailas range, Himalayas

Mouth: Merges with the Ganges, then into the Bay of Bengal

Countries: Bangladesh, China, India

Population around the basin: 300 million (including the Ganges)

GANGES

Length: 2,510 km

Source: Gangotri glacier, Himalayas

Mouth: Merges with the Brahmaputra, then into the Bay of Bengal

Countries: India, Bangladesh

Population around the basin: 300 million (including the Brahmaputra)

INDUS

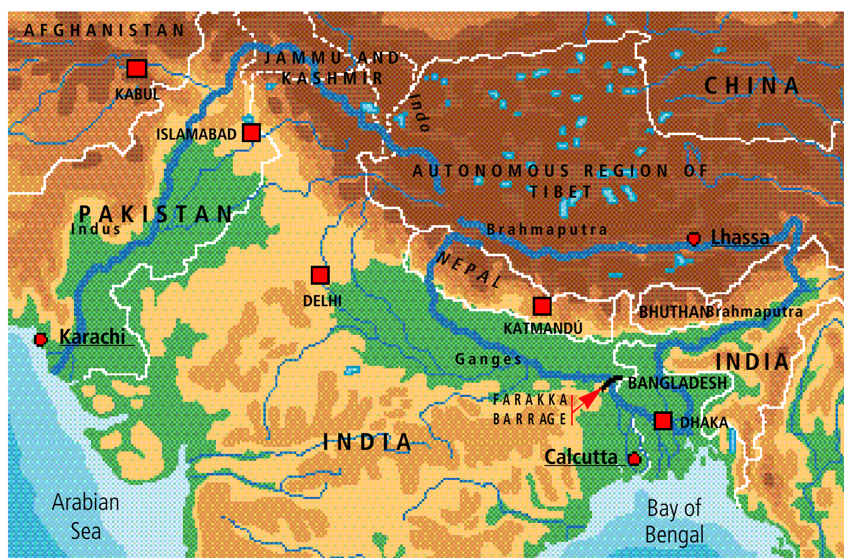
Length: 3,180 km

Source: Kailas range, Himalayas

Mouth: Arabian Sea

Countries: China, India, Pakistan

Population around the basin: 150 million



The Kalahari's **underground secrets**

Namibia almost came to blows with Botswana over plans to divert a river, but the answer may lie just beneath the surface of the driest country south of the Sahara

AMY OTCHET

UNESCO COURIER JOURNALIST

Just nod with a smile and maybe your companion from the Water Affairs Department won't notice the confusion. Driving north into the vast spaces of Namibia, you keep missing the rivers he spots. "And this is the Okahanja River," he says. Another blank nod. "And here we have the famous Omatako. It may look small but this river can be very powerful." Look small? Look where? The patient Greg Christelis is gushing with tales of flash floods, yet all you see is a cracked and sandy track in the bush, when suddenly, what used to be dry facts and figures about erratic rainfall and aridity come rushing back—Namibia doesn't have any regular or perennial rivers to call its own.*

This is a land of ephemeral rivers, which arrive with near violence and disappear without warning, flowing for a few hours, days or even weeks after a good hard rain before fading into the red desert sand or the tall grass of the savannah. But when they do run, they represent events in people's lives. Men will still swap stories about a river that hasn't flowed for 30 years. The old-school Afrikaner farmer will religiously plot rainfall levels on a graph, while in black communal areas, the same information is embedded in lessons that a father recounts to his children.

This is a land of ephemeral rivers, which arrive with near violence and disappear without warning.

A dehydrated capital

In Namibia—the driest country south of the Sahara—water scarcity and unpredictability form a constant constraint on national development. Average annual rainfall is 250 mm compared to 1,400 mm in the Democratic Republic of the Congo, for example. A corner of the country can receive double the average rainfall one season and nothing for years after. And the little that does fall doesn't stay for long: 83 percent is lost to evaporation, plants soak up and then sweat another 14 percent back into the atmosphere, leaving just two percent to run off those mysteriously ephemeral rivers and one percent to infiltrate rock underground.

That single digit, however, may transform the Namibian landscape. Groundwater is already providing for about half of the country's needs and its role will increase as the population grows and droughts hit harder and more frequently with predicted climate change. Yet this invisible resource is just breaking the surface of the country's national and regional priorities.

"For the past ten years, we've focused on negotiating protocols [agreements] for international rivers like the Zambezi, which involved eight states. But we ignored groundwater, even through we have aquifers running across national boundaries," says Dr. Serge Puyoo, a French geohydrologist working with the Southern African Development Community (SADC). Think of aquifers as a lattice of rock, whose cracks, crooks and crannies are filled with water. Sometimes the water is from recent rain which seeped down through the soil. Other aquifers only contain fossil water, rain of bygone geological eras. Depending upon various factors—from the type of rock to the pull of gravity—the water can slowly flow within the aquifer and beyond. Like rivers, aquifers pay no heed to national borders.

As Puyoo explains, "not only has there been a general lack of knowledge in monitoring and mapping these aquifers, but a cultural and historical blockage to recognizing them. Many countries relegate groundwater to the geology departments of government or universities. So politicians and water managers are unaware of the potential and limits of the resource, until they are faced with a crisis."

That is exactly what happened in 1996-97, when severe drought brought Namibia's capital, Windhoek, to its knees and the country close to the brink of war with neighbouring Botswana, according to sensational media reports. Simmering tensions over disputed borders added fuel to the fire surrounding Namibia's plan to divert part of the Okavango River, which originates in Angola before carving the border with Namibia and then snaking into Botswana to feed the "jewel of the Kalahari." In this vast wetland, traditional communities weave around a wealth of biodiversity and wildlife that tourist operators milk for foreign currency, amounting to ten percent of the country's gross domestic product.

For ecologists in Botswana, the river was sacred. But in Namibia, those shining waters appeared as a

© Paul Weinberg/Panos Pictures, London

Herding in the communal areas of northern Namibia.

saviour, prompting civil engineers like Piet Heyns to update an old scheme to pipe about one or two percent of the average flow to dehydrated Windhoek. The capital was in crisis—ordinarily three dams would store enough water to keep the city running for a few years. Two were almost empty and the third was collecting dust. Officials were digging holes in a desperate search for more groundwater, while municipal authorities set up an electric sign to count down the days remaining of supply in the dams. By the time it hit 30,the government prepared to divert the Okavango. Then,without warning, it rained…

Rolling back apartheid's legacy

Today, the plans for the pipeline still sit within reach of Piet Heyns, who is now director of Water Affairs and Namibia's representative to the Permanent Okavango River Basin Water Commission, which is supposed to resolve the dispute over the river. Heyns and his counterpart in Botswana, Balisi Khupe, speak of glowing plans for joint studies and monitoring. Yet according to some experts involved, the commission is mired in bureaucratic gridlock. The delay may prove beneficial, however, as Namibia moves with the international current running against building new dams and their hefty price-tags.

Instead of grabbing for rivers, the government is looking underground to economize its reserves, notably by building the largest water bank on the continent. The aim is to plug the holes in the three dams, partly connected by an open canal running more than 250 kilometres in the bushy savannah, where substantial amounts literally vanish as vapour. In 1997, for example, the three dams supplied Windhoek with about 15.7 million cubic metres (Mm^3) of water. Yet the system lost 33.5 Mm^3 to evaporation. Instead of letting that precious river and rain water bake in the sun, plans are underway to inject it into an aquifer under the city. The next phase will lie in opening two "branches" of the bank at nearby dams.

Through investment schemes like the bank, Namibia is removing the vestiges of apartheid's control over its natural resources 11 years after independence from South Africa. "There was so much money flowing in from South Africa that we did major infrastructure projects without proper study," says Greg Christelis, chief geohydrologist at Water Affairs. The problem may not have been the quantity of money flowing in, but the direction it took: straight to wealthy white folk in Windhoek and the surrounding cattle country, where the average livestock farm, fattened by subsidies, covers at least 5,000 hectares.

Namibia is not alone in trying to roll back the hydrological legacy of apartheid. South Africa is in the lead, passing the world's most progressive water law to ensure fair and sustainable use of the resource at home and abroad. With 80 percent of its river (surface) water originating in Lesotho, the government is keenly aware of the need for hydro-diplomacy among its neighbours, notably Namibia and Botswana. "We're ▶

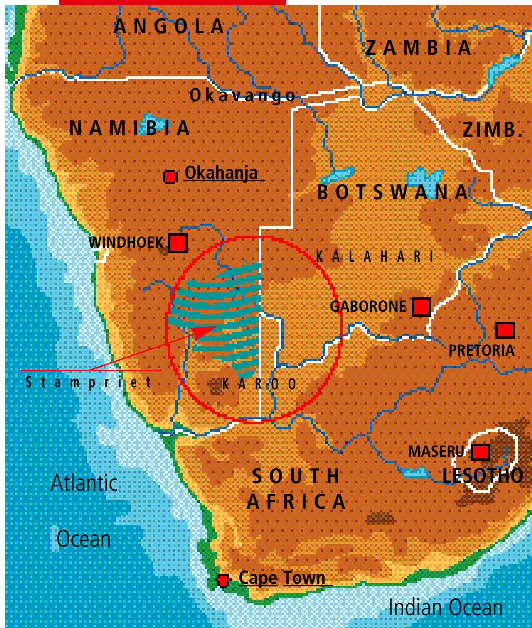
"Drop by drop, water sculpts the rock."

Theocrites, Greek poet (315-250 B.C.)

UNMAPPED TREASURE

Just about every country in the world, except for island states, probably shares an aquifer with a neighbour. Yet these hidden sources of blue gold rarely appear on a map because so little is known about them. UNESCO is trying to promote a better understanding of these aquifers from a scientific, legal and management perspective. A new project will not only highlight important case studies like the Karoo, but develop maps and a database on how best to manage and monitor transboundary aquifers. The project has several partners, notably the IAH, the Food and Agriculture Organization and the UN Economic Commission for Europe. ■

trying to move from the Okavango to something more positive," says Christine Colvin of the International Association of Hydrogeologists in South Africa.



Through SADC, representatives from the three countries (and others) have crafted a set of soon-to-be legally binding rules on jointly monitoring and managing groundwater, especially transboundary aquifers. Bear in mind that this is probably the one natural resource that has managed to avoid international regulation. Countries spent decades hammering out a UN convention on international rivers, yet they barely discussed deep aquifers.

Instead of trying to forge formal agreements, international organizations like UNESCO are promoting data exchange and joint monitoring between countries (see box). Namibia, Botswana and South Africa are now mapping an enormous sequence of aquifers, known as the Karoo, which spreads across the Kalahari into all three countries. The initial hope was that the investigations would uncover phenomenal supplies of water in Namibia that could serve as an alternative to the controversial Okavango scheme. On the contrary, the Namibian side appears to be on the decline, according to Jurgen Kirchner, who is helping to coordinate a major study financed and led by the Japan International Cooperation Agency that focused on the country's most important swathe of Karoo, known as Stampriet and covering an area of 65,000 kilometres^2. The two ephemeral rivers which most experts used to believe fed the aquifer seem to dead-end in sand dunes. The only apparent source of recharge is rainfall collecting in sinkholes, or indents in the topography, according to recent satellite images.

Trouble in cattle country

The bad news is more destabilizing within the country than across the borders. In South Africa, the aquifer sits beneath a national park, which requires little water. Demand is also low in Botswana, where few people are willing to brave the remote Kalahari, although this may eventually change as traffic increases along a new highway crossing the desert.

The real conflict is brewing in Stampriet, which, says Kirchner, must reduce its water use by 30 percent. This prognosis will ricochet like a bullet in this rolling land, with crests of red sand. This isn't just any stretch of cattle country, but a bastion of wealthy white farmers who believe that they are the backbone of a land they love but a country they seem to fear and even hate.

Stampriet is the home of a "tough breed," says Willie Prinsloo, a legendary driller who dug for water and minerals across southern Africa before retiring to his farm, Donnersberg or Thunder Mountain, where he raises livestock and wildlife for trophy hunting on 7,500 hectares. The one-eyed Willie runs the farm like a ship, overseeing every watering hole for cattle and vegetable planted in the plot he shares with his four labourers, who live in tidy cottages behind his own home. Banish the thought that he and his brethren are depleting the aquifer, says Prinsloo. Fault lies with the government—for it refuses to replace the farmers' boreholes, the old rusty metal pipes installed decades ago to bring up the groundwater. To reach the Karoo, the boreholes must first pass through another aquifer which tends to have very salty water. Holes in the pipes enable this saline stuff to sink down and pollute the clean Karoo.

Communal wisdom

The government, however, has a new policy in which people pay for the water services and infrastructure. In the north, nomadic herding communities are helping to install new pumps and should one day pay for the water they use. Might the same apply to Stampriet?

The question provokes a torrent of what many would consider racism, as Prinsloo expounds on the benefits of colonialism. Beneath the old hatred lies a new fear: government plans to spread the wealth by land taxes and water metres. Here in the Kalahari, you can still feel the heat from Robert Mugabe's Zimbabwe, so few dare to place the word "land" before "redistribution." But the government is slowly buying commercial (generally white) farms from willing sellers to ease pressure in the northern communal areas, which are in many ways like a separate country, divided by a three-metre-high fence from the commercial cattle farms of men like Prinsloo.

According to the Japanese study, about five percent of Stampriet's 1,500 farms are now government-owned. So not only must the Afrikaner brethren cut down on their water consumption, but they can also prepare for more and new neighbours. Yet Stampriet's farmers are probably the only ones in the country to use half their expensive groundwater to grow commercial crops. For economists, this is like throwing gold away—every cubic metre of water invested in irrigation brought in just half a Namibian dollar (U.S. $0.06). For the sake of the Karoo, Stampriet's newcomers hopefully won't follow the "commercial" ways of the "tough breed" next door. ■

* *Four perennial rivers form part of Namibia's national borders.*

For more information, http://unesco.org/water

Negotiating with nature: **the next round**

A step-by-step guide for brokering a deal on the one resource we cannot live without

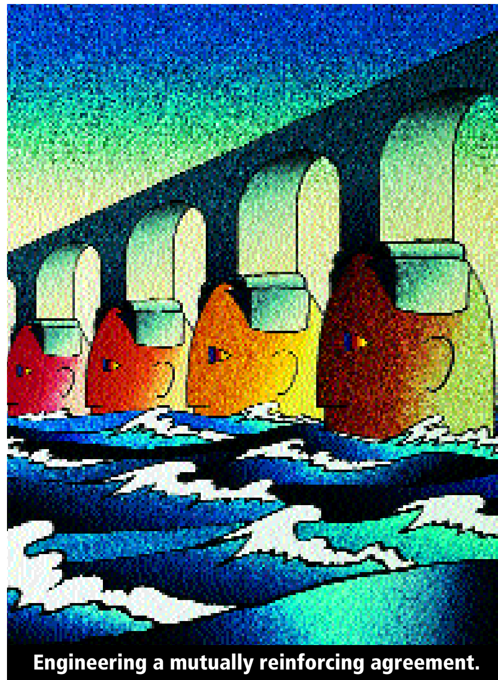
MICHÈLE FERENZ[1] AND LAWRENCE E. SUSSKIND[2]

TOGETHER, THEYARE INVOLVED INTHETRAININGOF BI-NATIONAL MEDIATIONTEAMSFOR THE JOINT ENVIRONMENTAL MEDIATION SERVICE IN JERUSALEM

"It seemed absolutely improbable, bordering on the impossible," U.S. Interior Secretary Bruce Babbitt said last January in reference to a water accord reached among seven of the southwestern U.S. states after five tough years of negotiation. The challenge he faced in brokering this agreement is one shared by many senior administrators around the world. As increasing scarcity exacerbates water conflicts within and among countries, water negotiations will inevitably grow in scope and intensity almost everywhere.

In a thirsty world, water can no longer be regarded primarily as a "strategic asset" that can be secured and safeguarded through the instruments of conventional security, least of all through the use of force. As with atmospheric pollution leading to ozone depletion and climate change, or with the depletion of renewable resources such as fish stocks and forests, water disputes involve a whole range of political, economic, social and scientific considerations. The challenge lies in finding and maintaining a balance between political and technical priorities. To this end, the United Nations has developed a framework convention to guide fresh water negotiations—which 10 states have ratified out of the 35 required for the treaty to come into force. National governments are, however, increasingly turning to an alternative form of negotiation involving neutral mediators, who work closely with international organizations, development banks, and a wide cross section of groups concerned about the future of water use.

The Asian Development Bank (ADB), in its 1999 annual report, offered to mediate regional water disputes as part of a policy to increase access to clean water in Asia. And the work of the World Commission on Dams is cited by many as a remarkable feat of consensus building between widely divergent interests around a highly controversial development issue. From these experiments and other environmental negotiations, we can highlight some key principles and "best practices" in water negotiations.


Engineering a mutually reinforcing agreement.

© Andrew Giarnella/SIS, Paris

Finding a unified voice

To begin with, it is not always obvious who should be at the negotiation table. The standard response is for national governments to treat water as a foreign policy matter, and thus to charge their top-level diplomats with working out bi- or multi-lateral agreements. It is a mistake, however, not to include a host of non-governmental actors in these negotiations (farmers, industry, environmental and women's groups, etc.), whose activities directly affect the condition of a watershed, and whose livelihoods depend on the resource. These groups, along with local authorities and indigenous groups, can offer relevant technical and traditional knowledge necessary to mitigate the stresses and strains suffered by a water system.

To be effective, these groups must be sufficiently organized to speak with something approaching a unified voice. So even before the larger dialogue begins, each group must work out its differences through internal consultations which should continue throughout the negotiation process. This ongoing feedback forestalls the tendency of negotiators to

"I can tell the way of celestial bodies, but can say nothing of the movement of a small drop of water."

Galileo, Italian astronomer (1564-1642)

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2. Director of the Public Disputes Program at the Harvard Law School, and President, of the non-profit Consensus Building Institute.

lock into a position before hearing what others have to say. Just to be certain that all of the key actors are involved, an impartial mediator should conduct a series of confidential interviews with all the key stakeholders to clarify their concerns and identify additional players that should be included.

Finding the key people is only one element in preparing for negotiations. Mediators should also play a role in "joint fact-finding" by helping to identify experts acceptable to everyone involved and by framing questions that these scientists should then be commissioned to investigate. Their findings can help reduce uncertainties and set priorities that may differ from country to country so that an overall "package" of proposals can be crafted. They can also help to establish "red lines" or thresholds of resource damage and depletion that would trigger more stringent obligations (known as "contingent agreements").

Water negotiations can no longer be left solely to elected leaders. The conversation must be broadened.

Once the key people and data have been assembled, the actual negotiations can begin. After a mediator prepares a written conflict assessment to create an overview of the parties' interests and priorities, face-to-face meetings can begin. They usually start with the business of setting an agenda and adopting procedural groundrules that will allow for constructive deliberation—or the "creation of value"—in an atmosphere that emphasizes creative problem-solving. No party is ever pressured to commit or to compromise in well-managed mediation. At stage three it is time to decide—or "distribute value." The challenge here is to make sure that the goodwill previously generated isn't lost as parties fight for competing proposals. Once an agreement on the substance is reached informally, the mediator must then be certain that it is communicated accurately to the official decision-makers.

Still waiting for the "Green Helmets"

In treaty-making, much of the focus is on the painstaking task of drafting written agreements. Yet, in the global arena, the resulting provisions are typically difficult if not impossible to legally enforce. Calls for an international water court are unlikely to be heeded in the near future. Nor is deployment of "Green Helmets"—a kind of environmental counterpart to the existing blue-helmeted United Nations peacekeeping forces—feasible. International relations theorists and lawyers hotly debate the propensity of states to comply with treaty obligations. Some subscribe to the Machiavellian notion that nations flout norms with impunity whenever they think that the costs of adherence outweigh the benefits. Others favour the theory that *most* nations observe *most* international law principles and obligations *most* of the time, if only to avoid the "shaming" campaigns orchestrated by non-governmental organizations. But even the optimists readily acknowledge that many factors other than willful disregard get in the way of perfect compliance. The vague language of many legal rules, for examples, is a problem. In addition, some states simply don't have the capacity—technically or financially—to do what they have promised.

These constraints must be kept in mind when transforming informal understandings into binding contracts. There are a few important ways of enabling agreements to adjust over time to changing circumstances and new needs. One is to build into the agreement mutually reinforcing, step-by-step performance requirements: the continued cooperation of one side is tied to compliance by the others. This reassures more dedicated or active states that their initiative and largesse will not be taken advantage of by laggards. Penalties might also be levied in the case of non-compliance, or rewards might be agreed upon ahead of time for each step completed as promised.

Finally, any effective agreement requires the active engagement of actors operating on the ground. Water negotiations can no longer be left solely to elected leaders. The conversation must be broadened. We also need greater transparency with regard to decision-making and greater rigour with regard to the scientific basis underlying the agreements reached. These are the key lessons learned from the two-decade long experience with environmental treaty-making and negotiation efforts. ■

For more information on environmental negotiation:

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On the tracks of a global vice

Corruption may be as old as government, but rapid globalization has given it alarming new dimensions. For the United Nations, the scourge has become a top priority, although so far, the battle is being waged in thick fog

MICHEL BESSIÈRES

UNESCO COURIER JOURNALIST

Public corruption is a crime as old as government itself. In the fifth century BC, Plato talked about it in his *Laws*. Two centuries later, the Indian political reformer Kautilya[1] listed 40 temptations that civil servants might yield to. But the state of corruption today is unprecedented in at least two respects: scandals are erupting the world over, and people are no longer in the mood to tolerate them.

In less than a year, two sitting presidents—Joseph Estrada in the Philippines and Alberto Fujimori in Peru—have been forced to resign, while a former president—Carlos Menem of Argentina—has been put under house arrest. In each case, the main legal charges and the immediate public outcry against them involved corruption.

Something that until recently was seen as just an internal government affair has become an explicit priority for all international bodies, from the G-8 nations and the World Bank to the United Nations, which plans to draft an anti-corruption convention by 2002. This surge of activity reflects various concerns, but has been fed by a single process: globalization.

The first "mandate" on corruption received by international bodies has come from governments themselves.

Economic austerity has fuelled the fight against corruption in many countries:here a march in Rio de Janeiro, Brazil.

©Vanderlei Almeida/STF/AFP, Paris

First day in prison for former Filipino president Joseph Estrada,arrested in April 2001.

© AFP, Paris

Twenty years of ever-faster financial transactions, spurred by deregulation and the rise of electronic communications, has turned money gained from criminal activities into a source of political and financial instability. And money embezzled through corruption has gone hand-in-hand with the money made by organized crime.

"These two kinds of crime feed off each other, hiding and recycling their profits in the same way," says Daniel Dommel, president of the French branch of the NGO Transparency International. "To stay out of sight, organized crime uses corruption, which weakens institutional safeguards against such criminals."

In recent years, several scandals have revealed the extent of the scourge. In the summer of 1998, the International Monetary Fund (IMF) lent Russia eight billion dollars to stave off the collapse of the ruble. Benyamin Sokolov, Russia's chief auditor, told a BBC interviewer in November that year:"We have looked into what happened to some of the IMF money and we have to admit that several billion dollars did not go to the programmes they were earmarked for. Some of it was simply stolen."

The following summer, the biggest money-laundering scandal in U.S. history erupted,with the Bank of New York at its centre. According to the FBI, the Russian mafia used this venerable financial institution to funnel $10 billion back into the Russian economy after its passage through the tiny Pacific island-state of Nauru, famous for "offshore" banks that ask few questions of their customers.

"Forty years ago, just one place in the world, Switzerland, guaranteed secrecy for its banking clients, but today there are more than 50 such countries," says Yves Mény, head of the Robert Schumann Centre at the European University Institute in Florence and author of *Democracy and Corruption in Europe* (Cassell, London, 1996). Monitoring financial movements, particularly through tax havens, is now one of the main features of the battle against corruption.

An annual blacklist

The Financial Action Task Force on Money Laundering (FATF), which grew out of meetings of the G-8 countries and is based at the Organization for Economic Cooperation and Development (OECD), has since 2000 published an annual blacklist of the most financially suspect countries, sending a sharp jolt through the genteel world of international finance.

"We want to get all banking centres, including the least willing, to conform to international standards," says FATF executive secretary Patrick Moulette. "We're exerting constructive pressure on all of them, whether they're tax havens like the Marshall Islands, Dominica and Nauru,or countries such as Egypt, Israel, Lebanon and Russia. Note that we're removing Russia from our blacklist of 17 countries because it passed a law this summer imposing tighter controls on its banking system."

Economic interests are also pressing international organizations to crack down on corruption. But not for moral reasons. Firms operating in the international arena—from construction to water supplies—are horrified by the demands for ever-bigger kickbacks.

The bribing game

"Economic liberalization has sent the cost of bribes skyrocketing, but few have noticed," says Rob Jenkins, who teaches political science at Birbeck College (London). "During public sector privatization, prospective buyers fight each other to bribe politicians and civil servants. And with each new reform, firms that want to have a say in drafting the new rules or simply want to know what the rules will be, are forced to make pay-offs without getting any guarantees in return. I've seen that in every country where I've looked at economic reform—in India,South Africa and Uganda.It is ironic that in the early 1980s, the IMF and the World Bank promised that their liberalization programmes would reduce the power of bureaucracy and thereby stamp out the source of corruption."

To eradicate this kind of crime, the OECD in 1997 drew up a Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, which has been signed so far by 33 countries. "Its main point is simple," explains Dommel. "It bans firms in the signatory states from paying kickbacks to foreign officials. Until a few years ago, such "commissions"were tolerated in many countries. In France, for example, they were officially tax-deductible. It was compared to going to

confession in church."

The Convention's many critics say it is a step in the right direction, but far from enough. "It seems absurd to condemn bribing an official of a government-owned airline and then shut your eyes to a kickback paid to an official of a private one," says Stuart Eizenstat, former U.S. under-secretary of state in the Clinton administration.

His comments are especially pertinent at a time when the economic fashion is to privatize public services. Benoît Dejemeppe, a state prosecutor in Brussels and a corruption expert, notes that the OECD convention is largely based on the Foreign Corrupt Practices Act, which U.S. President Jimmy Carter pushed through Congress in 1977 in the wake of the Lockheed bribery scandal that rocked governments in Europe and Japan. "In over 20 years, only four major corruption scandals have led to criminal convictions," he says, "so I conclude the law isn't strict enough."

A third "mandate" against corruption comes from civil society, which has shown increasing concern about the murky relationship between politics and money. "In the process of worldwide 'quasi-democratization' and global access to information, what people want above all else is transparency," says Jenkins.

Eluding all control

Until the end of the Cold War, the major political movements upheld widely contrasting ideologies;how they were financed was seen as less important. Today, in contrast, institutional political debate boils down to minor differences over how to apply broadly similar economic programmes, all requiring big sacrifices by most of the population.So it is no accident that anti-corruption campaigners have emerged at the same time as economic austerity in Western Europe, financial crises in Southeast Asia and Latin America, and structural adjustment programmes in many poor countries.

But the slowness of the anti-corruption process, the problems investigators come up against as they try to trace international networks, the rarity and lightness of the penalties—all have helped in fostering a good dose of cynicism. French journalist Denis Robert has published several books about corruption scandals. His latest, (*Révélation$*) written with Ernest Baeckes, is about how a Luxembourg-based clearinghouse called Clearstream operates. Such institutions are vital to the business of banking since they catalogue all transactions and list the people who make them. They nevertheless encourage anonymity and elude all control.

An insult to the poor

"The very word 'corruption,' if it means a departure from the legal rules, is no longer appropriate," says Robert. "It's the system that's corrupt.And the institutions never react until long afterwards. As Spanish judge Baltasar Garzón said, the fight against corruption is a fight between a mammoth and a leopard."

The battle is not only uneven but is being waged in thick fog according to five European judges, all anti-corruption experts, who wrote an article in the French daily *Le Monde* last May, soon after Robert's book came out. "The main thing that emerges from this investigation," they wrote, "is the deafening silence of those responsible for the system that is in the dock.... The tactic of hiding one's head in the sand might suggest that the book was a pointless exercise. But we think that it's only just started to tell the true story.... The book should help Europeans understand what clearinghouses do and throw new light on the globalization of finance."

The effectiveness of different ways to fight corruption is still being debated. But everyone at least agrees on what the enemy is. Even James Wolfensohn, the Australian president of the World Bank, raised the then taboo subject inside the Bank in 1996. He called corruption a serious "cancer" that "insulted the poorest people by diverting money to the richest." ■

1. *Author of* Arthashastra, *a famous philosophical treatise. He was adviser*

THE SIZE OF WORLD CORRUPTION

Before you can measure corruption, you have to know what it is. The United Nations and the World Bank have adopted the sober definition offered by Transparency International, which calls it "the misuse of public power for private profit."

But even its authors recognize the limits of this description since it takes no account of private sector corruption. To understand this, it's best to look at how graft works in practice. A bribe, according to the English dictionary, is "a sum of money or other favour, given to someone in authority so as to influence their opinions or behaviour."

Putting a figure on the amount of corruption in the world is very hard but also irresistible. Patrick Moulette, executive secretary of FATF (Financial Action Task Force on Money Laundering), says there is "no financial basis to measure the extent of this illegal activity. All the figures given are fictitious and unscientific."

FATF documents, however, cite the International Monetary Fund's estimate of $80 billion a year. In comparison, the total of criminally-acquired capital is reckoned at between $500 and $1,500 billion—two to five percent of the gross world production.

Case studies are a much more accurate guide. One in Milan,conducted before and after Operation Mani Pulite (Clean Hands),showed that the city's public works budget had been inflated by 30 to 40 percent. The airport extension project, for example, could have been cut from 2,610 billion lire ($1.1 billion) to 1,990 billion ($860 million).

Transparency International has in the past few years published a Corruption Perception Index (CPI), and more recently, an index of corruption in exporting countries, the Bribe Payers Perceptions Index (BPI).Both are based on rigorous opinion polls among businessmen, financial analysts, journalists and sometimes the general public. They are not exhaustive (not every country is represented) and remain subjective (because they measure corruption as perceived by those asked). But despite these two drawbacks, they give a meaningful picture of the situation and,in the absence of other surveys, the indexes have been accepted by public opinion.

In 2001, the CPI index revealed that Finland, Denmark and New Zealand were seen as the least corrupt countries, while Indonesia,Uganda,Nigeria and Bangladesh came out bottom of the list. ■

Contemporary art: who calls the shots?

Despite the international veneer of the art market, research by French sociologist Alain Quémin shows that a handful of rich countries dominates the scene

INTERVIEW BY RENÉ LEFORT

DIRECTOR OF THE UNESCO COURIER

How has contemporary art been affected by globalization?

Contemporary art lovers and professionals believe that it's becoming increasingly internationalized. Any gallery director, art critic, museum curator or exhibition commissioner would more or less agree that it would be absurd to take nationality or country of origin into account when judging an artist's work. All that matters, they say, is whether or not he or she is good. In other words, an artist's fame and market value should have nothing to do with nationality. As proof, those in the art world point to the fact that exhibitions and biennales are scattered around the planet[2] (they are even held in Havana, Taipei and Dakar), and to the rise of Asian artists after the Eastern European wave of the early 1990s. In contemporary art, globalization and its corollaries in the art world—cultural mixing and relativism—are taken for granted.

But do these claims match what is actually happening on the art market?

To answer that question, I have developed or compared several indicators, including rankings of "reputation" by experts (those who contribute to an artist's fame or "name recognition"), the composition of large private and public collections, acquisitions by large museums, participation in major fairs and biennale exhibitions, sales on the international market, and so on. These indicators sometimes give different rankings, but they reveal a very strong geographical hierarchy (see box). The most famous artists and those whose works have the highest market value are from the United States. Several countries in Western Europe form the second group, sometimes equal to or outdoing the United States, especially at fairs and biennales.

But the ranking in this group is very marked. Germany is far ahead of the United Kingdom, France, Italy and Switzerland. After them, the contribution from other nations, including developed countries such as Spain, the Nordic countries, Japan and South Korea, is insignificant. The third world is at the very bottom of the list.

In art as in many other fields, there is obviously a gulf between a "centre," made up of only a few countries that are themselves ranked in a very rigid hierarchy, and a huge "periphery."

But artists from the periphery, as you call it, have achieved a certain degree of fame and their works have attained a very high market value…

That may be true, but the proportion is very small. And how long will it last? Artists from Eastern Europe, who were very fashionable in the early 1990s, have now fallen into oblivion in the Western art world. And there's nothing to indicate that the Asian or African artists currently in vogue will not in their turn be as "disposable as Kleenex" themselves.

In any case, how should they go about getting known? There are practically no exceptions to the rule: they must be exhibited in a country at the centre or go there to live in the hope of finding their place in mainstream contemporary art.

But hasn't this inequality always existed? Without going too far back, didn't France occupy this "monopolistic" position from the late 19th to the mid-20th century?

Yes, but the big difference is that this dominant position was recognized and fully accepted in the name of France's contribution to art history. Today, on the contrary, contemporary art circles cannot recognize America's supremacy in this field because they simply don't "see" it. In the artistic fields where this supremacy is recognized, it tends to be stigmatized because the United States is considered

A FEW INDICATORS

- Each year, the German magazine Capital publishes a world ranking of living artists called Kunst Kompass. Highly influential around the world, it supposedly reflects their aesthetic value based on the opinions of "experts" and exhibitions in major museums and shows.
In 2000, the 100 "best" artists included 33 Americans, 28 Germans, eight Britons, five French, four Italians and three Swiss. Of the 16 other artists, only five came from the developing world (South Africa, Cuba, Iran, Mexico, Thailand).
- On November 16, 2000, Christies held one of its two major annual contemporary art auctions in New York. Of the 48 artists whose works were sold, 26 came from the United States, six from the United Kingdom, five from Germany, four from Italy, three from Switzerland, two from Japan and one each from France and South Africa.
- On November 17, 2000, Sotheby's held a similar auction in New York. Of the 63 works sold, 50 were by American artists or artists living in the United States. Just one was by an artist from a developing country, where he still lives (Mexico). ■

* *Alain Quémin, a researcher and teacher at Marne-la-Vallée university (France), has just published a study commissioned by the French Foreign Affairs ministry, entitled "The role of buyer countries on the market and in the contemporary art world"*

a latecomer on the art scene.

So why is there this contradiction between image and reality?

I'll answer with another question: why would the contemporary art world be an exception to the dominant globalization credo, according to which everyone, wherever they are, has a chance as long as they have talent? And more specifically, why would it be free from two contradictory movements that are part of globalization? On the one hand, you have an endless search for innovation, which sometimes goes as far as including the periphery. On the other, the tendency to minimize risk, especially financial risk, ends up boosting the value of artists from well-established art centres, who are therefore the easiest to promote.

But playing the devil's advocate, can't we say that "good" contemporary artists simply wouldn't choose to live in places where their work cannot be properly exhibited or sold?

Today, artists from the periphery have a growing number of opportunities to aid them. For example, fine arts schools are now more open to the world. However, these artists rarely make it on the international scene. Is that because they might be "naturally" worse? Let's take a sporting metaphor. For decades, people thought you had to be Scandinavian to be a champion middle-distance runner. Then they came from Eastern Europe. Now, athletes from North and East Africa are winning all the races. And each time, the success of these different groups is considered "natural." At the very least, the geographical concentration of contemporary art hampers the recognition of the artistic potential that exists outside the United States and in some European countries. ■

© Régine Cuzin/ADAGP, Paris

Without calling them by their name, Beninese artist Georges Adeagbo, 59, had been doing installations for over 20 years when Frenchman Jean-Michel Rousset came scouting around the capital Cotonou in search of new artistic talents for a big collector. By chance, he fell upon Adeagbo's home and discovered his work (above picture). That was back in April 1993. A few months later, Adeagbo's pieces went on show in France for the first time. At the beginning of this year, works by the Beninese artist were exhibited at the prestigious P.S.1 museum in New York.

1. *Experts sometimes disagree, but they generally define contemporary art as an innovative form of creation that emerged after 1960. The main media are painting, sculpture, photography, video, montages and installations.*
2. *Fairs are events where art works from galleries chosen by the organizers are sold. The most famous one is in Basel, Switzerland. In contrast, biennales are non-commercial art events (exhibitions) that display works selected by commissioners. By definition, they are held every two years. The most recognized biennales take place in Venice, Italy and Kassel, Germany.*

When the media meet as one

Now the Internet's star has faded, a new buzzword is circulating in the corridors of the world's media. But will "digital convergence" really be able to keep its promise of communication and information anytime, anywhere, in any shape or form?

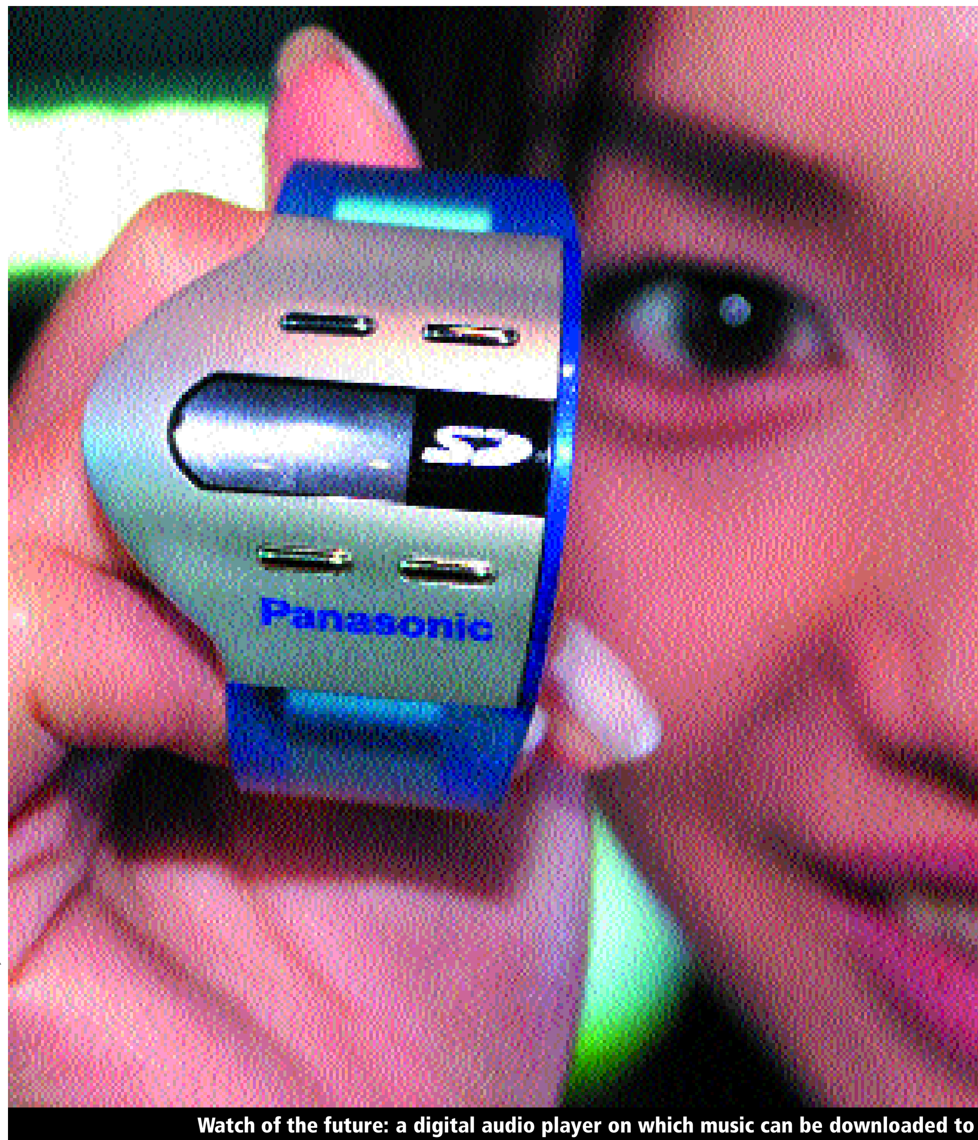
JOHN VINCE

PROFESSOR OF DIGITAL MEDIA AT BOURNEMOUTH UNIVERSITY (UNITED KINGDOM)

The past 40 years have witnessed an extraordinary evolution. From slow expensive machines controlled by punched cards, computers have become low-cost, powerful units taking up no more space than a briefcase. Simultaneously, our world has become interlaced with telephone wires, optic fibres, undersea cables, microwave links, television channels and satellite communications.

At the crossing of these two developments stands the Internet—a direct result of computer technology intersecting with communication technology. But for many in the world of today's media, this is merely a first landmark in what promises to be a giant upheaval in the way people communicate, relax and work. This is the era of digital convergence.

According to a recent article in *Scientific American*, convergence is in principle "the union of audio, video and data communications into a single source, received on a single device, delivered by a single connection." Digital technology has already provided a medium for integrating media that until now required distinct channels of communication: we can now send emails using our televisions or text messages over mobile phones. Real-time video can be transmitted over radio channels, while television and radio can be received on Personal Computers (PCs).



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Watch of the future: a digital audio player on which music can be downloaded to

Hyped-up precedents

Full digital convergence promises real-time access to information anywhere in the world, and global communication through text, graphics, video and audio. In fact, there seems to be no technological limit to what might be possible. "The reality of 'anywhere, anytime' access to broadband digital networks is going to make our lives freer and fuller," Gerald Levin, chief executive officer of AOL Time Warner, has promised. But technology alone cannot bring about such a world: as long as consumers and companies do not embrace it, convergence is likely to go the way of several hyped-up predecessors.

Over a decade ago, for example, virtual reality was the technology of the future, and many people anticipated a day where we would be wearing head-mounted displays and interacting with all manner of virtual environments. At the time there was real concern about changes in industrial practices and social behaviour brought about by this technology. So what happened to this vision? Well, we got it wrong. Currently, the home computer is the main interface to the Internet. But relatively few people in the world have access to PCs, and few would argue that they are ideal for the purpose—they crash and freeze because

they were not designed for widespread Internet use.

In promising to fuse media as diverse as television, telephone communication, video games, music and data transmission, the era of digital convergence goes one better than yesterday's celebrated "information superhighway." Yet in doing so, it also raises critical questions: what services are needed, what is the ideal platform, will it be fully interactive? Can the old be so easily combined with the new?

At the root of any digital application stands a binary coding system: designers of early computers found that only when

a memory card via the Internet.

using such a system could their computers be relied upon to give consistent results. The binary code enables numbers, letters and characters to be assigned unique digital patterns that can be stored on magnetic tape, compact discs, DVD and computer files. These digital codes can then be readily transmitted via copper cable, fibre optics or as radio waves. Once in a digital format, text, audio, graphics and video can therefore all be processed by one common technology with great accuracy.

Skeptical consumers

Yet achieving this single technology is far from straightforward. There are currently three major television broadcast standards, and they are all incompatible with each another. But this is nothing compared to the many technologies supporting the Internet, each with a different bandwidth and physical media. The problems faced in designing platforms and communication systems that will be accepted across the world can appear insuperable.

One body, the International Organization for Standardization (ISO), is at the heart of efforts to devise world standards for coding audio-visual information. Its Motion Picture Experts' Group has already notched up several important benchmarks via standards for storage media and broadcast, while the MPEG-4 (now under development) will establish the means for storage, transmission and interactive manipulation of video data—the essence of what digital convergence promises to deliver.

Even once global standards are assured, however, a further obstacle lies in wait. The Internet is plagued by long, erratic response times because it is a *pull-technology*, driven by patterns of user demands. *Push-technology*, on the other hand, reverses the relationship: servers simply send information to passive users, as in television and radio. But if some form of combination between one-way television flow and interactive Internet is to be the basis of our future media, it is hard to see how it could be operated. Current network technology could not support a pull-based approach towards television, while a push-based approach would simply duplicate what we have already: normal, uninteractive television or radio.

Yet the problem of fusing Internet with television is also one of defining the services offered. As Steve Jobs, chief executive officer of Apple, has observed: "TV is where you go to turn your brain off; the computer is where you go to turn it on." Information, entertainment and relaxation appear at first to be quite different needs. Serious doubts remain over whether consumers will be interested in having to make the sort of mental effort associated with computing while also settling down in front of a sitcom.

"TV is where you go to turn your brain off; the computer is where you go to turn it on."

"There is a large group of people who have no interest in the new media and, contrary to many predictions, that segment is shrinking slower that the icebergs in Antarctica," recently warned Horst Stipp, director of research at NBC television network in the United States.

Besides the issue of consumer habits, infrastructure costs are set to be immense, and will have to be met by national states or the private sector before being passed on to users. Platforms do not necessarily have to be expensive. The mobile phone is a good example of how something that is technologically sophisticated can almost be given away, with its cost recovered through service charges. Users are then coerced through clever marketing to upgrade to newer phones with more features to reinforce their dependence.

The creation and copyright protection of digital content are other vital issues. We have already seen that satellite television provides us with so many extra channels that television programmes have to be repeated indefinitely to fill the available space. But perhaps digital convergence will solve this by making it easier to create totally synthetic television programs employing virtual sets and actors. One might even suggest this has already started to happen.

Whatever the outcome, it is obvious that technology will play an increasing part in our everyday lives. Beyond technology, digital convergence embraces the services, industrial practices and social behaviour that form modern society. We have in our hands the technology to construct the most sophisticated machines ever built, but if they are unusable, simply because of their operating instructions, then recent lessons have taught us they will not survive. Whatever we design must be simple, reliable and useful. Perhaps this is where artificial intelligence will play an important role. ■

WHEN THE MEDIA MEET AS ONE

All power to the barons?

Digital technologies may promise a host of new channels and activities, but the stranglehold of big business is set to tighten, says leading media commentator Robert McChesney*

© Henry Ray Abrams/PIG/AFP, Paris

Announcing the AOL Time Warner merger.

INTERVIEW BY IVAN BRISCOE

UNESCO COURIER JOURNALIST

Do you see digital convergence as a technological process or as a wider change in the media?

The notion that there is technological convergence is undeniable. The transition to digital format of virtually all media and forms of communication is on its way to being completed in the near future. But the convergence of media ownership is even more striking, and in many respects anticipates technological convergence. For most consumers, it's the convergence of ownership that has probably had the most direct effect on their media experience to date. And I think these changes in ownership will go a long way towards shaping how the digital world will eventually look.

How exactly is ownership changing?

The crucial trend is vertical integration, or more broadly, conglomeration of media ownership. In the United States for example—and this is a pattern that could have been found in most countries with market economies—the media industries such as music or cinema in the 1950s each tended to be dominated by three or four different companies. What has happened in the U.S. and globally over the last 50 years is that the largest media companies have become conglomerates, meaning that the largest film studio also owns a television network or a music company, radio stations, magazines, cable systems, satellite systems, video rental chains.[1] What you have is a tremendous web of power built up by the largest firms, which have become dominant players in several media sectors. All this predates digital convergence. Digital convergence is really the cherry on top of the sundae.

But will the new digital technology not offer greater choice and allow new companies to enter the market?

There is a paradox with the rise of the Internet specifically and digital communications more broadly. The standard belief has been that all of a sudden, the traditional market power of these media giants is going to fall because the barriers to entering media markets are being radically lowered, if not eliminated. But the problem with this theory is that it's technology driven. It makes perfect sense technologically, but what it misses—and this is the perceived wisdom on Wall Street—is that new technologies are not going to spawn a wave of commercially viable media entrepreneurs or businesses due to the market power of existing companies. Technologies are developed in the market for the most part, and the ones that are aggressively pursued and promoted are the ones most likely to offer a profitable return for the dominant companies.

What effects does concentration have on the media we consume?

Firstly, you see the incessant rise of what I call hyper-commercialism, meaning that these companies are quite rationally trying to make a profit from every aspect of their media services—something they can do much more easily in a non-competitive market. If you don't like the fact that in the U.S. the average commercial radio station has 18 to 20 minutes of advertisements per hour, you don't really have any alternative, they all do the same. The flipside of this prevalence of commercial values throughout our media culture is a decline in public service content. Journalism that does hard investigation or raises serious social issues doesn't make economic sense for these companies—it costs a lot of money and the pay-off isn't high. Furthermore, the largest media companies now rank among the largest firms in the entire economy. These companies are not neutral bystanders on the sidelines of society. They're main players right in the heart of it, with distinct self-interests on the crucial issues of the day.

What do you believe should be done?

Our traditional notions of what proper media ownership is must be re-evaluated. But the sort of public and political debate on the issues, at least in the U.S., is the last thing on earth large media companies want to encourage. As long as this issue is kept in the smoke-filled back rooms and lobbyists talk to politicians, the position we have now will continue. ■

* *Professor of Communications at the University of Illinois*

1. *The seven largest media conglomerates in the world are now Disney, AOL-Time Warner, Sony, News Corporation,*

Sotigui Kouyaté
The wise man of the stage

Despite years away from home and a career spanning many cultures, Malian actor and griot Sotigui Kouyaté has not strayed from his foremost mission: to break ignorance of Africa's living traditions and spark encounters across continents

As Prospero, in Peter Brook's staging of The Tempest.

© Marc Enguerand, Paris

You often say you're first and foremost a storyteller, a "griot." How does this deep-rooted identity affect your approach to theatre?

I draw my inspiration,my energy, from meeting people. In my corner of Africa—my parents were from Guinea, I was born in Mali and I'm Burkinabé by adoption—such encounters are important, since outsiders are the ones who bring us what we don't know.

I didn't go to any drama school, unless you count the great school of the street—the school of life. When I was young, a theatre producer friend, Boubacar Dicko, asked me several times to play parts for him.But it was the last thing I dreamed of: at the time, I was playing for Burkina Faso's national football team!

Did you have a bad impression of theatre?

When I was a kid, I enjoyed *koteba* performances, an old African tradition. The word means "big snail." They took place in our neighbourhood and there would be three circles—one of children,another made up of women and a third one of men. But in those colonial days, the *koteba* was dying out and being replaced by Western-style theatre. The French started drama contests between all their West African colonies, which later became eight countries. Consciously or not, the idea was to instil us with Western culture.

© Marc Enguerand, Paris

"The best way to kill a tree is to cut

We weren't allowed to speak our own language at school. If we did, the teacher would make us wear a piece of wood or metal around the neck with a mule's head on it and deprive us of lunch. The best way to kill a tree is to cut it from its roots. This Western-style theatre also helped steer African intellectuals away from the campaign for independence.

What made you change heart?

I love dance and in 1966, I finally agreed to be in a historical play produced by my friend Boubacar Dicko which featured a war dance. He also asked me to play a part as adviser to the king. The play won a prize and went on tour in the region. I became attached to the show, and then to another, based on a play written by my uncle.

Gradually, acting grew on me. But I wasn't enamoured by everything—not the courses run by French instructors, for example. They told us, without explaining why, how we should walk on stage, which seemed far too affected to me. They would ask us to imagine a ship, to picture it on the wall, but I couldn't see anything. I left, though by then, I'd really become taken with the profession.

I set up my own theatre company in 1966 with a group of 25 people. Burkinabé radio gave us a place to work and we mainly did improvisations. I'd go to work at the ministry for labour and public administration in the morning, play football in the afternoon,and then go off to theatre rehearsals. At the same time, I was also writing my first play, *The Crocodile's Lament*. It was about being sensitive, a gift with which you can even manage to caress a crocodile, as it actually happens in several regions of Burkina Faso, where crocodiles are viewed as sacred.

Sensitivity— is that what actors need most?

When I give courses, I do a lot of work on being open, sensitive and learning to communicate. Politicians always make speeches about communication and dialogue. But it all has to do with economic interests, never human ones. You can't communicate if you don't listen, and people don't listen to each other, even if they live in the same country. Everyone's absorbed in themselves, so exclusion grows. People risk their lives to leave their country, and the authorities close their eyes on all that.

Finding another way of communicating, through the efforts of actors from different cultures working together, is key to the approach of Peter Brook, who you met in 1983 for the great Indian epic The Mahabharata.

When I joined the Bouffes du Nord Theatre in Paris, I had no intention of staying in France. I'd taken a year's sabbatical from my job at the ministry. The problem—or if you prefer, the luck in my case—was that *The Mahabharata* was a hit. I asked the ministry to extend my leave, and they gave me another year unpaid. But when that was up, the play's run still hadn't ended. I didn't have an understudy, and the play lasted nine hours. I was brought up not to abandon something halfway through, I couldn't leave the company. But I'd been with the civil service for 29 years and was just a year away from being able to draw my pension. I lost that, and four months later, *The Mahabharata* closed and I was left without a job back home. I didn't want to return to my family empty-handed

©Ramon Senera/Enguérand, Paris

Antigone, staged by Sotigui Kouyaté with

"A MAN WITH AN EXTRAORDINARY PRESENCE AND QUALITY"

When casting The Mahabharata, Peter Brook's assistant scoured through film studios in search of an actor to take on one of the lead roles, Bhisma the sage. "I saw one shot of a tree and a man as tall and slender as this tree, with an extraordinary presence and quality. It was Sotigui," recalls Brook in a recent documentary about the actor. Born in 1936 in Bamako (Mali), Kouyaté belongs to an illustrious family of griots—masters of words who are at once genealogists, historians, masters of ceremonies, advisers, mediators, singers and musicians. He has handed down all these talents, as a composer, dancer, actor and father, to his own children and a multitude of "spiritual children" dispersed across the world, for whom he is a precious guide. Filling each of his roles with profound dignity, he has appeared in some 60 films, most recently in Little Senegal, directed by Rachid Bouchareb. As one of Peter Brook's longtime actors, he will tour in several shows over the next year, including The Man Who, based on Oliver Sacks' The man who mistook his wife for a hat, and The Suit, adapted from a story by the late South African writer Can Themba. ■

it from its roots"

Malian actors from the Mandeka Theatre.

because as the oldest son,I was their pillar. It was very hard. Here in France, I could struggle, work and continue to explore my culture and being. Art has never fed anyone in Africa.

You are said to have slipped into the part of the wise man Bhisma.

When I joined Peter Brook, I didn't feel out of place. I could see everything was happening inside a circle, just like in Africa, and on the third day, he took my hand, looked me in the eye and said:"Sotigui,from today, you're part of the family." That was a magical moment for me. He didn't say: "You're part of our group, of our company." He'd understood the soul of an African, he'd embraced my culture. Brook is a universal man. For him, there are no barriers between people, which is rare in today's world. Some people don't understand my loyalty to Brook. But how can I not be loyal to someone who defends such values in today's world, where separation and individualism hold sway?

At his International Centre for Theatre Research were 22 actors from 18 different countries. In *The Mahabharata,* the five Pandava brothers were played by a German, a Frenchman, an Iranian, an Italian and a Senegalese. This bothered no one, and the play travelled the world for four years. Only Brook could have pulled off such a feat. There aren't any races or skin colours in his mind. I've also played Prospero in *The Tempest* under him. It was the first time a European director, a British Shakespearean to boot, had staged this play with a black Prospero.

Brook has said your imagination was nourished by a culture where the visible and invisible worlds are not separate. In the parts you play, it often seems as if you're on an initiation voyage.

I come from a culture where nature is very important in a person's life. Your soul is first incarnated in a tree, then in an animal and then in a living human being. Some people are even named after trees. All this means everything in the world is alive. Unfortunately, humans increasingly think they're the only living beings on earth.

In French, you can point to someone and say "there's a person." In several African languages, when you say "person," the word is followed by something that means roughly "the person of the person." That is, each human being comprises many identities, which are in fact other people. Daily life is about discovering all these beings within. This can only happen through meeting other people.

"When you meet another, instead of losing yourself in his eyes, recognize yourself—and perhaps you'll see yourself," the saying goes. Our wise men tell us that ignorance is the worst thing that can happen to anyone, worse than illness or death. And the most ignorant person of all, they say, is someone who has never stepped ▶

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“Is there any sin so serious that it can **never be forgiven?**”

outside his or her house.

Your own work as a stage director is enriched by such contacts and encounters. You once produced Antigone with Malian actors.

It’s through differences that you find ways to work together. At the request of the Jean Moulin Museum in Paris, I produced a show in 1999 to mark the centenary of the French wartime resistance leader’s birth. I adapted his diary, *Le Premier Combat,* and merged it into a novel by the Cameroonian writer Ferdinand Oyono, *Le Vieux Nègre et la Médaille*. This shocked some of Moulin’s old comrades, but the director of the museum, a historian, firmly defended the project.

In recent months, I’ve been working on *Oedipus*, which follows naturally from *Antigone*. I’ve based myself on several versions of the story, from Sophocles to Jean Anouilh, and even a thriller on the theme. I’ve read the analyses of psychoanalysts from Freud to Tobie Nathan. All focus on incest. For me, however, Oedipus is about the problem of facing up to oneself. I’m not trying to provide an answer, I’m just raising the issue to foster awareness of the battle that’s inherent in every destiny, namely not to let ourselves be overcome by fatalism. Is Oedipus guilty of killing his father? At first he was hailed as a hero who rescued a suffering country. Then he was rejected by his own sons and stoned to death before the wall of Thebes by the very people he’d saved. He’s a man on the run, consumed by suffering, by an obsession. If he’d come to terms with his human weaknesses, he wouldn’t have gouged his eyes out. I end my *Oedipus* by looking at what I think is the most serious issue—the refusal to forgive. The choir exhorts the gods to praise the hero after his vain ordeal.

It’s an appeal to reason…

Forgiveness doesn’t heal everything but it can make some things better. Is there any sin so serious that it can never be forgiven? Is evil 100 percent evil, or can we find a little crack within that can draw it closer to good?

You stand for deep-rooted African values, just like the character you played in Rachid Bouchareb’s film Little Senegal (2000). Do you think these values are under threat?

I’m always afraid of that,but I try to fight with words and culture. For example in Bobo Dioulasso, Burkina Faso’s second city, my children and I opened a cultural centre a few years ago. I set it up in the courtyard belonging to my father, a very large space. Today it’s a place where you can learn music, percussion and painting, a meeting place where we invite foreign painters to teach courses. We also wish to make it into a computer training centre. Besides which,we are seeking to create a university of African traditions where we could develop ways to preserve this heritage and deepen knowledge of our culture.

You also set up the Mandeka Theatre in Mali, which encourages literary and artistic creation.

We founded the Mandeka in 1997, at the same time as France was deporting charter plane loads of Malian and Senegalese immigrants every day. While that was happening, actors in Bamako were still asking me how they could come to France, as if they were blind to how immigrants were being treated. When I advised them not to

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go, they'd stare at me as if to say: "Look at you, you're doing alright over there, and so are your sons." The easiest way out in the end was to say I couldn't help anyone in coming to France. But I was ready to do what I could by finding them jobs, courses or training. This is what I had in mind when I founded the Mandeka—stopping young people from fleeing, helping them to win respect through having a job and showing people what they could do. *Antigone* was performed in France by actors from Mandeka. Les Bouffes du Nord agreed to produce *Oedipus*, in which Mandeka's Malian actors will perform with French ones.

African theatre and films still have a very low world profile, unlike African music.

There is no African cultural policy. Our filmmakers don't have the money to produce and distribute their work. A few years ago, a lot more films were given loans against eventual box-office receipts from France because their subjects, often ethnographic, attracted donors. But as African directors became interested in other issues and left folklore to one side, they secured less and less money. As for the actors, for years you could look through the budgets of African films and not find any mention of them.

In Mali and Burkina Faso, the film authorities do what they can, but that doesn't go much further than lending you vehicles and cameras. And it's even worse for theatre. The troupes you see abroad, in Europe, have to live off their own resources. You can't even say they were once better off. When I founded my own dance troupe in Burkina Faso in 1971, I received no funding. I went into debt to buy musical instruments and costumes. Several times the government seized them so they could represent the country in foreign festivals or greet a visit by the French president—without ever giving us anything in return.

Do you feel you're carrying a message from Africa?

Let's be modest. Africa is vast, and it would be pretentious to speak in its name. I'm fighting the battle with words because I'm a storyteller, a griot. Rightly or wrongly, they call us masters of the spoken word. Our duty is to encourage the West to appreciate Africa more. It's also true that many Africans don't really know their own continent. And if you forget your culture, you lose sight of yourself. It is said that "the day you no longer know where you're going, just remember where you came from." Our strength lies in our culture. Everything I do as a storyteller, a griot, stems from this rooting and openness. ■

INTERVIEW BY CYNTHIA GUTTMAN

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Master of ceremonies: a griot performs in Guinea.

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