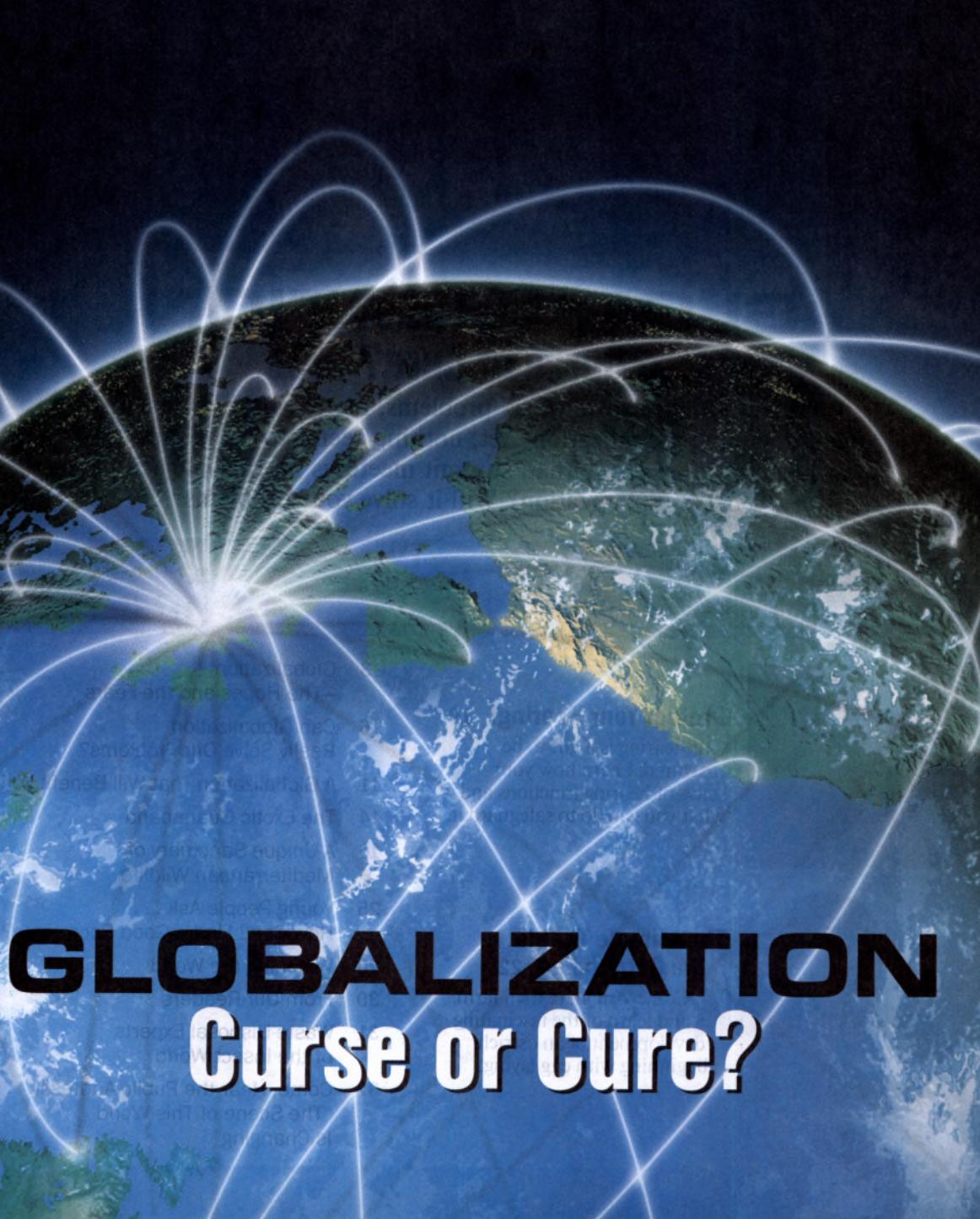


# Awake!

MAY 22, 2002



## GLOBALIZATION Curse or Cure?

# **Awake!**

AVERAGE PRINTING 21,153,000  
PUBLISHED IN 87 LANGUAGES

## **GLOBALIZATION** **Curse or Cure? 3-13**

In a new effort to solve world problems, many world leaders are recommending globalization. Yet, nothing seems to spark riots and protests more easily than summit meetings on this subject.

What is globalization? Will it solve your problems?

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“The Scene of This World  
Is Changing”

# GLOBALIZATION

## The Hopes and the Fears

*"Globalisation is the great economic event of our era. . . . It is now bringing unprecedented opportunities to billions of people throughout the world."*

—MARTIN WOLF, FINANCIAL COLUMNIST.

*"We, the people of the Earth, are one large family. The new epoch offers new challenges and new global problems, such as environmental catastrophes, exhaustion of resources, bloody conflicts and poverty."*—EDUARD SHEVARDNADZE, PRESIDENT OF GEORGIA.

In December 1999, a meeting of the World Trade Organization held in Seattle, U.S.A., was interrupted by a riot. Police used tear gas, rubber bullets, and pepper spray to restore order. Finally, they arrested hundreds of protesters.

What provoked the so-called Battle of Seattle? A whole litany of concerns about job security, the environment, and social injustice. However, to put it simply, the demonstrators feared *globalization*—its effect on people and on the planet.

Their fears have not abated. Since 1999, antiglobalization demonstrations have escalated in size and intensity. In some cases, world leaders now endeavor to hold their summits in isolated areas where protesters will be hard-pressed to disrupt the proceedings.

Not everyone, of course, sees globalization as a threat. While some condemn it as the mother of the world's ills, others hail it as the panacea for most of the world's problems. True, this ongoing debate may seem irrelevant to the majority of mankind, many of whom have only a hazy idea of what globalization is all about. But whatever your viewpoint, globalization does affect you

already, and it will probably affect you even more in the future.

### What Exactly Is Globalization?

"Globalization" is the term some use to describe the growing worldwide interdependence of people and countries. This process has accelerated dramatically in the past decade or so, largely because of huge advances in technology. (See box on page 5.) During this time, the divisive blocs of the Cold War have virtually disappeared, trade barriers have come down, the world's major financial markets have been integrating, and travel has been cheaper and easier.

This growing worldwide integration has produced a whole series of consequences—economic, political, cultural, and environmental. Unfortunately, some of these consequences can be negative. The United Nations publication *Human Development Report 1999* explained: "People's lives around

**The net worth of the 200 richest people on earth exceeds the combined income of 40 percent of the world's population**

the globe are linked more deeply, more intensely, more immediately than ever before. This opens many opportunities, giving new power to good and bad." Like many human achievements, globalization has both an upside and a downside.

### Hopes for a More Prosperous World

Globalization "has enriched the world scientifically and culturally and benefited many people economically as well," claims Nobel Prize winner in economics, Amartya Sen. The *Human Development Report 1999* likewise points out that globalization "offers enormous potential to eradicate poverty in the 21st century." The reason for this optimism is the dramatic increase in prosperity that globalization has brought in its wake. The average family in the world today has three times more income than it did 50 years ago.\*

Some analysts see another advantage to economic integration: They feel it will make countries more reluctant to go to war. Thomas L. Friedman, in his book *The Lexus and the Olive Tree*, asserts that globalization "increases the incentives for not making war and it increases the costs of going to war in more ways than in any previous era in modern history."

More interaction among people also has the potential for improving global solidarity. Some human rights organizations have been able to tap the resources of the Internet to promote their causes effectively. The

\* Averages, especially worldwide averages, can be misleading, however. In many areas, families have seen no increase at all in their income in the past 50 years, while the wages of others have multiplied several times over.

1997 international treaty outlawing land mines, for example, was achieved in part by using electronic mail to mobilize diverse support groups throughout the world. This grass-roots approach was hailed as "a new way of conducting international diplomacy, with governments and civil society working together closely to tackle a global humanitarian crisis."

Despite these positive results, many people still fear that the harmful effects of globalization outweigh its benefits.

### Fears of a More Divided World

Probably the greatest concern about globalization is the way it has widened the gulf between the haves and the have-nots. While global wealth has undoubtedly increased, it has become concentrated in fewer hands and fewer countries. The net worth of the 200 richest people on earth now exceeds the combined income of 40 percent of the people who live on the planet—some 2.4 billion people. And while wages continue to rise in wealthy countries, 80 impoverished countries have actually seen a *decline* in average income over the past ten years.

Another basic worry involves the environment. Economic globalization has been fueled by market forces that have much more interest in profits than in the protection of the planet. Agus Purnomo, head of the World Wide Fund for Nature in Indonesia, explains the dilemma: "We are in a constant race with development.... I'm worried

(Continued on page 6)

## Awake!®

**THIS JOURNAL IS PUBLISHED** for the enlightenment of the entire family. It shows how to cope with today's problems. It reports the news, tells about people in many lands, examines religion and science. But it does more. It probes beneath the surface and points to the real meaning behind current events, yet it always stays politically neutral and does not exalt one race above another. Most important, this magazine builds confidence in the Creator's promise of a peaceful and secure new world that is about to replace the present wicked, lawless system of things.

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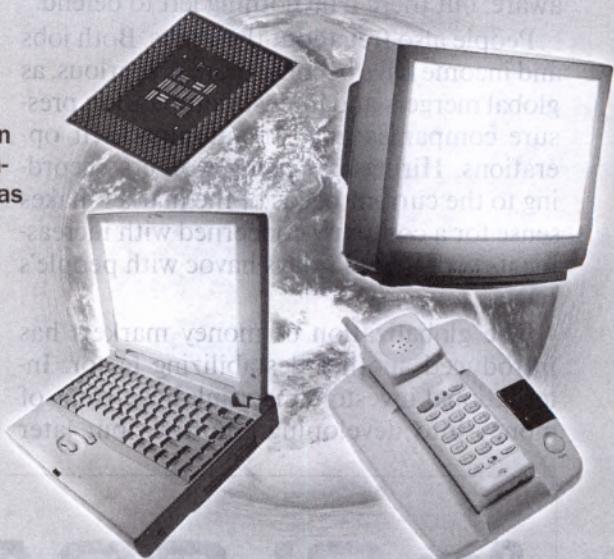
# THE TECHNOLOGY BEHIND GLOBALIZATION

Technology has revolutionized communication during the past decade. Access to people and information—practically anywhere in the world—has become quicker, cheaper, and easier.

**TELEVISION** Most people in the world now have access to a television, even if they don't own one. By 1995, there were 235 TV sets for every 1,000 people worldwide, almost double the number in 1980. Just a small satellite dish can enable people who live in remote areas to receive broadcasts from around the world. "Today, no country can ever truly cut itself off from the global media," points out Francis Fukuyama, a professor of political economy.

**INTERNET** Some 300,000 new users get connected to the Internet every week. In 1999 it was estimated that 700 million people were expected to come on line by the year 2001. "The result," explains author Thomas L. Friedman, "is that never before in the history of the world have so many people been able to learn about so many other people's lives, products and ideas."

**TELEPHONE** Fiber-optic cables and satellite networks have slashed telephone costs. The cost of a three-minute call from New York to London fell from \$245 in 1930 to \$.35 cents in 1999. Wireless networks have made the mobile phone as commonplace as the computer. By the end of the year 2002, there will



be an estimated one billion people using mobile phones, and many of these users will be able to use their phones to access the Internet.

**MICROCHIP** All the above resources, which are being upgraded constantly, depend on microchips. Over the past 30 years, the computing power of microchips has doubled every 18 months. Never before has so much information been stored in so little space.

**Semimonthly Languages:** Afrikaans, Arabic, Cebuano, Croatian, Czech,<sup>#</sup> Danish,<sup>#</sup> Dutch, English,<sup>#</sup> Estonian, Finnish,<sup>#</sup> French, German,<sup>#</sup> Greek, Hungarian, Iloko, Indonesian, Italian,<sup>#</sup> Japanese,<sup>#</sup> Korean,<sup>#</sup> Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish,<sup>#</sup> Swahili, Swedish,<sup>#</sup> Tagalog, Ukrainian

<sup>#</sup>Audiocassettes also available.

**Monthly Languages:** Albanian, Amharic, Bulgarian, Chichewa, Chinese, Chinese (Simplified), Ewe, Georgian, Hebrew, Hiligaynon, Igbo, Macedonian, Malagasy, Malayalam, Maltese, Myanmar, Nepali, Papiamento (Aruba), Papiamento (Curaçao), Sepedi, Sesotho, Shona, Sinhala, Tamil, Thai, Tsonga, Tswana, Turkish, Twi, Xhosa, Yoruba, Zulu

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**Would you welcome more information?** Write Jehovah's Witnesses at the appropriate address: **America, United States of:** Wallkill, NY 12589. **Australia:** Box 280, Ingleburn, NSW 1890. **Britain:** The Ridgeway, London NW7 1RN. **Canada:** Box 4100, Halton Hills (Georgetown), Ontario L7G 4Y4. **Ghana:** P. O. Box GP 760, Accra. **Jamaica:** P. O. Box 103, Old Harbour, St. Catherine. **New Zealand:** P. O. Box 75-142, Manurewa. **Nigeria:** P.M.B. 1090, Benin City 300001, Edo State. **South Africa:** Private Bag X2067, Krugersdorp, 1740. **Zambia:** Box 33459, Lusaka 10101. **Zimbabwe:** Private Bag WG-5001, Westgate.

(Continued from page 4)

that in a decade, we'll all be environmentally aware, but there'll be nothing left to defend."

People also fret about their jobs. Both jobs and income have become more precarious, as global mergers and intense competition pressure companies into streamlining their operations. Hiring and firing workers according to the current needs of the market makes sense for a company concerned with increasing its profit, but it plays havoc with people's lives.

The globalization of money markets has introduced another destabilizing factor. International investors may sink huge sums of money into developing countries but later

withdraw their sums suddenly when the economic outlook worsens. Such massive withdrawals can plunge one country after another into economic crisis. The monetary crisis in East Asia during 1998 caused 13 million people to lose their jobs. In Indonesia, even those workers who kept their jobs saw their real wages cut in half.

Understandably, then, globalization engenders fears as well as hopes. Do you have reason to fear globalization? Or can you expect it to make your life more prosperous? Has globalization given us reason to be optimistic about the future? Our following article will address these questions.

## Can GLOBALIZATION Really Solve Our Problems?

*"The global neighbourhood we have today is, like most neighbourhoods, far from ideal; it has many imperfections. Its residents are not all fairly treated; they do not have the same opportunities. Millions are so deprived that they do not even think they belong to a neighbourhood."—OUR GLOBAL NEIGHBOURHOOD.*

FATIMA, a resident of a large African city, considers herself fortunate. At least she has a refrigerator. But her family's home is just a metal shack erected alongside three marble tombs. Like half a million other residents, she lives in a huge cemetery. And even the cemetery is getting crowded. "Too many people moving in," she complains, "especially here in the tombs."

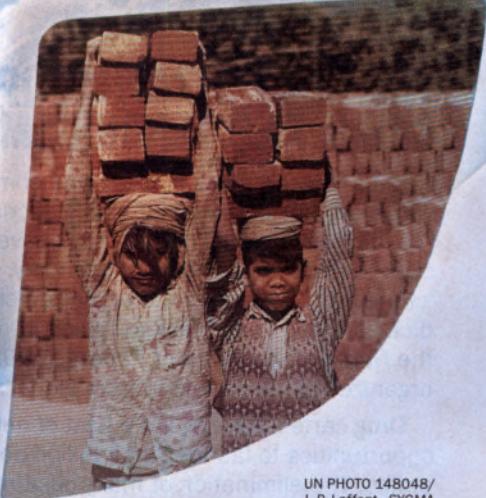
About ten miles from Fatima's home lies an exclusive new housing complex, complete with elegant restaurants and a 27-hole golf course. The cost of one round of golf is more than the per capita monthly wage in this African country.

Poverty has always plagued the city, but golf courses—a symbol of the elite—are both a novelty and an irritant. In our global neighborhood, luxury and penury coexist uneasily.

The Wadi Hadhramaut, which snakes through the arid land of Yemen in the Middle East, is an old caravan route dotted with ancient cities. At first glance it seems that time has stood still in this remote valley. But outward appearances can be deceptive. In the nearby city of Saywūn, the museum has enlisted the help of a university graduate to prepare a Web site listing all its treasures. Although the graduate is a local girl, she studied in Ohio, U.S.A. Nowadays, both



**Economic globalization has widened the gap between rich and poor**



UN PHOTO 148048/  
J. P. Laffont - SYGMA

people and ideas can move around the globe as never before.

A couple of thousand miles to the west, in the Sahara, a convoy of three trucks crawls south on an isolated road. Mashala, one of the drivers, explains that he is transporting televisions, video recorders, and satellite dishes. He himself keeps in touch with world events by watching American news broadcasts. In my town "we all have satellite dishes," he explains. Few places on earth escape the reach of the global media.

The constant worldwide flow of people, ideas, news, money, and technology has created a new global neighborhood that can bring benefits. Globalization helps propagate local culture in Yemen and enables Mashala to earn up to \$3,000 for a three-week trip. But the money doesn't filter down to everyone. Fatima and her neighbors watch a few people enjoy the benefits of globalization, while they stay stuck in poverty.

Although our global neighborhood is far from ideal, the process of global integration is probably irreversible. Will people turn off their TVs, throw away their mobile phones, destroy their computers, and stop traveling to other lands? Will nations try to isolate themselves completely from the rest of the world, politically and economically? It

seems most unlikely. Nobody wants to discard the benefits of globalization. But what about the accompanying problems? They are causing increasing concern, and they touch the lives of everyone. Let us consider briefly a few of globalization's more serious side effects.

### **The Widening Gap**

The distribution of global wealth has never been fair, but economic globalization has widened the chasm between rich and poor. True, it appears that some developing countries have benefited from their integration into the global economy. Experts claim that during the past ten years, the number of people below the poverty line in India has gone down from 39 percent to 26 percent and that Asia as a whole has seen a similar improvement. One study shows that by 1998, only 15 percent of the East Asian population lived on \$1 a day, compared with 27 percent ten years earlier. The global picture, however, is not so rosy.

In sub-Saharan Africa and some other less-developed regions, income has actually *decreased* in the past 30 years. "The international community . . . allows nearly 3 billion people—almost half of all humanity—to subsist on \$2 or less a day in a world of

(Continued on page 10)

# THE GLOBALIZATION OF CRIME AND TERRORISM

Unfortunately, tools of trade and commerce can easily be converted into tools of crime.

"As the multinational corporations have led the drive to globalize the world's economy, so the 'crime multinationals'—the organized crime syndicates—have been quick to exploit it," explains the *Human Development Report 1999*. How has organized crime benefited from globalization?

Drug cartels have found a host of new opportunities to launder their billion-dollar profits. The elimination of many customs controls and the increasing movement of people also make it much easier for the cartels to transport illegal drugs from one country or continent to another. Interestingly, during the 1990's cocaine production doubled and opium production tripled. International Mafia groups have also developed a lucrative business in prostitution. Every year, they ship some 500,000 women and girls to Western Europe for this purpose—the majority against their will.

Crime syndicates, like multinational corporations, have consolidated their power in recent years. Many have a global operation, and between them they gross an estimated \$1.5 trillion a year—more than the gross national product of France.\*

The Internet too has proved to be an ideal tool for dishonest computer specialists. In 1995 one hacker stole information said to be worth \$1 million as well as 20,000 private credit card numbers. "Stealing through the use of new technology is less risky and more profitable," explained José Antonio Soler, a Spanish banker.

Terrorists also use the tools of globalization. Thanks to global news coverage, the kidnapping of a few Western tourists in a remote corner of the planet can serve to give instant publicity to practically any political grievance.

\* "Gross national product" refers to the total market value of goods and services that a country produces in a year.



## MONEY SMUGGLING

In a shipment of toy bears



## COCAINE SMUGGLING

\$4,000,000 worth of cocaine found in a recreational vehicle seized at a border crossing



## BIOTERRORISM

Soldiers search for anthrax on Capitol Hill, Washington, D.C.



## BOMBINGS

A car bomb explodes in Israel



## GLOBAL SPREAD OF AIDS

The AIDS epidemic is so overwhelming in South Africa that some public hospitals are turning people away



## SPECIES INVASION

Brown tree snakes have almost exterminated the forest birds in Guam



## WATER HYACINTH

This plant blocks canals and riverbanks in some 50 countries

## UNWANTED "TRAVELERS"

Diseases as well as people can travel around the globe, and some of them are deadly. "The dramatic increases in worldwide movement of people, goods, and ideas is the driving force behind the globalization of disease," explains Professor Jonathan M. Mann, an expert on epidemics. "The world has rapidly become much more vulnerable to the eruption and, most critically, to the widespread and even global spread of both new and old infectious diseases."

Nothing symbolizes this new global vulnerability more dramatically than the AIDS pandemic, which is now killing about three million people every year. In some countries of Africa, health workers fear that the disease will eventually kill two thirds of all the young men and women. "Despite millennia of epidemics, war and famine, never before in history have death rates of this magnitude been seen among young adults," reports the Joint United Nations Programme on HIV/AIDS.

Microbes and viruses are not the only unwanted global "travelers." Animals, plants, and insects have escaped their normal habitat and invaded other continents. A species of poisonous snake from Australia is currently colonizing Pacific Islands, apparently by stowing away on aircraft. It has already exterminated practically all the forest birds of Guam. The water hyacinth from South America has spread to 50 tropical countries, where it blocks canals and destroys fish ponds. "Invading 'aliens' are costing the global economy possibly hundreds of billions of dollars every year as well as spreading diseases and causing massive ecological destruction," reports the International Herald Tribune.

Money and cocaine smuggling: James R. Tourtellotte and Todd Reeves/U.S. Customs Service; terrorism: AP Photo/Kenneth Lambert; burning bus: AP Photo/HO/Israeli Defense Forces; child: AP Photo/Themba Hadebe; snake: Photo by T. H. Fritts, USGS; water hyacinth: Staff CDFA, California Dept. of Food & Agriculture, Integrated Pest Control Branch

(Continued from page 7)

unprecedented wealth," points out Kofi Annan, UN secretary-general. One of the major causes of this huge social divide is financial self-interest. "The world over, private financial markets fail when it comes to the very poor," explains Larry Summers, former U.S. treasury secretary. "Mainstream banks do not seek out poor communities—because that's not where the money is."

The vast income divide between rich and poor segregates people and even countries from one another. Not long ago the fortune of the richest man in the United States surpassed the combined net worth of more than 100 million of his fellow Americans. Globalization has also favored the growth of rich multinational companies that have practically taken over the world market for certain products. In 1998, for example, just ten companies controlled 86 percent of the \$262-billion telecommunications business. The economic clout of these multinationals often exceeds that of governments and, as Amnesty International points out, "human rights and labour rights are not a priority on their agenda."

Human rights organizations are understandably worried about the concentration of the world's wealth in the hands of a privileged few. Would you like to live in a neighborhood where the richest 20 percent earn 74 times more than the poorest? And thanks to television, the impoverished 20 percent of mankind know perfectly well how their rich counterparts live, although they see little chance of improving their own lot.

Such gross unfairness in the global neighborhood clearly sows many seeds of unrest and frustration.

### **The Globalization of Culture**

Another area of concern involves clashes of culture and the spread of materialistic values. The interchange of ideas is an important feature of globalization, and nothing symbolizes this phenomenon more than the Internet. Unfortunately, the Internet is not merely used to spread beneficial information, culture, and commerce. Some Web sites promote pornography, racism, or gambling. A few even give specific instructions on how to make homemade bombs. As Thomas L. Friedman points out, "on the Internet, trouble is just a few mouse clicks away. You can wander into a virtual neo-Nazi beer hall or pornographer's library, . . . and no one is there to stop or direct you."

Television and films also have an enormous influence on how people think. The messages on the world's screens often come out of Hollywood, the world's principal factory of make-believe. The values that this vast entertainment industry reflects often promote materialism, violence, or immorality. They may be totally alien to the local culture of many countries of the world. Nevertheless, governments, educators, and parents invariably find it impossible to hold back the tide.

"We love U.S. culture," explained a resident of Havana, Cuba, to a North American visitor. "[We] know all your Hollywood

*The Internet is  
being used to  
promote terrorism*



stars." Western culture also promotes fast food and soft drinks. A Malaysian businessman observed: "Anything Western, especially American, people here love.... They want to eat it and be it." The rector of a Havana College sadly acknowledged: "Cuba is no longer an island. There are no islands anymore. There is only one world."

Invasive Western culture affects people's hopes and desires. "Keeping up with the Joneses" has shifted from striving to match the consumption of a next-door neighbour to pursuing the life styles of the rich and famous depicted in movies and television shows," noted the *Human Development Report 1998*. Obviously, the vast majority of mankind will never attain such a life-style.

#### **Is Globalization a Solution?**

Like many of mankind's projects, globalization has proved both useful and harmful.

It has brought economic advantages to some, and it has ushered in an era of global communications. Nevertheless, it favors the rich and the powerful over the poor and the needy. And both criminals and disease viruses have exploited the advantages of globalization more efficiently than governments.

—See boxes on pages 8 and 9.

To a large extent, globalization has magnified the problems that already existed in our imperfect world. Rather than offering a solution to the world's difficulties, it has become part of the problem. Social divisions have become greater, and frustration has mounted. Governments around the world struggle to harness the benefits of globalization while protecting their citizens against its excesses. Will they be successful? Could globalization with a human face be the answer? The following article will analyze these questions.

# **A GLOBALIZATION That Will Benefit You**

**"If globalization is to succeed, it must succeed for poor and rich alike.**

**It must deliver rights no less than riches. It must provide social justice and equity no less than economic prosperity and enhanced communication."**

**—KOFI ANNAN, SECRETARY-GENERAL OF THE UNITED NATIONS.**

**A**S Kofi Annan pointed out, a truly successful globalization would improve the life of every inhabitant of the global neighborhood. But what we have seen in recent years falls far short of that ideal. Human rights and social equity have lagged far behind technical and material progress.

The principal problem is that economic globalization is driven by the desire to

make money. The profit motive rarely takes into account the poor and the disadvantaged or the long-term needs of the planet. "An unregulated global economy dominated by corporations that recognize money as their only value is inherently unstable . . . and is impoverishing humanity in real terms," argues Dr. David C. Korten.

Will the governments of the world be able to regulate the global economy in such a way

that it provides social justice? That seems unlikely. So far, governments have found it difficult to solve any global problem—whether it be global crime, global warming, or global poverty. “Collective action is needed to safeguard global interests,” explains Annan, “but in today’s globalized world, the mechanisms available for global action are hardly more than embryonic.”

Global mechanisms for handling global problems are not the only requirement. The Commission on Global Governance\* argues that the world also needs ethical values. “Without a global ethic,” their report points out, “the frictions and tensions of living in the global neighbourhood will multiply;

\* This commission, composed of 28 prominent world leaders, prepared a lengthy report in 1995, entitled “Our Global Neighbourhood,” in which they outlined their proposals for improving world governance.

## CONNECTED BUT STILL DIVIDED

While technology may have made the world smaller, divisions remain entrenched. Television, mobile phones, and the Internet have proved useful for connecting people but not for uniting people. Economic integration and the end of superpower rivalry have reduced the number of wars between States, but brutal civil conflicts continue to kill and maim hundreds of thousands of people every year.

Why? Because hatred between rival ethnic, racial, and religious groups—the underlying cause of civil wars—shows no sign of abating. And global businesses and crime syndicates make sure that plenty of cheap weapons are available to keep the warring parties well armed. True unity can never be forged by electronics. Nor does a boom in the stock market promote social justice.

In some ways economic globalization can actually contribute to disunity. When a recession follows a boom, impoverished people can become easy prey to extremist politicians who exploit economic grievances for their own ends. What is the solution? “National and global governance have to be reinvented—with human development and equity at their core,” admits the *Human Development Report 1999*. That is precisely what God’s Kingdom will do.

without leadership, even the best-designed institutions and strategies will fail.”

What sort of global ethic did they recommend? “People should treat others as they would themselves wish to be treated,” the report stated. Jesus Christ, the greatest leader the world has ever known, taught this standard of behavior some two thousand years ago. (Matthew 7:12) But the principle is still as valid as ever. A globalization that hinged on that standard would undoubtedly be beneficial for everyone. Could that ever come about?

### A Global Solution of a Different Kind

The Bible foretells that in the near future, a global government will unite mankind on the basis of unselfishness rather than money or technology. It will be successful because it has the power and the mechanisms for taking global action in behalf of all mankind. Jesus Christ himself focused on this global government when he taught his followers to pray for ‘God’s Kingdom to come and for God’s will to be done on the earth.’—Matthew 6:10.

God’s Kingdom, a heavenly government in the hands of Jesus Christ, will exemplify a new global ethic, the same one that Jesus himself taught when on earth. Love of God and love of neighbor will be the guiding principles. (Matthew 22:37-39) Many prophecies in the Bible outline what this new government will do. Regarding its Ruler, Jesus Christ, the Bible promises: “He shall judge the poor with justice and defend the humble in the land with equity.” (Isaiah 11:4, *The New English Bible*) The rich and the powerful will not exploit the disadvantaged. Jesus will “feel sorry for the lowly one and the poor one . . . From oppression and from violence he will redeem their soul.”—Psalm 72:13, 14.



**The global Bible educational program of  
Jehovah's Witnesses has helped unite  
people of all backgrounds**

Environmental problems will be addressed promptly. Instead of creeping desertification, "the desert will rejoice, and flowers will bloom in the wastelands." (Isaiah 35:1, *Today's English Version*) Instead of food shortages, "there will come to be plenty of grain on the earth."—Psalm 72:16.

God's Kingdom unites people of all backgrounds. "In unity I shall set them, like a flock in the pen," God promises. 'I shall give to them the change to a pure language, in order for them all to serve me shoulder to shoulder.' (Micah 2:12; Zephaniah 3:9) This "pure language," which includes a common set of moral and religious values, is uniting people even now.

Thanks to worldwide travel facilities, Jehovah's Witnesses regularly hold large international conventions, which strengthen ties between different racial, national, and cultural groups. These conventions are living proof of unity that involves hearts and minds, rather than technology and commerce. (See the accompanying box.) A Spanish theologian who has attended such conventions wrote:

'I left feeling upbuilt, not only by the enlightening Scriptural talks but also by the unity that exists among these people, their high morals, and their fine behavior.'

Jehovah's Witnesses also take advantage of other features of globalization to facilitate their preaching of the good news about God's Kingdom. *Awake!*, for example, is translated into over 80 languages by many translators worldwide using computer systems and electronic mail. Such tools help Jehovah's Witnesses make their Bible educational program a truly global one. Clearly, the tools of globalization can be used to uplift as well as to tear down.

Likewise, instead of creating problems, as human globalization has, a global government installed by God will provide solutions. We have every reason to be confident in this heavenly administration. "I am making a new earth," God promises. "The events of the past will be completely forgotten. Be glad and rejoice forever in what I create." (Isaiah 65:17, 18, *TEV*) God's "new earth" will truly benefit people globally.



# The Exotic Guanabana

.....

BY AWAKE! WRITER IN MEXICO

**I**MAGINE the delicious flavor of strawberries, cinnamon, mangoes, and pineapples all rolled into one! That is how some describe the guanabana (pronounced gua-na'ba-na). If you do not live in the tropics, you have probably never tried it. Also called the soursop (*Annona muricata*), the guanabana is an oval green-skinned fruit with spiny protuberances and a succulent white flesh interspersed with shiny dark-brown seeds.

The soursop tree is an evergreen that cannot stand frost. Its flowers are pollinated by small insects, such as the ant and certain beetles. Having no nectar and no vivid colors, the flowers do not attract many pollinating insects.

Additionally, the flowers exhibit a dichogamous nature, that is, the pistils and stamens reach maturity at different times. So for commercial purposes, hand pollination is necessary. Otherwise, the tree will only yield between 12 and 20 fruits per season. Guanabanas are harvested close to complete maturity and ripen very fast. Hence, they are quite perishable.

Weighing up to ten pounds, the guanabana is a good source of niacin, riboflavin, and vitamin C and is approximately 12 percent sugar. However, for most people the fruit is a little too tart to be eaten without sweetening. The edible pulp is pureed and strained and used mainly in refreshing juice drinks and sherbets. Traditionally, a tea made from the leaves has been used for

dysentery, colds, and indigestion. In Mexico the tea has been used as an antispasmodic and as an astringent. The plant's roots are used as a vermifuge to destroy or expel parasitic worms, and its seeds are used as a parasite repellent or an insecticide.

If the guanabana is available in your area, you may want to try it. Your taste buds are in for a real treat!



## Guanabana Sherbet



**2 cups guanabana puree  
1 tablespoon lemon juice  
 $\frac{1}{8}$  cup sugar  
1 cup water  
1 cup light cream**

**1**

1. Puree guanabana pulp by putting it through a colander, forcing it through a sieve, or squeezing it through cheesecloth.
2. Combine sugar and water, and boil the mixture for five minutes. Cool to lukewarm.
3. Add puree, cream, and lemon juice.
4. Pour mixture into a shallow pan, cover, and freeze until almost firm. Beat vigorously. Return to freezer, and freeze until firm.



**2**



**3**



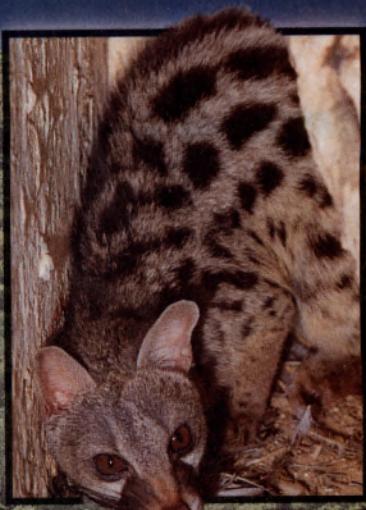
**4**



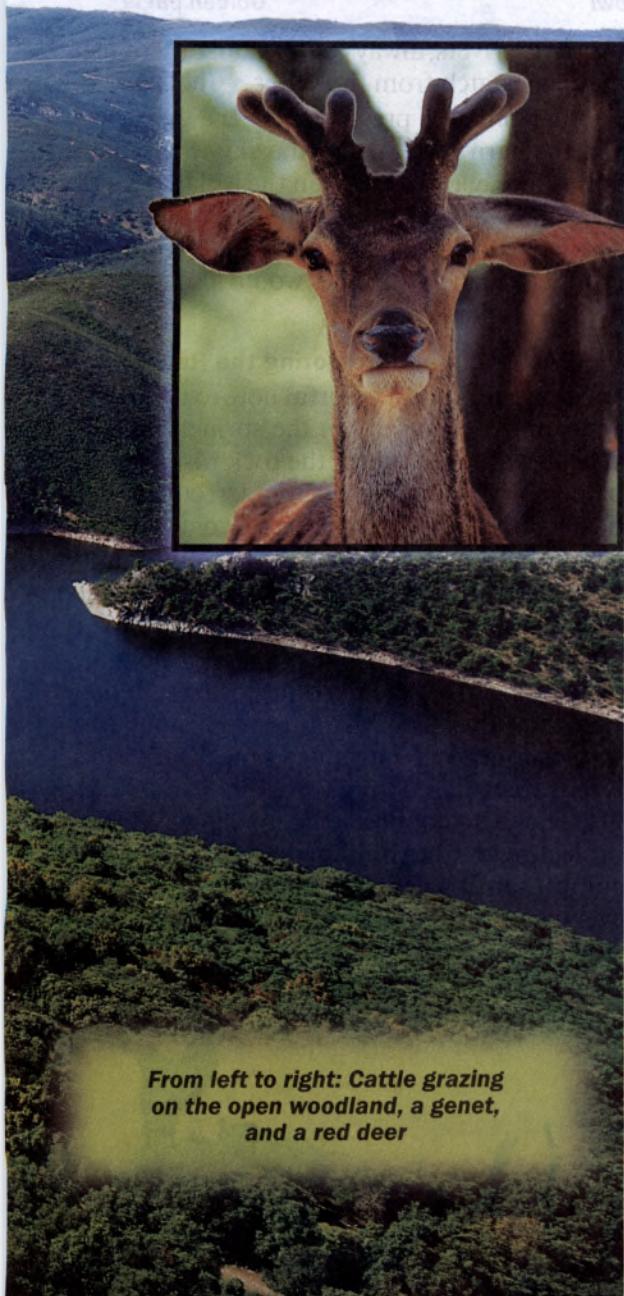


# A Unique Sanctuary of Mediterranean Wildlife

BY AWAKE! WRITER IN SPAIN



**F**OR thousands of years, the countries bordering the Mediterranean have cut down their forests, overgrazed their pastureland, and hunted some of the wild animals almost to the point of extinction. Few unspoiled areas now remain in the region. In one part of Spain, however, a combination of circumstances has enabled a small area to survive practically intact. Its name is Monfragüe, meaning "Rough Mountain."



**From left to right:** Cattle grazing on the open woodland, a genet, and a red deer

Nevertheless, the remoteness of this part of Spain would not in itself have sufficed to protect its habitat. Fortunately, the farmers who lived in the region surrounding Monfragüe practiced a method of animal husbandry that proved invaluable in preserving a precious remnant of the huge tracts of native forest that once carpeted the Mediterranean hills. The preserved woodland was known as the *dehesa*, or "wooded pasture."

#### An Ecological Farming Method

Centuries ago the farmers of Extremadura (the region of Spain where Monfragüe is situated) discovered that the forests of evergreen oak that covered the land could provide essential shade and sustenance for their flocks.\* So instead of felling all the trees to provide grazing land, they conserved sufficient oaks to create an open woodland. They also pruned the trees to encourage their branches to spread out. The shade of these venerable oak trees protected the grassy pastures beneath, and their bounteous harvest of acorns provided nutritious food for cattle and pigs. Since this *dehesa* preserved a significant part of the original tree cover, many native species of birds and animals could survive.

Two rivers, the Tagus and the Tiétar, cross the *dehesa*, carving out canyons and finally joining forces beneath the peak of Monfragüe. Eventually, in 1979, the rugged area that borders these two rivers and that conserved the original Mediterranean forest better than any other became a nature reserve. The park was established because Monfragüe is at present considered to be one of the best conserved refuges of the Mediterranean ecosystem.

#### Birds of the Bible

Although the park covers a relatively small area, it provides a haven for the genet, the red deer, the wild boar, and the elusive Spanish lynx, one of the most endangered mammals in

\* The main species of evergreen oak in Spain are the cork oak and the holm oak. Similar species of evergreen oak grew extensively in Palestine in Bible times.



**Black vulture**



**Eagle owl**



**Golden eagle**

▲ Fotos: Cortesía de GREFA

Europe. Since most of the animals are nocturnal, however, a daytime visitor is much more likely to spot the magnificent birds of prey that abound in the area. Most of these Mediterranean raptors are also typical of Bible lands.

In the middle of the 19th century, naturalist H. B. Tristram noticed that practically everywhere he traveled in Palestine, he spotted griffon vultures circling overhead. The same could be said of Monfragüe, where 400 pairs nest in the rocky cliffs overlooking the Tagus and Tiétar rivers. At the end of the day, dozens of vultures circle above their communal nests, speckling the evening sky with their huge silhouettes.\*

White storks, which build their nests on old buildings in many parts of Europe, still nest in oak trees in the Monfragüe area, where they thrive. (Psalm 104:17) Sharing the thermals with the storks are imperial and golden eagles, which patiently soar and glide, 'looking far into the distance' in their constant search for prey.—Job 39:27-29.

More agile and abundant than the eagles are the red kites, whose numbers swell during the summer months. Also, the sharp-sighted black kites constantly patrol

the park's rivers, always on the lookout for fish they can snatch from the water.—Job 28:7.

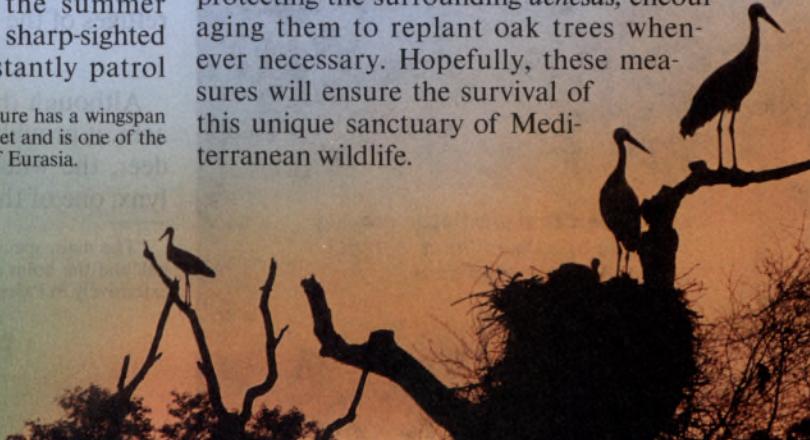
Other birds of prey, such as the eagle owl and the barn owl, take to the sky when night falls. The eagle owl nests on the isolated rocky crags of Monfragüe, a similar habitat to the desolate ruins of ancient Babylon, where the prophet Isaiah predicted it would also make its home.—Isaiah 13:21.

#### **Preserving and Restoring the Refuge**

Wildflowers add a colorful note to the park's appearance, especially in the springtime. The delicate white blooms of the rock rose, accompanied by tufts of purple lavender, cover practically all the slopes that are devoid of trees. And as summer approaches, the ubiquitous poppies add a splash of scarlet to the green pastureland.

Conserving this precious habitat is now the major concern of the park authorities. To that end, they are busily planting indigenous tree species to replace introduced pines and eucalyptus trees that do not favor the park's wildlife. They also cooperate with local farmers in protecting the surrounding *dehesas*, encouraging them to replant oak trees whenever necessary. Hopefully, these measures will ensure the survival of this unique sanctuary of Mediterranean wildlife.

\* The griffon vulture has a wingspan of up to nine feet and is one of the largest birds of Eurasia.





# Protect Your HEARING!

**"More than 120 million people in the world have a disabling hearing impairment."**

—World Health Organization.

**O**UR ability to hear is a gift to be treasured. As we age, though, our hearing progressively diminishes. Modern society, with the many and varied sounds and noises it generates, seems to have accelerated this process. A senior scientist at the Central Institute for the Deaf, in St. Louis, Missouri, U.S.A., noted: "About 75 percent of hearing loss in the typical American is caused not by the aging process alone but by what you've done to your ears throughout your lifetime."

Intense, brief exposure to loud sounds can be harmful to the sensitive structures in the inner ear. More often, though, hearing loss is a result of "the cumulative effect of noisy jobs, noisy hobbies, noisy recreational activities," said hearing specialist Dr. Margaret Cheeseman. What can you do to protect your hearing? To find the answer, it is helpful to know something about how your sense of hearing functions.

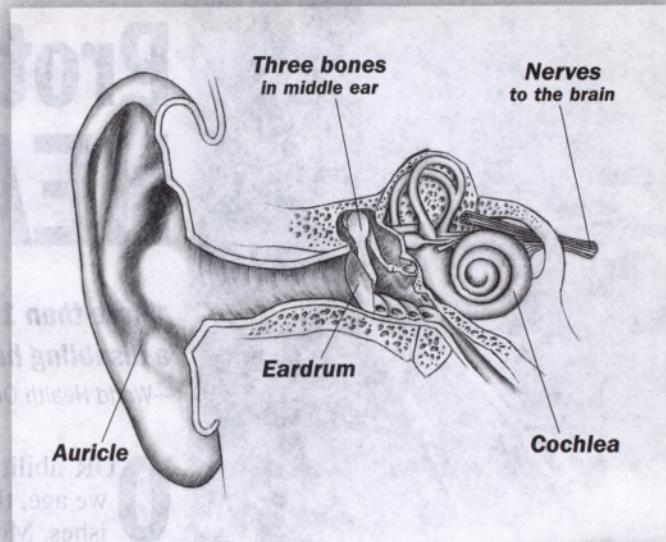
## The Sounds We Hear

Our living environment seems to be getting louder. Daily many are battered by sounds of varying intensities ranging from the noise of cars, buses, and trucks in the streets to the racket of power tools in the workplace.

Sometimes we add to the problem by turning up the volume. One popular way of listening to music is through headphones attached to a portable CD or cassette player. According to Marshall Chasin, cofounder of the Musicians' Clinics of Canada, surveys conducted in Canada and in the United States indicate that youths are increasingly suffering loss of hearing caused by the use of headphones with the volume turned up.

But what is too loud? Sound is characterized in three ways—by duration, by frequency, and by amplitude. Duration simply refers to the length of time a sound is heard. A sound's frequency, or pitch, is described in cycles per second, or hertz. The range of audible frequency for normal, healthy hearing is from 20 to 20,000 cycles per second.

A sound's amplitude, or strength, is measured in units called decibels (dB). Normal conversation has a sound level of approximately 60 decibels. Audiologists say that the longer you are exposed to anything louder than 85 decibels, the greater will be the eventual loss of hearing. The louder the sound, the faster the damage to hearing. A *Newsweek* magazine report noted: "Your ear can safely handle two hours with a power drill (100 dB), but not more than 30 minutes in a noisy video arcade (110 dB). Every 10-decibel increase on the sound scale represents 10 times more ear-battering noise." Tests confirm that sound becomes painful at approximately 120 decibels. Incredibly, some home stereo equipment



can produce sound at more than 140 decibels! —See the accompanying box.

To help you understand why loud sounds can damage your hearing, let us consider what happens when sound waves reach your ears.

#### How Our Hearing Functions

The shape of the fleshy part of the outer ear, called the auricle, or pinna, is designed to collect sound waves and direct them into the ear canal, where they soon reach the eardrum. At this point the sound waves cause the eardrum to vibrate, and the eardrum, in turn, causes the three bones in the middle ear to vibrate. Next, the vibrations are transmitted into the inner ear, a fluid-filled sac encased in bone. Here the vibrations move through the fluid in the cochlea, the snail-shaped hearing part of the inner ear that contains the hair cells. The fluid in the cochlea triggers the top portion of the hair cells to produce readable nerve impulses. These impulses are then transmitted to the brain, where they are decoded and interpreted as sound.

The limbic system helps the brain decide which sounds to pay attention to and which to dismiss. For instance, a mother may not consciously hear the normal sounds of a child at play, but she will respond instantly to a cry

#### Approximate Decibel Level of Some Common Sounds

- Breathing—10 decibels
- Whispering—20 decibels
- Conversation—60 decibels
- Rush-hour traffic—80 decibels
- Food blender—90 decibels
- Passing train—100 decibels
- Chain saw—110 decibels
- Passing jet plane—120 decibels
- Shotgun blast—140 decibels

## You May Be Losing Your Hearing if You

- Increase the volume on the radio or TV but others find it uncomfortably loud
- Continually ask others to repeat themselves
- Often frown, lean forward, and turn your head in order to hear the one speaking to you
- Have difficulty hearing at public gatherings or when there is noise in the background, such as at a social gathering or in a busy store
- Often depend on others to tell you what was said

of alarm. Hearing with two ears enables us to hear in stereo, which is very useful. It allows us to identify where the sounds are coming from. Yet, when a sound consists of speech, the brain can only understand one message at a time. "This is why," says the book *The Senses*, "when listening to someone while talking on the telephone, people cannot readily take in what the person next to them is saying."

### How Noise Damages Our Hearing

To visualize how loud sounds can damage our hearing, consider the following analogy. One occupational safety report compares the hair membranes in the inner ear to wheat in a field and the sound entering the ear to the wind. A gentle breeze, like a low level sound, will move the tops of the wheat, but the wheat is not damaged. Increased wind velocity, however, will increase the stress on the wheat stalk. A sudden, extremely high wind or continuous exposure to lower winds over a long period of time may damage the stalk beyond repair and cause it to die.

It is similar with noise and the tiny, delicate hair cells in the inner ear. An instant loud blast can tear the tissues of the inner ear and leave scars that cause permanent hearing loss. In addition, prolonged dangerous noise

levels can permanently damage the delicate hair cells. Once damaged, they cannot regenerate. The accompanying result may be tinnitus—a buzzing, ringing, or roaring in the ears or head.

### Protect and Prolong Your Hearing

Although heredity or some unforeseen accident may result in hearing loss, we can take precautions to protect and prolong our precious sense of hearing. It is good to learn in advance about potential hearing hazards. As one audiologist said, "waiting for a problem to arise before taking action is like applying the suntan lotion after you've been burned."

Often it is a matter of *how* we listen and not so much what we listen to. For example, if you use stereo headphones, you may want to set the volume at a level low enough for you to be able to hear sounds around you. If your car or home stereo is set loud enough to drown out ordinary conversation, this may well be a signal that it is also loud enough to damage your hearing. Experts caution that two to three hours of exposure to 90 decibels can damage your ears. Earplugs or other hearing-protection devices are recommended whenever you are in a noisy environment.

Parents do well to remember that children are more susceptible to hearing damage than are adults. Keep in mind the potential danger of noisy playthings. Why, a toy rattle can reach 110 decibels!

Our ears are delicate, small, and wonderful mechanisms. With them we can hear all the varied and beautiful sounds of the world around us. Surely, this precious gift of hearing deserves to be protected.

### In Our Next Issue

- Can Science and Religion Be Reconciled?
- Salt—A Precious Commodity
- Should Christians Preach to Others?

# THE MIRACLE THAT IS THE OSTRICH EGG

BY AWAKE! WRITER IN SOUTH AFRICA

**MOTIONLESS** in the incubator, the ostrich egg betrays nothing of what is happening inside or the dramatic display about to begin. Here on the ostrich farm, however, we have an opportunity to learn about the fascinating development of an ostrich, beginning with egg laying.

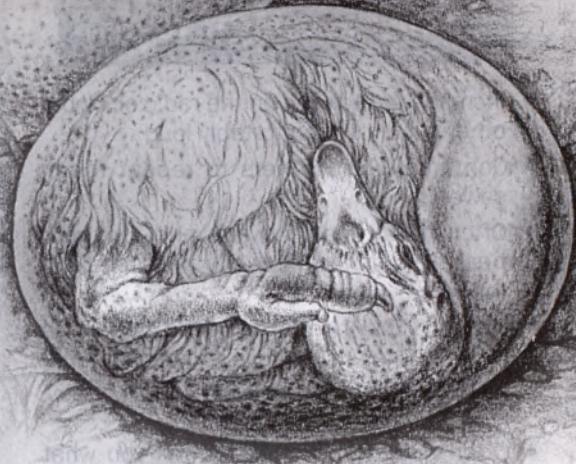
## Pampering the Eggs

Mother ostrich lays her ivory-colored eggs, each weighing up to three pounds, in a rudimentary nest in the sand.\* Then, every day, workers transfer newly laid eggs to the farm's incubators, which will be their home for about six weeks.

This is a time of pampering for the incubating eggs. They are kept warm and cozy at about 99 degrees Fahrenheit—an ideal temperature for the new chicks to develop inside the shells. To prevent the yolk or embryo from settling at the bottom of the egg and sticking to the shell membrane, the farmer keeps the eggs in special trays in which they are turned automatically, or he has the eggs turned every day by hand. This imitates the way ostrich parents regularly turn the eggs in their sandy nursery in the veld.

## A Peek Inside

How, though, can we know what is happening inside the eggshell? Gently picking up one of the eggs, the farmer places it in a hole in the top of a box that has a bright light bulb inside it. This procedure, known as candling, gives the farmer a shad-



owy glimpse of the remarkable developments inside the egg. Periodically, he candles the eggs to check on the progress of the life inside. If a few candlings show that the center of an egg remains fluid, it is evidently infertile and is not put back into the incubator.

During the 39 days that the ostrich egg spends in the incubator, miraculous growth takes place within the confines of the porcelainlike shell. At the same time, an air sac forms, which eventually takes up about one third of the available area inside the egg.\* The unhatched chicks get quite cramped inside their shells and position themselves for their imminent escape. First, though, a crucial process has to take place—their yolk sac has to begin moving through their umbilical cord and navel into their tiny abdomen. This is vital because the yolk sac contains the nutrients and energy that they will shortly need as they make their break into the outside world.

## Breaking Out of Their Shells

At last, the big day arrives, and we are here to see it. First, the little chicks have to break through the membrane into the air sac before they can get at the shell itself. Unlike other hatchlings that have an egg tooth to break their shell, ostriches have a protective layer that helps to shield the tip of their soft beak. Holding its shielded beak against the inside of the shell, the chick pushes the back of

\* For more details on the ostrich, please see the article "Fleet-Footed, Flightless, and Fascinating—The Ostrich" in Awake! of July 22, 1999, pages 16-18.

\* The ostrich egg "is pitted with pores which allow the passage of gases into the egg. An air space is formed between the two shell membranes at the thick end of the egg, on account of evaporation after the egg is laid."—Ostrich Farming in the Little Karoo.

its neck against the membrane that separates it from the adjacent air sac. After much pushing and rubbing, this membrane eventually ruptures. Known as pipping, this enables the chick to occupy all the area inside the shell.—See diagram A.

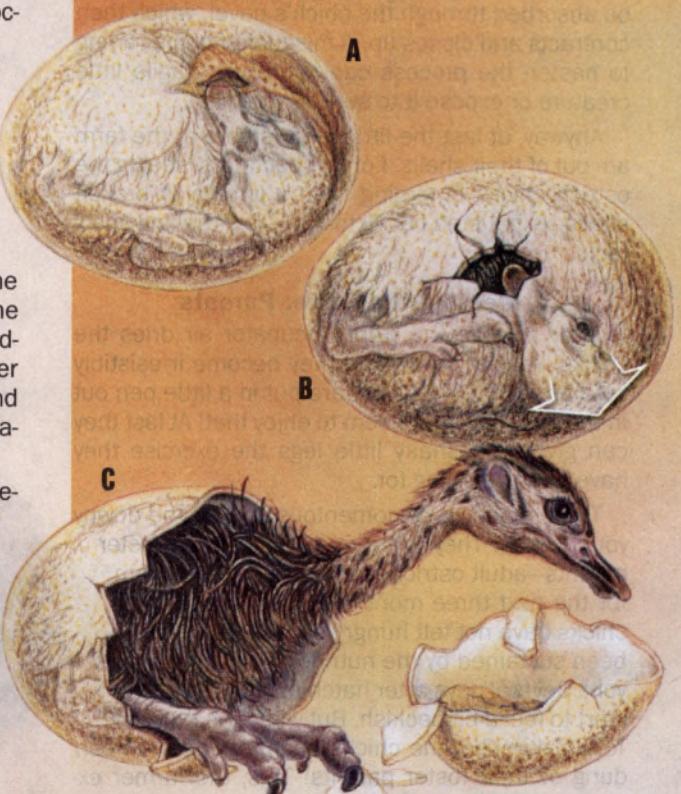
The chick's tiny lungs finally gasp their first breath of air! Its little lungs are now functioning. However, all the exertion makes it unbearably stuffy in the cramped confines of the egg. So the chick cannot give up now—it has to keep struggling and break through the shell itself. With all its might, the chick throws its head back repeatedly, hitting the tip of its beak against the inside of the shell. Suddenly, the exhausted little chick sees a glimmer of light as a tiny crack appears in the shell—and with it, the chick senses real fresh air!—See diagram B.

After a much-needed rest, the hatchling regains sufficient strength to continue cracking the fractured shell, making good use of its right foot and its tiny shielded beak. Then, heaving the cracked parts of the shell apart like a diminutive Goliath, the chick tries to sit up, blinking at the world outside with as much dignity and aplomb as a newly hatched, wobbly ostrich can summon.—See diagram C.

#### **The great day—chicks break out of their shells!**



## **THE HATCHING PROCESS**



Why does the farmer not help the little chick out of its shattered shell? This is for the hatchling's own sake. It takes some time for the egg yolk to be absorbed through the chick's navel, which then contracts and closes up. A misguided helper trying to hasten the process can injure the fragile little creature or expose it to serious infection.

Anyway, at last the little fellows here at the farm are out of their shells. For us spectators, seeing the ostrich chicks emerging from a jumble of broken shells—exhausted but victorious—is a thrilling spectacle.

### Meeting the Foster Parents

After a while the warm incubator air dries the chicks' velvety down, and they become irresistibly cute and fluffy. Then they are put in a little pen out in the sun. How they seem to enjoy that! At last they can give their shaky little legs the exercise they have been yearning for.

The next day is a momentous one for the downy young birds. They are introduced to their foster parents—adult ostriches that will care for them for the next three months. Until now the little chicks have not felt hungry because they have been sustained by the nutrition from their egg yolk. Several days after hatching, however, they start to feel a bit peckish. But what can they eat? To our surprise, the chicks begin eating the fresh dung of their foster parents! This, the farmer explains, may help to boost their immature immune system.

Just look at the little tots frantically trying to keep up with the gigantic strides of their foster parents! It certainly takes a lot of effort. But ostrich chicks grow incredibly fast—an astounding 12 inches a month. So, amazingly, within just one month, they are able to keep up with the far-bigger adults.

When the young adolescents are six months old, they are fully grown and stand nearly eight feet tall. It is hard to believe that just over seven months earlier, these lanky creatures—all neck and legs—were just motionless eggs in an ostrich-farm incubator.



# Young People Ask . . .

## How Can I Find a Good Roommate?

***"Without roommates, there's no way I could have served as a full-time evangelizer and paid rent and utilities."—Lynn.\****

**W**HEN young ones leave home, they are often shocked to find out just how much it costs to live in the 'real world.' For many, a way to cope with the high cost of living is to share expenses with one or more roommates.

But as a previous article in this series pointed out, rooming with someone—especially a perfect stranger—can be a real challenge.<sup>#</sup> This is true even among young Christians who are rooming together in order to serve as full-time evangelizers. Whatever your particular situation, if you are thinking of rooming with someone, it only makes sense for you to use "practical wisdom" in choosing that person.<sup>△</sup>  
—Proverbs 3:21.

### The Danger of Bad Association

Many young adults turn to bulletin boards, classified ads in newspapers, and the Internet to find potential roommates. But for young Christians, such sources have serious pitfalls. They will likely lead to your meeting individ-

\* Some of the names have been changed.

<sup>#</sup> See the article "Why Is My Roommate So Hard to Live With?" appearing in our issue of April 22, 2002.

<sup>△</sup> In view of the fact that many today live together for immoral purposes, we should stress that this article discusses roommates of the same sex who live together for reasons of economy and convenience.



uals who do not share your faith, morals, or standards. Is it narrow-minded or antisocial to want to room only with someone of the same faith? No, it is the course of wisdom. The Bible itself warns: "Bad associations spoil useful habits."—1 Corinthians 15:33.

Consider a young woman named Lee. She was not yet a baptized Christian when she began living in a university dormitory. "It was a dangerous environment," she recalls. "Some of the girls would come home and find their roommate having sex." Living there soon had a negative impact on Lee's spirituality. "I missed most of my Christian meetings," she admits. Not surprisingly, her conduct steadily deteriorated. "One day, I found myself cursing, and one of the girls said: 'Does Jehovah approve of that?'" How humiliating! Fortunately, Lee got out of that unwholesome environment and began to make spiritual advancement. But her experience illustrates the danger of living with people who do not respect your standards.

### Finding Suitable Roommates

Where, then, might you look? Begin with your own local congregation of Jehovah's Witnesses. Interestingly, those who are full-time evangelizers often meet other spiritually-minded youths at various schools and meetings

**There are dangers in rooming  
with individuals who do not  
adhere to Bible morals**



that are held especially for full-time preachers.\* Parents, local congregation elders, traveling overseers, and others can also be helpful; they might know of some youths who would make suitable roommates.

Word of mouth can also be a powerful tool. The more people you let know of your need, the more likely you are to get results. (Ecclesiastes 11:6) Above all, ask Jehovah for help in finding a roommate, and look to him to bless your efforts.—1 John 5:14, 15.

#### **Checking Things Out**

Having found a potential roommate, you may be eager to get together soon. But it is wise to do some checking first. Is that person “well reported on by the brothers” in his or her congregation? (Acts 16:1, 2) Perhaps you and your parents can speak direct-

ly with spiritually qualified individuals who know him or her. You might ask: ‘What reputation does this one have? Is this person stable emotionally and spiritually? Does he or she share in preaching to others and in commenting at meetings? Is this person known for upright conduct?’

Remember, “he that is walking with wise persons will become wise.”

(Proverbs 13:20) “My roommate is very spiritually-minded,” says David. “That helps keep me going spiritually.” Renee, who has had a number of roommates, similarly says: “Some of my roommates would suggest that we read a chapter of the Bible together every night. Since my folks weren’t Witnesses, we never had a family Bible study. So being able to have ‘family study’ with my roommates was just awesome for me!” Yes, having a roommate who shares your love of spiritual things can be a real blessing.

#### **Talking Things Out**

Next, get together in person and discuss matters. Such conversations can help you

\* Full-time evangelizers have the privilege of attending Pioneer Service School. Meetings with full-time evangelizers are also held in conjunction with yearly circuit assemblies.

**Before agreeing to room with  
someone, get together and  
discuss important issues**



determine if your personalities are compatible. Interestingly, a study reported on in the journal *Communication Research Reports* revealed that roommates who are similar in their communication traits "reported the highest roommate satisfaction and liking." So if you are the open, sociable, expressive type, you may run into problems rooming with someone who is reserved, quiet, or inclined to be a loner.

While you don't want to turn your discussion into something akin to a police interrogation, it may be helpful to discuss the immediate goals and plans of a prospective roommate. Is he or she pursuing spiritual advancement or perhaps simply interested in escaping a tense situation at home? Lynn points to another problem that can arise: "I had a roommate who was dating, and her boyfriend was there all the time, staying till late at night." Lynn found their displays of affection to be inappropriate and disturbing. Such problems can sometimes be avoided, though, if some ground rules are worked out in advance. For example, says Renee: "We had a rule that boys could not stay past a certain time." It would also be good for both roommates to agree never to be alone in the room or apartment with one of the opposite sex.

Also worthwhile to discuss may be such things as hobbies, preferences, and tastes in music. "I'd like to room with somebody who likes the same kind of things that I do, who has a similar personality, who likes to do the same things," says Mark. Of course, having different tastes doesn't necessarily rule out rooming together. The real issue is, How flexible are both of you? Are you willing to tolerate differences and make adjustments to accommodate each other?

Lee suggests: "You should also ask what the other person expects out of the arrangement. Some people expect you to be their best friend and best buddy. But that's not what I'm interested in." David likewise says: "I like a roommate with whom I can do things but who

doesn't feel he always has to tag along whenever I want to do things with other people." Along similar lines, find out if the person is interested in being your partner in the evangelizing work or if he or she has something else in mind, such as serving in a foreign-language congregation.

Finally, make sure you don't ignore such issues as cooking (do either of you know how?), the sharing of household chores, the use of personal appliances, closet space, furniture, storage space, and pets. Talking such things out can prevent misunderstandings and hurt feelings. Says Proverbs 20:18: "By counsel plans themselves are firmly established."

#### **"Decently and by Arrangement"**

Another helpful principle is found at Luke 14:28, where it says: "Calculate the expense." Yes, try to figure out what your living expenses will be. How much will have to go for rent? Food? Utilities? Will you share a telephone? If so, how will you split the bill? "I would definitely make sure that a girl can handle her share of the expenses before taking her as a roommate," says Lynn. The on-line magazine *The Next Step* rightly observes: "Roommates who don't kick in for rent or food . . . or incur high utility bills give you stress that no one needs."

"Sometimes the issue is not how much," says Renee, "but when!" She explains: "Our rent is due on the third of the month. But sometimes a roommate will take off for the weekend before she has paid her share, and I have to apologize to our landlord." Clearly, it's wise to do everything "decently and by arrangement" and not leave important matters to chance. (1 Corinthians 14:40) Often, it is wise to put agreements in writing.

Being careful and prudent increases the likelihood of your finding a roommate who will be a blessing to you and not a source of distress. However, what if problems and personality conflicts develop? A future article will discuss these situations.

# Watching the World

## Mapping the Ocean Floor

Scientists at the Bedford Institute of Oceanography in Nova Scotia are taking the lead in adapting existing technology in order to map the ocean floor, reports Canada's *Financial Post*. Incorporating multibeam sound waves, the technology enables scientists to create a three-dimensional image of the seabed. In the final stage, "remote video cameras are sent to the ocean floor and physical samples are taken." According to the report, "the benefits of seabed mapping are potentially huge." Stocks of bottom-dwelling species can be "safely fished and managed without disturbing other areas of the ocean floor. Telecommunications companies can also determine the safest and most effective path for laying underwater cable. Oil companies will be able to position rigs in safe and productive areas." Such mapping may also make possible the extraction of sand and gravel, found in abundance on the seabed. This "may be cheaper and safer in some cases" than quarrying mountainsides, says the *Post*.

## Understanding Mental Illness

"One in four people in the world will be affected by mental or neurological disorders at some point in their lives," reports the World Health Organization (WHO). Although many mental illnesses can be treated, almost two thirds of sufferers never seek professional help. "Mental illness is not a personal failure," says Dr. Gro Harlem Brundtland, director general of WHO. "In fact, if there is failure, it is to be found in the way we

## Passive Smoking Risks

"Just 30 minutes of exposure to second-hand cigarette smoke can damage the heart of a healthy non-smoker," says Canada's *Globe and Mail* in a report on a recent study in Japan. Using new ultrasound technology, researchers at Osaka City University were able to measure directly the adverse effects of secondhand smoke on endothelial cells that line the heart cavities and blood vessels. When healthy, these cells promote good blood circulation by helping to prevent plaque from building up on blood vessel walls and blood clots from forming. The researchers found that blood flow in the hearts of nonsmokers "was about 20 per cent better than that of smokers. But after exposure to second-hand smoke for only 30 minutes," their blood flow fell to the smokers' level. According to researcher Dr. Ryo Otsuka, "this provides direct evidence of a harmful effect of passive smoking on the coronary circulation in non-smokers."



have responded to people with mental and brain disorders." She adds: "I hope this report will dispel long-held doubts and dogma and mark the beginning of a new public health era in the field of mental health." According to present health trends, "depressive disorders . . . are expected to rank second by 2020, behind ischaemic heart disease but ahead of all other diseases," says WHO. With proper treatment, however, sufferers "can live productive lives and be a vital part of their communities."

## "Incense Could Be Bad for Your Health"

"The sweet smell of incense could be bad for your health," reports *New Scientist* magazine.

"Burning incense, a popular meditative and medicinal aid often used by Buddhists, Hindus and Christians in their homes and places of worship, exposes people to dangerous levels of smoke laden with cancer-causing chemicals." A team of investigators led by Ta Chang Lin of the National Cheng Kung University in Tainan, Taiwan, "collected air samples from inside and outside a temple in Tainan City and compared them to samples at a traffic intersection," says the report. "Total levels of PAHs [polycyclic aromatic hydrocarbons] inside the temple were 19 times higher than outside and slightly higher than at the intersection." According to *New Scientist*, one

of these compounds, "benzopyrene, which is thought to cause lung cancer in smokers," was monitored at levels that were "up to 45 times higher than in homes where residents smoked tobacco."

#### **Modern Marble Restoration**

"Scientists have discovered a revolutionary technique that allows them to grow marble from bacteria in the space of a few days," states *The Times* of London. Minute calcinogenic bacteria, found naturally in soil, are colonized in the laboratory and grown in a liquid medium containing pectin. When their mineral food supply runs out, the bacteria die and produce pure calcium carbonate—marble—in solution. This solution, when sprayed onto sculptures and other marble surfaces that have deteriorated because of age or exposure to the elements, gives a fine film that penetrates the surface and holds the stone together. John Larson, head of

sculpture conservation at the National Museums and Galleries on Merseyside, England, says that with high-quality marble now in short supply, the new technique has the advantage of being quick and of producing large quantities of solution very cheaply with no damaging side effects.

#### **Theft in the Name of God**

"I've been a securities regulator for 20 years, and I've seen more money stolen in the name of God than in any other way," said Deborah Bortner, president of the North American Securities Administrators Association. "When you invest you shouldn't let your guard down merely because someone is appealing to your religion or your faith." According to the magazine *Christian Century*, "in the past three years, securities regulators in 27 states have taken action against hundreds of individuals and companies that used spiritual or religious be-

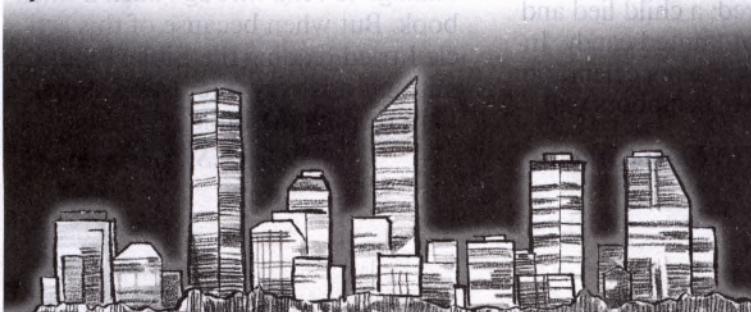
liefs to gain the trust of investors. . . . In a notorious case spanning [more than five years]," a Protestant foundation "raised more than \$590 million from more than 13,000 investors nationwide. The foundation was shut down in 1999 by state regulators and three of its officials pleaded guilty to fraud charges." Three other cases "accounted for a total of \$1.5 billion in losses," reports *Christian Century*.

#### **Global Warming Accelerates Disasters**

"After reporting a sharp increase in the late 1990s in the number of weather-induced disasters," the Red Cross feels that "international aid will not be able to keep up with the impact of global warming," says Britain's *Guardian Weekly*. "In its annual World Disasters Report, the International Federation of Red Cross and Red Crescent Societies says that floods, storms, landslides and droughts, which numbered about 200 a year before 1996, rose steadily to 392 in 2000." Fearing an even more spectacular rise in natural disasters, Roger Bracke, the federation's head of disaster relief operations, stated: "There is a natural limit somewhere to what humanitarian assistance can do; we are afraid that there will be a point where we can no longer provide assistance." According to the *Guardian*, "floods accounted for more than two-thirds of the [211 million] people a year affected on average by natural disasters over the past decade. Famine caused by drought affected nearly a fifth, and accounted for most deaths: about 42% of all those caused by natural disasters."

#### **A New Light-Pollution Atlas**

"The Milky Way has vanished," says a report in the journal *Science*, "not because of some cosmic upheaval, but because the bright lights of our sprawling cities obscure the stars of our galaxy from the view of most Europeans and Americans. This flood of artificial light grieves astronomers because it can interfere with their observations." In order to help frustrated stargazers, scientists in Italy and the United States have compiled a new atlas that charts global light pollution. Unlike previous maps that simply showed the location of the "white lights dotting continents at night," the new atlas, accessible on the Internet, "includes continental maps and a few more detailed ones, for example, showing star visibility from different parts of Europe," says *Science*.



# From Our Readers

**Halloween** With reference to your article "Popular Celebrations—Harmless Fun?" (October 8, 2001), I would like to clarify something. You refer to "Guy Fawkes Night," also popularly known as bonfire night

in Britain. Guy Fawkes Night is certainly a festival that Christians should avoid. It is a political festival, glorifying the execution of a man. But whereas the date of this festival (November 5) is close to Halloween and there is some overlap between bonfire night and Halloween, bonfire night is not a part of the spiritistic festival of Halloween.

**P. B., Britain**

*"Awake!" responds: Halloween was chosen as an example of a popular custom with an unsavory origin. The Lantern Festival in Taiwan and Guy Fawkes Night were cited as celebrations that "resemble" Halloween in certain respects. However, we did not mean to imply that either of these celebrations actually is a part of Halloween or that they share a similar origin. Even so, in view of their similarity to Halloween—a celebration that clearly has spiritistic overtones—readers are wise to consider the origins of these festivals in making a decision as to whether or not to share in them.*

Thank you for showing how Halloween has a connection with the occult. People view it as harmless and fun, but some have got into serious trouble because of it. Children who roam around at night can injure themselves or be given tainted candy. One girl in my neighborhood had to be taken to the hospital. Some teenagers feel that Halloween is an occasion to roam the streets and vandalize people's homes. One well-meaning householder who handed out treats found that her generosity backfired; a child lied and falsely accused her of handing out tainted candy. In spite of all of this, Halloween is still a big celebration in my neighborhood. I hope all my neighbors will read your excellent article.

**G. H., United States**

## Awake!

### Popular Celebrations



Are There Hidden Dangers?

**Toys** Thank you for the item in the "Watching the World" section entitled "Too Many Toys." (October 8, 2001) I have a 15-month-old daughter who had four boxes of toys in her room. Everything would be scattered around, and she could never decide what to play with. When my father pointed out this item in *Awake!* I read it immediately and reduced the number of her toys to half a box. Now my daughter again takes delight in playing with her toys.

**P. G., Germany**

**Leif Eriksson** I want to thank you for the article "Leif Eriksson—Discoverer of America?" (September 22, 2001) We are studying about Columbus in our history lessons. When my teacher told us that Columbus discovered America, I raised my hand and said I had read that Leif Eriksson may have discovered America 500 years earlier. I did some further research, printing out other *Awake!* articles about Columbus. My teacher read through them and was impressed at everything I had found.

**M. D., Germany**

**Bible Reading** Thank you for the article "Young People Ask . . . How Can I Make Bible Reading More Enjoyable?" (August 22, 2001) I always thought that reading the Bible was boring and that I would never manage to read through such a thick book. But when because of this article I tried reading the Bible, I found out that it is very interesting. Now I am reading the Bible regularly.

**M. S., Germany**

# Waste-Disposal Experts of the Insect World

**J**UST over 150 years ago, humans began to develop elaborate sewage and waste-disposal systems. However, there already was an expert in garbage disposal—a little ant found in tropical America.

A typical million-strong community of leaf-cutting ants lives in a large underground nest. Various members of the work force have different assignments. Some ants collect leaf fragments, which another group chew into a pulp. The gardener ants use the pulp to cultivate edible fungus inside chambers in the nest. They also weed out anything that could spread infection, such as pest fungi, dead or dying ants, and decaying material. But how do the ants dispose of their garbage?

British scientists at the University of Sheffield have found the answer, reports *The Independent* newspaper. Close to the garden chambers are larger chambers where the waste is

stored. Ants that work with the garbage spend their lives there, turning the waste over to aid decomposition, which in turn destroys disease-causing bacteria. The gardener ants never enter the garbage chambers. They bring the waste into a tunnel, and the garbage workers collect it. This effective waste management system prevents any risk of contamination and protects the colony's health.

Jehovah God not only created insects with instinctive wisdom but also gave the Israelites practical health guidelines over 3,500 years ago. The application of these laws would prevent contamination of food and water supplies, stop the spread of infectious diseases, and ensure safe disposal of sewage. How much suffering and death could be avoided by following such principles!—Leviticus 11:32-38; Numbers 19:11, 12; Deuteronomy 23:9-14.



# "The Scene of This World Is Changing"

THESE ARE TUMULTUOUS TIMES. World-shaking events seem to follow one after another at a breathtaking pace. Do you ever find yourself feeling overwhelmed and bewildered by it all—that everything around you is changing too fast?

The Bible contains this astute observation about human affairs: "The scene of this world is changing." (1 Corinthians 7:31) The apostle Paul, who wrote those words, was comparing world events to the changing scenes on the stage of a theater. Throughout history, world leaders and trendsetters have come and gone on the world stage, the new replacing the old, again and again. But in

our day—especially since the pivotal year 1914—the process seems to have accelerated.

Did you know, though, that these world troubles—even the most recent ones—also mean good news for mankind? Yes, they actually constitute proof that the world scene will soon change for the better. The Bible long ago foretold the severe distress of our times. It also explains that all such tumult is only a prelude to the greatest change ever to sweep human society. This coming upheaval, frightening though it may sound, is really the best of news for good-hearted people every-

where. The scene of this world will change to one of peace and happiness for the human family.

Would you like to know more about these changes and how the Bible explains them? You are cordially invited to attend the public discourse entitled "The Scene of This World Is Changing," at the district conventions of Jehovah's Witnesses beginning this month. The conventions will be held at hundreds of locations around the world. To find out about the convention nearest you, please contact Jehovah's Witnesses in your area or consult the February 15, 2002, issue of the companion to this journal, *The Watchtower*.

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AP Photo/Lionel Cironneau ▶  
▼ USAF photo

An atom bomb devastates Hiroshima, 1945



*The Berlin Wall comes down, 1989*



Terrorists attack the World Trade Center in New York, 2001

