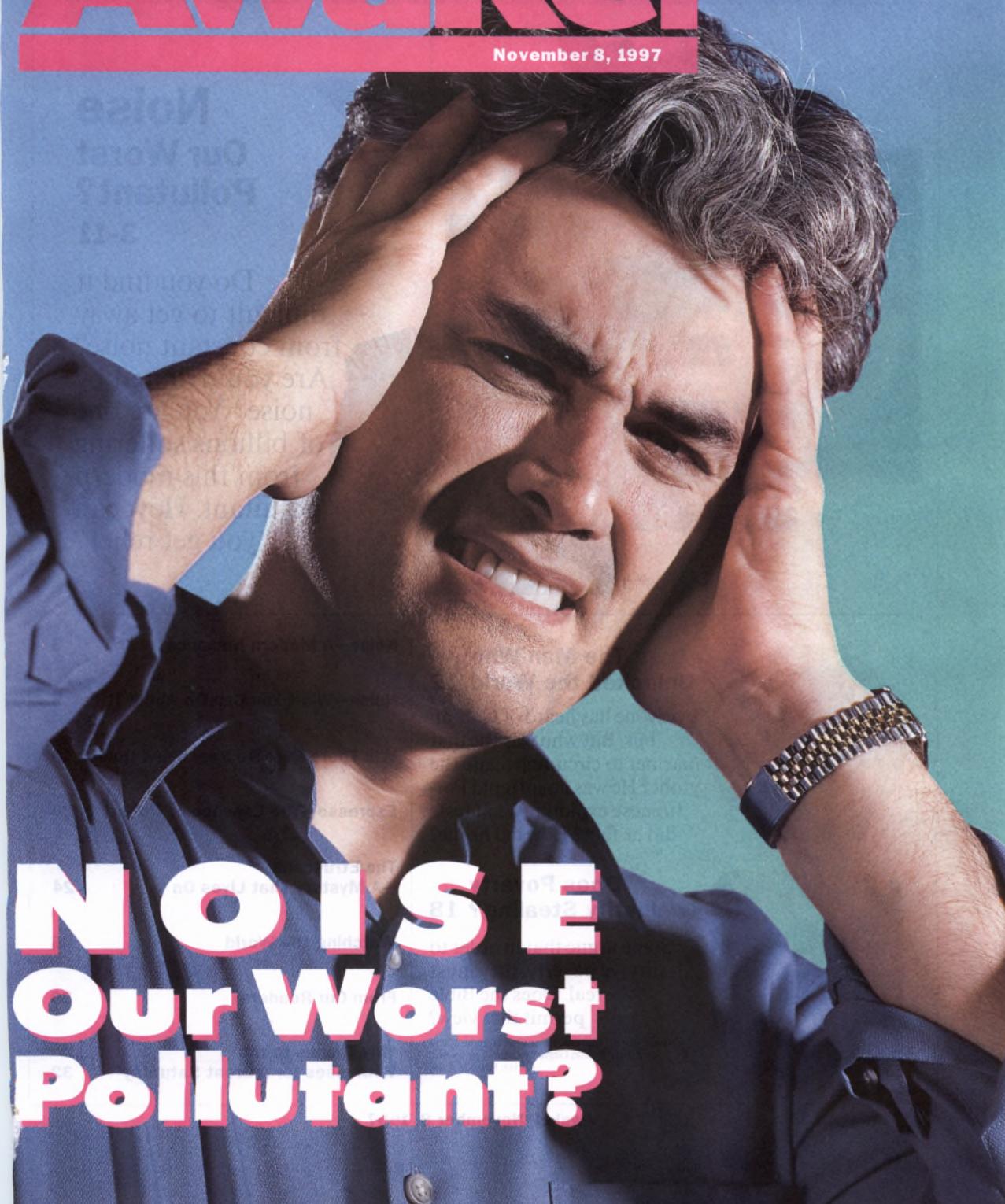


Awake!

November 8, 1997



NOISE
Our Worst
Pollutant?



Noise Our Worst Pollutant? **3-11**

Do you find it difficult to get away from constant noise? Are you irritated by noise? You are one of billions suffering from this modern pollutant. How can you get relief?



The Man Who Unlocked the World 12

Everyone has heard of Columbus. But who was the first mariner to circumnavigate the globe? He was an intrepid Portuguese explorer. What tests did he face? How did he die?



Does Poverty Justify Stealing? 18

Some argue that in order to survive poverty, they must steal. Does the Bible permit that view?

Robin Hood: General Research Division/The New York Public Library/Astor, Lenox and Tilden Foundations

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NOISE

A Modern Nuisance

“One of life’s great stressors.”

—Makis Tsapogas, adviser to the World Health Organization

"America's most pervasive pollutant."

-The Boston Sunday Globe, U.S.A.

“The worst pollutant of our time.”

-*Daily Express*, London, England.

YOU can't see, smell, taste, or touch it. NOISE, the bane of modern urban life, now pollutes the countryside.

One American naturalist who spent some 16 years recording the sounds of nature has found his task increasingly difficult. In 1984 he studied 21 sites in the state of Washington, U.S.A., that were noise free for 15 minutes or more. Five years later, only three remained.

For many of the world's inhabitants, finding three noise-free places is a challenge. In Japan, a nationwide report for 1991 stated that noise provoked more complaints than any other form of pollution. Indeed, *The Times* of London aptly describes noise as "the greatest scourge of contemporary life."

From the irritatingly persistent bark of a dog to the blasting of a neighbor's stereo or the insistent blare of a car burglar-alarm or radio, noise has become the norm. Yet, noise pollution is not new. It has a long history.

Not a New Problem

To prevent traffic congestion, Julius Caesar banned wheeled traffic from the center of Rome during the day. Sadly for him and his fellow Romans, the decree created intense noise pollution at night, "with wood or iron-shod cartwheels rumbling over the stone paving blocks." (*The City in History*, by Lewis Mumford) More than a century later, the poet Juvenal complained that noise condemned Romans to everlasting insomnia.

BY AWAKE! CORRESPONDENT IN BRITAIN

By the 16th century, England's capital, London, had become a bustling metropolis. "The first thing that must have struck most visitors," writes Alison Plowden, author of *Elizabethan England*, "was the din: the clatter and hammering from a thousand workshops, the rumble and squeak of cart-wheels, the lowing of cattle being driven to market, the raucous cries of street vendors proclaiming their wares."

The 18th century heralded the industrial revolution. Now the effects of mechanical noise became apparent as factory workers suffered damage to their hearing. But even city dwellers who did not live near factories complained of increasing disturbance. Historian Thomas Carlyle took refuge in a "well-deafened room" on the roof of his London house to avoid crowding cocks, neighbors' pianos, and the nearby street traffic. *The Times* reports: "It didn't work." Why? "He was then maddened by a new battery of noises, including river hooters and railway whistles!"

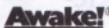
A Widespread Modern Pollutant

Today noise protesters focus on airports as airlines vigorously resist attempts to legislate against noise pollution. When Manchester airport in England imposed automatic fines each time the supersonic Concorde took off, were these effective? No. One Concorde captain admitted that the plane was noisy but that if it took off with a lighter load of fuel to reduce the noise level,

it would not reach Toronto or New York nonstop.

Preventing road traffic noise is equally problematic. In Germany, for example, studies reveal that this type of pollution disturbs 64 percent of the population. And it is a growing problem, reportedly one thousand times greater than before society became motorized. A report from Greece states that "Athens is one of the noisiest cities in Europe and the din is so infernal it is damaging Athenians' health." Likewise, Japan's Environmental Agency notes a worsening trend in traffic noise and attributes this to continued increases in automobile use. At low speeds a car's engine is the main source of noise, but above 40 miles per hour, tires make the most noise.

The greatest cause of noise complaints in Britain is domestic noise. In 1996, Britain's Chartered Institute of Environmental Health noted a 10-percent rise in complaints about noisy neighbors. A spokeswoman for the institute commented: "It is hard to explain. One factor may be that the pressure of people's working lives is leading them to make higher demands for peace and quiet at home." Two thirds of all the complaints lodged in Britain during 1994 involved late-night music and noisy car engines, alarms, and horns. But what of the estimated 70 percent of noise-pollution victims who make no complaint for fear of reprisals? The problem is truly pervasive.



Why Awake! Is Published Awake! is 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.

Would you welcome more information? Write Watch Tower at the appropriate address on page 5. Publication of Awake! is part of a worldwide Bible educational work supported by voluntary donations.

Unless otherwise indicated, *New World Translation of the Holy Scriptures—With References* is used.

Awake! (ISSN 0005-237X) is published semimonthly by Watchtower Bible and Tract Society of New York, Inc., 25 Columbia Heights, Brooklyn, NY 11201-2483. Periodicals Postage Paid at Brooklyn, N.Y., and at additional mailing offices. **Postmaster:** Send address changes to *Awake!*, c/o Watchtower, Wallkill, NY 12589. Printed in U.S.A.

As a result of the widespread noise nuisance, agencies that aim to protect the environment press for laws to curb noise pollution. In the United States, for example, some communities have adopted local regulations to limit the use of power landscaping tools. In Britain, a new Noise Act targets noisy neighbors and authorizes on-the-spot fines for violations between 11:00 p.m. and

7:00 a.m. Local authorities even have the power to confiscate offending stereo equipment. Yet, noise persists.

With noise pollution truly a growing problem, you may well wonder what you as a victim can do. But, also, how can you avoid causing noise? Will there ever be lasting peace and quiet? Read the following articles for answers.



NOISE

What You Can Do About It

AT THE end of a tiring day, you drop into a deep sleep. Suddenly, you are dragged back to consciousness by the barking of neighborhood dogs. You turn over in your bed and hope that the irritating noise will soon cease. But it persists. Over and over again, the dogs yap away. An-

noyed, frustrated by sleeplessness, and now wide awake, you wonder how your neighbors can put up with such a racket.

People vary greatly in the way they tolerate noise. Airport employees who live near a runway are much less disturbed by aircraft noise than those whose work is unrelated to

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How You Can Avoid Being a Noisy Neighbor

- Consider your neighbors when you do something noisy, and inform them beforehand.
- Cooperate when asked by a neighbor to reduce noise.
- Realize that your pleasure should not lead to your neighbors' distress.
- Remember that noise and vibration transmit easily through halls and floors.
- Place noisy household equipment on padding.
- Make sure that someone can be called to deal with false alarms from house and car.
- Don't carry out noisy work or use noisy domestic appliances late at night.
- Don't play music at a level that annoys your neighbors.
- Don't leave dogs alone for long periods.
- Don't allow children to jump on the floor and thus disturb people below.
- Don't sound car horns, slam doors, or rev engines at night.

planes. The housewife who uses an electric food processor tolerates its noise far better than the person in the next room who is trying to read a book or watch TV.

What Is Noise Pollution?

Countries vary in the way they define noise pollution. In Mexico, noise is "any undesirable sound that is a nuisance or is harmful to persons." New Zealand considers noise as excessive when it is "of such nature as to unreasonably interfere with the peace, comfort and convenience of any person."

Two famous scientists, Alexander Graham Bell, the inventor of the telephone, and Heinrich Hertz, a German physicist, are closely associated with the measurement of sound.

Bels, or more commonly decibels (one tenth of a bel), measure relative loudness, whereas hertz measure the pitch, or frequency, of a sound. When noise is measured, reports generally refer to the decibel level of the sound.*

But who determines how much disturbance a sound causes? You, the hearer! "For nuisance-value, the human ear remains the best detector," notes *The Independent* of London.

The Effects of Noise

Since the ear is the "best detector" of noise, it is obviously the organ most likely to suffer harm from it. Damage to the sensitive nerve cells of your inner ear can cause permanent loss of hearing. People vary in their response to loud sounds, it is true. But repeated exposure to sounds above 80 to 90 decibels can lead to gradual loss of hearing. Indeed, the higher the noise levels are, the less time you can spend daily in that environment before your hearing suffers damage.

New Scientist magazine reports that many personal stereos sold in France have a maximum output of 113 decibels. Citing one study, it noted that "rock music played at full blast for one hour on personal compact disc players surpassed 100 decibels most of the time and reached peaks of around 127 decibels." Even more serious is the effect of noise produced during live concerts. One investigator found people huddled near loudspeaker stacks in an unconscious stupor. "My vision was blurring, body cavities resonating with the bass beat," he relates, "and the noise was painful to my ears."

What effects can noise have on you? One authority states: "Constant noises of moderate to high levels cause stress, fatigue, and

* Noise levels are generally determined by using a meter that measures sound in decibels. Since the ear hears some frequencies more acutely than others, the meter is designed to respond similarly.

irritability." "Being tormented by noise not only takes the joy out of life, it can wear a person down physically and emotionally," notes Professor Gerald Fleischer, of the University of Giessen, Germany. When noise comes on top of other stressful conditions, according to Professor Makis Tsapogas, it can provoke depression as well as organic diseases.

Prolonged exposure to noise can affect your personality. When British government researchers asked victims of noise pollution how they felt about those responsible, they spoke of hatred, revenge, and even murder. On the other hand, noisemakers frequently become aggressive when they are the target of repeated complaints. "Noise lessens people's altruism and

creates aggression and hostility," claims one antinoise campaigner.

Most who have suffered from noise pollution recognize a gradual wearing down of their resistance to the disturbance. They echo the view of one woman whose noisy neighbors constantly played loud music: "When you are forced to listen to something you don't want to, it wears you down. . . . Even when the noise stopped, we were waiting for it to start again."

Is there no way, then, to deal with noise pollution?

What You Can Do

With noise so all-pervasive, many people simply do not realize when they are causing a disturbance to others. If they knew, some would no doubt cease the offending activity. It is for this reason that a *friendly* approach to a noisy neighbor can work. One person became angry over his neighbors' official complaints that he was noisy. He said: "I would have assumed that they would have come round to see me face-to-face if they were upset with the noise." A mother who organized a party for some young children expressed astonishment when confronted by an official investigating a noise

Noise and You

"Noise is the most widespread industrial hazard in Britain today," notes *The Times*, "and deafness its common consequence." Some occupational-health studies indicate that noise above 85 decibels can harm a fetus. The baby's hearing is damaged, and the baby may have hormonal disturbances as well as birth defects.

Exposure to loud noise constricts blood vessels and decreases the flow of blood to your organs. In turn, your body reacts by producing hormones that raise blood pressure and increase your heart-beat, sometimes leading to palpitations or even angina.

When noise disrupts your routine, other problems can occur. Disturbed sleep can affect your daytime reactions. Noise may not alter the overall speed at which you work, but it can have a bearing on the number of errors you make.

**How can you protect
yourself from noise
produced by a
mobile society?**



complaint. "I wish those who made the complaints had knocked on my door and told me if they were unhappy," she observed. Little wonder, then, that one British environmental health officer was amazed to discover that 80 percent of those complaining about domestic noise have never asked their neighbors to quiet down.

People's reticence to speak with noisy neighbors indicates a lack of mutual respect. 'If I want to play my music, I can. It's my right!' is the response they expect and frequently get. They are afraid that a kindly suggestion to adjust the volume might lead to confrontation as the noisy neighbor labels their complaint impertinent. What a sad reflection this is on present-day society! How like the Biblical statement that in these "critical times hard to deal with," people in general would be 'lovers of themselves, haughty, fierce, and headstrong'!—2 Timothy 3:1-4.

Much depends on the approach the victim takes. *Woman's Weekly* magazine offered the following scenario of how to resolve a tense

situation after an aggressive complaint that backfired: "A warm and very human, 'Look, I'm sorry—I blew my top but I get so tired when I can't sleep' will probably be all it takes to conciliate [defensive neighbors]." Perhaps they will gladly move their amplifying equipment away from the adjoining wall and lower the volume somewhat.

Realistically, it is worth your while to preserve good relations with your neighbors. Some local government authorities offer a mediation service to reconcile opposing neighbors. In view of the strong feelings official complaints provoke, calling in an enforcement agent should be viewed as "an absolute last resort."

If you anticipate moving to a new dwelling, you will find it wise to check on possible sources of noise disturbance *before* you finalize contracts. Real-estate brokers recommend that you visit your prospective home at different times of the day to check on noise. You could ask neighbors for their observations. Should you encounter problems after moving into your new residence, try to resolve them in a neighborly way. Litigation generally encourages animosity.

But what if you live in a noisy neighborhood and you have no means of moving elsewhere? Are you condemned to suffer indefinitely? Not necessarily.

How to Achieve Noise Protection

Take a look at what you can do to insulate your home from outside noise. Check the walls and floors to see whether there are any holes that can be filled in. Note espe-

cially where electric sockets are located. Are they secure?

Noise frequently enters a home through doors and windows. Affixing a second layer of glass to windows (double glazing) can help lessen the noise. Even adding a thin foam strip to your doorframe will ensure that the door fits snugly. Perhaps building a porch and installing a second door will protect your living areas from disturbing traffic noise.

Although traffic noise is growing at an alarming pace, automakers are constantly developing new materials and methods to lower sound levels inside your vehicle. Quieter tires on your auto also help. In many countries experiments with different types of road surfaces have produced such products as "whisper concrete," where some of the aggregate is left exposed and consequently there is only random tire contact. Use of this surface reportedly reduces noise levels by as much as two decibels for light

vehicles and one decibel for heavy trucks. Although this may not appear to be significant, a drop of three decibels on the average is equivalent to decreasing the noise from traffic by half!

Road builders now design highways that are hidden by barriers or banks of earth, thus effectively reducing noise. Even where there is no room for this, specially designed fences, such as one in east London made of woven willow shoots and evergreen plants, shield residents near the highway from unwanted noise.

Masking distracting sounds with what is called white noise—for example, static or rushing air—can be useful in some environments, such as offices.* In Japan silent pianos have come on the market. Instead of striking the string, the hammer activates an

* Just as white light is a mixture of all the frequencies in the light spectrum, white noise is sound that contains all the frequencies within the audible range, at approximately equal levels of loudness.

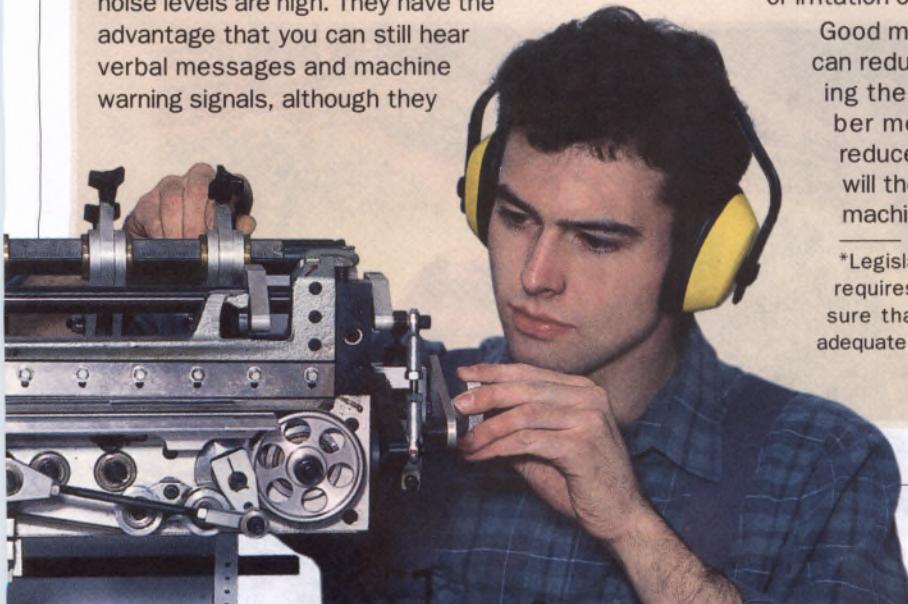
Protection at Work

If you find noise at work a problem, consider wearing some kind of ear protection.* Earmuffs fit around your head like headphones and are generally effective where noise levels are high. They have the advantage that you can still hear verbal messages and machine warning signals, although they

may make it difficult for you to pinpoint where the sound comes from. Earplugs need to be the right size for you and are unsuitable if you have an ear disease or irritation of the ear canal.

Good machine maintenance can reduce vibrations. Placing the equipment on rubber mounts will serve to reduce noise pollution, as will the screening of noisy machinery.

*Legislation in many countries requires that employers make sure that their workers wear adequate hearing protection.



electronic circuit that produces the note in the earphones of the player.

Scientists have already spent long hours researching the production of what they call antinoise. Basically, this involves using another source of sound to produce vibrations that cancel out the effects of noise. Of course, this involves extra equipment and more expense and does not really remove

the source of the problem. "Until people start regarding noise as sonic litter," observes *U.S. News & World Report*, "anti-noise may be the only way to get a moment of silence." Possibly so, but is silence the antidote to noise pollution?

Is there really any prospect of peace and quiet for your home and your neighborhood? Our next article offers a real hope.



Will There Ever Be

PEACE AND QUIET?

WHEN asked what they looked for in a foreign vacation, nearly 3 out of every 4 British tourists replied, "Peace and quiet." But with noise pollution a worldwide

problem, many believe that real peace and quiet is simply a pipe dream.

In spite of vigorous attempts to reduce noise pollution, you may wonder if it is realis-



tic to believe that there will ever be total success. What about others who do not share your concern?

Obstacles to Overcome

It is not easy to speak with people who are antagonistic, much less win them over to your viewpoint. When noisy groups of teenagers gathered outside the building where Ron lived, he took the initiative to befriend them. He learned their names. He even helped repair one of their bicycles. Since then, he has had no more trouble from them.

Take the case of Marjorie, a single parent with a teenage daughter, who lives in an apartment sandwiched between noisy neighbors. The tenants upstairs have no carpet on their floor. Consequently, Marjorie finds that noise from the children roller-skating across the floor, bouncing a ball, or even jumping off the bed disturbs her. Additionally, their mother wears high-heeled shoes at home. Marjorie made a kindly approach to ask her neighbor to be more quiet, but the language barrier between them brought frustration. The local municipal council has offered to send an interpreter to help resolve the problem, so Marjorie waits for improvement.

Beneath her is a man who plays loud music between seven and eight o'clock every morning, the bass beat thumping constantly. Her tactful approach to the man brought the reply that he needed his music to 'put him in a good mood for his work.' How does Marjorie cope?

"I'm working on self-control and patience," she says. "I have rearranged my program, and I sit down to read in spite of the noise. I find that I quickly become absorbed in my book. Then I don't notice the noise as much."

Heather, on the other hand, lives in an apartment overlooking a nightclub, which, after a rowdy night, closes about six in the morning. Although she eventually complained to the local authorities, little has been done to stop the disturbance.

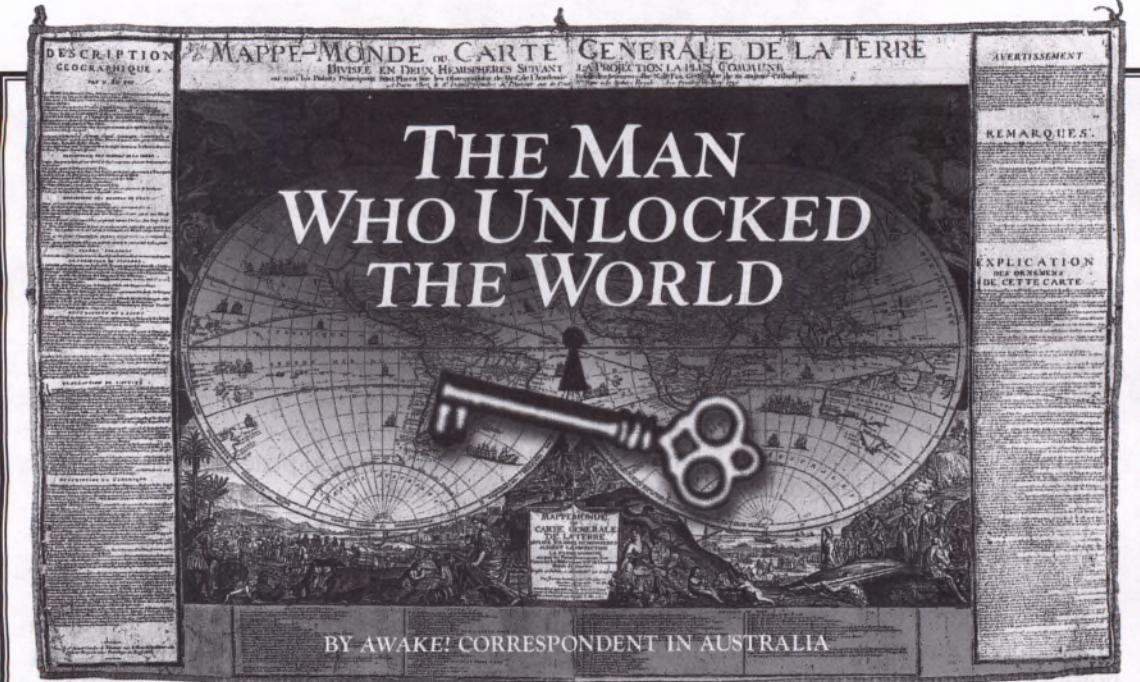
An End to Noise?

"Many people find total silence extremely disturbing and eerie," observes Dr. Ross Coles of Britain's Medical Research Council's Institute of Hearing Research. The beautiful songs of birds, the gentle breaking of waves on a sandy shore, the excited cries of children—these and other sounds delight us. Though we may presently long for some relief from noise, we are happy to be with wholesome companions who converse with us. God has promised peace and quiet for his faithful servants.

In the Bible the psalmist declares: "The meek ones themselves will possess the earth, and they will indeed find their exquisite delight in the abundance of peace." (Psalm 37:11) God's heavenly Kingdom government will soon intervene in human affairs. (Daniel 2:44) Then, under the rulership of Christ Jesus, there will be an "abundance of peace until the moon is no more."—Psalm 72:7; Isaiah 9:6, 7.

You can rest assured that divine intervention will achieve the peace and quiet that all of us desire, just as God's prophet Isaiah foretold: "The work of the true righteousness must become peace; and the service of the true righteousness, quietness and security to time indefinite. And my people must dwell . . . in undisturbed resting-places."—Isaiah 32:17, 18.

Even now, you can discover spiritual peace and quiet at the gatherings of Jehovah's Witnesses in your locality. Though on occasion tens of thousands meet together for worship in large conventions—and these get-togethers are truly 'noisy with men, women, and children'—the sound is not disturbing but pleasant. (Micah 2:12) Experience it for yourself by meeting with the Witnesses locally or by writing to one of the addresses on page 5 of this magazine to contact them. Enjoy real peace and quiet in their company now and perhaps forever.



WHEN men first went to the moon, they planned with mathematical precision where they were going and how they were going to get there. And they could communicate with home. But when Ferdinand Magellan's* five little wooden ships—most of them about 70 feet long, comparable in length to a modern semitrailer—left Spain in 1519, they sailed into the unknown. And they were utterly alone.

Among the boldest, most courageous navigational feats of all time, Magellan's voyages are a monument to the Great Age of Exploration—an age of courage and fear, elation and tragedy, God and Mammon. Let's go back, then, to about 1480, when Ferdinand Magellan was born in northern Portugal, and take a look at the remarkable man who unlocked the world and at his epic journeys.

From Court Page to Fearless Mariner

The Magellan family are members of the nobility, so, as is the custom, while Ferdi-

nand is still a young lad, he is called in as page to the royal court. Here, besides getting an education, he learns firsthand of the exploits of men like Christopher Columbus, who has just returned from the Americas after having sought a western sea route to the fabled Spice Islands (Indonesia). Young Ferdinand soon dreams of the day when he too can hear the slap of canvas overhead and feel in his face the spray of unexplored oceans.

Sadly, in 1495 his patron, King John, is assassinated and Duke Manuel, who is keen on wealth but not on exploration, takes the throne. For some reason, Manuel dislikes 15-year-old Ferdinand and for years ignores his requests to go to sea. But when Vasco da Gama returns from India, loaded with spices, Manuel smells great wealth. Finally, in 1505, he gives Magellan permission to go to sea. Magellan sets off for East Africa and India in a Portuguese armada to help wrest control of the spice trade from Arab merchants. Thereafter, he sails farther east to Malacca with another military expedition.

* His Portuguese name was Fernão de Magalhães.

During a skirmish in Morocco in 1513, Magellan gets badly wounded in the knee. As a result, he limps for the rest of his life. He asks Manuel for an increase in his pension. But Manuel's animosity is not lessened in the least by Magellan's recent exploits, sacrifice, and valor. He sends him on his way with barely enough to live in genteel poverty.

At this lowest point in Magellan's life, he receives a visit from an old friend, the famous navigator João de Lisboa. The two discuss ways of reaching the Spice Islands by going southwest, through *el paso*—a strait rumored to cut through South America—and then across the ocean that Balboa recently discovered when he traversed the Panamanian isthmus. They believe that on the far side of this ocean lie the Spice Islands.

Magellan now aches to do what Columbus failed to do—find that western route to the Orient, which he believes is shorter than the eastern route. But he needs financial backing. So, still smarting from the heat of Manuel's wrath, he does what Columbus himself did some years earlier—he seeks the patronage of the king of Spain.

Will Spain's King Listen?

With charts laid open, Magellan presents his arguments to Spain's young sovereign, Charles I, who is most interested in Magellan's western route to the Spice Islands, for this would preclude trespassing on Portuguese shipping lanes. What is more, Magellan tells him that the Spice Islands may actually be in Spanish territory, not Portuguese! —See the box "The Treaty of Tordesillas."

Charles is won over. He gives Magellan five old ships to refit for the expedition, makes him captain-general of the fleet, and promises him a share in the profits from the spices brought home. Magellan immediate-

ly starts to work. But because King Manuel slyly attempts to sabotage the project, it takes more than a year before the fleet is finally ready for its epic voyage.

The Greatest Navigational Feat in History

On September 20, 1519, the *San Antonio*, the *Concepción*, the *Victoria*, and the *Santiago*—largest to smallest—follow Magellan's flagship, the *Trinidad*, the second-largest vessel, as they sail for South America. On December 13, they reach Brazil, and under the majestic gaze of Pão de Açúcar, or Sugarloaf Mountain, they enter the beautiful bay of Rio de Janeiro for repairs and provisions. Then they continue south into what is now Argentina, ever alert for *el paso*, the elusive passage to another ocean. Meantime, the days get colder and icebergs appear. Eventually, on March 31, 1520, Magellan decides to winter in the cold harbor of San Julián.

The voyage has now taken six times longer than Columbus' first Atlantic crossing—and still no strait! Morale is as frigid as the San Julián weather, and the men, including some of the captains and officers, are desperate to go home. It is no surprise when mutiny erupts. But through quick, decisive action on Magellan's part, it fails, and two of the ringleaders are killed.

The presence of strange ships in the harbor naturally piques the curiosity of the hardy—and big—local inhabitants. Feeling like dwarfs next to these giants, the visitors call that land Patagonia—from a Spanish word meaning "big feet"—its name to this day. They also observe 'sea wolves resembling calves in size, and black and white geese that swim underwater, eat fish, and have beaks like crows.' Yes, you guessed it—seals and penguins!

Polar latitudes are prone to sudden, violent storms, and before winter is over, the fleet suffers its first casualty—the tiny

The Treaty of Tordesillas

With a vast world opening up before them, Portugal and Spain agreed by treaty to share trade and sovereignty rights over the new lands. Thus, under the direction of Popes Alexander VI and Julius II, they drew a line of longitude through what is today Brazil. Lands discovered east of this line would become Portugal's; the rest, Spain's. Magellan unwisely suggested to Portuguese King Manuel that when this line was projected through the poles to the other side of the globe, the Spice Islands might actually fall within Spain's domain. This honest observation, based on the prevailing concept of a much smaller Pacific Ocean, earned him a fiery rebuke. Ironically, Magellan proved himself wrong. Nonetheless, his belief gave him added reason to seek the patronage of the king of Spain.

Santiago. Fortunately, though, the crew are rescued from the grounded wreck. Thereafter, the four remaining ships, like battered little winged moths in the thrall of unremitting icy gales, pound their way south into ever colder waters—until October 21. Through spray and sleet, all eyes are locked onto an opening to the west. *El paso?* Yes! At long last, they turn and enter the strait that is later known as the Strait of Magellan! Yet, even this moment of triumph is tarnished. The *San Antonio* deliberately disappears in the maze of the strait and returns to Spain.

The three remaining ships, flanked by bleak fjords and snowcapped peaks, doggedly force their way through the tortuous strait. To the south they spot countless fires, possibly from Indian camps, so they call that land Tierra del Fuego, "Land of Fire."

The Pacific Ordeal

After five harrowing weeks, they sail out into an ocean so peaceful that Magellan

names it the Pacific. The men pray, sing hymns, and salute their conquest with their cannons. But their euphoria is short-lived. Woe beyond anything they have so far experienced awaits them, for this is not the small sea they expected—it goes on and on and on, and the men get hungrier and weaker and sicker.

Antonio Pigafetta, a hardy Italian, keeps a journal. He writes: "Wednesday, the twenty-eighth of November, 1520, we . . . entered into the Pacific sea, where we remained three months and twenty days without taking in provisions . . . We only ate old biscuit reduced to powder, and full of grubs, and stinking from the dirt which the rats had made on it . . . , and we drank water that was yellow and stinking. We also ate the ox hides . . . , the sawdust of wood, and rats which cost half-a-crown each, moreover enough of them were not to be got." Thus, as fresh trade winds fill their sails and clear water slips beneath their keel, the men lie rotting from scurvy. Nineteen die by the time they reach the Mariana Islands, on March 6, 1521.

But here, because of hostilities with the islanders, they manage to get only a little fresh food before sailing on. Finally, on March 16, they sight the Philippines. At long last, all the men eat well, rest, and regain their health and strength.

Tragedy—A Dream Collapses

A deeply religious man, Magellan there converts many local inhabitants and their rulers to Catholicism. But his zeal is also his undoing. He gets involved in an intertribal dispute and, with just 60 men, attacks some 1,500 natives, believing crossbow, musket, and God will assure him victory. Instead, he and a number of his men are killed. Magellan is about 41. Loyal Pigafetta laments: 'They killed our mirror, light, comfort, and true guide.' A few days later, some 27 officers who had done no more than watch from the

safety of their ships are put to death by once friendly chiefs.

When Magellan died, he fell in familiar waters. A little to the south lay the Spice Islands and to the west, Malacca, where he had fought in 1511. If, as some historians think, he sailed to the Philippines after the battle at Malacca, then he did, indeed, circumnavigate the globe—though not, of course, in one voyage. He had reached the Philippines from both the east and the west.

Disaster Plagues the Homeward Run

As so few men now remain, working three ships is impossible, so they sink the *Concepción* and sail the remaining two vessels to their ultimate destination, the Spice Islands. Then, having loaded up with spices, the two ships separate. However, the crew of the struggling *Trinidad* are captured by the Portuguese and imprisoned.

But the *Victoria*, under the command of ex-mutineer Juan Sebastián de Elcano, gets away. Avoiding all ports bar one, they risk the Portuguese route around the Cape of Good Hope. Not stopping for victuals, though, is a costly strategy. When finally they reach Spain on September 6, 1522—three years from when they left—only 18 sick, emaciated men have survived. Still, they are earth's first undisputed circumnavigators. And De Elcano is a hero. Incredibly, the *Victoria*'s 26 tons of spices pay for the entire expedition!

Magellan's Name Lives On

For years Magellan is denied his true place in history. Swayed by the reports of the mutinous captains, the Spanish smear his name, saying he was harsh and incompetent. The Portuguese label him a traitor. Sadly, his log vanished when he died, probably destroyed by those it would expose. But thanks to the indomitable Pigafetta—one of the 18 circumnavigators—and about 5 other mem-

bers of the expedition, we have at least some record of this tragic, yet extraordinary, voyage.

In time, history revised its judgment, and today the name Magellan is duly honored. A strait bears his name, as do the Magellanic Clouds—two fuzzy southern galaxies first described by his crew—and the space probe Magellan. And, of course, we owe the name of the world's largest ocean—the Pacific—to Magellan.

Indeed, "no human voyage of such importance would be made until Apollo 11 landed



Century Magazine

The Ordeal of the Early Sailor

Especially on the longer voyages of exploration—which often lasted years—life for the lowly sailor was no idyllic cruise. Here is a mere sampling of the seafarer's lot:

- Pathetically cramped quarters and a lack of privacy
- Often, cruel punishment, depending on the whim of the captain
- Scurvy and death from lack of vitamin C
- Death from shipwreck, hunger, thirst, exposure, natives
- Dysentery or typhoid from foul and putrid drinking water
- Food poisoning from rotten, infested food
- Rat-bite fever, from the teeth of hungry rats
- Typhus, from lice swarming on dirty bodies and clothing
- In all, about a 50-50 chance of getting home alive

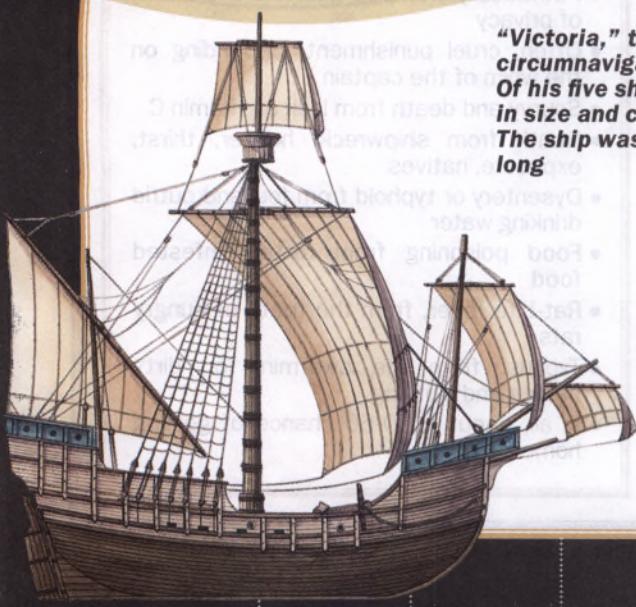


Ferdinand Magellan



**"Victoria," the first ship to circumnavigate the globe.
Of his five ships, it was fourth in size and carried 45 men.
The ship was about 70 feet long**

Strait of Magellan



on the Moon 447 years later," writes Richard Humble, in *The Voyage of Magellan*. Why was the voyage so important? First, it proved that the Americas were neither part of nor close to Asia, as Columbus had thought. Second, at the end of the voyage, a one-day discrepancy in dates pointed to the need for an international date line.

Magellan: Giraudon/Art Resource, NY; world map: Mountain High Maps®
Copyright © 1995 Digital Wisdom, Inc.; astrolabe: Courtesy of Adler Planetarium

Magellan's Voyage, 1519-22

Route

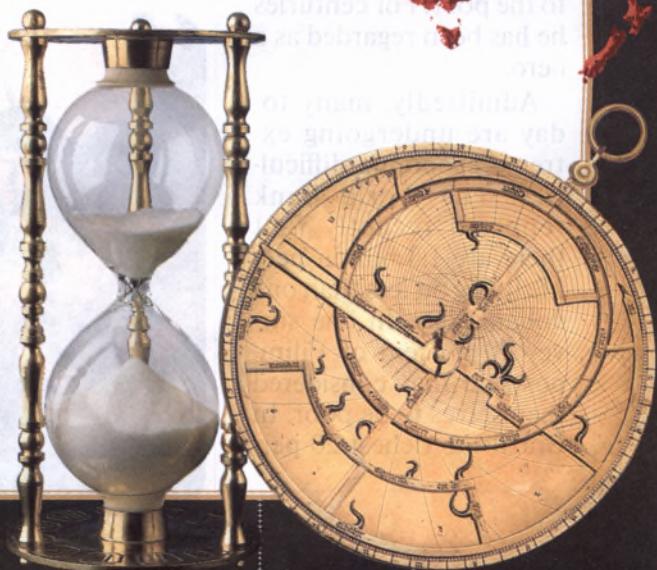
Beginning and end point

Magellan was killed
in the Philippines

Final leg sailed by
Juan Sebastián de Elcano

Navigational instruments: The hourglass measured time, while the astrolabe determined the ship's latitude

And, finally, as science writer Isaac Asimov said, it showed that the earth is a sphere. Yes, in this latter respect, Magellan demonstrated in a practical way what the Bible itself had been saying for 2,250 years. (Isaiah 40:22; compare Job 26:7.) No doubt the deeply religious man who unlocked the world would have been pleased with that.



Does Poverty Justify Stealing?

"POVERTY IS A GREAT ENEMY OF HUMAN HAPPINESS; IT CERTAINLY DESTROYS LIBERTY AND IT MAKES SOME VIRTUES IMPRACTICABLE, AND OTHERS EXTREMELY DIFFICULT."

—Samuel Johnson, 18th-century author.

ROMAN statesman Magnus Aurelius Cassiodorus said: "Poverty is the mother of crime." These views seem to suggest that certain crimes are a natural result of poverty. Many today apparently agree, especially when the crime is stealing.

The belief that oppression and poverty justify stealing is quite popular. Consider the famous 14th-century English ballads about Robin Hood, which describe a legendary outlaw who robbed from the rich and distributed the gains to the poor. For centuries he has been regarded as a hero.

Admittedly, many today are undergoing extreme economic difficulties. The World Bank reported recently that there are 1.3 billion people living on less than one dollar a day. In one survey 70 percent of Filipinos said they considered themselves to be poor. In Brazil the richest 20 per-

cent of the people earn 32 times as much as the poorest 20 percent. Such conditions can frustrate some people to the point that they use any means, even stealing, just to satisfy their daily needs for survival.

The Bible clearly condemns stealing. The eighth of the Ten Commandments states: "You must not steal." (Exodus 20:15) Yet, many who believe in the Bible are inclined to justify stealing when the thief is driven by deplorable economic conditions.

This brings up serious questions: Does poverty really justify stealing? What is a person to do if he lives in extreme economic distress? What if he has sick or hungry children to care for? Would Jehovah God allow stealing in such cases, especially if the items taken belong to those who may not even miss them?



Robin Hood: General Research Division/The New York Public Library/Astor, Lenox and Tilden Foundations

What Does God Say?

Since Jesus reflected his Father's personality, his example can help us to understand God's viewpoint. (John 12:49) While on earth, Jesus was very compassionate in his dealings with the needy. The Bible says that "on seeing the crowds he felt pity for them." (Matthew 9:36) Nevertheless, he never, under any circumstances, condoned stealing. Likewise, although God has concern for the poor, he does not consider poverty to be a justification for stealing. At Isaiah 61:8, the Bible tells us that God 'hates robbery along with unrighteousness.' And the apostle Paul clearly states that thieves will not inherit God's Kingdom. So we are not left in doubt as to God's viewpoint.—1 Corinthians 6:10.

However, Proverbs 6:30 says that "people do not despise a thief just because he commits thievery to fill his soul when he is hungry." Does this statement excuse stealing? Not at all. The context shows that God still holds the thief punishable for his error. The following verse says: "But, when found, he will make it good with seven times as much; all the valuables of his house he will give." —Proverbs 6:31.

While the thief who steals because of hunger may not be as reprehensible as one who steals out of greed or with an intent to cause harm to his victim, those desiring God's approval should not be guilty of any kind of thievery. Even in conditions of extreme poverty, stealing dishonors God. Proverbs 30:8, 9 puts it this way: "Let me devour the food prescribed for me, . . . that I may not come to poverty and I actually steal and assail the name of my God." Yes, a thief reproaches God's name. Since stealing is a loveless act, it is a sin regardless of whether committed against rich or poor. For those who love God and neighbor, stealing is never justified.—Matthew 22:39; Romans 13:9, 10.

The argument that a person who is disadvantaged has the right to steal is not logical. Saying this would be much like saying that an athlete of inferior build has the right to take banned drugs in order to win. Even if he does win, he has used dishonest means. Others will rightly feel that he has taken away their victory by illicit methods. So, too, with the thief. He takes what belongs to others in a dishonest way. His disadvantaged position does not justify the means.

Any thief wanting God's approval must repent of his course of conduct. The Bible admonishes: "Let the stealer steal no more, but rather let him do hard work, doing with his hands what is good work." (Ephesians 4:28) Former thieves who are genuinely repentant can rest assured that Jehovah will forgive them.—Ezekiel 33:14-16.

What Can the Poor Do?

The Bible promises: "Jehovah will not cause the soul of the righteous one to go hungry, but the craving of the wicked ones he will push away." (Proverbs 10:3) God will not help those who willfully break his law to satisfy their desires. But he has compassion for those who sincerely try to obey him, and he will bless their efforts to obtain what is needed.—Psalm 37:25.

Millions have already found that when they follow godly principles, their lot in life improves. For example, applying Bible counsel to be industrious and to avoid vices, such as gambling, drunkenness, smoking, and drug abuse, has enabled them to have more of what they really need. (Galatians 5:19-21) This requires that they exercise faith, and those who have done so have learned that "Jehovah is good" and that he really does help those trusting in him.—Psalm 34:8.

Espresso

THE ESSENCE OF COFFEE

'If coffee only tasted as good as it smells!' Have you ever said that? Then you might want to try "caffè espresso." Connoisseurs have called it the "ultimate coffee" and "the pinnacle of coffee drinking."

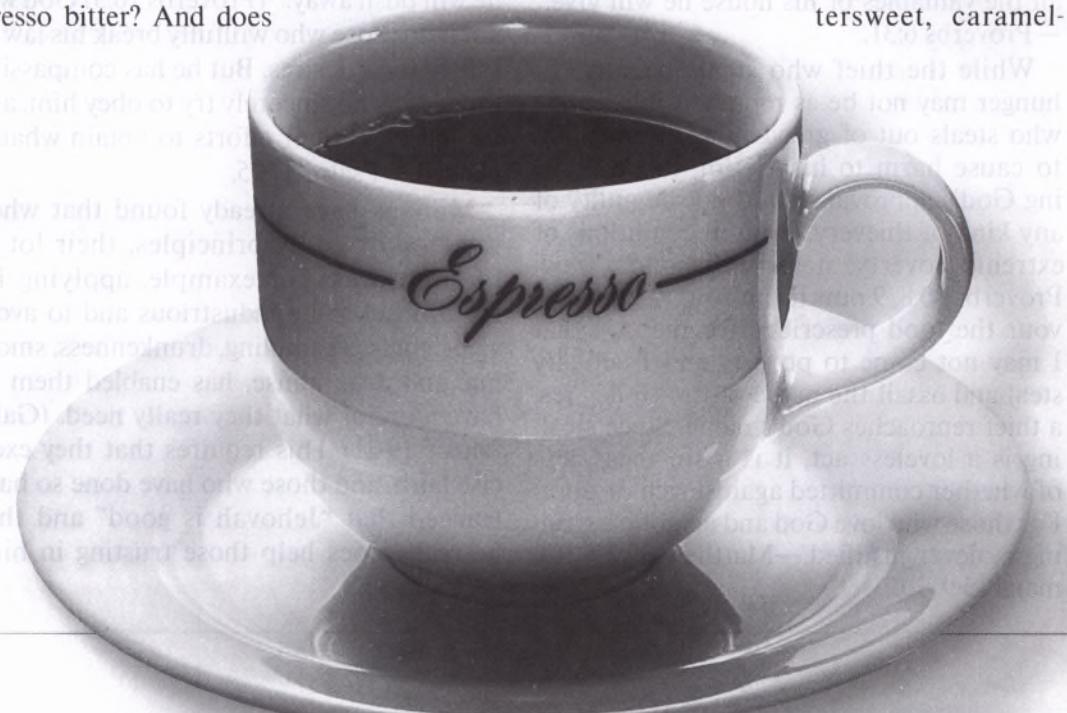
PERHAPS you have already tasted espresso? Maybe you were intrigued by its heavy body and rich flavor. On the other hand, you might have decided: 'This is not my idea of a cup of coffee. No wonder it is served in the tiniest of cups—who could stand more than a few swallows of so harsh and bitter a drink? Besides, it surely contains an unhealthy amount of caffeine!'

However, is well-made espresso bitter? And does

a serving of espresso contain more caffeine than a cup of regular coffee? The answers may surprise you.

What Makes It Espresso?

Espresso originated in Italy, although various countries and cultures have developed their own methods of preparing it. What does it taste like? Espresso lovers describe it as aromatic, rich, syrupy, smooth, bittersweet, caramel-



sweet, and perfumy. A perfectly brewed cup of espresso includes a top layer called *crema*—a golden-brown foam, usually obtained with difficulty, that adds smoothness and holds in some of the aroma.

A single serving is a mere one to one and a quarter ounces. It is generally served with sugar in a demitasse immediately after it is brewed—superlatively fresh!

How is it produced? Espresso-making starts with a specially formulated blend of beans, roasted to a very dark brown (but not black) and ground more finely than those used for regular coffee. However, it is not primarily the roast or the grind that produces espresso—it is the unique brewing process, one that uses pressure instead of gravity. The amount of coffee used in a single serving is roughly two thirds the amount used for drip coffee, but with far less water. This brewing process brings out the essence of the coffee beans.

You can request a single or a double serving in many restaurants and coffee shops. A caution, however: Carelessly made espresso is bitter. So when you are served espresso at a restaurant or café, inspect it. If your cup is too full or the coffee is not topped with *crema*, you have likely been served a harsh, overextracted brew.

Associated with espresso is a line of espresso-based drinks. If you find espresso too rich, why not try a delicious cappuccino or a creamy caffè latte?

Equipment for Home Espresso

Would you like to make espresso drinks at home? Attention to every detail is essential, to ensure a rich, sweet drink.

What sort of espresso maker should you purchase? No drip method will make true espresso, regardless of the roast or the grind used. You will need specially designed equipment.

Stove-top brewers are often the least expensive. Many people are satisfied with stove-top espresso at home, even though the coffee is thin and likely to lack *crema*. You can get a good espresso by carefully limiting the amount of water put in the reservoir or by leaving the top open and taking the pot off the flame about midway through the process.

Electric steam machines utilize steam to force the water through the coffee. How can you get the best results? By cutting off the flow of coffee after the first one to two ounces, in order to avoid overextraction and save enough steam for foaming milk. Therefore, look for a machine that includes a switch or another means of cutting off the coffee flow. Steam machines make good cappuccinos and lattes but, like stove-top brewers, are incapable of producing the best straight espresso.

Piston machines are usually the most expensive and are capable of making excellent espresso. To operate a piston machine, you apply pressure by depressing a handle, which compresses a spring-loaded piston, forcing hot water through the coffee. Some people prefer piston machines because they offer manual control and are attractive in appearance. Others find them difficult to operate and too slow in the warming-up process.

Pump machines also generate enough pressure to make excellent espresso. They are easier and faster to operate than piston machines. Therefore, those who want the best of espresso usually opt for a pump machine. Features vary, and some pump machines are considerably more durable than others. So shop around before you buy. Stores that demonstrate their machines put you in the best position to make a solid choice.

The Coffee You Buy

Choose a fresh espresso roast. Coffee sold in supermarkets is rarely fresh, so seek out a specialty coffee shop—all the better if

roasting is done on the premises. Ground coffee becomes stale within days, whereas whole beans will stay reasonably fresh for a few weeks. Therefore, if possible, buy whole beans and grind them at home, as needed. The right grind is fine, but not too powdery. If you must purchase ground coffee, buy a small amount and use it soon.

To keep your coffee fresh, store it in an airtight canister with a solid seal. If you will use it within a couple of weeks, keep the canister of coffee in a cool, dark area. Otherwise, store it in the freezer.

The Art of Brewing

Even with the best of equipment and coffee, the art of espresso making must be learned, not purchased. The steps of brewing will vary depending on the machine you use, so follow the directions that come with it. Use enough coffee grounds. The right dose will almost fill your filter insert, while leaving

Instructions for Foaming Milk

To foam and/or steam milk for cappuccinos and lattes, you will need a steel pitcher, cold milk, and a milk steamer. If your espresso maker does not include a wand for milk steaming, you can purchase a stand-alone device for this purpose.

1. Fill a steel pitcher no more than halfway with cold milk.
2. Place the steam wand just under the surface of the milk, and open the steam valve.
3. Keep the tip of the wand barely under the surface, lowering the pitcher and incorporating more air as you foam.
4. The ideal temperature is usually reached when the pitcher becomes too hot to touch.
5. Close the steam valve, and remove the pitcher from under it. Then open the steam valve to clear any remaining milk, and wipe it with a damp cloth.

some room for the grounds to expand. It will take some experience to pack, or tamp, the coffee in the filter properly, so that the water flows slowly and evenly through the bed of grounds, ensuring full extraction of flavor.

A mistake to avoid? Brewing too much coffee from the grounds. If you try to brew two or three ounces from a single dose, the brew will get thin and bitter. Instead of getting espresso, you finish up with a drink that resembles strong drip coffee—not what you hoped for.

Therefore, an important factor is knowing when to stop brewing. Connoisseurs suggest that a single shot of espresso should result in one to one and a quarter ounces of liquid in about 20 to 25 seconds. At this point the grounds are thoroughly extracted and should be discarded.

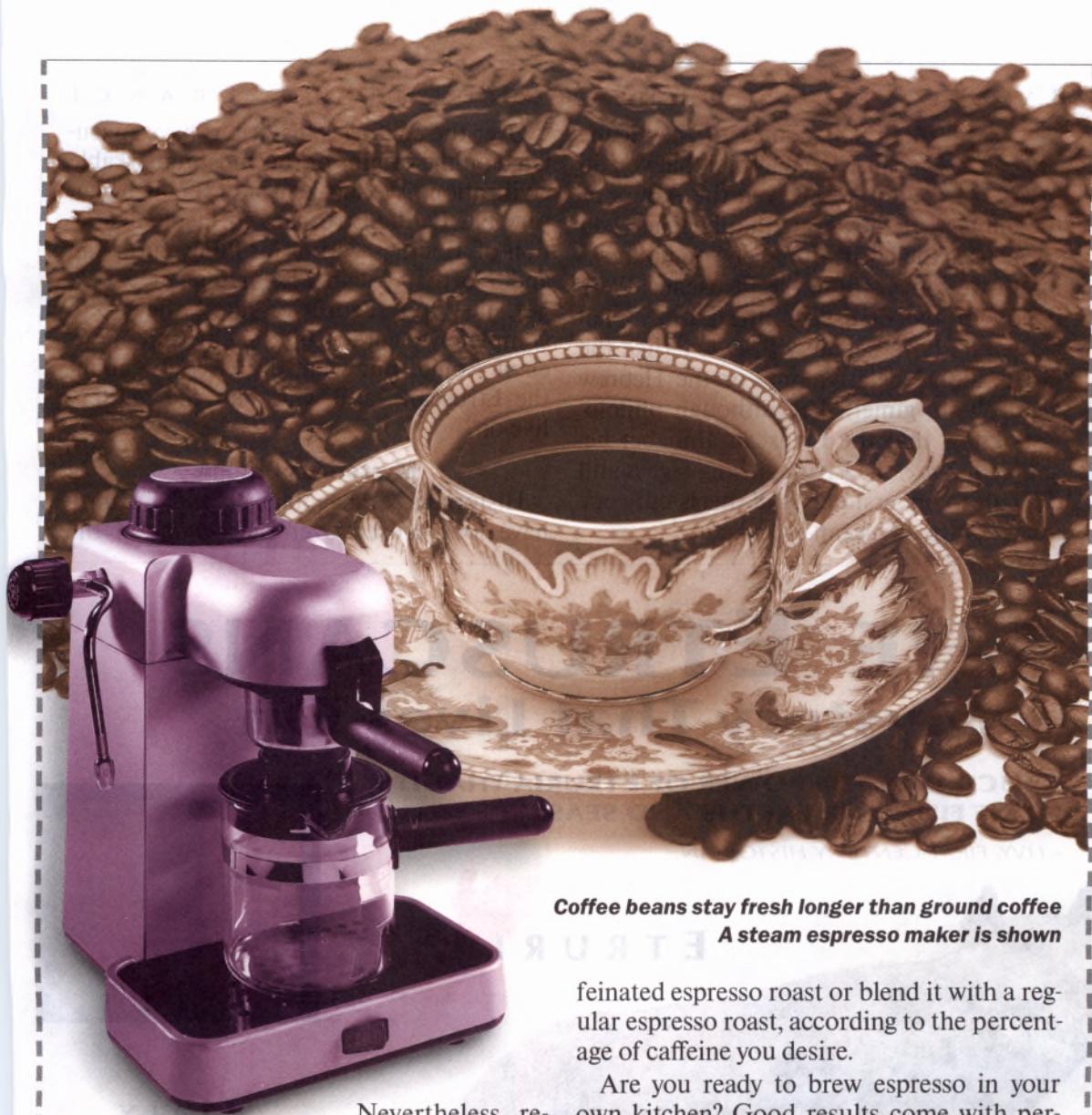
Even when brewing a double espresso, "Less is more." The less coffee you brew, the sweeter the drink. The definition of a double serving varies, but it is roughly two servings of espresso in one cup, using twice the amount of coffee grounds.

What About Caffeine?

A single serving of espresso may contain less caffeine than a cup of regular coffee. Does that surprise you? How can it be, given the intense concentration of espresso?

One factor is the darkness of the roast. Darker roasts contain less caffeine. Also, many specialty coffee shops use arabica coffee beans, which contain significantly less caffeine than the robusta beans used in many of the canned supermarket coffees.

But the biggest factor is volume. While espresso contains more caffeine per ounce than regular coffee, there is simply less liquid per cup. Thus, some studies show that a six-ounce cup of regular coffee may contain 100 or more milligrams of caffeine, whereas a single shot of espresso may contain somewhat less.



Coffee beans stay fresh longer than ground coffee
A steam espresso maker is shown

Nevertheless, results from studies vary, and the amount of caffeine will depend on the beans used as well as every step in the brewing process. Of course, a double espresso will contain more caffeine than a single. Your best guide in determining the level of caffeine is probably the way you feel after the drink. If you wish to decrease caffeine intake and still enjoy espresso, you can use a decaf-

fined espresso roast or blend it with a regular espresso roast, according to the percentage of caffeine you desire.

Are you ready to brew espresso in your own kitchen? Good results come with persistence, so be your own guinea pig—practice on yourself before serving it to your friends. You will need experience to produce *crema* and foaming milk. Your perseverance, however, will pay off when you delight your friends with espresso drinks that rival those in your local coffee shop. You may even come to agree that espresso is the very essence of coffee.

BY AWAKE! CORRESPONDENT IN FRANCE

WHEN it comes to the Etruscans, you may feel that you do not know even the ABC's of the subject. If, however, the language you speak uses the Latin alphabet, you unknowingly owe some of it to the Etruscans. Were it not for the Etruscans, the Latin alphabet would have begun with *a, b, g* (like the Greek alpha, beta, gamma or the Hebrew aleph, beth, gimel). Yet, although philologists know that the Etruscan alphabet began with *a, b, c*, the Etruscan language is still difficult to understand. And this is only one aspect of the Etruscan enigma.

Over the centuries historians have speculated on the origins of this most remarkable civilization. At their zenith in the fifth century B.C.E., the Etruscans formed a federation of 12 cities with a far-flung European and North African commercial network. Yet, just four centuries later, they were completely engulfed by the emerging power of Rome. But what do we know about the Etruscans, and why does the mystery live on?

Mysterious Origins

Historians, archaeologists, and linguists have long mused over the origins of the

THE ETRUSCANS A Mystery That Lives On

"SUCH WAS THE POWER OF ETRURIA THAT ITS NAME FILLED UP EARTH AND SEAS."

—LIVY, FIRST-CENTURY HISTORIAN.

ETRURIA



Etruscans. Did they emigrate from Lydia, a province in Asia Minor, as Herodotus suggested, or were they natives of Italy, as Dionysius of Halicarnassus claimed in the first century B.C.E.? Could it be that they had diverse origins? Whatever the answer, the ethnic and cultural differences between them and neighboring peoples were so great that now we cannot be sure of their beginnings.

We do know, however, that from about the eighth century B.C.E., the Etruscans flourished throughout central Italy. The Romans called them *Tusci*, or *Etrusci*, and the area occupied by them, between the Arno River in the north and the Tiber River in the south, came to be known as Tuscany. At

one time the Etruscan civilization dominated some 50 Italic peoples.

While the Etruscan language basically uses an early form of the Greek alphabet, making it seemingly easy to decipher, it is actually far removed from any other known language. The major part of the vocabulary used by the Etruscans defies translation. Yet, their literature was abundant, as books played an important part in their culture, especially in matters pertaining to religion. Although thousands of examples of Etruscan inscriptions exist today—on tombstones, vases, and alabaster sarcophagi—they contain relatively little

- 1. Capitoline she-wolf, symbol of the city of Rome, a copy of the Etruscan bronze of the fifth century B.C.E.**
- 2. Inscribed in Etruscan (right) and Phoenician (left), these golden tablets contain a dedication to Uni (Astarte)**
- 3. Etruscan sarcophagus of a couple**
- 4. An Etruscan archway from the fourth century B.C.E. The Romans learned arch building from the Etruscans**
- 5. Etruscan krater and support from the seventh century B.C.E., used for mixing wine**

Gold tablets: Museo Nazionale di Villa Giulia, Roma; sarcophagus and krater: Musée du Louvre, Paris



text, so they provide little help in explaining the origin and meaning of Etruscan words.

How They Lived and Prospered

The Etruscan people were organized into self-governing city-states, ruled first by kings and later by magistrates. These cities federated into an Etruscan league, a loose religious, economic, and political association. Some Etruscan houses were equipped with running water and were located on paved streets, with sewers. Land drainage was extensively employed. Etruscan kings transformed Rome itself from a group of villages into an elegant, walled city endowed with a network of sewers, including the *Cloaca Maxima*, which can still be seen today.

The Etruscans prospered from the rich mineral deposits in areas under their control, such as the iron mines on the nearby island of Elba. To satisfy their thirst for metal, the Etruscans processed iron, silver, and copper—even importing tin from the British Isles. Besides these riches, the area they occupied provided fertile agricultural and grazing land, producing cereals, olives, and grapes as well as timber. These natural resources as well as extensive inland and overseas trade gave the Etruscans a vibrant economy.

The Etruscans were great mariners. In 540 B.C.E., a combined fleet of Etruscan and Carthaginian ships defeated the Greeks, thus ensuring Etruscan overseas trade. Having invented the warship ram, they were ready for battle. Products such as the famous bucchero (black earthenware pottery) were exported by sea to faraway Spain and Egypt. By means of overland trading routes, the Etruscans exported wine to Gaul (France) and Germania (Germany), thus spreading their fame.

The Etruscan Enjoyment of Life

Among the most enduring and revealing sources of information on the Etruscans

are their works of art. A luxury-loving people, the Etruscans produced lavish gold jewelry, including earrings, brooches, pendants, bracelets, and necklaces. Even today the way they crafted elaborate treasures with filigree and granulation designs, using tiny beads of gold, is still a mystery. Besides goblets, dishes, cups, and dinner services in silver and other precious metals, the Etruscans sculpted and carved other prized materials, such as ivory.

The many sculptures, works of art, and wall paintings that have been found unveil the Etruscans' joie de vivre. They enjoyed watching chariot races, boxing matches, wrestling contests, and athletic games. The king would watch these, perhaps sitting in an ivory chair, surrounded by slaves seized in conquest. His purple tunic, a symbol of his position, was later adopted by the Romans. At home he would recline alongside his wife at mealtimes and listen to the flute or double pipe and watch dancing, while being waited upon by his slaves.

In stark contrast with the Greeks or Romans, women in Etruscan society enjoyed a position of social equality. They could own property, and they enjoyed social events. Etruscan ladies possessed an individual and a family name, which is proof of their claim to legal rights.

Strange Religious Beliefs

A first-century historian called the Etruscans "a people devoted to religious customs more than any other." The Etruscans worshiped a plethora of gods, having a predilection for trinities, in whose honor they built tripartite, or three-chambered, temples. Each chamber housed an image. Etruscan civilization revolved around mystical Babylonian ideas. Foremost among them was the idea of an afterlife and an underworld. Corpses were either buried or cremated. If they were cremated, the ashes were put in

urns of differing shapes or forms. Placement of the urn in a burial tomb, along with everything deemed necessary for life in the underworld, was accompanied by rituals, offerings, and libations. The walls of wealthy people's tombs were decorated with colorful frescoes depicting a variety of scenes, sometimes featuring demons or a menagerie of fearsome creatures. As one source says, "the Etruscans always loved a monster."

The Etruscan practice of hepatoscopy, the study of the liver as a form of divination, can be traced back to Babylon. (Compare Ezekiel 21:21.) All aspects of their lives and their decision-making were centered on the gods. People would look to the earth or the sky for omens. So common was divination that practices of this nature became known as *disciplina Etrusca*, Etruscan science.

Absorption and Extinction

In 509 B.C.E., the century-old line of Etruscan kings ruling Rome came to an end. This was a harbinger of things to come. In the north the Etruscans were threatened by the Celts, whose incursions loosened the Etruscan grip in that area. Toward the south, continual border conflicts with the Italic peoples undermined their power base, fostering internal social tensions.

By the third century B.C.E., the Etruscan territory had come under Roman domination. Thus began a period of Roman cultural aggrandizement, or Romanization. Eventually, in 90 B.C.E., when Roman citizenship was extended to all Italic peoples, the last vestiges of Etruscan identity vanished. Etruscans were required to speak Latin and were absorbed into the Roman world. Apparently, few Roman scholars made efforts to translate or even to preserve Etruscan literary works. Thus, Etruscan civilization disappeared, leaving behind a mystery. But it also left a legacy.

An Enduring Legacy

Etruscan heritage is visible in Rome even today. The Romans owed to the Etruscans their Capitoline temple, dedicated to the trinity of Jupiter, Juno, and Minerva; their tripartite temples; their first city walls; and the sewer that drained the Forum. Even the Capitoline wolf (*Lupa Capitolina*), the symbol of Rome, is of Etruscan origin. In addition, the Romans adopted a number of Etruscan customs, such as games involving fights to the death and combats with animals. (Compare 1 Corinthians 15:32.) The type of triumphal procession that Paul no doubt had in mind in one of his illustrations was of Etruscan origin.—2 Corinthians 2:14.

Etruscan symbols have also been used extensively. The Etruscan priest's staff, resembling a shepherd's crook, has been identified with the origin of the crosier used by Christendom's bishops. The Etruscan fasces (rods bound together around an ax) was used as a symbol of authority by the Romans, as an emblem during the French Revolution, and by the Italian Fascist party in the 20th century.

Despite the concerted efforts of archaeologists in unearthing the past, the Etruscans' origin and many aspects of their life remain a mystery.

IN OUR NEXT ISSUE

Road Rage—How Can You Cope?

How Can I Deal With Favoritism?

Understanding the Fear of Stuttering

WATCHING THE WORLD

AIDS and Asia

Although some Western nations have seen a slight reduction in the number of confirmed AIDS cases, the epidemic has been on a rampage in many parts of Asia. The number of cases in India "increased 71 times in the first half of the 1990s," according to an *Asiaweek* report. Thailand, which ranked 57th in the world in number of cases in 1990, ranked 5th by the mid-1990's. Cambodia moved up from 173rd to 59th place. And the Philippines experienced a 131-percent increase in the same period. Many are aware that the thriving child-sex industry in a number of these nations is partly to blame, but *Asiaweek* states that some politicians whose countries "rely heavily on tourist dollars . . . are reluctant to take meaningful measures" against it.

Allergies in Germany

A study published by the German Federal Association of Company Health Insurance Schemes has revealed that 1 German in 4 over 14 years of age suffers from an allergy. The most common form of allergy is hay fever, which affects almost six million people there. About 2.3 million are bothered by the sun, and over 2 million are allergic to animal hair, reports the *Süddeutsche Zeitung*. Over 40 percent of those who suffer from allergies take medicine for their complaint, and 10 percent state that the symptoms seriously

restrict their daily routine of life. The survey also revealed that people in certain "trades and professions, such as bakers, joiners, nurses, and doctors, carry a high allergy risk."

Wash Your Hands!

"Washing your hands is the best, simplest, and most economical way of preventing the spread of many infections," states the Italian newspaper *Corriere della Sera*. Yet, "more



than 3 out of every 10 Italians do not wash their hands after using the bathroom, even if they are going to eat immediately afterward." The results of this survey are almost identical with those obtained by similar surveys in other countries. "Hands can transmit germs to food and set off a chain of contamination," explains microbiologist Enrico Magliano. How can the chain be broken? Wash your hands—under the fingernails too—with soap and hot or lukewarm water for at least 30 seconds (the minimum time needed to eliminate bacteria). This includes rubbing them together for 10 to 15 seconds. Rinse and dry them well, starting from your arm and working toward your fingers, says the article.

Child Abuse and the Immune System

According to researchers at Mie University in Japan, when a child suffers prolonged abuse, his immune system deteriorates, leaving the child vulnerable to disease. The university studied the bodies of 50 children between the ages of one month and nine years who had died from cerebral hemorrhages or other conditions caused by physical abuse. The children's thymus glands, "which control the functions of the immune system, had shrunk to half the normal weight," reports the *Mainichi Daily News*. The longer the abuse, the greater the contraction. In fact, "the gland of a child who had been abused for more than six months weighed one-sixteenth that of an un-abused child," said the newspaper. Researchers have seen similar gland shrinkage in children who have suffered mental abuse or malnutrition from parents' failure to provide meals.

China's Link With Mesopotamia

It has long been thought that ancient Chinese civilization originated in China's Hwang He Valley, independent of outside influence. After a recent archaeological discovery, this theory is now being called into question. The French magazine *Courrier International* reports that at a site near Ch'eng-tu, in the Szechwan Province of China, a team of archaeologists has uncovered the ves-

tiges of what appears to be an ancient temple built within a walled enclosure. The archaeologists report that the temple's structure and configuration are very reminiscent of the ziggurats of ancient Mesopotamia. Professor Ichiro Komami, of the University of Kyoto, stated that "it is possible that [Szechwan] was the cradle of a unique ancient Chinese civilization that had close links with those of the Indus and of Mesopotamia."

Hepatitis-B Fatalities

The World Health Organization estimates that more than a million people die from hepatitis B each year. Pediatrician Jagdish Chinnappa says that nearly 150,000 of these deaths are in India. At a conference arranged by a multinational pharmaceutical company, he explained that India has "35 to 40 million HBV [hepatitis-B virus] carriers which makes for 10 per cent of the global pool," reports *The Times of India*. The newspaper adds that "one in two cases of chronic liver disease and eight out of ten cases of primary liver cancer is due to Hepatitis B infection."

Indoor Air Pollution

A recent study by the Tata Energy Research Institute (TERI) in New Delhi, India, shows that 2.2 million Indians die each year of illnesses related to air pollution. *The Indian Express* reports that according to the study, indoor pollution is a principal factor. Women living in slums who cook on coal, wood, and dung fuel face the greatest risk. While steps are being taken to control out-

door air pollution, experts felt that little was being done to reduce the risk to millions inside their own homes. "A hidden crisis is on for which no immediate solution seems possible," stated the director of TERI, R. K. Pachauri.

Water Wars

Ominous predictions about the future of the world's water supply were made at the first World Forum on Water, which took place in Marrakech, Morocco, during March of 1997. Pollution, drought, and increasing population are



putting ever-greater strains on water resources. As the French newspaper *Le Monde* reports, "the need for water is growing twice as fast as the world's population." According to the World Meteorological Organization, by the year 2025, two thirds of the world's population will live in areas where supply will not meet demand. Unless an equitable solution can be found, some authorities fear that water will be a source of war in the 21st century. Already, "the UN has pinpointed about 300 potential zones of conflict," says *Le Monde*.

Violent Crime in Venezuela

With a population of 20,000,000 people, Venezuela av-

erages some 400 murders a month, says the newspaper *El Universal*. A study made by one organization states that the principal causes for the rise in crime are not economic but, rather, sociocultural. Under the heading "Poverty Is Not the Principal Cause of Delinquency," the newspaper said that according to the report, Venezuela's violence stems from the lack of human values and parental training at home. To improve the situation, experts recommend teaching responsible parenting and encouraging people to be more family oriented.

Promoting a Healthy Life-Style

In their *World Health Report 1997*, the World Health Organization (WHO) warns that humanity faces a growing "crisis of suffering." Each year, cancer and heart disease, along with chronic health problems, kill more than 24 million people and threaten to increase the burdens of hundreds of millions of others. During the next 25 years, the number of cancer cases in most countries is expected to double. Heart disease and stroke, the big killers in wealthy nations, will become much more common in poor countries. In response to these possibilities, WHO calls for an "intensified and sustained" worldwide campaign to promote healthy life-styles and to reduce the risk factors—unhealthy diets, smoking, obesity, and lack of exercise—that often result in deadly disease.

FROM OUR READERS

Crib Death Thank you for the item in "Watching the World" called "Smoking Linked to Crib Deaths." (January 22, 1997) I hope that every mother will take that item to heart. I almost lost my baby boy to SIDS (Sudden Infant Death Syndrome) because I continued to smoke during the pregnancy. For one year after the incident, he had to wear a heart monitor every time he took a nap so that if his heart stopped, the monitor would sound. I only wish that I had known Jehovah back then. I would have stopped smoking, and perhaps both my son and I would have avoided this nightmare.

A. C. A., United States

Arthritis Sufferer I desire to express my gratitude for the experience of Luretta Maass, entitled "When I Am Weak, Then I Am Powerful." (January 22, 1997) I am 27 years old, and I too have been suffering from rheumatoid arthritis. Even though therapy relieves the pain, at times I feel a little frustrated and demoralized because my illness has forced me to quit serving as a full-time preacher. Luretta Maass' determination to serve Jehovah, despite her illness, was stimulating. I will not let discouragement get the better of me; I want to do more in the preaching work.

A. B., Italy

My mother has suffered from rheumatoid arthritis for more than 30 years. Sad to say, the pain can hardly be eased. I am proud of my mother, since she manages to attend almost all the congregation meetings. Sitting in her wheelchair, she takes part in the Theocratic Ministry School and can still engage in the preaching work. And despite her ailments, she never complains.

S. M., Germany

Noachian Flood The article "The Bible's Viewpoint: The Flood—Fact or Fable?" (February 8, 1997) really helped me to put that historical event into perspective. I, like many others, was taught about the Flood at a very young age. However, I never realized that the Flood account is looked upon by many as merely a bedtime story. The fact that Jesus compares the last days to the days of Noah shows that the Flood was very real.

S. M., United States

Coping With Tragedy I have been faced with many trials lately, one after another. I wrote a letter to a friend outlining some of these trials and quoted Psalm 126:5: "Those sowing seed with tears will reap even with a joyful cry." Imagine how I felt when, right after the completion of the letter, I received the February 8, 1997, issue with the article "Sowing With Tears, Reaping With Joy," which was based on that same scripture. Raymond Kirkup's experience was very faith strengthening.

P. B., Jamaica

Caregiving The series "Caregiving—Meeting the Challenge" (February 8, 1997) has been of great comfort to me in what has been a most difficult time. My dear mother, who has been a faithful servant of Jehovah for many years, succumbed to a debilitating mental illness. She also has Parkinson's disease and acute arthritis. I was saddened and shocked by her swift deterioration. As her only son, I have felt the weight of looking after her. But the wonderful article was so understanding! It came as a real gift from Jehovah. Thank you so much for this loving support.

R. H., England



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reader gets insight into what it is like to be an Indian in our century."

Blikstad concludes: "Refreshed from my reading, I read the rest of Awake! while I was at it. For a bonus, there was a downright touching article on chapels and churches that are closing in the mining valley of Rhondda, in Wales. . . .

"Have I lost my judgment completely? An atheistic embracement of the Witnesses without objections? . . . Not today. We need constant reminders of the importance of thinning the weeds of prejudice. The next time I see the Witnesses being accused of lying, at least I

know that they did not lie about the Indians."

Because of the special demand for the Awake! issue on Native Americans, 37,000 extra copies were printed on the Watchtower Society's New York presses. One congregation in Arizona asked for 10,000 for special coverage of their territory.

Indian face: D. F. Barry Photograph, Thomas M. Heski Collection; dancing Indian: Men: A Pictorial Archive from Nineteenth-Century Sources/Dover Publications, Inc.; tepees: Leslie's; rectangular design: Decorative Art; circular designs: Authentic Indian Designs



"My Thanks to the Witnesses for a Great Saturday"

BY AWAKE! CORRESPONDENT IN NORWAY

Eivind Blikstad, a columnist for the Norwegian daily *Telemarksavisa*, headed his article as above. First, he expressed his annoyance at unsolicited mail promotions, phone sales, and house visits—especially on Saturday mornings. Then he wrote:

"All of a sudden, there they are. At the doorstep. Jehovah's Witnesses. Saturday morning. With their *Awake!* magazine, No. 17, September 8, 1996. ["American Indians—What Does Their Future Hold?"] They wondered if I would like to read the magazine because it contained something that they believed would interest me. . . . Before I got a chance to say that I was not interested, one of them added: 'There is an article on American Indians. We know that you have been writing a lot about the subject.'

"There I was, stuck. For when your vanity is kindled, all your firm intentions tend to fly away. Back inside, at the breakfast table, my curiosity gets the better of me. Jehovah's Witnesses and the future of the American Indians is admit-

tedly a somewhat strange combination. I put my glasses on and started reading. You know, a little condescendingly, the way you do when you really think something is a waste of time.

"To cut a long breakfast short, the article that the Witnesses are presenting on the situation of the American Indians was not only good—it was excellent. I recommend that Norwegian schoolteachers swallow their prejudices. Order copies for everyone in your classes! The use of sources is exemplary, and the pedagogical presentation is crystal clear. It is also honest to the core in questions where the views of the Indians and the Witnesses differ. No trace of cheating. One dilemma on several Indian reservations is about the establishment of casinos. These give much-needed employment, but there are also moral implications. The question is skillfully dealt with in such a way that the

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