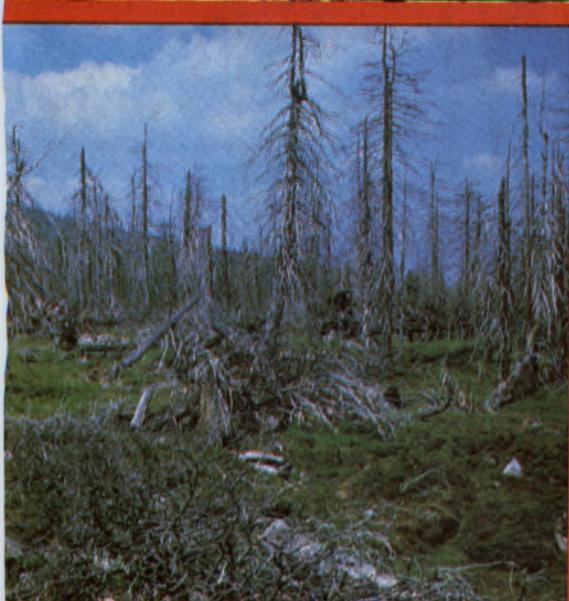
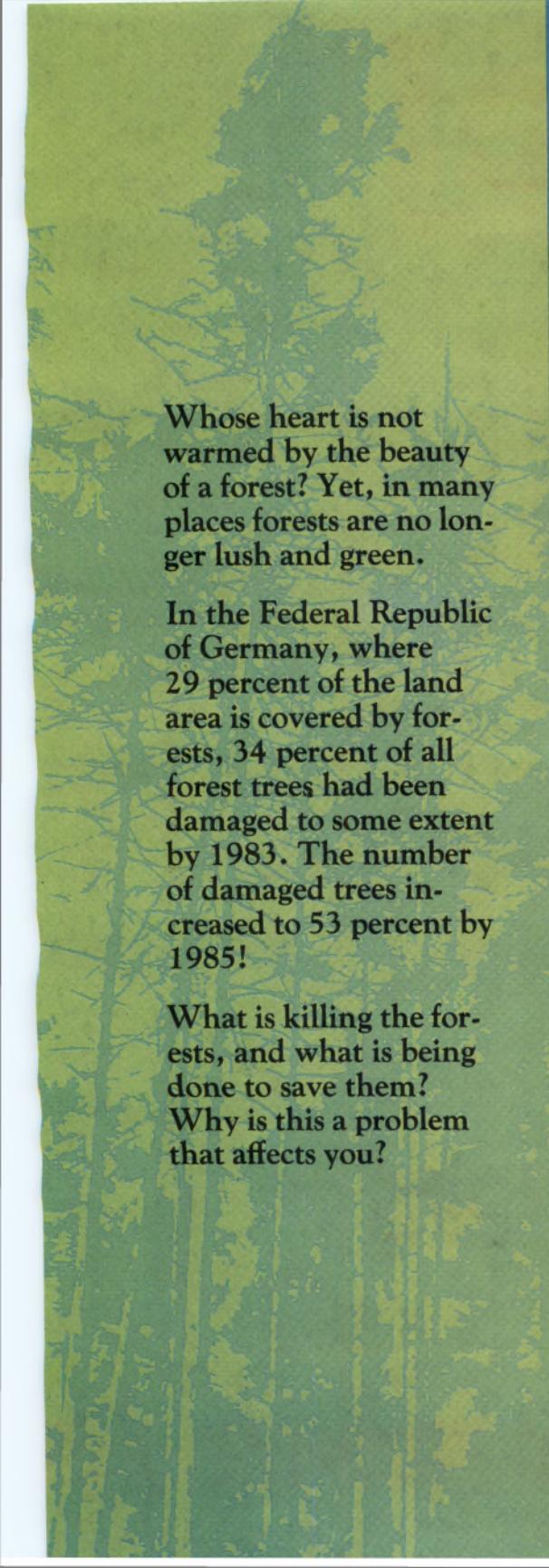


Awake!

June 22, 1987

What Is Happening to Our Forests?





Whose heart is not warmed by the beauty of a forest? Yet, in many places forests are no longer lush and green.

In the Federal Republic of Germany, where 29 percent of the land area is covered by forests, 34 percent of all forest trees had been damaged to some extent by 1983. The number of damaged trees increased to 53 percent by 1985!

What is killing the forests, and what is being done to save them? Why is this a problem that affects you?



Waldsterben —It's Your Problem Too!

ARE you good at riddles? Try this one. I am centuries older than you but am now in danger of dying prematurely. Although one, I am composed of many that, sorry to say, are getting fewer. And despite being green, I am called black. What am I?

If your answer is the Black Forest of Germany, you are right. How sad that the dark fir and spruce trees that once covered its mountainsides so thickly and that gave it its name are being struck down by a silent killer. But wait! That's not all.

"From Italy to Denmark, yes, all over Europe, the forests are dying," said Uni-

versity of Munich forest expert Professor Peter Schütt in 1983. Since then, in the light of unmistakable evidence that this problem has moved farther north into Scandinavia, his words have taken on greater urgency.

North America, particularly Canada, has the problem too, but nowhere has it taken on such alarming proportions as in Europe. And since forests have played such a prominent role in the history and mythology of Germany, covering 29 percent of its land area, it seems appropriate that a German word—*Waldsterben*—has been widely

More Than a German Problem

Switzerland: A recently completed study estimates that the number of diseased trees there has risen to 46 percent, a 10-percent increase within the last year.

Austria: The director of the Institute for Forestry at the University of Soil Cultivation in Vienna says that half the trees in the country show visible signs of disease. He claims: "There is not a single tree left in all of Austria that has not suffered latent damage."

Yugoslavia: Visible symptoms of disease can be seen in spruce and fir trees.

France: The existence of dying forests was denied up until 1983, but signs that trees are diseased are now becoming evident.

Luxembourg: In 1984 damaged forests were reported for the first time.

Czechoslovakia: In the Ore Mountains on the border of the German Democratic Republic and Czechoslovakia,

over 120,000 acres (50,000 ha) of forest are reported to be dead already.

Belgium: Some 70 percent of the forest cover in the eastern part of the country is said to be diseased.

England and Scotland: The United Kingdom Forestry Commission reported in 1984 that tree damage in south and west Scotland and in northwest England is "new and quite widespread on a number of species."

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Contents

Feature Articles

Waldsterben—It's Your Problem Too!	3
Can the Forests Be Saved?	5
Live to See the Forests Rejoice!	9

Also in This Issue

The World Since 1914	
As the World Disintegrates,	
Let Your Hope Grow Brighter!	11
Tobacco's Menace to Smokers and Nonsmokers	16
Young People Ask ...	
What Makes Me Feel So Lonely?	18
My Life With Hemophilia	21
Reading Aloud Makes Learning Enjoyable	25
Phones on Wheels—How Do They Work?	26
From Our Readers	28
Watching the World	29
Homosexuality and the Clergy	31

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adopted to describe this problem of the "dying forest."

How Dying Forests Affect You

Do you enjoy an occasional walk through the woods? Does it warm your heart to see children thrill at the sight of deer and other wildlife in their natural habitat? Remember, without forests, no more walks, no more wildlife, no more refreshing forest air.

And should the forests continue to die, think of the adverse effect upon the economies of lumber-producing countries like Canada and Sweden. Actually, the economy of the entire world would suffer. Estimate, if you can, how expensive wood and wood products, including paper, might then become.

Besides, the lack of tree coverage in mountainous regions invites disaster. A study recently published in Munich says that half the villages in the Alpine foothills of Bavaria are endangered by "falling rocks, avalanches, and floods" that could make "roads between villages impassable." The situation is said to be similar in other Alpine regions.

But the greatest threat of all is the fact that unless something is done soon, as Professor Schütt warns, "our forest ecosystems will break down within the next ten or twenty years." Such a breakdown would lead to a reduction in the number of plant and animal species. It would influence the climate, altering temperatures globally. It would also change rainfall patterns, endangering water reserves and crops.

And what about health? Can we expect humans to maintain good health while breathing the same polluted air that is

evidently killing our trees? One German study claims to have discovered a correlation between the spread and extent of *Waldsterben* and the degree and extent of diseases of the human respiratory system. A University of California doctor is quoted as saying 'that if no cure for cancer is found within the next 75 years, many people will suffer, but unless we find some means of preserving nature within the next 15 years, everyone will suffer.'

Dr. Albert Hofmann of Switzerland says that "if there is no basic difference in the way forest trees and fruit trees or other edible plants, grains, etc., assimilate carbon dioxide," which evidently there is not,

"then it must be considered a real possibility that within the foreseeable future plants used by man as food will start dying also." In conclusion, he says: "With the dying of our forests the very foundation for all earthly life is becoming seriously endangered."

In view of the gravity of the situation, it is certainly not an exaggeration when the book *Unser Wald Muss Leben* (Our Forest Must Live) says that our dying forests present us with "the greatest challenge of our time."

Not without reason has it been said: "First the forests die, then the people." Can anything be done?

Can the Forests Be Saved?

"**M**ANY strokes overthrow the tallest oaks." So wrote the 16th-century English author John Llyl. Words all too prophetic of the Federal Republic of Germany, where the number of ailing German oaks continues to grow. Of course, this is not the first time that trees have become diseased and have died. Still, forests have managed to survive for centuries. So why the excitement?

Characteristically, forest diseases attack only one particular species. But this time every major species of tree in Central Europe is involved. Never before has *Waldsterben* occurred in so many places at the same time or spread with such rapidity. Never before has the intensity of damage been so great, trees being struck indiscrim-

inately, whether growing in poor soil or in rich, in alkali soil or in acid, at low elevation or at high.

Moreover, in former times the causes were easily determined—a drought, an insect plague, a fungus. Or if polluted air from a nearby industrial plant was to blame, the specific poisonous substance at fault was readily detectable. So when forestry officials saw the first evidence of disease at the end of the 1970's, these "normal" causes were obviously suspect. But then they saw the disease move out to embrace more and more species: silver firs; then spruce and pine; later beech, oak, maple, and ash. With alarm they took note of an increasing number of trees stunted in growth, trees with defective root systems, trees with leaves or

needles that tended to turn yellow and fall off. These and other heretofore unfamiliar symptoms proved that they were dealing with a new phenomenon. Who was the culprit killing their forests? They soon felt they had found it: acid rain.

The Role of Acid Rain

Sulfur dioxide and nitrogen oxides are produced by electrical generating plants, industrial boilers, and motor vehicles. Acid rain is formed when these gases interact with vapor to form dilute solutions of sulfuric and nitric acid. These noxious substances can be transported over long distances, even across international boundaries.

Canada, for example, claims that the high-sulfur emissions from power plants in the United States are largely responsible for the acid rain that is devastating its forests and waterways. In Europe a similar situation exists, wherein acid rain, perhaps originating in Central Europe, has played havoc with the lakes and rivers of Scandinavia, increasing their acidity and killing the fish.

When acid rain is absorbed into the ground, it breaks down natural minerals, such as calcium, potassium, and aluminum, and carries them into the substrata, thus robbing trees and plants of a vital source of nutrients. But further research has shown that this is not the sole reason for today's *Waldsterben*. Trying to pinpoint the exact cause, however, has been frustrating.

The Unsolved Riddle

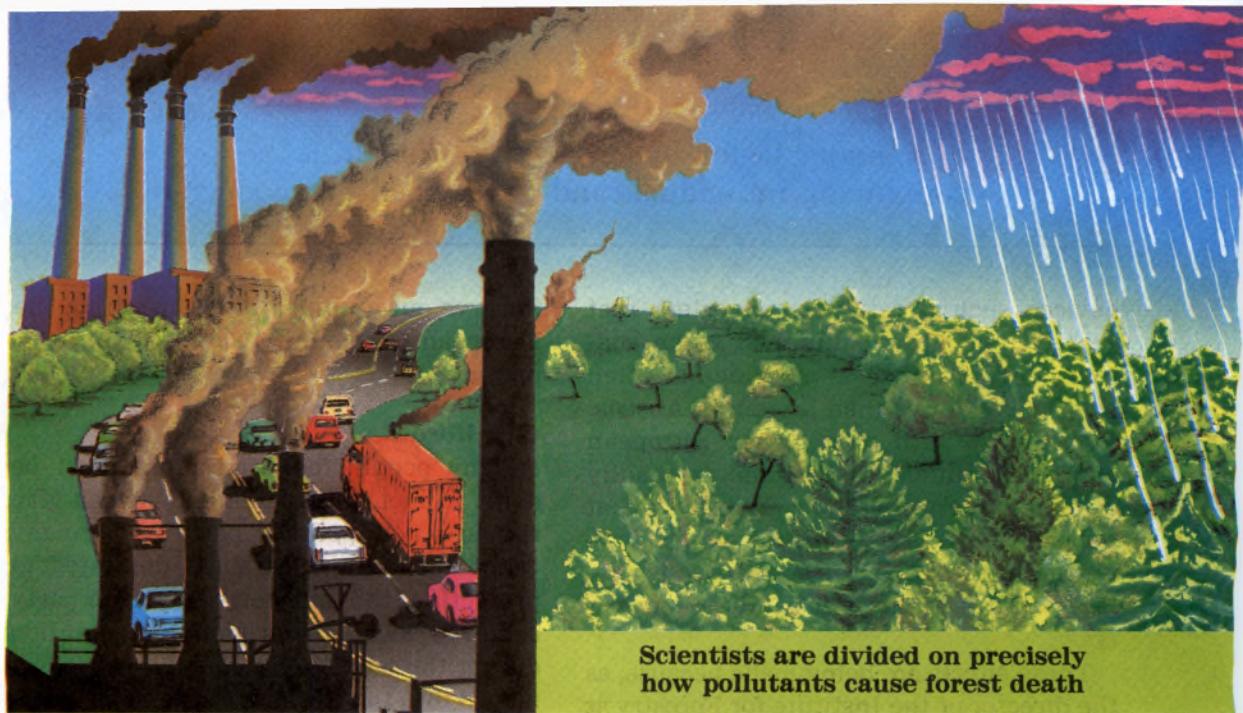
One meteorologist admitted: "We're like a lot of blind men grabbing at an elephant." Indeed, a Swedish forestry expert recently listed 167 theories that have been advanced to explain what is causing the problem.

Whatever the reason, "imported sulfur dioxide has partially been exonerated," explains the U.S. magazine *Smithsonian*, "at least in the Black Forest." This is because there is less sulfur dioxide in the atmosphere now than there was 15 years ago, and as *Smithsonian* notes, it "is lowest of all where trees are sickest."

Research now would seem to indicate that traces of toxic metals that are emitted into the atmosphere by fossil-fuel-burning plants and vehicle exhaust fumes combine with acid rain to destroy nutrients necessary to keep trees alive. Some authorities believe that because of continuing soil acidification, trace elements may be dissolved and absorbed by the roots and choke off a tree's water supply.

Hans Mohr, a Freiburg University teacher, claims that the difficulty seems to be created by nitrogen, the very substance plants often have a shortage of. He refers to research indicating that nitrogen compounds in the atmosphere have increased by 50 percent over the past 20 years. This increase is due mainly to vehicle exhaust; static emission; gas-, oil-, and coal-fired central heating; and ammonia emission by agriculture and refuse-disposal facilities. Bernhard Ulrich of the University of Göttingen argues that the trees are not being strangled by what is in the air but are being poisoned by what is in the soil. Other authorities point an accusing finger at ozone levels, at the sinking water level, or at ineffective forestry policies.

"A new avenue of research," observes *Smithsonian* magazine, "contends that the guilt falls on no single air pollutant, but rather on an as-yet unknown interaction among them, so that the whole impact is greater than the parts." This is very possible. Almost 3,000 chemical compounds ex-



Scientists are divided on precisely
how pollutants cause forest death

ist that can be called air pollutants. For several decades they have been building up in concentration, subjecting the forests to continuous stress.

As long as the ecological system was intact and strong enough to reject the effects of pollution, all went well. But now when causes for sickness, such as frost, drought, and insects, make their appearance, the trees find themselves too weak to resist.

Obviously, many factors are involved in the overthrow of Germany's proud oaks. Determining just which particular pollutant is chiefly responsible for their demise is as difficult and as pointless as saying which of ten water faucets being used to fill a tank is *the* faucet that finally causes the tank to overflow.

What Is Being Done?

Realizing that something must be done fast if the worst is to be avoided, local, state, and federal governments are resorting to "short-term solutions to maintain the trees

until a longtime answer can be found," as one magazine expressed it. Meanwhile, extensive studies are being made, including taking infrared pictures of the forests from the air to determine the extent of damage and what should be done.

'Why don't they just plant new trees to replace the diseased ones?' you may ask. But it is not that simple, for newly planted trees are already beginning to show the same symptoms of disease as older trees. Even the use of fertilizers that counteract soil deficiencies has met with only limited success.

Top priority is being given efforts to lessen air pollution. Laws regulating industry have been tightened, and in the Federal Republic of Germany it is hoped that by the mid-1990's these regulations will reduce the amount of sulfur dioxide by about two thirds and nitrogen oxide by about half.

Generous tax breaks have been given persons willing to buy cars equipped with

A major factor in solving the problem is convincing individuals and governments to cooperate

devices, such as catalytic converters, that greatly reduce air pollutants. As an added incentive, unleaded gasoline has often been priced lower than leaded. In Austria, in contrast with most other European countries, unleaded gasoline is readily available everywhere. In Switzerland, at the end of 1986, new emission-control laws were put into effect, designed also to promote the sale of cars with catalytic converters.

These efforts are being made because, as the director of the Institute for Forestry at the University of Soil Cultivation in Vienna claims, *Waldsterben* can only be stopped if air pollution can be reduced to the levels of 1950. But is this realistic when the number of motor vehicles in Germany alone, with more cars per square mile than any other nation in the world, is over 19 times what it was at that time?

Tests show that the imposing of speed limits would reduce polluting emissions considerably. Yet this suggestion has run into stiff opposition. Some drivers, however, even in the celebrated racetrack atmosphere of Germany, are beginning to realize that for the sake of their forests—not to speak of their lives—they must slow down. Others, of course, selfishly reject any such restrictions. Typical of these are the drivers who display the bumper sign "My car will run even without the forest."

Thus, a major factor in solving the problem is convincing individuals and governments to cooperate. Since air pollution ignores national borders, international policies are called for. Up to now attempts

to carve out a unified program within the European Community have led to disappointment.

Can More Be Done?

Many people feel that more must be done. In fact, this feeling has helped give rise to a new political party in Germany called the Greens. Strongly dedicated to protecting the environment, this party achieved local and regional recognition during the late 1970's. Finally, in 1983 it moved into the German Parliament, electing 27 representatives and attracting 5.6 percent of the popular vote.

A German expression claims that green is the color of hope. But do the Greens offer hope for the forests? Despite good intentions and idealistic goals, the party has made little headway. Many citizens consider them politically naive, offering simplistic solutions to complex problems.

Yet, many are taking practical steps to cut down on air pollution to the extent reasonably possible. They are driving slower, traveling less, joining car pools, using unleaded gasoline, and obeying antipollution regulations laid down by the government. But apparently this is still not enough.

The alternative of drastically curtailing the use of motor vehicles, airplanes, and industrial plants, while helping to solve the problem of air pollution, would most assuredly create new problems. Actually, the solution to *Waldsterben*—in fact, to all environmental problems—is to be found elsewhere.



Live to See the Forests Rejoice!

**"I think that I shall never see
A poem lovely as a tree....
Poems are made by fools like me,
But only God can make a tree."**

TO THE truth that "only God can make a tree," American poet Joyce Kilmer, whose talented life was cut short by World War I, might appropriately have added the thought, 'and only God can keep a tree alive.'

Despite the battle cry "Save Our Forests," human efforts at preserving the forests are meeting with only limited success. Even the "good news" offered by a September 1986 report is of little comfort.

It speaks of "a high-level stabilization," which in plain words means that *Waldsterben* is still spreading but at a lower rate than in years past.

According to a leading German newspaper, a growing feeling of helplessness is to be found among scientists. It quotes Professor Peter Schütt of Munich's Institute of Forestry, who recently told a concerned audience: "Let's not fool ourselves. We long ago reached the limits of our possibilities." He warned that if present attempts to curb air pollution fail, "we will be left with absolutely nothing else to try."

And how can the prospects for solving the problem of air pollution be described? Gloomy, dreary, or bleak—take your pick. "The quality of air has not improved," declares the Swiss newspaper *Die Weltwoche*. While "plant physiologists are still involved in time-consuming, detailed work, trying to determine which pollutant is striking which tree to what extent, . . . once disconcerted drivers are regaining

their old self-confidence and driving faster than they should. The sale of cars with catalytic converters has stagnated . . . Not much of anything has changed, except that the flurry of excitement [about *Waldsterben*] is long past."

A Realistic Solution Is at Hand

To believe that *Waldsterben* can be successfully solved by humans is unrealistic. Why? Because they lack accurate knowledge both of its causes and of effective methods for combating it. Moreover, humans lack the power to control natural forces like weather patterns and ecosystems. Besides, inherited selfishness prevents them from renouncing personal interests in favor of the common good.

Yet, there are reasons for optimism. Bible chronology and physical facts indicate that God's long-prayed-for Kingdom is at hand. The establishment of this government was foretold almost 1,900 years ago in these words: "We thank you, Jehovah God, the Almighty, the One who is and who was, because you have taken your great power and begun ruling as king. But the nations became wrathful, and your own wrath came, and the appointed time . . . to bring to ruin those ruining the earth." (Revelation 11:17, 18) Soon, as promised, "the appointed time" will arrive for God "to bring to ruin those ruining the earth," including polluters who are ruining his forests.

Under divine rule, obedient mankind will be properly instructed in how to prevent air pollution and its by-product *Waldsterben*. Imagine how the earth will rejoice, symbolically speaking, when the balance of nature has been restored with positive effects on climate, agriculture, and health. "Let the earth be joyful, and

let [it] say among the nations, 'Jehovah himself has become king!' . . . At the same time let the trees of the forest break out joyfully." (1 Chronicles 16:31-33) Restored to a condition of greater beauty and well-being than ever before, "the trees of the forest" will indeed have every reason to "break out joyfully."

But before that time arrives, *Waldsterben* may get worse. For example, in September 1986 the above-mentioned newspaper wrote: "Cultivated plants in the lowlands are beginning to waste away; cherry trees in northwest Switzerland have lost their zest, and farmers are seeking counsel from agriculture officials." A similar situation in Germany recently led the state of Baden-Württemberg to begin an investigation of the connection between air pollution and damaged fruit trees. Although no statistics are yet available, it is reported that scientists believe that stone fruits in particular are endangered.

Reports like these may remind Bible students of Habakkuk 3:17. Speaking of our day, it says: "Although the fig tree itself may not blossom, and there may be no yield on the vines; the work of the olive tree may actually turn out a failure, and the terraces themselves may actually produce no food."

If, however, you place your trust in God and support his Kingdom rule, you, like Habakkuk, will have no reason for fear. (Habakkuk 3:18) On the contrary, you have every reason to look to the future with optimism and to be joyful. The problem of *Waldsterben* is about to be solved—permanently and completely. You, too, can live to see the forests rejoice—and all mankind with them!

As the World Disintegrates, Let Your Hope Grow Brighter!

bright new day. What has happened since 1970 strengthens their conviction. Consider the evidence.

Taking Peace Away From the Earth

In 1970 guerrilla warfare broke out in the Philippines; in 1976 hostilities began between South Africa and Angola. Shortly thereafter Vietnam and Kampuchea (Cambodia) started the third war in Indo-China within less than 35 years. In 1980 the Islamic nations of Iran and Iraq embarked on a war of fratricide. A year later, guerrilla warfare was raging in Nicaragua. Great Britain and Argentina clashed in 1982 over the Falkland Islands. Altogether, more than 50 wars have broken out since 1970.

Another kind of war—terrorism—escalated during the 1970's. Recall some of the prominent individuals who were struck down by terrorist attack or by the assassin's bullet: Spanish Premier Luis Carrero Blanco in 1973; King Faisal of Saudi Arabia and President Mujibur Rahman of Bangladesh in 1975; Italian statesman Aldo Moro in 1978; South Korean President Park Chung Hee and the Queen of England's cousin, Lord Mountbatten, in 1979; in 1981 Egyptian President Anwar Sadat; and in 1984 Indian Prime Minister Indira Gandhi. During those same years, unsuccessful attempts were made on the lives of U.S. presidents Gerald Ford and Ronald Reagan, British Prime Minister Margaret Thatcher, and Pope John Paul II.

ARE you disturbed, upset, perhaps even frightened by world conditions? If so, take comfort from the words of Henry Wadsworth Longfellow, one of the United States' most popular poets of the 19th century. He wrote: "The nearer the dawn the darker the night."

The publishers of *Awake!* think that these words are applicable to our world since 1914. Based on their study of the Bible, they believe that the increasing darkness of this world's night is simply an indication of the approaching dawn of a

Or think of the groups that became victims of terrorism. At the 1972 Olympic Games in Munich, a hostage drama left 17 people dead, including 11 Israeli athletes. Eleven OPEC ministers meeting in Vienna, Austria, in 1975 were more fortunate; although taken hostage, they escaped with their lives. An American nightmare began in 1979 when 52 U.S. citizens were held hostage in Iran for over a year. An exploding bomb in a Burmese mausoleum killed 19 persons in 1983, including 16 visiting South Korean officials. In 1985 an Air India jet plummeted into the Atlantic off the coast of Ireland; 329 persons perished.

These listings are only partial. In Northern Ireland and Lebanon, for example, terrorism is almost a way of life. A popular encyclopedia stated that "the use of airplane hijacking as an act of political terrorism became an international problem in the 1970s and continued in the early 1980s." So although terrorism may not yet have touched you personally, the chances that it will—simply because of your nationality or because of your being in the wrong place at the wrong time—are growing.

In view of these facts, who can deny that 'peace has been taken away from the earth,' as Revelation 6:4 foretold it would be? Still, this in no way rescinds the earlier Bible promise: "He is making wars to cease to the extremity of the earth." (Psalm 46:9) Has progress been made in this direction since 1970?

Reaching for Peace While Grasping the Sword

In 1970 U.S. President Nixon announced his government's intentions to replace an "era of confrontation" with an "era of negotiation." Peaceful coexistence was to give way to détente, an easing of tensions. The superpowers agreed to hold Strategic Arms

Limitation Talks (SALT), leading in 1972 and 1979 to partial success. The powderkeg atmosphere of Berlin diminished as the relationship between the two Germanys improved. In 1973 a 35-nation Conference on Security and Cooperation in Europe opened in Helsinki. Expectations soared.

Progress, however, was not limited to Europe. After two decades of no contact, the United States and the People's Republic of China began normalizing relations. Ping-Pong diplomacy their negotiations were called. Meanwhile, in the volatile Middle East, shuttle diplomacy seemed to be working. Finally, in March 1979, after the Camp David agreements, an Israeli-Egyptian peace treaty was signed.

These developments, as well as others, clearly show that since 1970 the world has been reaching for peace. The UN announcement in 1982 that 1986 was to be an International Year of Peace served to confirm this. Of course, the one who "is making wars to cease," to whom the Bible refers, is not any human but is God. Yet, Bible prophecy foretells that prior to God's doing so, humans will be saying, "Peace and security!"—1 Thessalonians 5:3.

But while reaching out for peace with one hand, the world is grasping, as it were, a great sword in the other. (Compare Revelation 6:4.) In paranoid fashion, it has been arming at an unprecedented rate. Mary Kaldor of the Science Policy Research Unit, University of Sussex, tells us that "from 1971 to 1980, the international arms trade doubled in real terms"—and not just because of the superpowers. "The increase in arms sold to less developed countries was even greater," she says.

In the last decade and a half, defense has become so important that in one recent year 77 nations allocated over 10 percent

Other Items That Made the News

- 1970—The People's Republic of China becomes world's third space power by deploying satellite
- 1973—Military coup overthrows Chile's socialist government and results in President Allende's death
- 1974—Watergate scandal, which began in 1972, reaches climax as U.S. President Nixon resigns in disgrace
- 1976—Series of major earthquakes, including one in China called possibly the most devastating in human history, kills hundreds of thousands
- 1978—First test-tube baby; born in Britain
- 1979—Serious accident at U.S. nuclear reactor at Three Mile Island, Pennsylvania
- 1980—U.S. volcano Mount St. Helens erupts
- 1981—First flight of U.S. space shuttle *Columbia*
- 1983—Computer chosen as *Time's* "Man of the Year"
- 1984—Soviets set record of 237 days in space
- 1985—Colombian volcano Nevado del Ruiz erupts, killing 25,000
- Earthquake in Mexico City kills thousands
- 1986—The U.S. *Challenger* space shuttle explodes, with the loss of seven astronauts
- Soviet Chernobyl nuclear-power-station disaster spreads contamination across Europe

No wonder a military official recently said that we are living in an "era of violent peace." That is why the United Nations with its 159 members at the end of 1985—up from 127 in 1970—has been so hard-pressed to maintain international peace and security. The high expectations placed in it at its founding have gone unfulfilled. Journalist Richard Ivor says that one reason for its failure is that "it has not yet succeeded in changing the hearts and minds either of the people who lead countries or of the people who make them up." Hugh Caradon, former British ambassador to the UN, expressed it more succinctly: "There is nothing fundamentally wrong with the United Nations—except its members."

Like it or not, now more than ever before, economic, religious, or political developments in one country can immediately trigger reactions throughout the world.

Economic Problems

For example, do you remember when back in the early 1970's OPEC began pushing the price of oil from about \$4 a barrel to its 1981 high of \$35? The result? This "oil weapon," says the *The New Encyclopaedia Britannica*, "intensified inflation in the advanced industrial nations and created severe balance-of-payments difficulties for some nations of Europe; it caused havoc in the economies of many less developed nations."

Economist R. N. Gardner warns that "the existing system of international economic institutions is not good enough and that none of the members of the United Nations can expect a safe passage into the 21st century without a fundamental restructuring of these

of their total budget to military and defense expenditures. In fact, 20 nations, almost half of them located in the explosive Middle East, spent more than one fourth of their budget on defense. This in a world that since 1945 has allegedly been at peace!

arrangements." Already, countries like Mexico, Brazil, and Nigeria are dangerously close to bankruptcy. The instability of the world's economic system will have serious consequences in the near future.

Religion and Politics

During the 1970's some new faces from the world of religion made their appearance on the political scene. From the United States came Jerry Falwell with his Moral Majority; from Iran, a theocracy proclaiming ayatollah; from Europe, Catholic and Protestant clergymen joining hands in peace and antinuclear marches; from South Africa, antiapartheid, Nobel prize winner, Anglican Bishop Desmond Tutu. But no one has turned heads like Polish Pope John Paul II, about whom a Vatican official reportedly once said: "Even when he says Mass it seems to have political implications."

At the beginning of the 1970's, a journalist predicted that "the link between politics and religion may gain a new importance in the [United States'] changing social climate." This has proved to be true, but the trend has not been limited to any one country. "The words 'religion' and 'politics' were yoked in news stories throughout 1984 in all parts of the world," says the 1985 *Britannica Book of the Year*. But there is growing friction between the two, as it admits: "Skirmishing between governmental and religious authorities was a worldwide phenomenon." This spiritually immoral love affair between religion and politics will soon end in disaster.—Revelation, chapter 18.

Growing Problems, Yet Hope

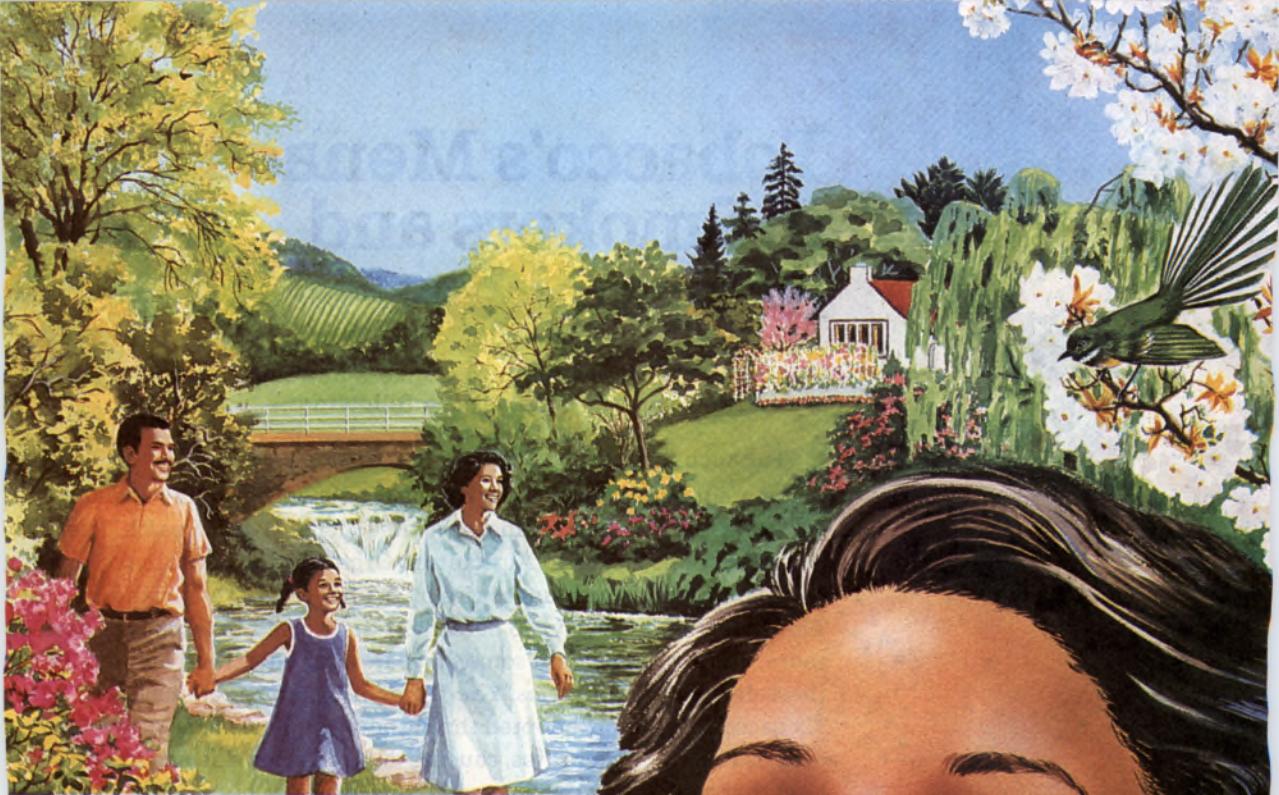
"What has happened... in the 1970s and 1980s," writes syndicated columnist George Anne Geyer, "is that the world is quietly but relentlessly being rent by a slow-

motion disintegration." Besides the causes for this disintegration already mentioned, can you think of more? Pollution? Drug abuse? Misconduct by public officials? The refugee problem? Famine? Newly discovered diseases like Legionnaires' disease, toxic shock syndrome, and the most frightening of all of them, AIDS?

Jehovah's Witnesses see in all these events evidence that the darkness of this world's night is deepening, even as the Bible foretold. Still, the more than 3,000,000 of them throughout the world—up from 1,483,430 in 1970—are full of optimism. This is because someone far greater than Longfellow comforts us with the hope that "the nearer the dawn the darker the night." It is the Son of God himself who, after speaking of worsening conditions in the foretold last days, said: "As these things start to occur, raise yourselves erect and lift your heads up, because your deliverance is getting near."—Luke 21:28.

None of us can change the past or undo the misery and suffering that humans have experienced in THE WORLD SINCE 1914. But we can act with divine wisdom and prepare for a happy future. The first step in doing this is to recognize that worsening world conditions are irrefutable evidence that the dark night of satanic rule is drawing to a close and that the full day of God's established Kingdom will soon dawn.

"There is no morrow for the wicked man," warned wise King Solomon. And yet, as he said, "there will be a morrow" for those who find wisdom. (Proverbs 24: 14, 20, *The Jerusalem Bible*) It is also of interest to note the words of former U.S. President Lyndon B. Johnson: "Yesterday is not ours to recover, but tomorrow is ours to win or to lose." "Tomorrow"—an endless future on a paradise earth under God's Kingdom—is individually ours "to win or to lose." What will be your choice?



**May the rapid disintegration
of the world cause you to lift
up your head and rejoice at
the prospect of a better life in
a new world**





Tobacco's Menace to Smokers and Nonsmokers

Evidence of tobacco's harm to smokers and nonsmokers continues to mount. Consider the following:

■ Tobacco Instead of Food

"An epidemic of lung cancer can be predicted" for many developing countries within a decade, says the journal *World Health*. The United Nations Food and Agriculture Organization adds that tobacco consumption "continues to rise by 2.1 per cent a year in the Third World." Presently, 63 percent of the world's tobacco is grown there, up from 50 percent some 25 years ago. This trend endangers these developing countries. *The Times* of London explains how: "Tobacco production, adopted throughout the Third World as a cash crop, is raising cancer rates, causing deforestation and occupying land that could grow much needed food crops for home consumption."

■ Smoke and Cancer

In 1986, at the 14th International Cancer Congress in Hungary, experts estimated that 3,500,000 people would die of cancer that year. "According to WHO [World Health Organization] statistics," reports the German medical journal *Ärztliche Praxis*, "one million of these deaths will be caused by smoking."



Sir Richard Doll, emeritus professor of medicine at Oxford University, warned that of the 3,800 chemicals in tobacco smoke, 50 have been identified as causing cancer in animals. Some of these chemicals were found to be most concentrated in noninhaled smoke. Smokers thus expose others, who become passive smokers, to the more carcinogenic substances. A British study of nonsmokers living with smokers found that every second person killed by lung cancer was a passive smoker.

The surgeon general of the United States urged companies to provide a smoke-free workplace for nonsmokers. In his report for 1986 on the health effects of smoking, he said: "Involuntary smoking is a cause of disease, including cancer, in healthy nonsmokers," and "simple separation of smokers and nonsmokers within the same airspace may reduce, but does not eliminate, exposure of nonsmokers to environmental tobacco smoke."

■ Unborn Affected

A medical research team from the University of Sydney in Australia claims that smoking starves babies in the womb of needed nutrients. The researchers have been studying the effect smoking has on the flow of blood to the placenta—the organ that supplies the unborn baby with food and oxygen and carries away waste via the umbilical cord. When the researchers monitored the blood flow through the umbilical cord, they discovered that just two minutes after a mother smokes a cigarette, the blood flow is slowed, and such an effect lasts for up to an hour.

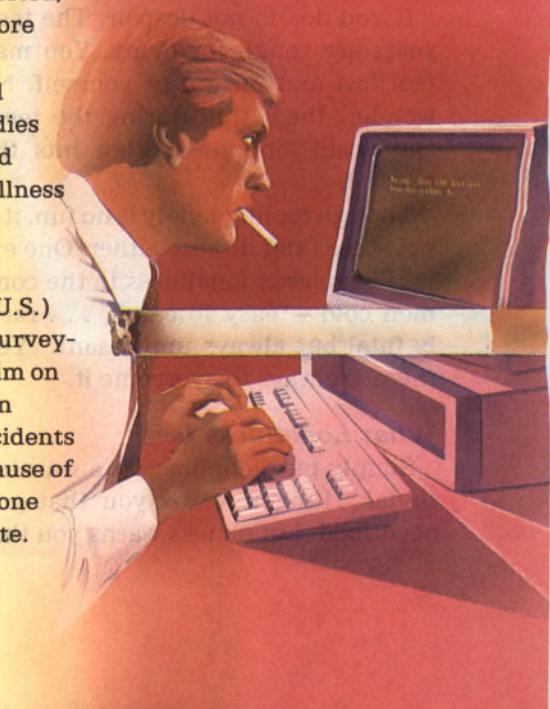
Dr. Brian Trudinger, senior lecturer in obstetrics and gynecology, said, as reported in *The University of Sydney News*: "On average, the babies of mothers who smoke ten cigarettes a day throughout pregnancy weigh about 300 grams [10 ounces] less at birth than those of nonsmokers. But until now it could be argued that this was due in some way to the smoker rather than the smoking—that the sort of woman who smoked in pregnancy may have had other problems which resulted in smaller babies. However, our research shows conclusively that smoking affects the foetus directly by reducing the blood flow from it to the placenta."

Also, the British medical magazine *The Lancet* recently published the results of a study of childhood cancer. The study found that the more cigarettes smoked per day by the mother during pregnancy the greater the cancer risk in her offspring. "When all tumour sites were considered," *The Lancet* reported, "the overall risk for cancer in children exposed to 10 or more cigarettes per day during pregnancy increased by 50%."

After they are born, children of smokers face additional health dangers. In another issue, *The Lancet* noted: "Studies have found a direct relation between passive smoking and childhood asthma, persistent wheezing, and respiratory illness in the first and second years of life."

■ Smoking Costs at Workplace

Smokers cost their employers an extra \$4,000 (\$2,650, U.S.) per person per year, states the New South Wales Health Surveyors' Association in Australia. The association bases its claim on evidence that smokers are away from work sick more than nonsmokers and have about twice as many accidents. Accidents are more likely among smokers, says the association, because of smoke in the workers' eyes or because smokers are using one hand to perform tasks while the other is holding a cigarette.



Young People Ask...



What Makes Me Feel So Lonely?

It is Saturday night. The boy sits in his room thinking about the kids in school who have gone bowling at the mall. He had mustered up the courage to ask if he could join them. But even now he can hear the taunting laughter as they walked away.

"I hate weekends!" he shouts. But there is no one in the room to answer. He picks up a magazine and sees a picture of a group of young people at the beach. He hurls the magazine against the wall. Tears well up. He clamps his teeth on his underlip, but the tears keep pushing. Unable to fight it any longer, he falls on his bed, sobbing, "Why am I always left out?"

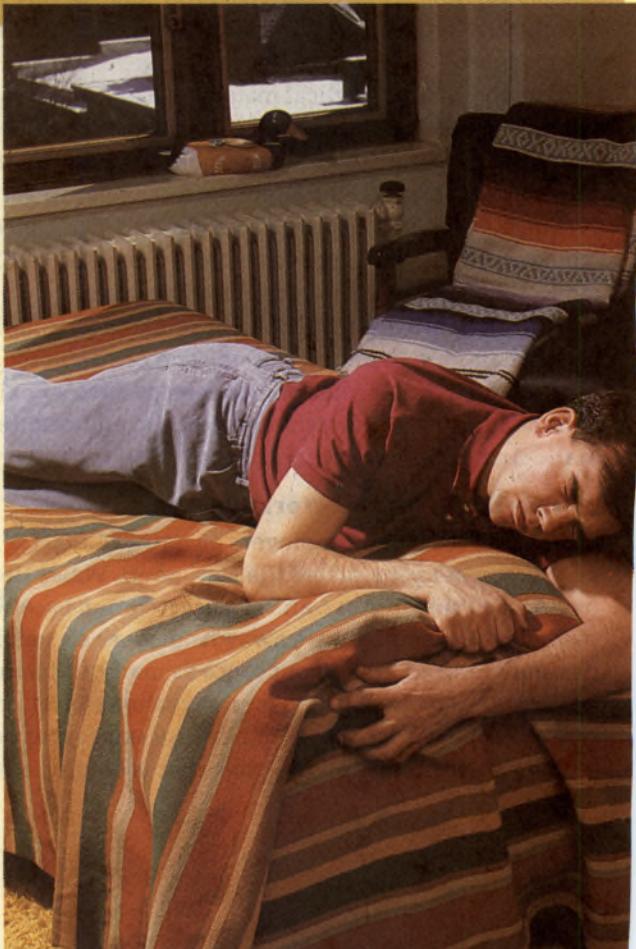
DO YOU sometimes feel like that—cut off from the world, useless and empty? Do you ever wonder, 'What makes me feel so lonely, and why does it hurt so much?'

If you do, do not despair. The teen years are rough for many. You may feel lost and unsure of yourself. No wonder, then, that during the teenage years loneliness often hits the hardest.

Though feeling lonely is no fun, it is not some fatal disease either. One expert compared loneliness to the common cold—"easy to catch, . . . rarely fatal but always unpleasant." Yet, there are ways to overcome it.

What Loneliness Is

Simply put, loneliness is a warning signal. Hunger warns you that you need food. Loneliness warns you that



you need companionship, closeness, intimacy. We need food to function well. Likewise, we need companionship to feel well.

Have you ever watched a bed of glowing coals? What happens when you take one coal away from the heap? The glow of that single coal will die away. But after you put the coal back into the heap, it glows again. Similarly, we humans cannot "glow," or function well, in isolation for long. It is natural to desire company.

This was even the case with Adam, the first man. The Bible book of Genesis says that Adam was placed in an environment that met his basic needs. There was plenty of food to eat, fresh air to breathe, a sparkling river to bathe in, interesting work to do, and, above all, the enjoyment of a close relationship with his Creator. Yet, Jehovah God said: "It is not good for the man to continue by himself." Adam needed someone like himself to communicate with and share his feelings. God fulfilled that need by giving him Eve. (Genesis 2:18-23) Yes, the need for companionship is built into our makeup. But does that mean that being alone always leads to feeling lonely?

Alone But Not Lonely

Essayist Henry David Thoreau wrote: "I never found the companion that was so companionable as solitude." Do you agree? "Yes," says Bill, age 20. "I like nature. Sometimes I get in my little boat and go out on a lake. I sit there for hours all alone. It gives me time to reflect on what I'm doing with my life. It's really great." Adds 16-year-old Rafael: "There are three other kids in my family. There is always commotion in the house. I have a four-year-old brother; he acts crazy. Sometimes all I want is to be by myself."

An English poet further remarked: "Solitude is the audience-chamber of God." Twenty-one-year-old Steven agrees. "I live

in a big apartment building," he says, "and sometimes I go to the roof of the building just to be alone. I get some thinking done and pray. It's refreshing." Yes, if used well, moments of solitude can give us deep satisfaction. Jesus, too, enjoyed such moments: "Early in the morning, while it was still dark, [Jesus] rose up and went outside and left for a lonely place, and there he began praying." (Mark 1:35) Yet, why were individuals such as Thoreau or Jesus not lonely even though they were alone?

First, because they were alone by choice. And second, they were alone for only a short period of time. Jehovah did not say, 'It is not good for man to be momentarily by himself.' Rather, God said that it was not good for man "to continue by himself." Prolonged periods of isolation may lead to loneliness. Thus, the Bible warns: "One isolating himself will seek his own selfish longing; against all practical wisdom he will break forth."—Proverbs 18:1.

Temporary Loneliness

At times, though, being alone is not by choice. Then it can really hurt. Such loneliness is often imposed on us by circumstances beyond our control, like moving to a new location, away from close friends.

Recalls Steven: "Back home James and I were friends, closer than brothers. When I moved away, I knew I was going to miss him." Steven pauses, as if reliving the moment of departure. "When I had to board the plane, I got choked up. We hugged, and I left. I felt that something precious was gone."

How did Steven make out in his new environment? "It was rough," he says. "I had a difficult time learning a new job. Back home my friends liked me, but here some of the folks I worked with made me feel as if I were no good. I remember looking at the clock

and counting back four hours (that was the time difference) and thinking what James and I could be doing right now. I felt lonely."

When things are not going well, we often dwell on better times that we had in the past. However, the Bible says: "Do not say: 'Why has it happened that the former days proved to be better than these?'" (Ecclesiastes 7:10) Why this advice?

For one thing, circumstances can change for the better. That is why researchers often speak of "temporary loneliness." Steven could thus overcome his loneliness. How? "Talking about my feelings with someone who cares helped. You cannot live on in the past. I forced myself to meet other people, show interest in them. It worked; I found new friends." And what about James? "I was wrong. Moving away did not end our friendship. The other day I called him. We talked and talked for one hour and 15 minutes —long distance!"

Thirteen-year-old Peter is in another situation that may cause loneliness. He lives in a one-parent family. Says Peter: "I come home from school and stay all alone. I've got nobody to talk to. When my mother comes home from work, it's

just as bad. She's tired and she goes to sleep."

Eighteen-year-old Nancy also lives in a one-parent home. In addition, she has to cope with attending a new school. But Nancy is not lonely. She set out to meet new friends. "It helped me get myself together," she says. Loneliness disappeared. It was temporary.

Sometimes, though, loneliness is the result of tragedy. "Derek had been my buddy in Florida ever since we were 11 years old," relates Bill. "We used to go to the mall, eat pizza, and play football together." What happened? "I got a call one Sunday night," Bill continues. "Derek had drowned. It was too hard to accept. After that, there were moments I felt so lonely that I dialed Derek's phone number. The phone kept ringing, and then I thought, 'Wait a minute, Derek is not there anymore.' I could not grasp it. When you're 17, you're just too young to die."

The Bible tells of a woman named Naomi who similarly experienced tragedy. Her husband and her two sons died one after another. When she returned to her homeland as a widow, she said: "I was full when I went, and it is empty-handed that Jehovah has made me return."—Ruth 1:21.

Although the sorrow of losing a loved one may never fully disappear, loneliness can fade with the passing of time and the developing of new relationships. In the case of Naomi, changed circumstances and the forming of new relationships helped to 'restore her soul.' (Ruth 4:13-15) One can also immerse oneself in doing things for other people. Jesus said: "There is more happiness in giving than there is in receiving."—Acts 20:35.

But what if your loneliness persists? Then you may suffer chronic loneliness. What is that, and how can you overcome it? A future issue of *Awake!* will answer.

In Our Next Issue

- Will You Heed Warnings of Imminent Disaster?
- The Pope's Visit to Australia
—Just a Pilgrimage?
- Do Women Belong in the Pulpit?

My Life With Hemophilia

I WAS born in St. Petersburg, Florida, in 1949. About six months later my parents became concerned after my uncle had picked me up, tossed me into the air, and caught me. To everyone's surprise, I got little bruises along my rib cage where his fingers and hands grabbed me as I came down.

My parents took me to the doctor to find out what was wrong. Tests revealed that I had hemophilia, which is a

deficiency in the blood-clotting cycle. The most severe deficiency is the one I have, the classical A-type. I lack what is called Factor 8, which is the clotting factor that binds all the other factors together to make a good strong clot. In my case, my blood makes a good clot, but it is fragile. It breaks apart easily; often the mere pressure of blood flowing through the wound destroys the clot that starts to build up. Prolonged bleeding is the result.

Constant Bruising

As a child, the simplest things would cause a bruise. Once I sat down on my alphabet blocks, and the corresponding bruise carried the letter from the block! I can remember waking up in the middle of the night with severe pains caused by bleeding in my joints or abdominal organs. Finally, at the age of six, my doctor felt that it was necessary for me to have a transfusion of whole blood to stop a bleeding incident. That was the first of over 900 transfusions I received in my life.

Most of my problems have been from internal bleeding. I really haven't had that many external cuts that caused a problem. However, there was a crisis one day when my mother left me alone in the car for a few minutes while she stepped into a store. She had earlier purchased a package of double-edged razor blades and some groceries. Well, sitting in the car, I decided to find out why they are called *double-edged*. There was quite a stir when I ran into the store with both forefingers dripping blood!

My Second Home—The Hospital

For many years I spent much time in my home away from home—the hospital—receiving transfusions to stop bleeding episodes. Progress has been slow in changing this procedure. Yet, the medical community has learned to separate blood down to its different components. So now



At times I was confined to a wheelchair

instead of whole blood, one small factor of blood may be utilized to treat hemophilia.* This enables the doctors to reduce the volume of transfused material, thereby not giving the individual a lot of material that he really doesn't need.

While in grade school, I was not allowed to participate in recess activities. Since I couldn't play with the other kids, I often played with just the teacher. When I was in third grade, a teacher rolled a ball to me, and when I kicked it back to her, my ankle began to hemorrhage. I spent the next six weeks in a wheelchair.

On another occasion a hemorrhage in my knee put me in a wheelchair for almost three years with full hip-to-heel braces. It was a very traumatic time in my life. When I was able to walk, I had to wear full leg braces. But after a while the braces actually put more strain on my knees than when I didn't wear them. After three years I had had enough. I took the braces off and proceeded to go without them—in typical teenage fashion!

I still continued to have hemorrhages in various joints of my body—elbows, fingers, knees, ankles, and wrists. Treatment for these problems meant going to the hospital, where I gradually got to know the entire hospital staff on a first-name basis. Most were very kind and understanding. The especially trying hours were late at night, after everyone else went to sleep and there was nothing left to watch on television. I was left alone with my pain.

College and Marriage

After high school my parents made arrangements for me to go to college, which

* For a discussion of the Scriptural view of accepting this blood factor, please see our companion magazine, *The Watchtower*, the issues of June 15, 1978, pages 30 and 31, and June 1, 1974, pages 351 and 352.

was difficult for them because of the financial burden of caring for a hemophiliac. However, my grades were good enough for me to qualify for a few small scholarships. So off I went to the University of Miami to study marine biology. I started spending more and more time in the campus infirmary and a local Miami hospital.

The third day at college I met a girl named Leslie. I regretted having to tell her about my hemophilia, for I felt she wouldn't be interested in me because of my problems. Obviously, I didn't know her very well because she felt there was more to me than my problems. Leslie helped me with my studies when I missed class, and in 1968 we were married. We moved off campus, and while Leslie worked, I attended my sophomore year. But things became more and more difficult physically, until I had to drop out of school because of the pain in my knees and shoulders.

After I left school, we moved to Winter Haven, Florida, where our first child, John, was born in 1969. Shortly thereafter we returned to St. Petersburg, where our second son, Kenneth, was born in October 1977. Happily, neither of the boys could inherit hemophilia from me.

A Life-or-Death Decision

After arriving back in St. Petersburg, Leslie and I worked selling cookware. One evening, to demonstrate the cookware, I prepared a dinner for my mother's neighbor who, unknown to me, had just been baptized as one of Jehovah's Witnesses. All her guests for the cookware demonstration were also Witnesses. Thereafter, as I called on her guests to sell them cookware, each of them would talk to me about the Bible. As a result of these conversations, I learned that the Witnesses do not accept blood

transfusions. I told them that I thought that would be a most difficult course for a hemophiliac.

About a year later a Witness couple called at our home, and I agreed to have them study the Bible with me. As I looked into the Scriptures more closely, I became convinced that I really was learning the truth. But I would have to face an important decision: what to do about the blood issue.

I was still receiving blood transfusions. But how could I possibly give them up, since they were purportedly keeping me alive? If anything happened to me, what would become of my wife and my little son, our first, who was then just one and a half years old? Where would they go? Who would take care of them? In my heart I knew the right thing to do. But all these questions perplexed me for a while.

After my Bible study one evening, I asked the Witness who conducted the study with me: "Do you realize that I will probably die if I stop receiving transfusions?"

"Yes, John, I realize that," he quietly responded.

"Will you take care of my family if I die?"

He promised that he would see to it that they were taken care of if because of keeping integrity to Jehovah on the blood issue I were to die. However, he stressed that I should know exactly what I was doing and make sure that when I made a dedication to Jehovah I meant it and would stick to it.

One night I was on my way to get a transfusion when I realized that I still had not yet proved my integrity to Jehovah. I drove back home. Thus, November 6, 1970, was the last time I accepted a transfusion, and to this date in 1987 I have gone without any transfusions! I was baptized as one of



Ready for a day in the field ministry

Jehovah's Witnesses in July 1971, and my wife Leslie was baptized in March 1972.

Six Months to Live?

The original estimate was that I would only live about six months, since I would surely have a serious problem and the doctors would not be able to stop the bleeding. How happy I am that they were wrong!

Within six months of taking my stand, though, my faith was put to the test. I had a particularly painful experience with a shoulder hemorrhage. My old hospital refused to treat me unless I agreed to let them give me a transfusion if necessary. I refused. With the help of local Witnesses, I found a hospital and staff willing to respect my wishes.

When I stopped getting transfusions, my wife and I started a treatment plan of our own: elastic bandages; ice packs; immobilization; bed rest when necessary; pain medication; and when the pain was too



With my wife and two sons

severe to handle, temporary hospitalization. This has worked reasonably well over the years. Oh, there has been continued deterioration of the joints that are subject to frequent hemorrhages, my knees and shoulders in particular.

"Someone Up There Must Like You!"

About the middle of 1978, I had what proved to be one of the most trying experiences of my life. I developed a hemorrhage in a kidney. Of course, the older I get, the more severe these things can be and, without transfusions, even more serious. Naturally, you can't wrap a kidney in an elastic bandage or immobilize it from performing its normal functions. The prognosis was not good.

Normal red blood cell (hemoglobin) count is between 14 and 16, and usually I am about 16. But during the next two weeks my count dropped below five! As the next few days passed, the doctors urged me to consider the possible consequences of not taking blood. If I waited too long, they were sure I would die.

For obvious reasons, I have been very close to the medical profession all my life.

I have grown to appreciate that most of them are well-meaning. They don't want to lose a life if they think they can save it. It was hard for them to understand my position on the blood issue.

While I was in the hospital, I received a letter informing me that I had been assigned my first part on the next circuit assembly of Jehovah's Witnesses. How my spirits soared! Within 24 hours my hemoglobin count leveled off. This was the first indication that the bleeding had stopped. Then the doctor came back and told me: "In about a week or ten days, when your hemoglobin count gets up to ten, we will send you home." Well, within three or four days it was high enough for me to go home.

Over the next few weeks, on follow-up visits, the doctor mentioned that he had learned a new way to treat hemophiliacs—"to wait." He added: "Someone up there must like you!"

Since that time—except for the occasion in 1981 when I was laid up for six weeks with a hemorrhage in my right knee—my health has remained fairly constant. I do continue to have bleeding episodes that confine me to bed for several days or even weeks, but these pass, and I am able to resume most activities.

With my beloved wife and two sons, I look forward to many more years to come. But whatever happens, I feel certain that I have done what any Christian must do—obey Jehovah whether it seems to be the easy thing to do or not. Some day medical science may develop an artificial clotting factor. But my real hope is in Jehovah's righteous new system wherein all will enjoy perfect health. (Isaiah 33:24; Revelation 21:3, 4)—*As told by John A. Wortendyke.*

NEXT to hugging your child," says Jim Trelease, author of *The Read-Aloud Handbook*, give your child "a piece of your mind and a piece of your time."

How? By reading aloud to him early in his life and often, recommends Trelease. The experience and benefits you and your child will receive are long lasting. In what ways? Not only will such reading bring back memories of treasured moments long after the child has grown up but it will help your child to become a better reader and learner too. Your child will also develop his visual skills because he will be learning to focus his attention on a picture. For example, at 18 months a child can already identify a picture of a puppy, and he can understand the word long before he can read it. In addition, not only will the reading, writing, speaking, listening, and imagining skills of your child improve but his attitude toward becoming a good reader will also improve—he will enjoy reading.

"Where will I find the time or the energy to read aloud to my children?" is the often heard cry of harried parents.

Jim Trelease observes: "The father who says he is too tired to read to his kids uses the same two eyes to watch a lot of television."

To make an about-face in this attitude, author Trelease shares these hints with future parent-readers:

1. Read the right books. Most children do not like books that preach to them. But they do enjoy stories with conflict or problems to overcome. Make sure, however, that the child



Reading Aloud Makes Learning Enjoyable

is emotionally ready for the book by previewing it yourself.

2. Pick the best time.

Reading to your child early in the morning, when he is all wound up, is probably not the best time. Some read to their child while he is confined in a high chair or eating a

snack. A natural favorite is bedtime. The child then has a longer attention span.

3. Meet the challenge. There is no harm in reading a book with a vocabulary beyond the child's understanding. A parent can give a simple definition of a word, paraphrase, or even skip the difficult parts.

4. Use your reading skills. Reading aloud calls for good breathing and pacing. If you have doubts about your performance, tape-record a story, play it back, and then rate your own reading skills.

5. Watch the attention span. True, a good story will capture your child's interest, but realize that he may not give his full attention to the story. Still, he will learn something from it.

6. Be patient. Like some adults who enjoy seeing the same movie over and over, children want to hear their favorite story read again and again because they discover new meanings each time. So instead of taking away a favorite book, simply add a new story.

Phones on Wheels —How Do They Work?



IMAGINE being able to place a telephone call to anywhere in the world—Hong Kong, Paris, Melbourne—not while you are at home but while you are traveling down the road in your car! The telecommunications business wants to make a telephone in the car as much an everyday item as the telephone is in many homes today.

Although mobile telephones are not new, three factors have suddenly increased their popularity. For one, competition in the telecommunications industry has driven down the cost of mobile telephone service to a point where more people can afford it.

Also, breakup of the telecommunications monopolies, such as in the United States, and government deregulation have freed local telephone companies to seek new ways for their customers to use phone services more often. One of these ways is to encourage telephones in cars so that calls can be made from previously impractical locations. Telephone companies reason, 'If a call is easy and convenient to make, more will be made, and so more income for us.'

A third factor is technology itself, which advances at breakneck speed today. One of

technology's key products is the computer, and computers have become the heart of cellular, or mobile, telephone service.

What Is It?

A mobile telephone is simply a two-way radio in the shape of a telephone. In the early days, mobile phones did not even have dials, and if you wanted to telephone someone, you had to wait for a mobile operator to place the call for you. In addition, the limited number of two-way radio channels restricted how many callers could be using their mobile telephones at the same time. Further, the telephone company providing mobile service usually had only one antenna for sending and receiving calls to vehicles all over the city. Therefore, if you were too far away from the central antenna, you could not use your car telephone.

Why are the modern mobile phones called cellular? They are still two-way radios—now with dials or push buttons—but what makes these mobile phones different from past ones is that there are many more antenna sites. Since each area covered by an antenna is called a cell, the name cellular is used.

Besides, there are more antenna sites for cellular mobile phones, so each antenna can operate on many channels, or frequencies, and can cover a hundred square miles (260 sq km). What does all of this mean to you if you have a mobile phone? Usually, you will not have to wait to place your call because each cell can accommodate as many as 40 or 50 simultaneous mobile telephone calls over a much greater area.

How Does It Work?

When you pick up your cellular telephone to make a call, a signal is sent out and picked up by the nearest cell-site antenna, which relays your request to the cellular-telephone switching office. A computer at the office recognizes your approximate location and assigns your telephone call to a two-way radio channel in that cell site, which will receive your voice and

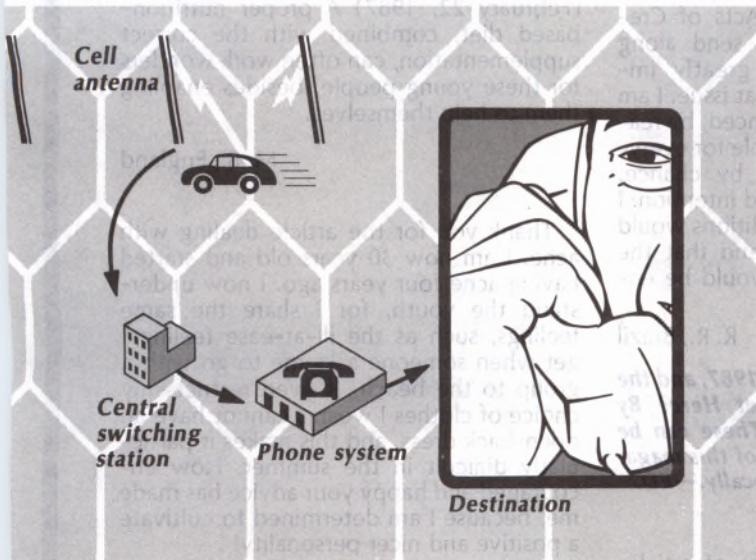
transmit the voice of the called party to you. Switching between transmitting and receiving is automatic, so the effect is much like talking from your home telephone.

What happens if you drive out of the range of your cell antenna while on call? Well, the computer in the central switching office keeps track of your radio signal while you are on the telephone. If your signal gets weak because of your location, the computer will automatically assign your telephone to another channel in a new cell site closer to your present location. It is all done automatically—in about a quarter of a second—so you can keep talking, almost without noticing the change, or handoff, as it is called.

Cellular telephones are not limited to cars. Some country clubs have cellular telephones in their golf carts, so that busy executives are never very far from work.

Phones are also showing up in city buses, taxicabs, and ferryboats. Companies are already marketing portable phones that can be carried in briefcases, so that calls can be made and received while you are walking down the street.

Cellular telephones are popular now throughout Europe, North America, and in industrialized nations around the globe. The more mobile a society becomes, the more people on the move are going to want to keep in touch with friends and business contacts. Hence, we are likely to see even more uses for phones on wheels.



The area covered by one antenna is a cell. Your call is received by the cell antenna and routed by the central switching station through the local phone system

From Our Readers

Just a Crush?

I wish to express my gratitude for what you wrote in the articles under "Young People Ask . . .": "Who Says It's Just a Crush?" and "How Can I Get Over a Crush?" (January 8 and January 22, 1987) I have had this problem for several years, being "in love" with a girl who is older than I am. Many had tried to persuade me to forget her but without results. After reading the two articles and realizing that somebody really did understand me and could offer me good suggestions, I have finally decided to leave things as they are and go back to leading a normal life.

G. T., Italy

Evolution or Creation?

I have served for 20 years as a university professor in physics and chemistry. After reading your September 22, 1981, issue on "Accidents of Evolution or Acts of Creation?" I feel compelled to send along some observations. I was greatly impressed and enthused with that issue. I am getting more and more convinced, by reason, that it would be impossible for everything to have come about by chance. There has to be a well-defined intention. I wish that *Awake!* in future editions would consider this subject again and that the introduction of this aspect would be encouraged in Brazilian schools.

R. R., Brazil

See our issue of January 22, 1987, and the book "Life—How Did It Get Here? By Evolution or by Creation?" These can be obtained from the publishers of this magazine or Jehovah's Witnesses locally.—ED.

The World Since 1914

I particularly like the series of articles entitled "The World Since 1914." (March 8

through June 22, 1987) There is so much history and detail showing the rapid change that has taken place on the world's scene leading up to the "great tribulation." (Matthew 24:21) Without this kind of information, we would be truly lost. The secular mode of this world is indeed anti-God and can only end in destruction. I really do appreciate the fine material that helps all thinking people to come to realize that man has to look to Jehovah for salvation and accept his provisions for everlasting life.

P. H., England

About Acne

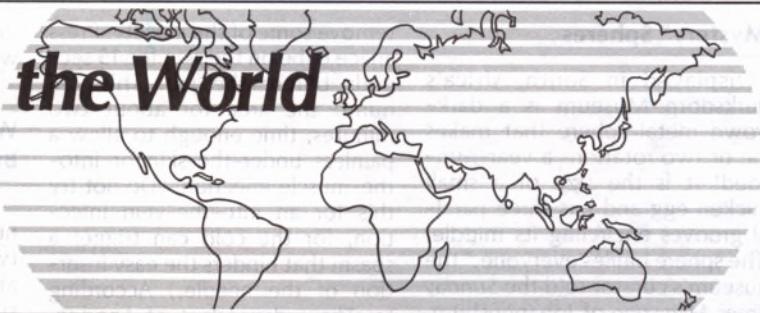
I am writing to you regarding your very negative article "Young People Ask . . . Can't I Do Something About My Acne?" (February 22, 1987) A proper nutrition-based diet, combined with the correct supplementation, can often work wonders for these young people, besides enabling them to help themselves.

M. B., England

Thank you for the article dealing with acne. I am now 30 years old and started having acne four years ago. I now understand the youth, for I share the same feelings, such as the ill-at-ease feeling I get when someone asks me to go with a group to the beach. It even restricts my choice of clothes I wear. I cannot have an open-back dress, and this makes it particularly difficult in the summer. How encouraged and happy your advice has made me, because I am determined to cultivate a positive and nicer personality!

L. L., Canada

Watching the World



AIDS Prediction

By the end of this century, the United States will have more than a million victims of the usually fatal disease AIDS, say scientists interviewed by Louis Harris and Associates. The survey was conducted among scientists specializing in biotechnology, cancer, and infectious diseases. Only 28 percent of them believed that "an effective cure for AIDS" would be available before the year 2000. Thus far, AIDS has infected about 32,000 people in the United States, more than half of whom have already died.

Alarming Odds

The U.S. Justice Department has calculated for the first time an individual's chance of becoming a victim of violent crime in his or her lifetime. The ten-year survey of over a hundred thousand people 12 years and older, according to *The New York Times*, showed that 83 percent "will be victims or intended victims of violent crimes at least once in their lifetimes" and that 52 percent will be victims more than once.

Imitation Intimidation

A Melbourne, Australia, man has invented and built a robot dog, complete with the intimidating bark of an Alsatian. Ac-

cording to the *West Australian* newspaper, the inventor believes that his device will appeal to people living alone. The electronic watchdog has a radar system that can pick up movement within a range of 16 feet (5 m) and has recorded barks that become progressively more frequent and fierce as an intruder gets closer. The annual cost of keeping the 12-volt-battery-operated mechanical "poodle"? About \$84 (Australian)—roughly the cost of a year's supply of dog food.

Endangered Soup

For centuries a delicacy throughout the Chinese world,



bird's-nest soup is now endangered, claim some fanciers. The treasured nests are becoming increasingly scarce, and the price for top-quality nests has risen to \$1,000 a pound, reports *The New York Times*. Why the scarcity? The birds' habitat has been developed into towns or farmland, causing a reduction in the number of birds,

notes one authority. Pollution has also been eroding their cliff dwellings, and aggressive nest harvesters have been "snatching nests as soon as they are built, or grabbing nests that have eggs in them." Youths as well as monkeys have been trained to scale the rocky cliffs to retrieve the nests. The nests come mostly from Indonesia, Thailand, Vietnam, China, or Malaysia. They are made from bird's saliva that hardens into cementlike threads. The soup ranges in price from \$14 to \$38 a bowl.

"Fountain of Youth"

Moderate exercise—even for those in their 80's—reverses many of the effects of aging, claim leading researchers at the University of Toronto. "You'd have to go a long way to find something as good as exercise as a fountain of youth," said Dr. Roy J. Shephard, a member of the research team, reports *The New York Times*. "And you don't have to run marathons to reap the benefits. For the average older person who does little more than rapid walking for 30 minutes at a time three or four times a week, it can provide 10 years of rejuvenation." Benefits include improved heart and respiratory function, lower blood pressure, increased muscle strength, denser bones, and clearer thinking.

"Mystery" Spheres

Displayed in South Africa's Klerksdorp Museum is a dark-brown metal sphere that makes one or two rotations a year—unaided! It is the size of a small chicken egg and has three parallel grooves encircling its middle. "The sphere baffles everyone," the museum's curator told the *Sunday Times Magazine* of Johannesburg. "It looks man-made, like a casting." The sphere, along with hundreds of similar ones, was found at South Africa's Wonderstone Mine. One examiner's opinion is that it gives evidence of a higher civilization, "which existed pre-flood." According to the curator, however, how these spheres were formed remains "a complete mystery."

Sensitive Penguins

Smog alarm was sounded several times in West Berlin during the month of January. The local zoo, however, claims to have a better early warning system than the 31 smog gauges used by the city—its penguins. Whenever these Antarctic birds start to breathe heavily, the zookeepers know that the smog level is high and that it is time to put the birds into their air-conditioned vivarium. The penguin's sensitivity to air pollution is not surprising, says the German newspaper *Frankfurter Allgemeine Zeitung*, since in the bird's homeland, the South Pole region, the "air is almost germfree and absolutely clean" by comparison.

Painless Injections

Do you dread the pain of an injection? Neurophysiologist Harold Hillman of Surrey University, England, offers a practical tip to

remove some of the anxiety. Press an ice cube on the skin for 15 seconds before the jab. This will numb the area for about two minutes, time enough to allow a painless under-the-skin or into-the-muscle injection. (Do not try this for an into-the-vein injection, for the cold can trigger a spasm that hinders the easy insertion of the needle.) According to *The Independent* of London, Dr. Hillman first discovered the icy painkiller when helping an eight-year-old diabetic girl face the anguish of repeated injections.

Fat Babies—Fat Adults?

Parents who overfeed their infant children make certain that they will become fat adults,



claims Douglas S. Lewis, a scientist of the Southwest Foundation for Biomedical Research in San Antonio, Texas. In his report to the American Heart Association, he showed that such obesity does not, however, manifest itself immediately. He based his remarks on the results of a five-year experiment with baboons that were overfed the first four months of their lives—the equivalent of one year for humans. Compared with the ones fed normally, as well as those underfed, these baboons began gaining weight in their third and fourth years. By the time they reached the end of puberty, namely at five years of age, the

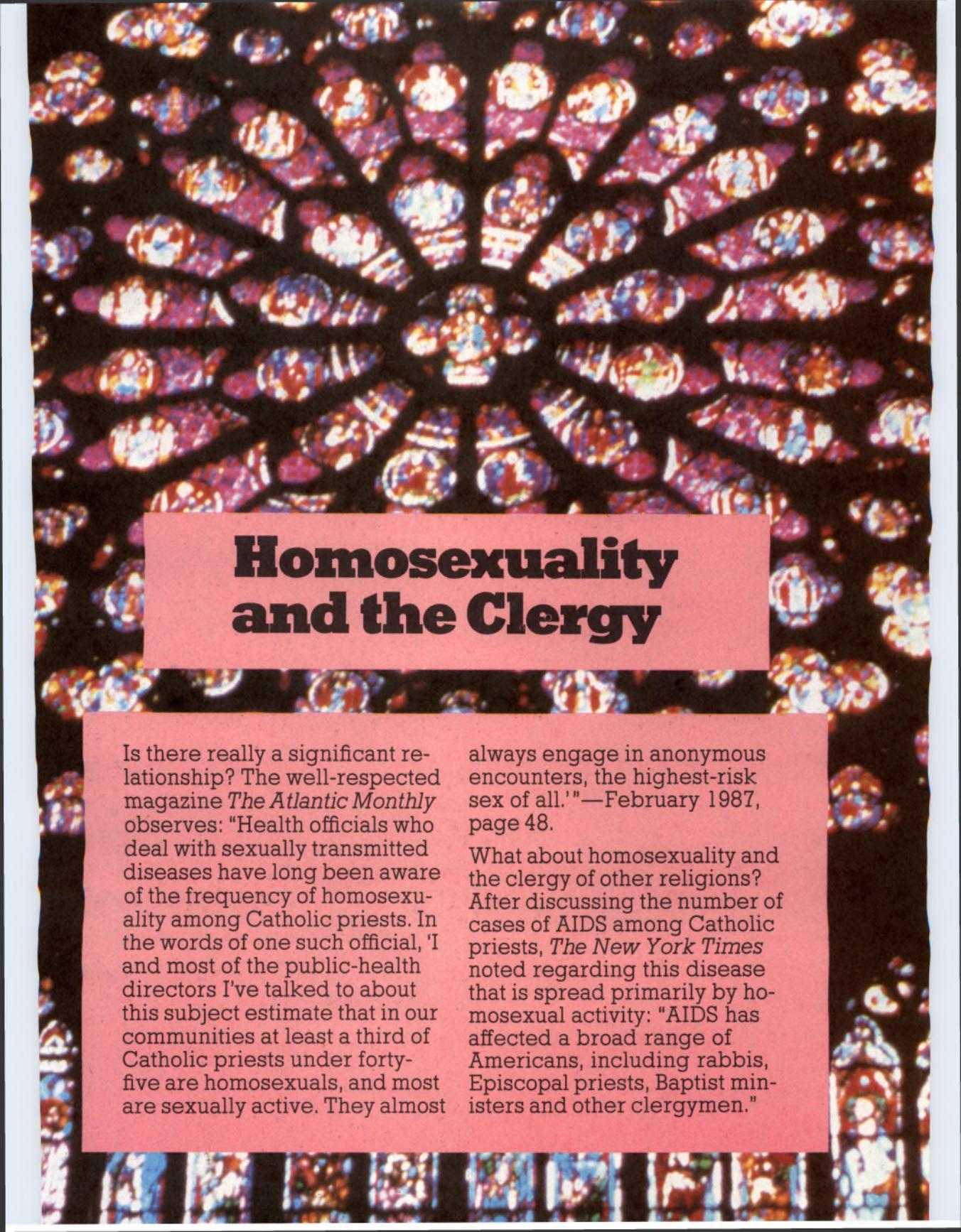
baboons were 39 percent overweight!

Working Mothers Who Breast-Feed

Working mothers who can nurse their babies only once or twice a day need not worry about risking loss of their milk supply, reports the *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. Frequent feedings are not needed to maintain milk production. In fact, since working mothers tend to wean their infants early, minimal breast-feeding has a positive effect on the mother-baby relationship. The report did admit, though, that it is not known if the breast-milk composition changes because of infrequent feeding or if the baby gets the same amount of disease-protection as do those who are nursed more often.

More Births—Fewer Marriages

On January 1, 1987, France registered a population of 55,506,000. The French Catholic daily *La Croix* mentions a slight upturn in the birthrate. It adds: "The number of legitimate births, however, is still on the decline, and the overall rise is entirely due to the increase in births out of wedlock. These represented nearly 20 percent of all births in 1985." According to the latest figures published by INSEE (French National Institute of Statistics and Demographic Studies), there has been a drop in the number of marriages (266,000 marriages in 1986) and a rise in the divorce rate. The number of divorces has tripled in 20 years.



Homosexuality and the Clergy

Is there really a significant relationship? The well-respected magazine *The Atlantic Monthly* observes: "Health officials who deal with sexually transmitted diseases have long been aware of the frequency of homosexuality among Catholic priests. In the words of one such official, 'I and most of the public-health directors I've talked to about this subject estimate that in our communities at least a third of Catholic priests under forty-five are homosexuals, and most are sexually active. They almost

always engage in anonymous encounters, the highest-risk sex of all.'"—February 1987, page 48.

What about homosexuality and the clergy of other religions? After discussing the number of cases of AIDS among Catholic priests, *The New York Times* noted regarding this disease that is spread primarily by homosexual activity: "AIDS has affected a broad range of Americans, including rabbis, Episcopal priests, Baptist ministers and other clergymen."

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