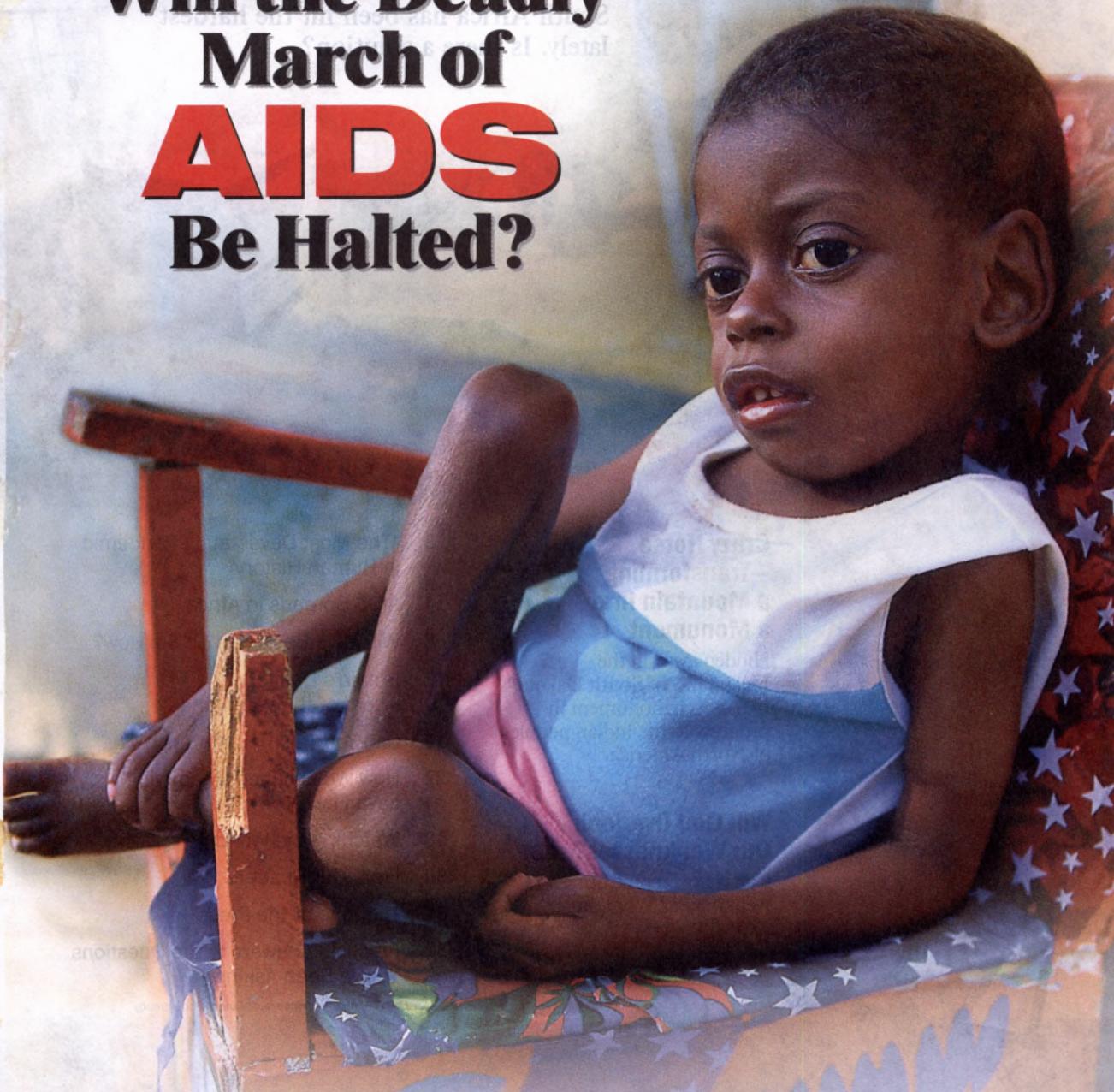


# Awake!

NOVEMBER 8, 2002

HERSHEWA  
DOLCESSONNIE BEARNA  
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## Will the Deadly March of **AIDS** Be Halted?



# Awake!

AVERAGE PRINTING 21,153,000  
PUBLISHED IN 87 LANGUAGES



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## Will the Deadly March of AIDS Be Halted? 3-11

AIDS is a worldwide plague. However, South Africa has been hit the hardest lately. Is there a solution?



AP Photo/Efrem Lukatsky

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Hidden away in the Black Hills of South Dakota, U.S.A., is a monument in progress to the Indian peoples of North America.

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# "The Most DEVASTATING PANDEMIC in Human History"

BY AWAKE! WRITER IN SOUTH AFRICA

**"No war on the face of the world is as destructive as the AIDS pandemic."**—U.S. SECRETARY OF STATE COLIN POWELL.

**Many people who are infected with HIV do not know it**

**T**HE first official report on AIDS (acquired immunodeficiency syndrome) appeared in June 1981. "None of us involved in those early days of Aids could have imagined the scale of the epidemic that has unfolded," says Peter Piot, executive director of the Joint United Nations Programme on HIV/AIDS (UNAIDS). In 20 years it has become the greatest pandemic ever, and indications are that it will continue to increase.

It is estimated that over 36 million are infected with HIV (human immunodeficiency virus), and another 22 million have died from the effects of AIDS.\* In the year 2000, three million died of AIDS worldwide, the highest annual total since the epidemic started. This is despite the use of antiretroviral drug therapy, particularly in wealthier nations.

## AIDS Invades Africa

Sub-Saharan Africa, with an estimated 25.3 million infected, has become the epicenter of the pandemic. In this region alone, 2.4 million died from the effects of AIDS in the year 2000, which is 80 percent of the worldwide total. AIDS is the major cause of death in the region.<sup>#</sup>

South Africa has the highest number of infected people of any country in the world, estimated at 4.7 million. Here 5,000 babies are born HIV positive

\* The figures used are estimates published by UNAIDS.

<sup>#</sup> See *Awake!* of February 22, 2001, pages 14-15.

**"The most frightening thing is that all of these infections . . . and . . . human suffering . . . could have been, can be, prevented."**

—NELSON MANDELA



every month. In his address to the 13th International AIDS Conference, held in Durban in July 2000, former South African President Nelson Mandela stated: "We were shocked to learn that within South Africa 1 in 2, that is half, of our young people will die of AIDS. The most frightening thing is that all of these infections, which statistics tell us about, and the attendant human suffering . . . could have been, can be, prevented."

#### AIDS Onslaught in Other Countries

Rates of infection are also increasing rapidly in Eastern Europe, Asia, and the Caribbean. At the end of 1999, the number infected in Eastern Europe was 420,000. By the end of 2000, that figure was conservatively estimated to have risen to 700,000.

A survey conducted in six large American cities revealed a 12.3 percent rate of HIV infection among young gay men. Further, only 29 percent of those who were HIV positive knew that they were infected. The epidemiologist who led the survey said: "We were so disheartened to find out that so few HIV-positive men knew they were infected. That means newly infected people are transmitting the virus without knowing it."

At a meeting of AIDS experts in Switzerland in May 2001, this disease was declared "the most devastating pandemic in human history." As noted, the AIDS onslaught has been particularly severe in sub-Saharan Africa. Our next article considers why.

# AIDS Spreads in Africa

**"We're dealing with a kind of contemporary apocalypse."**

**T**HOSE words of Stephen Lewis, UN special envoy for HIV/AIDS in Africa, echo the concern of many about the AIDS situation in sub-Saharan Africa.

A number of factors are involved in the spread of HIV. AIDS, in turn, has exacerbated other problems. The conditions that prevail in some lands in Africa and in other parts of the world where AIDS is gaining ground are often related to the following.

**Morality.** As sexual contact is the primary means of HIV infection, a lack of clear moral standards evidently promotes the spread of the

## Awake!®

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

Awake! (ISSN 0005-237X) is published semimonthly by Watchtower Bible and Tract Society of New York, Inc.; M. H. Larson, President; G. F. Simonis, Secretary-Treasurer; 25 Columbia Heights, Brooklyn, NY 11201-2483. Periodicals Postage Paid at Brooklyn, N.Y., and at additional mailing offices. **Changes of address** should reach us 30 days before your moving date. Give us your old and new address (if possible, your old address label). **POSTMASTER:** Send address changes to Awake!, c/o Watchtower, Wallkill, NY 12589. © 2002 Watch Tower Bible and Tract Society of Pennsylvania. All rights reserved. Printed in U.S.A.

disease. Many feel, though, that it is not practical to advocate sexual abstinence for the unmarried. "To simply warn teens to abstain from sex will not work," writes Francois Du-four in *The Star*, a newspaper of Johannesburg, South Africa. "They are bombarded daily with sexual images of what they should look like and how they should behave."

This analysis appears to be confirmed by the conduct of young people. For example, a survey in one country indicated that about a third of youths between the ages of 12 and 17 had engaged in sexual intercourse.

Rape has been described as a national emergency in South Africa. A news report in the *Citizen* newspaper of Johannesburg stated that it "is so rampant that it overtakes every other health risk posed to this country's women and, increasingly, to its children as well." The same article noted: "The rape of children has doubled in recent times . . . These acts are committed seemingly in perpetuation of the myth that an HIV carrier who rapes a virgin will be cured."

**Sexually transmitted disease (STD).** There is a high rate of STDs in the region. The *South African Medical Journal* noted: "The presence of an STD increases the risk of HIV-1 infection 2- to 5-fold."

(Continued on page 7)

**Semimonthly Languages:** Afrikaans, Arabic, Cebuano, Croatian, Czech,<sup>#</sup> Danish,<sup>#</sup> Dutch, English,<sup>#</sup> Estonian, Finnish,<sup>#</sup> French, German,<sup>#</sup> Greek, Hungarian, Iloko, Indonesian, Italian,<sup>#</sup> Japanese,<sup>#</sup> Korean,<sup>#</sup> Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish,<sup>#</sup> Swahili, Swedish,<sup>#</sup> Tagalog, Ukrainian  
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**Monthly Languages:** Albanian, Amharic, Bulgarian, Chichewa, Chinese, Chinese (Simplified), Ewe, Georgian, Hebrew, Hiligaynon, Igbo, Macedonian, Malagasy, Malayalam, Maltese, Myanmar, Nepali, Papiamento (Aruba), Papiamento (Curaçao), Sepedi, Sesotho, Shona, Sinhala, Tamil, Thai, Tsonga, Tswana, Turkish, Twi, Xhosa, Yoruba, Zulu

## THE AIDS DRUG NEVIRAPINE AND SOUTH AFRICA'S DILEMMA

What is nevirapine? According to journalist Nicole Itano, it is "an antiretroviral drug that tests have shown can halve the likelihood of AIDS being transmitted [from a mother] to her child." A German drug company offered to supply it to South Africa free of charge for the next five years. Yet, by August 2001, the government had not accepted the offer. What is the problem?

South Africa has 4.7 million HIV-positive people, more than any other country in the world. *The Economist* of London reported in February 2002 that South African President Thabo Mbeki "doubts the conventional view that HIV causes AIDS" and "is suspicious of the cost, safety and usefulness of anti-AIDS drugs. He has not banned them, but South African doctors are discouraged from using them." Why is this a major concern? Because thousands of babies are born with HIV each year in South Africa and 25 percent of pregnant women carry the virus.

As a result of this conflict of views, a legal case was mounted in the courts to force the government to distribute nevirapine. South Africa's Constitutional Court issued its opinion in April 2002. According to Ravi Nessman, writing in *The Washington Post*, the court ruled that "the government must make the drug available at health institutions with the capacity to administer it." While the South African government had been offering the drug at 18 pilot sites across the country, this new ruling is said to have offered hope to all the HIV-positive pregnant women in the nation.



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.

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

## A CUNNING VIRUS ENTRAPS THE CELL

Step for a moment into the minute world of the human immunodeficiency virus (HIV). A scientist observed: "After many, many years of peering at virus particles through the electron microscope, I have still not ceased to be amazed and excited by the precision and intricacy of design in something so very, very small."

A virus is smaller than a bacterium, which, in turn, is much smaller than the average human cell. According to one authority, HIV is so small that "230 million [particles of HIV] would fit on the period at the end of this sentence." A virus cannot multiply unless it infiltrates a host cell and commandeers the cell's resources.

When HIV invades the human body, it must contend with the considerable forces that are at the disposal of the immune system.\* A defense network composed of white blood cells is produced in the bone marrow. The white blood cells include two main types of lymphocytes, known as T cells and B cells. Some other white blood cells are called phagocytes, or "cell eaters."

The various categories of T cells have different assigned functions. Those called helper T cells play a key role in the war strategy.

Helper T cells assist in identifying foreign invaders and issue instructions for the production of cells that attack and destroy the enemy. In its attack, HIV particularly targets these helper T cells. Killer T cells are activated to destroy body cells that have been invaded. B cells produce antibodies that are recruited in the fight against infections.

### A Cunning Strategy

HIV is classified as a retrovirus. The genetic blueprint of HIV is in the form of RNA (ribonucleic acid) and not DNA (deoxyribonucleic acid). HIV belongs

to a specific subgroup of retroviruses known as lentiviruses because it can be latent for a lengthy period before serious symptoms of disease become manifest.

When HIV gains entry into a host cell, it is able to use the cell's mechanism to further its own ends. It "reprograms" the DNA of the cell to make many copies of HIV. But before it can do this, HIV must use a different "language." It must change its own RNA into DNA so that it can be read and understood by the host cell's machinery. To accomplish this, HIV employs a viral enzyme called reverse transcriptase. In time, the cell dies, after first producing thousands of new HIV particles. These newly produced particles infect other cells.

Once the number of helper T cells has dropped significantly, other forces can overrun the body without fear of attack. The body succumbs to all sorts of diseases and infections. The infected individual has advanced to full-blown AIDS. HIV has succeeded in crippling the whole immune system.

This is a simplified explanation. It must be borne in mind that there is much that researchers do not know, both about the immune system and about how HIV operates.

For the best part of two decades, this little virus has engaged the mental and physical resources of top medical investigators around the world, which has entailed large financial expenditures. As a result, much has been learned about HIV. Dr. Sherwin B. Nuland, a surgeon, commented some years ago: "The amount of information that has . . . been gathered about the human immunodeficiency virus and the progress made in mounting a defense against its onslaughts are nothing less than an astonishment."

Nevertheless, the deadly march of AIDS continues at an alarming pace.



**HIV invades the lymphocytes of the immune system and reprograms them to produce HIV**

\* See *Awake!* of February 8, 2001, pages 13-15.

(Continued from page 5)

**Poverty.** Many countries in Africa are battling poverty, and this creates a climate favorable to the spread of AIDS. What may be considered basics in developed countries are not available in most developing lands. Large communities have no electricity and no access to clean drinking water. In rural areas roads are inadequate or nonexistent. Many residents suffer from malnutrition, and medical facilities are minimal.

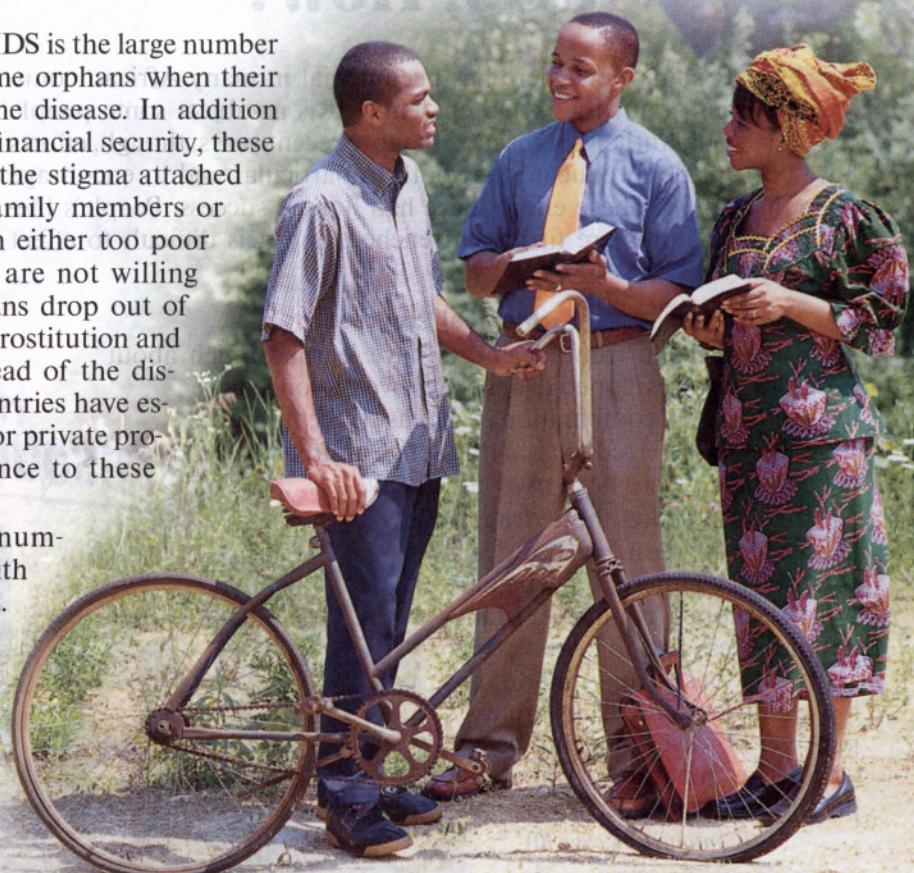
AIDS has a negative impact on business and industry. As more employees become infected, mining companies are feeling the effects of lost production. Some are considering ways to automate and mechanize certain operations in order to compensate. It was estimated that at one platinum mine in the year 2000, the number of AIDS cases among employees nearly doubled, and about 26 percent of the workers were infected.

A sad outcome of AIDS is the large number of children who become orphans when their parents succumb to the disease. In addition to losing parents and financial security, these children must endure the stigma attached to AIDS. Extended family members or communities are often either too poor to give assistance or are not willing to do so. Many orphans drop out of school. Some turn to prostitution and thus increase the spread of the disease. A number of countries have established government or private programs to give assistance to these orphans.

**Ignorance.** A large number of those infected with HIV are unaware of it. Many do not want to

be tested because of the stigma connected with the disease. "People with, or suspected of having, HIV may be turned away from health care services, denied housing and employment, shunned by their friends and colleagues, turned down for insurance coverage or refused entry into foreign countries," observed a press release of the Joint United Nations Programme on HIV/AIDS (UNAIDS). Some have even been murdered when their HIV status was discovered.

**Culture.** In numerous African cultures, women are often not in a position to question their partners about extramarital affairs, to refuse sexual contact, or to suggest safer sexual practices. Cultural beliefs often reflect ignorance and denial about AIDS. For example, the illness may be blamed on witchcraft, and help may be sought from witch doctors.



**Thousands of young people do adhere to Bible standards**

**Inadequate medical facilities.** Already limited medical facilities have been overtaxed even more as a result of AIDS. Two large hospitals report that over half the medical inpatients are HIV positive. The principal medical officer of one hospital in KwaZulu-Natal said that his wards operate at 140-percent capacity. At times, two patients have to share a bed, and a third one will be on the floor underneath it!—*South African Medical Journal*.

Tragic as the situation is in Africa, indications are that it could get worse. “We are still at the early stages of the epidemic,” observed Peter Piot of UNAIDS.

It is evident that in some countries efforts are being made to deal with the disease. And for the first time, in June 2001 the United Nations General Assembly held a special conference to discuss HIV/AIDS. Will human efforts bring success? When will the deadly march of AIDS finally be halted?

## Will AIDS Be Halted? If So, How?

**F**OR some time there has been denial in many African countries about the AIDS epidemic. It is a subject some people would rather not discuss. In more recent years, though, efforts have been made to educate the youth in particular and to encourage open discussion. These efforts have had limited success. People's lifestyles and customs are firmly entrenched, and it is difficult to effect change.

### Medical Progress

On the medical front, scientists have learned much about HIV and have developed drugs that have prolonged the lives of many. A combination of at least three antiretroviral drugs, referred to as highly active antiretroviral therapy, has been used effectively.

While not a cure, these drugs have succeeded in reducing the death rate of HIV sufferers, particularly in developed countries. Many people stress the importance of supplying these drugs to developing countries. The drugs are expensive, however, and far beyond the means of most people in these lands.

(Continued on page 10)

**HEALTH  
RESOURCE CENTRE**





## THIS WAS THE REAL CURE I WAS LOOKING FOR

I live in southern Africa, and I am 23 years old. I remember the day I found out that I was HIV positive.

I was with my mother in the consulting room when the doctor broke the news. It was the saddest news I had ever heard in my life. I was confused. I couldn't believe it. I thought that maybe the laboratory had made a mistake. I didn't know what to say or do. I felt like crying, but I had no tears. The doctor started discussing the antiretroviral drugs and other things with my mother, but I was too shocked to take anything in.

I realized that I may have been infected by someone at the university where I was studying. I very much wanted to talk to anyone who would understand my situation, but I could think of no one. I succumbed to feel-

ings of worthlessness and failure. Although my family supported me, I felt hopeless and scared. Like any other youth, I had so many dreams. I had only two years to go to finish my bachelor of science degree, but that hope was shattered.

I started taking the prescribed antiretroviral drugs and also went to AIDS counselors, but I still felt depressed. I prayed to God to show me true Christianity before my death. I was a member of one of the Pentecostal churches, but no one from the church even paid me a visit. I wanted to know the truth about where I would go after death.

One morning in early August 1999, two of Jehovah's Wit-

nesses knocked at my door. I was very sick that day, but I was able to sit up in the living room. The two ladies introduced themselves and said that they were assisting people to study the Bible. What a relief it was finally to have my prayers answered. But by then I was so weak that I couldn't read or concentrate for long.

Nevertheless, I told them that I wanted to study the Bible, and they made an appointment with me. Unfortunately, before the time arrived, I was taken to a psychiatric hospital because of my depression. I was discharged three weeks later and was relieved to find that the Witnesses had not forgotten me. I recall that one of them kept contacting me to see how I was. Physically, I recovered somewhat, and I started studying the Bible toward the end of the year. I didn't find it

*It brought me great joy to learn  
about God's Kingdom*



easy, though, because my condition was unstable. But the person studying with me was understanding and patient.

I was greatly impressed when I studied about Jehovah and his qualities in the Bible, as well as what it really means to know him and to look forward to everlasting life. For the first time, I also understood the reason for man's suffering. It brought me great joy to learn about God's Kingdom, which will soon replace all human governments. It motivated me to change my way of life completely.

(Continued from page 8)

This has brought an issue to the fore: Is financial profit more important than human life? The situation was acknowledged by the director of Brazil's program on HIV/AIDS, Dr. Paulo Teixeira: "We cannot allow thousands of people to be set adrift for the lack of drugs with which to survive, simply in the name of profits far in excess of those normally earned." He added: "I am extremely concerned that commercial interests should not be placed ahead of ethical and human considerations."

This was the real cure I was looking for. How comforting it was to realize that Jehovah still loves me and cares! Previously, I thought that God hated me and that this was why I was infected with this disease. But I learned that Jehovah lovingly made provision for the forgiveness of sin on the basis of the ransom sacrifice of Jesus Christ. I then knew that God cares, as 1 Peter 5:7 says: "Throw all your anxiety upon him, because he cares for you."

By studying the Bible every day and attending meetings at

the Kingdom Hall, I am really working hard to be as close to Jehovah as I can. While it is not always easy, I pour my anxieties out to Jehovah in prayer and ask for his strength and comfort. Members of the congregation are there for me as well, so I am happy.

I regularly share in the evangelizing work along with the local congregation. I want to help others spiritually, particularly those in a situation similar to mine. I was baptized in December 2001.

A few countries have decided to override some of the patents of large pharmaceutical companies and to make or import generic versions of some drugs at a much lower cost.\* According to one study, "minimum prices [of generic drugs] were found to be 82% less than the benchmark US prices," reports the *South African Medical Journal*.

\* Generic drugs are copies of drugs that have been patented by other pharmaceutical companies. Member countries of the World Trade Organization may legally override drug patents in emergency situations.

#### **On the Paradise earth, all will enjoy perfect health**



### Treatment Obstacles

In time, the large pharmaceutical companies started to offer AIDS drugs at much lower prices to developing countries in need. It was hoped that in this way many more people would be able to make use of the drugs. However, there are major obstacles to overcome to make such drugs readily available in developing lands. One of these is the cost. Even at drastically reduced prices, the drugs are still far too expensive for the majority of the people who need them.

Another problem is that the drugs are not easy to administer. Many pills must be taken daily, at specified times. If they are not taken correctly or if the medication routine is interrupted, this could lead to the development of drug-resistant strains of HIV. It is difficult to ensure adherence to correct dosages in African conditions, where there may be little food, a low supply of clean drinking water, and few medical facilities.

Further, those taking the drugs must be monitored. If resistance develops, their combination of drugs must be altered. Experienced medical staff are needed for this, and the tests are expensive. Also, the drugs do have side effects, and drug-resistant strains of the virus are developing.

In June 2001 at the UN General Assembly special meeting on AIDS, a Global Health Fund was proposed to assist developing countries. It was estimated that an amount of between \$7 billion and \$10 billion was needed. Total pledges for this fund have so far been way short of the targeted amount.

Scientists entertain strong hopes of finding a vaccine, and various ones are being tested in different countries. Even if these efforts are successful, it will be several years before a vaccine has been developed, tested, and proved safe for general use.

Some countries, such as Brazil, Thailand, and Uganda, have had notable success with treatment programs. Brazil, by using local-

ly manufactured drugs, has halved the AIDS-related death rate. The small country of Botswana, which has the financial means, is making efforts to provide antiretroviral drugs to all in need in the country and is striving to provide the essential health-care facilities.

### The Defeat of AIDS

AIDS differs from some other epidemics in one important respect: It is preventable. If individuals are prepared to adhere to basic Bible principles, they can in many, if not all, cases avoid contamination.

The Bible's moral standards are clear. Those not married should abstain from sexual intercourse. (1 Corinthians 6:18) Married people should be faithful to their partner and not commit adultery. (Hebrews 13:4) Heeding the Bible's admonition to abstain from blood also serves to protect one.—Acts 15:28, 29.

Those who are already infected can find great joy and comfort through learning about the disease-free world promised by God for the near future and then through conforming to God's requirements.

The Bible assures us that in due course all mankind's woes, including disease, will come to an end. This promise is made in the book of Revelation: "I heard a loud voice from the throne say: 'Look! The tent of God is with mankind, and he will reside with them, and they will be his peoples. And God himself will be with them. And he will wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore. The former things have passed away.'"—Revelation 21:3, 4.

That assurance is not just for those who can afford costly medication. The prophetic promise of Revelation chapter 21 is confirmed at Isaiah 33:24: "No resident will say: 'I am sick.'" Then all living on the earth will abide by God's laws and will enjoy perfect health. Thus, the deadly march of AIDS—and all other diseases—will be halted forever.



THE silence of the woodland was broken by a blackbird's song. As the sun sank slowly to its rest, I sat on a fallen silver birch, noting how the smell of wet vegetation pervaded the early evening air after a shower of rain.

I had carefully chosen a seat where a slight breeze would blow toward me because I had come here to watch badgers. The badger's eyes are small, as are its white-tipped ears, but I have learned never to underestimate its hearing and sense of smell, which are acute. I knew that if it heard me make a sound or got scent of me, that would be enough to send it back underground for the rest of the night.

The European badger is a large, secretive animal, about three feet long and one foot high, with an average weight of about 25 pounds. It has a coat of rough gray hair, with black face and un-

# BRITAIN'S BADGER

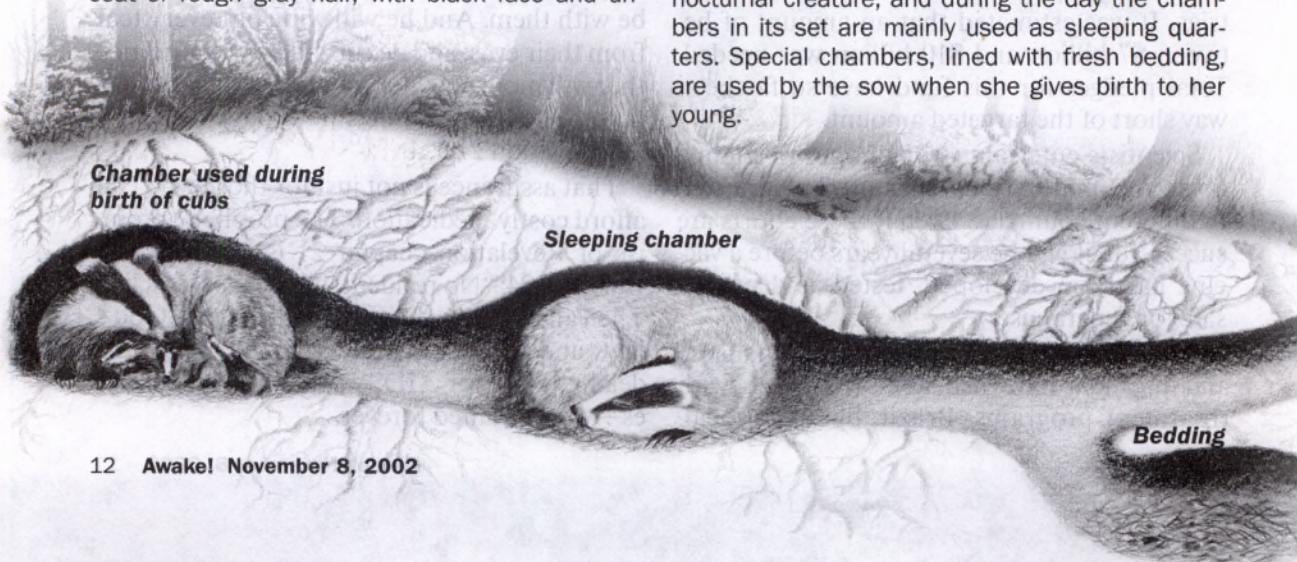
## *Lord of the Woodlands*

BY AWAKE! WRITER IN BRITAIN

derparts, short black legs, and a stumpy gray tail. Each foot has five toes with powerful claws.

The three broad, white stripes running from its snout past its ears are not only its outstanding feature but also a subject of controversy. Some people say that badgers can identify their own kind on the darkest nights by means of the stripes—yet, we know that badgers identify each other by scent. Whatever the reason for these stripes, they make the badger a handsome creature.

"Old Brock," as the badger is affectionately known to country folk, is a familiar part of Britain's rural scene. A habitual digger, a badger continually excavates tunnels, passageways, and chambers to make its home, called a set (in Britain, a sett). This can be up to 100 feet in diameter, and the maze of tunnels can be 1,000 feet long! The badger is a nocturnal creature, and during the day the chambers in its set are mainly used as sleeping quarters. Special chambers, lined with fresh bedding, are used by the sow when she gives birth to her young.



The set will have a number of entrances in the open above ground, often by alder trees and among thickets of hawthorn or bramble. Some sets in England, with more than 50 entrances, are known to be well over 150 years old and can accommodate several generations of the same family. Badgers may live for 15 years or more, although 2 to 3 years is the norm.

With large mounds of earth sloping down toward its entrances, from which earth, stones, and rocks have been cast aside, a badger set is not difficult to recognize. You realize how strong the animal is when you see what has been thrown from the set.

How do you find out if a set is occupied? First look around for the badgers' latrines—shallow pits from six to nine inches across and nine inches deep, which surround the set. If there are droppings, and especially if they are fresh, then the badgers are in residence. Look also for well-trodden paths spreading out from the set, and in summer months look for flattened vegetation. In a muddy area, watch for badger footprints, or close by the set, check for trees with mud marks and scratches where the animals have reared up to stretch, catlike, with their strong claws. If the set is large, observation can prove difficult, for the badgers may be using another entrance or exit. So go early in the day, and place sticks over each hole. Next morning, you will see which exits have been used by the emerging animals—the sticks will have been thrust aside.

In its quest for food, a badger will travel far at night, seeking out acorns or beech mast, or it may scent and dig out young rabbits or a wasps' nest for its larvae. What is its main diet? Earthworms! The badger will eat almost anything—including wild fruits, bluebell bulbs, mushrooms, and beetles. I remember watching badgers one very wet night in July, and they never moved far from their set, for in the coarse upland grass, there was an abundance of black slugs, a delicacy, brought out by the rain.

Badgers usually mate in July, and a normal litter of four or five cubs is born in February. When the cubs are about three months old,

they appear above the ground, playing at the entrance to the set. When the cubs are out and about, bedding is renewed by both boar and sow. Badgers are tidy animals and keep their sets scrupulously clean. Spring and autumn airings of the bedding are usual but can take place any month of the year. The parents drag out the old, dry grass and bracken and replace it with fresh—gathering as many as 30 bundles in a night. These they hold between chin and forepaws as they shuffle backward and then down an entrance of their set.

From a gland beneath their tail, badgers secrete a strong-smelling fluid onto tufts of grass, stones, or fence posts to mark their territory. They will even anoint each other for recognition. By means of these scent marks, a badger can easily find the entrance to its set when backing into it.

The song of the blackbird had died away, and all was silent in the darkening wood. Hardly daring to breathe, I sat perfectly still, when out of the corner of my eye, I saw the black-and-white mask of the badger appear. For a few moments, the badger stood at the entrance to its set, testing the evening air for danger before moving off into the night—for all the world like some lord of the manor going for a stroll around his ancestral estate.

**The badger's diet includes acorns, mushrooms, and earthworms**



# CRAZY HORSE

## Transforming a Mountain Into a Monument

**W**HAT would impel a brilliant young self-taught Polish-American sculptor to take on the task of transforming a mountain into an imagined likeness of a respected Indian warrior? It was no hasty decision, for Korczak Ziolkowski—that was the sculptor's name—took seven years to make up his mind.

In 1939, Korczak received a letter from an old Lakota Indian chief, Henry Standing Bear, who lived on South Dakota's Pine Ridge Indian Reservation. The chief invited him to create a memorial in the Black Hills of South Dakota to one of the legendary Indian chiefs. The Lakota Indian people view the Black Hills as sacred Indian territory, and they were not happy when sculptor Gutzon Borglum completed his mammoth sculpture depicting four U.S. presidents on Mount Rushmore, right in the middle of their revered Black Hills. Chief Standing Bear wrote to Korczak saying: "My fellow chiefs and I would like the white man to know the red man has great heroes, too."

### Why Crazy Horse?

Why did they choose Crazy Horse?\* Robb DeWall explains: "It was the Indians who picked Crazy Horse for the memorial. In essence Crazy Horse was an Indian's Indian—an extraordinarily brave warrior and a brilliant military tactician, the first Indian known to have used the decoy system. He . . . never signed a treaty and never went on the reservation."

What gave Korczak the idea for his design? He heard a story about the answer Crazy Horse gave to a white trader who mocked him for refusing to go and live on the reservation when most of the Lakota had already done so. The trader asked:

\* As a young man, Crazy Horse (c. 1840-77) was known as His Horse Stands in Sight. "It was probably before his twentieth year that he was given the name Crazy Horse [Tasunke Witko, Lakota language], becoming the third, and the last, in his family to carry it." His father and grandfather before him also bore that name.—Encyclopedia of North American Indians.

"Where are your lands now?" Crazy Horse "looked to the horizon, pointed over his horse's head, and proclaimed proudly, 'My lands are where my dead lie buried.' "

### Where to Locate the Memorial

The first task was to choose the mountain that would be converted into what was planned to be the biggest sculpture in the world, even outdoing nearby Mount Rushmore. In 1947, Korczak and Chief Standing Bear finally settled on a mountain that would serve their purpose. It was the 600-foot peak of a mountain that was 6,740 feet above sea level. Korczak called it Thunderhead Mountain because of the unusual cloud formations that sometimes formed over it. How would they get permission to reshape this mountain into a gigantic monument to an Indian?

DeWall explains in the book *Korczak—Storyteller in Stone*: "Anyone could file a mining claim in the Black Hills and, in effect, 'own' the land in question as long as \$100 worth of assessment work was performed every year. Korczak found it ironic the government didn't care if the mountain ended up looking like an Indian on horseback, just as long as he did the required amount of assessment work each year."

### How Much Mountain to Be Moved?

Korczak, with limited means, faced a monumental task, and at first, he was working on his own. The original dynamite blast that took place June 3, 1948, blew away a modest ten tons of rock. From that start to 1994, an estimated 8.4 million tons of rock were blasted from the mountain. Several hundred Indian people attended the initial blasting, including five of the nine

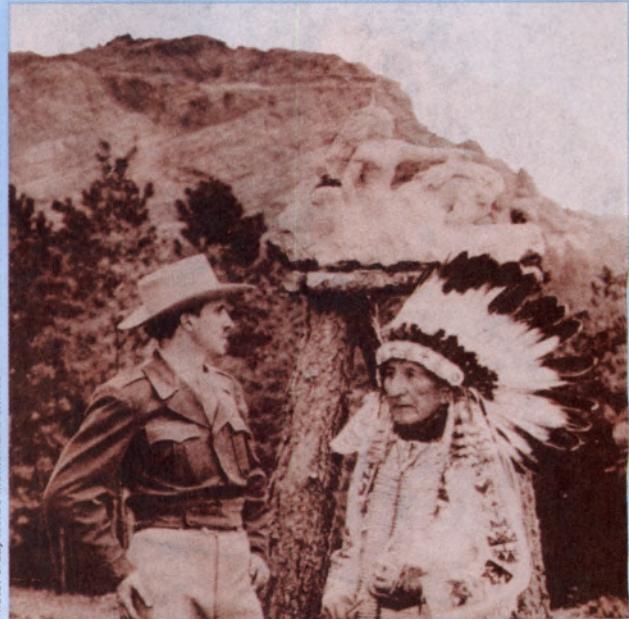
**Korczak and Chief Henry Standing Bear on June 3, 1948. Behind them is the marble scale model and the mountain before blasting**

living survivors of the famous Battle of the Little Bighorn (June 25, 1876).\*

Korczak was a relentless and dedicated man. Using local timber that he had harvested, he built a 741-step staircase to the top of the mountain, where he planned to blast and carve out the horse's head. He needed power to drive the jack-hammer. This came from an old gasoline-powered compressor. Korczak had to lay out 2,040 feet of 3-inch pipeline up and across the mountain to where he was drilling. Whenever the compressor stopped without warning, he had to descend that staircase, all 741 steps, to restart the motor. His record was nine trips back and forth in one day! He could not afford to have someone tend the compressor. He obviously had great stamina and determination.

\* At that historic battle, a mixed army of some 2,000 Teton Sioux (Lakotas) and Cheyennes wiped out Lieutenant Colonel George Armstrong Custer and his unit of 215 cavalrymen and routed the cavalry reinforcements led by Major Marcus Reno and Captain Frederick Benteen. Crazy Horse was one of the Indian leaders in that battle.

Photo: Crazy Horse Memorial archives

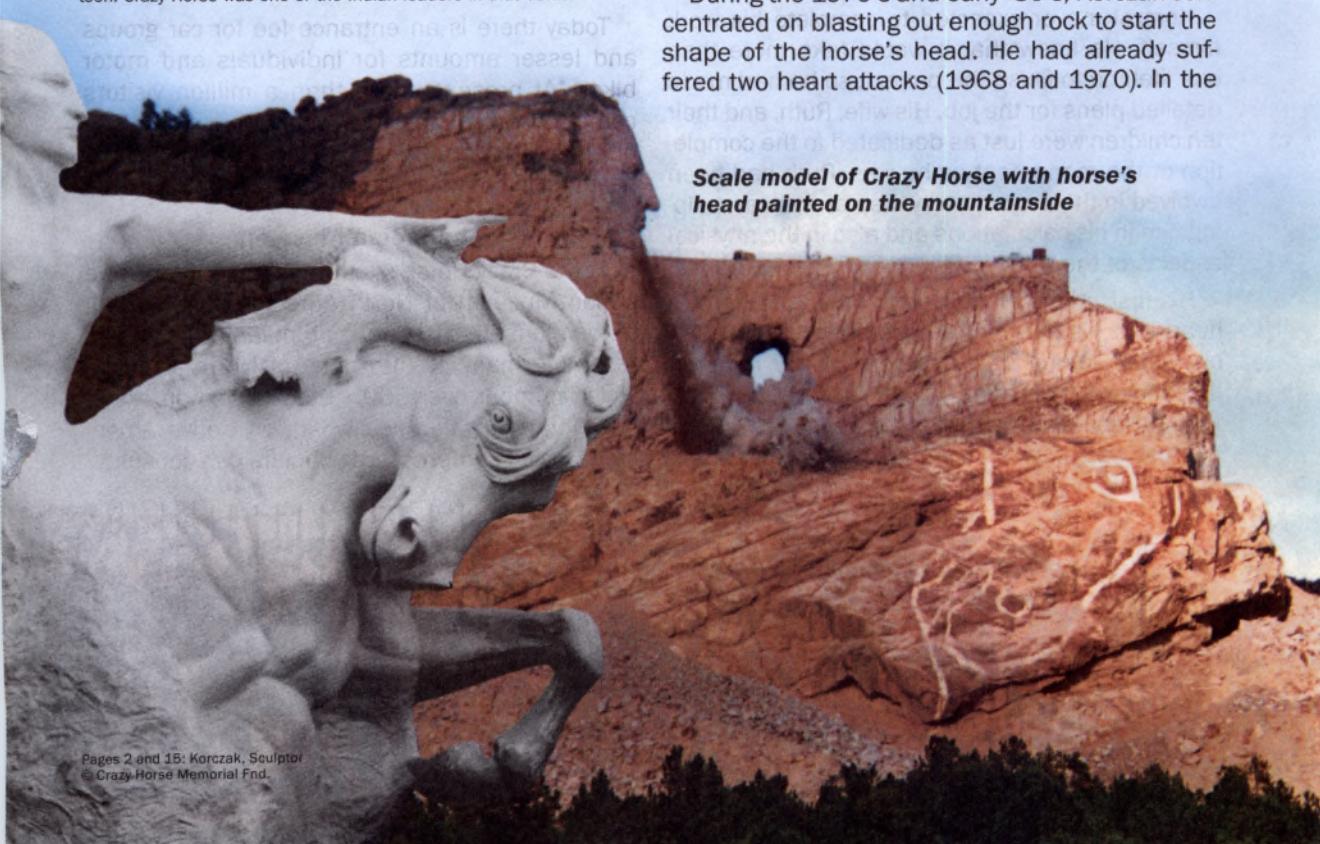


In 1951, using 174 gallons of white paint, he painted an outline of the projected sculpture on the mountainside. This made it easier for visitors to visualize the final work.

#### A Tragedy and a Crisis

During the 1970's and early '80's, Korczak concentrated on blasting out enough rock to start the shape of the horse's head. He had already suffered two heart attacks (1968 and 1970). In the

**Scale model of Crazy Horse with horse's head painted on the mountainside**



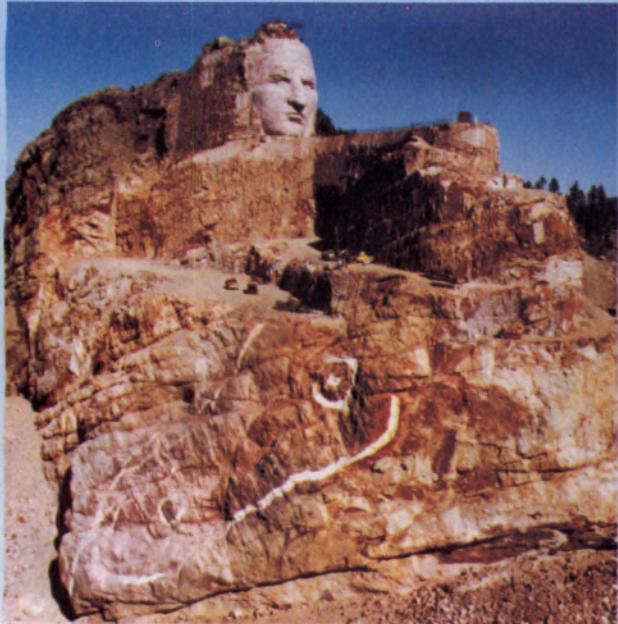


Photo by Robb DeWall, courtesy Crazy Horse Memorial Foundation (nonprofit)

it would be completed more quickly and the cost would be lower. It would also give the public a more recognizable image in less time and perhaps boost public support for the project.

### Amazing Dimensions

Crazy Horse's head is 87 feet 6 inches high and 58 feet wide. It is claimed that "all four 60-foot high heads on Mount Rushmore would fit inside just Crazy Horse's head—with room to spare!" According to some sources, Crazy Horse, with his outstretched left arm and his horse, will be the largest sculptural work in the world—563 feet high and 641 feet long. The arm itself will be 227 feet long, and the pointing finger 37.5 feet long and 10 feet thick.

Korczak would not accept federal funds for his project. On two occasions he was offered 10 million dollars in potential federal government funding, which he rejected. DeWall states that Korczak "steadfastly remained true to his free enterprise philosophy. During his lifetime he single-handedly raised and spent more than five million dollars on Crazy Horse." He took no salary and had no personal expense account.

Today there is an entrance fee for car groups and lesser amounts for individuals and motor bikes. At present, more than a million visitors come to Crazy Horse each year. Many donations of equipment and money have been made that have helped to keep the project rolling.

### The Indian Museum

At the Crazy Horse site, there is the impressive Indian Museum of North America, built of local timber. In it are thousands of Indian artifacts representing many of the tribes of North America, which number over 500. There is also an extensive library of reference works on Native Americans, which students and scholars can consult.

***The Ziolkowski family. Fourth from the right is Ruth, widow of Korczak***

Crazy Horse photo



Native Americans, such as Priscilla Engen and Freda Goodsell (Oglala Lakota), are also on hand to answer questions and explain some of the arts and handicrafts that are displayed. Donovin Sprague, a university instructor and member of the Miniconjou, a Lakota tribe, is available for consultation during visits. He is a great, great grandson of Chief Hump, who participated in the Battle of the Little Bighorn back in 1876.

### The Future of the Crazy Horse Memorial?

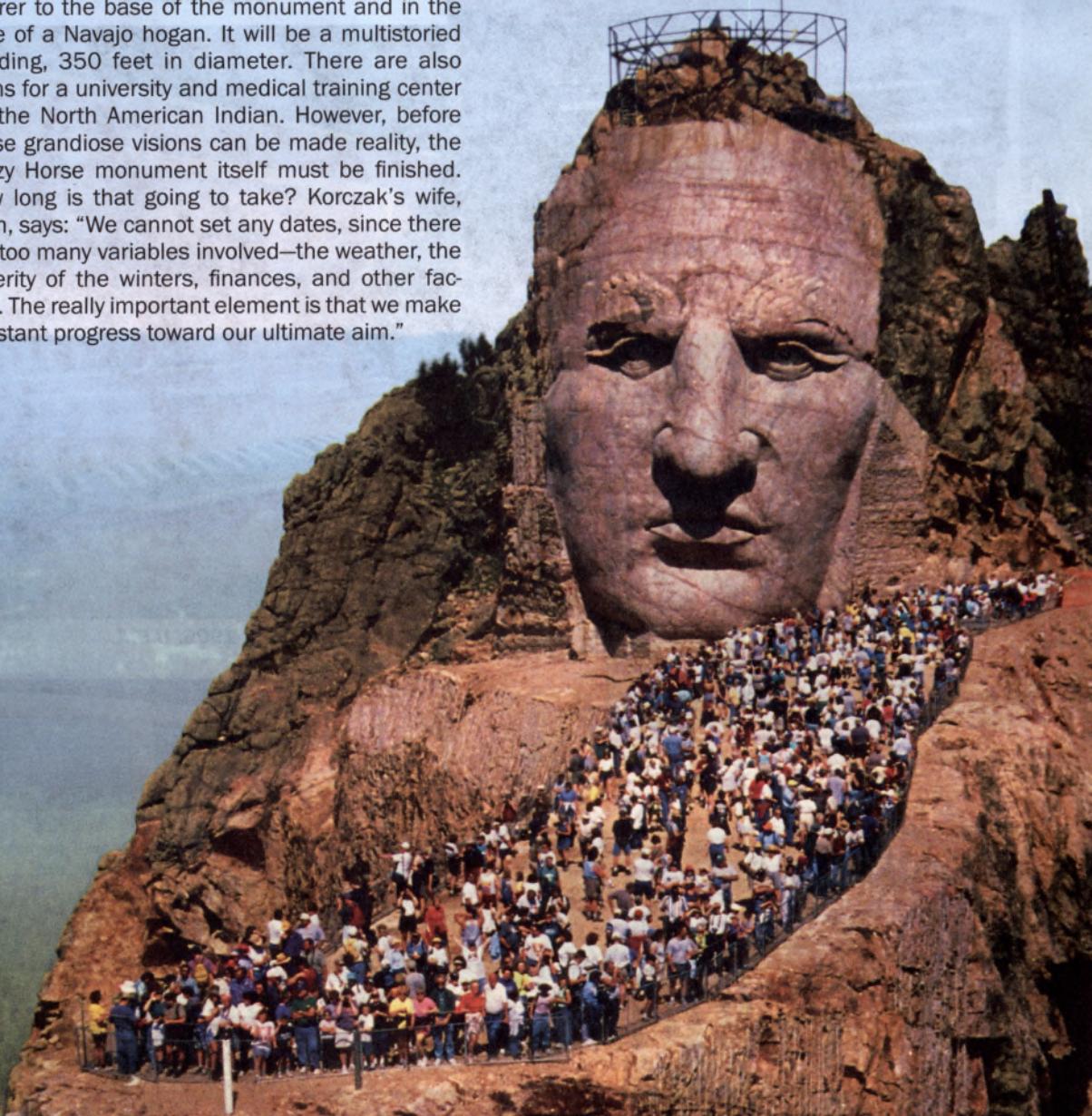
A new home is planned for the museum. Korczak's original vision was to have the museum nearer to the base of the monument and in the style of a Navajo hogan. It will be a multistoried building, 350 feet in diameter. There are also plans for a university and medical training center for the North American Indian. However, before these grandiose visions can be made reality, the Crazy Horse monument itself must be finished. How long is that going to take? Korczak's wife, Ruth, says: "We cannot set any dates, since there are too many variables involved—the weather, the severity of the winters, finances, and other factors. The really important element is that we make constant progress toward our ultimate aim."



▲ Interior of the Indian Museum

▼ Annual march to the face of Crazy Horse

Photos by Robb DeWall, courtesy Crazy Horse Memorial Foundation (nonprofit)





Harpsichord, with tortoiseshell keys  
(inset), 1760, Germany



Piano accordion, 1960, Italy



Clavichord, 1906, U.S.A.



Modern synthesizer  
and computer



Virginal with park scene,  
1666, England

# Can You Tell the Difference?

"It's a piano!" "No, it looks like a synthesizer to me."

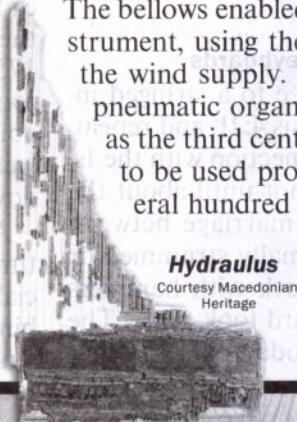
"That's definitely an organ!" "No, you are all wrong."

It's a harpsichord." Just what is it?

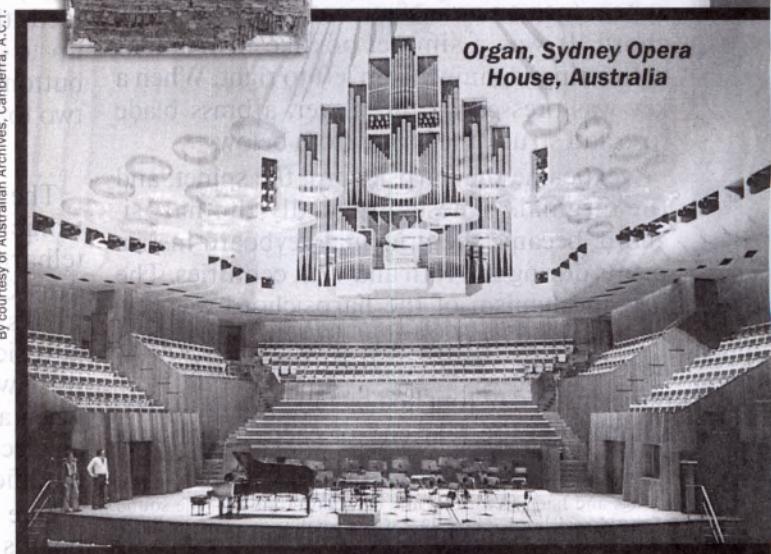
ACTUALLY, the keyboards of all those musical instruments do look somewhat similar. But the sound that is produced and the method of producing that sound when one of the keys is depressed can vary enormously. So how did the keyboard originate and develop? Let us take a look at keyboards through the centuries.

## What Was the Hydraulus?

The earliest-known primitive keyboard is believed to have belonged to an instrument called the hydraulus, or water organ. It is thought to have been developed by Ktesibios, an Alexandrian engineer, in the first half of the third century B.C.E. According to the book *Musical Instruments of the West*, "air was pumped . . . into a perforated vessel (*pnigeus*) standing in a cistern of water, and from the *pnigeus* it was further directed into the windchest below [a series of] pipes, pressure from the water maintaining its steadiness." The pipes made sound by means of sliders operated with the help of several large keys. Because the notes were loud and coarse, the hydraulus was well suited for performances at circuses, fairs, and outdoor festivals. It reached the height of its popularity during the Roman Empire—even Emperor Nero was described as being a skilled player.



**Hydraulus**  
Courtesy Macedonian Heritage



**Organ, Sydney Opera House, Australia**

By courtesy of Australian Archives, Canberra, A.C.T.

## Why the Pneumatic Organ?

The replacement of the water compressor with bellows that pushed air under pressure ushered in the age of the pneumatic organ. The bellows enabled the player to sit at the instrument, using the feet or hands to provide the wind supply. Excavated remains of the pneumatic organ have been dated as early as the third century C.E., and it continued to be used prominently for the next several hundred years. Because an elementary keyboard was still being utilized, melodies could be played only at very slow tempos. This

was because the size of each key had to be in proportion to its own organ pipe. To play a low note, the performer would probably have needed to use the whole hand or even the fist to press down the wide key.

By the 14th century, the organ had become "almost exclusively a church instrument in western Europe." (*The Encyclopedia of Music*) The development of a roller mechanism drastically changed the appearance and function of the organ keyboard. This mechanism enabled the pipes to be positioned away from the keyboard and the keys themselves to become narrower. At last, using only one finger for each key, the performer could gracefully play faster passages of music. Mozart appreciated the organ so much that he called it the king of instruments.

### Early Stringed Keyboards

The Bible's first reference to a stringed instrument is found at Genesis 4:21, and repeated mention is made in connection with the Israelite nation. But it was not until about the 15th century C.E. that a marriage between stringed instruments (normally strummed or picked with fingers or struck with hammers or beaters) and the keyboard took place. The keyboard as we know it today made its first appearance on an instrument called the clavichord. It was a simple, boxlike instrument with strings running from left to right. When a key was pressed by the player, a brass blade rose and struck the string from below.

Next came the harpsichord, the spinet, and the virginal.\* These, especially the harpsichord, became the principal keyboard instruments during the 16th and 17th centuries. The new mechanism of the harpsichord was revolutionary. *The History of Musical Instruments* describes it: "The strings were plucked by quills instead of touched by tangents as in clavichords. On the rear end of each key stood a

jack, that is, a small upright piece of wood, from which projected a small quill or a leather tongue. . . . When the key was pressed the jack jumped up, making the quill pluck the string, and then, owing to a springing device, fell back without plucking the string again."

This new mechanism gave the harpsichord its distinctive sound. One former concert pianist described the harpsichord sound, as distinct from the modern piano, this way: "It has a thin, metallic sound, and the notes are not sustained."

The design of the harpsichord varied a great deal over the years. Earlier ones had a single keyboard and only one string for each key. Later, more elaborate models had two keyboards, multiple strings for each key, and other devices for changing the tone. Great composers of the day, such as Johann Sebastian Bach (1685-1750) and Domenico Scarlatti (1685-1757), took full advantage of the tone and technical abilities of the harpsichord and contributed a wealth of music, much of which has survived down to our day.

Accordions were developed in the 19th century, and the piano accordion became especially popular in the 20th century. It is a combination of a keyboard and a wind instrument, since it has bellows that force air through reeds that vibrate. The modern accordion has up to 140 basses actuated by seven rows of buttons and a keyboard compass ranging from two to four octaves.

### The Electronic Age

The 20th century introduced the age of electronic keyboards. The oldest of these was the telharmonium, developed in 1906 by Thaddeus Cahill. Electric organs appeared in the 1930's and were soon followed by electric harpsichords and electric pianos. In stark contrast with the mechanism of the hydraulis, when a key is depressed on an electric organ, an electronic signal produces a note, which is modified and amplified.

One of the most popular electronic keyboards today is the synthesizer, which began

\* The virginal dates from the 15th century. It had 32 metal strings and had the form of the clavichord but with the sound of the harpsichord. The spinet was a small version of the harpsichord.

## Why the Pianoforte?

During the last quarter of the 18th century, the harpsichord was gradually replaced as the keyboard of choice by the pianoforte, commonly known as the piano. How did it get that name? There has been much discussion as to who invented this instrument and when, but an Italian named Bartolomeo Cristofori was experimenting with the pianoforte in the early 1700's. Cristofori's name for the instrument, *gravicembalo col piano e forte* (harpsichord with soft and loud), emphasized one of its advantages over the harpsichord, which

had allowed the performer very little control over the volume of the music. When a key on the pianoforte was depressed, a newly developed mechanism sent the hammer from below against the string. The volume of the note corresponded to the

force used to press the key. This now allowed the performer great freedom in expressing the desired feeling and volume in the music, whether *piano*, softly, or *forte*, strongly.

Another factor was the use of three types of pedals—the sustaining, the sostenuto, and the soft. Respectively, these allow the sound to have duration, to be held over, and to be diminished.

Throughout the 18th century, the pianoforte continued to be developed and modified in Europe. In the early 1740's, the square piano was developed, a smaller and more economical model. The larger grand, or concert grand, occupies more space, as it has the strings of varying lengths extended horizontally. At the beginning of the 19th century came the upright piano, which is still a popular model today.

Awake! asked one pianist about the main differences in sound between a grand piano and an upright. She said: "In three words, sound, clarity, and brilliance. The grand piano has a broader range of resonance. There is a purity and strength to the sound. By comparison, the upright is smaller in sound. This is also due to the fact that the upright is often against a wall, which dampens the rear soundboard."

### Nine-foot concert grand

to be developed in the 1940's and has become the basic instrument favored by most modern bands and groups. When a key on the synthesizer is pressed down, literally any sound imaginable can be heard—from a barking dog to a symphony orchestra.

Not surprisingly, the computer is also playing a prominent role in modern music. Today's synthesizers often contain a computer, or a computer can be used as a sound generator and thus as a musical instrument in its own right. Although a musical keyboard is often used as a computer controller, today's musician also has the choice of programming his computer with a mouse or a standard computer keyboard. "Today almost every recording studio has an abundance of computer-related equipment. The music is digitally saved on to a hard disk and then edited on a mixing desk using sophisticated software before the final version is mastered on to digital audio tape."—*The Encyclopedia of Music*.

Does this latest development mean that the days of the musical keyboard are numbered? That is hardly likely when we remember the emotive simplicity of Beethoven's "Moonlight Sonata," his "Für Elise," or Debussy's "Clair de Lune." But reflecting on the hundreds of years of keyboard music and the effect it has had on the lives of countless millions of people, we are bound to recognize the tremendous contribution the keyboard has made to the world of music and to human happiness down through the centuries.



# How We Escaped a Terrifying LAVA FLOW!

BY AWAKE! WRITER IN THE CONGO (KINSHASA)

IT IS Tuesday, January 15, 2002—seemingly a normal day in Central Africa. Along with another one of Jehovah's Witnesses, I arrive in Goma, Kivu, Congo (Kinshasa), to meet with the Witnesses of the Great Lakes region.

## Nothing to Worry About?

Although the Nyiragongo volcano (11,385 feet high) is located 12 miles from the city of Goma, its behavior intrigues us.\* We can hear it rumbling, and we can also see smoke rising from the volcano. For the local people, this is not unusual at this time of the year, and they are not worried.

During the afternoon, we attend the meetings of two congregations of Jehovah's Witnesses. We continue to feel earth tremors and to hear rumbling. That does not seem to disturb anybody. The local authorities persist in reassuring the population that there is no cause for panic. Although a Congolese volcanologist has been predicting eruptions for months, nobody believes him. One friend comments casually, "This evening the sky will be red because of the active volcano."

## "We Must Flee Without Delay!"

Upon returning to our lodging, we are told with no uncertainty: "We must flee without

\* In Swahili the volcano is known as *mulima ya moto*, meaning "mountain of fire."—See the article "Visiting an Active Volcano" in *Awake!* of July 8, 1975.



Lines with arrowhead indicate the lava flow

delay!" The situation is perilous. The city is in great danger. How quickly things change! Earlier we had been discussing the prospect of using Goma as a central location for witnessing activities. Now, late in the afternoon, we are told to flee the city, as it is in danger of annihilation!

As night closes in, the sky turns fire-red—for good reason! The flow of lava from Nyiragongo is advancing toward the city. The mountain resembles an enormous boiling pot spilling out its contents, fiery molten lava devastating everything in its path. We have never packed our suitcases faster! It is close to 7:00 p.m.

## Thousands Fleeing on the Road

As we make haste, the road leading out of Goma is filled with masses of people fleeing for their lives. Most are walking, carrying the belongings they have been able to grab. Many have loads balanced on their head. A few are jammed into overloaded vehicles. All are on their way to the nearby Rwandan border. However, a volcano is no respecter of man-made boundaries. No army can impede its

**The molten lava forced tens of thousands of residents to flee the city of Goma**

progress! We see soldiers surrender to the lava as they too run for their lives. It is virtually impossible for cars to advance on the road. We must continue on foot. We are in the midst of this struggling mass of 300,000 people—men, women, children, and babies—fleeing from the wrath of the volcano. The earth beneath our feet continues to rumble and tremble.

Everyone is fleeing for his life. My friend and I, strangers from a big city, are in their midst, accompanied by a few Witnesses, who watch over us. Their presence and their deep concern touch us deeply and give us a sense of security in this very stressful and painful situation. People are fleeing with what they can carry—clothes, pots and pans, some meager food supplies. In this sea of humanity, people are jostling one another. Some of them are bumped by cars trying to get past, causing some to lose their grip on their few belongings, which fall and are trampled. Woe to the one that stumbles. Tension is high. Everyone is filled with fear. We are trying to make our way to Gisenyi, just a few miles away in Rwanda. We continue our forced march.



**A Night in Security**

We reach an inn, but, of course, there is no more lodging available. We have to content ourselves with sitting around a garden table. This is after a tiring three-and-a-half-hour walk. We are glad to be alive and out of danger and to be with our Christian brothers who made the trip with us. Happily, among the Witnesses, no lives were lost.

It is evident that we will have to spend the night outdoors. From this safe distance, we can contemplate the fiery-red sky over the city of Goma. It was very impressive and beautiful indeed! Daylight comes slowly. The rumbling and quaking have continued through the night. Looking back on the past day's difficult events, we cannot help but feel compassion for the thousands of families that had to flee with their young ones.

▲ AP Photo/Sayid Amin





### Help Comes Quickly

Witnesses from Kigali, the capital of Rwanda, join us at midday on Friday, January 18. A relief committee made up of brothers from Goma and Gisenyi goes into action. The first goal is to house the Witness refugees in the six Kingdom Halls located in the vicinity. This is done the very same day. A sign in French and Swahili is put up on the roadside, indicating the way to a local Kingdom Hall, where the refugees can be given assistance and find comfort. Also the same day, three tons of basic necessities arrive at the Kingdom Halls where the Witnesses are housed. Saturday, the following day, a truck loaded with food, blankets, plastic sheets, soap, and medication arrives from Kigali.

### Anxiety Increases

This is a time of deep concern. How can the needs of all these people be met? What about the volcano? When will the eruption cease? To what extent has the city of Goma suffered destruction? The news filtering through and the continuing earth tremors do not promise anything positive. It is feared by experts that dangerous levels of sulfur dioxide will pollute the atmosphere. There is also concern that the water in Lake Kivu will be contaminated as a result of chemical reactions.

Within the 48 hours that followed the eruption, disturbing reports had spread. Then, Saturday afternoon we learn that some 10,000 people, including 8 Witnesses together with a child, are trapped by lava that encircles them, six feet deep in some areas. The air is heavy

**Within a week the Witnesses organized their Christian meetings**

with toxic gases. We fear for their lives. Things look hopeless. Even Goma's cathedral has been virtually destroyed by the inexorable advance of the lava. No one at the time thinks that Goma will arise from the ashes.

### Some Comforting News

Sunday at 9:00 a.m., we receive a phone call from one of the brothers surrounded by the lava. He tells us that the situation is changing. There is improvement. Rain is falling, the lava is cooling off, and the atmosphere is clearing. Although the lava is still hot and dangerous, people are beginning to cross the flows to get to safer ground. The city is not completely destroyed.

This is the first good news since the cataclysmic events began. The volcano seems less active. The experts in the vicinity offer conflicting views. We are able to establish contact with the neighboring city of Bukavu, located at the other extremity of Lake Kivu. We learn that five families, as well as three children without their parents, reached Bukavu by boat. The Witnesses in the city will take care of them.



### We Can Return!

On Monday, January 21, we are able to encourage and console the victims in Gisenyi, as well as determine their needs. We find that the brothers who are housed temporarily at the six Kingdom Halls are getting organized. We are able to get an exact count of the number who fled—1,800 including children.

What about the future? The local authorities plan to set up camps for the refugees quickly. However, some people still have unpleasant memories of the refugee camps that were set up after the genocide in 1994. We decide to return to Goma, and toward noon we reach the city. About 25 percent of it has been ravaged. We are able to walk on the now-hardening lava that flowed down the city streets. It is still warm, and escaping gases permeate the atmosphere. Many people are determined to return to the city.

At 1:00 p.m., we meet with 33 Christian elders in the Kingdom Hall of the Goma Center Congregation. The opinion is unanimous: They decide to return to Goma. "This is where we belong," they say. What about the risk of the volcano erupting again? "We are used to it," is the reply. They fear that if they do not return soon, everything they own will be loot-

ed. The following day all the Witness families that fled are back in Goma. The vast majority of the 300,000 people who had crossed the border have also returned to the stricken city.

### One Week Later

The city is once again alive with activity. Evidently, it will not die. Soon work is started to level the lava sufficiently to permit the two sections of the city that had been divided to be reunited. Everything that was in the path of the lava was devastated. The commercial center and the administrative section of the city were ruined. It is estimated that one third of the airport runway was destroyed.

An accurate count shows that 180 Witness families are among those who lost everything and are homeless. The relief committee makes arrangements to help approximately 5,000 men, women, and children to receive daily rations of food. A shipment of plastic tarpaulins contributed by Jehovah's Witnesses in Belgium, France, and Switzerland will be used for temporary shelter for the homeless, as well as for meeting places for the congregations whose Kingdom Halls were severely damaged or destroyed. Some of the homeless families will stay with Witnesses whose homes are intact, whereas others will be housed in the temporary shelters.

On Friday, January 25, some ten days after that terrible night, 1,846 are present at a meeting held in a school yard in Goma to listen to encouraging words from the Scriptures. Numerous expressions of gratitude are made by the brothers for the comfort as well as the practical assistance provided by Jehovah through his organization. We visitors are deeply touched by the courage and strong faith exhibited by the brothers despite their dire circumstances. Amid such distress, how pleasant it is to be part of a brotherhood united in the worship of the true God, Jehovah, the Source of everlasting comfort!—Psalm 133:1; 2 Corinthians 1:3-7.



## The Bible's Viewpoint

# WILL GOD OVERLOOK OUR WEAKNESSES?

*'I am not wicked! I have tried very hard to give up my bad ways, but I am just too weak!'*

DO THESE sentiments echo the way you or someone you know feels? Many conclude that it is virtually impossible for ingrained moral weaknesses to be conquered. Some people are dependent on alcohol, tobacco, or drugs. Greed dominates the lives of many others. And there are those who have given in to sexual misconduct, alleging that they are hopelessly addicted to sex.

As indicated at Matthew 26:41, Jesus kindly expressed his understanding of human weaknesses.\* In fact, the entire Bible record clearly establishes that both Jehovah God and Jesus are indeed merciful toward humans. (Psalm 103:8, 9) But can we expect God to ignore all our defects?

\*Jesus said: "The spirit . . . is eager, but the flesh is weak."

### Moses and David

Consider the account of Moses. He was known as "by far the meekest of all the men who were upon the surface of the ground," and he strove to conserve that good quality. (Numbers 12:3) As the Israelites trekked through the wilderness, they often acted unreasonably and showed disrespect for God and his representatives. Through it all, Moses humbly looked for divine direction.—Numbers 16:12-14, 28-30.

Just as the long, tiring journey was ending, however, he lost his temper before the entire nation and disobeyed God's instructions. God forgave him, but did He overlook that incident? No. He told Moses: "Because you did not show faith in me . . . , you will not bring this congregation into the land that I shall certainly give them." Moses would not enter the Promised Land. After a 40-year struggle for that splendid privilege, a serious human failing caused him to lose out.—Numbers 20:7-12.



King David was another godly man with a weakness. On one occasion he gave in to passion and had sexual relations with another man's wife. He then attempted a cover-up by having her husband killed. (2 Samuel 11:2-27) Afterward, he deeply regretted his crimes, and God forgave him. But David had destroyed a family, and Jehovah did not shield him from the devastating calamities that followed. David's baby boy got very sick, and Jehovah did not intervene, despite David's prayers in behalf of his child. The boy died, and thence followed a string of tragedies in David's household. (2 Samuel 12:13-18; 18:33) David paid a very high price for yielding to moral weakness.

These examples show that God holds humans responsible for their conduct. Those who want to serve him must shore up weak areas in their spirituality and become better Christians. In the first century, many did that.

### The Fight to Throw Off Sin

The apostle Paul is rightly considered a model of Christian living. But did you know that he had a constant fight against his weaknesses? Romans 7:18-25 vividly describes this conflict, or, according to verse 23, this "warning." Paul fought without letup, for he knew that sin is unrelenting.—1 Corinthians 9:26, 27.

Some members of the Christian congregation of ancient Corinth had formerly been habitual wrongdoers. The Bible says that they had been 'fornicators, adulterers, men who lie with men, thieves, greedy persons, drunkards.' But it also says that they were "washed clean." (1 Corinthians 6:9-11) How? They were strengthened to stop their wicked practices by accurate knowledge, Christian association, and God's spirit. Eventually, they were declared righteous by God in Christ's name. Yes, God extended forgiveness, thus giving them a clean conscience.—Acts 2:38; 3:19.

Paul and the Christians of Corinth did not minimize their sinful tendencies. Instead, they battled them, and with God's help they triumphed. Those first-century worshipers

became morally beautiful, despite their surroundings and imperfect inclinations. What about us?

### God Expects Us to Fight Our Weaknesses

Battling a weakness may not result in eliminating it completely. While we need not surrender to our imperfection, we cannot destroy it. It spawns weaknesses that may be very persistent. Yet, we should not give in to our weaknesses. (Psalm 119:11) Why is this so important?

Because God does not allow imperfection to be a constant excuse for bad conduct. (Jude 4) Jehovah wants humans to clean up, to get their lives in good moral order. The Bible says: "Abhor what is wicked." (Romans 12:9) Why does God take such a strong stand?

One reason is that yielding to weakness is harmful. "Whatever a man is sowing, this he will also reap," says the Bible at Galatians 6:7. Those giving in to addictions, greed, and promiscuity often reap a terrible harvest in their lives. But there is a more important reason.

Sin offends God. It causes "division" between us and Jehovah. (Isaiah 59:2) Since those practicing sin cannot gain his favor, he exhorts such ones: "Wash yourselves; make yourselves clean; . . . cease to do bad."—Isaiah 1:16.

Our Creator is loving and merciful. "He does not desire any to be destroyed but desires all to attain to repentance." (2 Peter 3:9) Constantly giving in to weakness hinders us from attaining God's favor. Since God does not ignore our weaknesses, neither should we.

## In Our Next Issue

■ Stem Cells—Has Science Gone Too Far?

■ Peer Pressure—Is It Really All That Powerful?

■ Love in Action  
—A Marathon Relief Effort

# Watching the World

## Brain Protection for Heart Attack Victims

"Cooling the body temperature of heart attack patients by just a few degrees significantly lowers their risk of subsequent brain damage and death, according to two groundbreaking studies," says a report in Canada's *Toronto Star* newspaper. A study involving five European countries and another involving Australia found that mild hypothermia resulted in better recovery for patients in terms of neurological and cognitive function. The body temperature of heart attack victims who were comatose when they got to the hospital was lowered to 33 degrees Celsius [90 degrees Fahrenheit] for 12 to 24 hours, using cold air and ice packs. According to cardiologist Beth Abramson, this inexpensive, low-tech therapy reduces "the brain's need for oxygen while suppressing the chemical processes that kill brain cells," says the *Star*. "The cooling technique appears to work so well that doctors in Canada, the United States, Australia and Europe are advocating that the practice be routinely used to treat all cardiac-arrest patients brought to hospital."

## Child Soldiers Banned

"A treaty to ban the use of children as soldiers comes into force today, crowning ten years of international efforts to fight one of the major causes of human rights violations in the world," said a United Nations press release dated February 12, 2002. The Optional Protocol, signed by 96 countries, "establishes that no person under the age of 18 shall be subject to compulsory recruitment into

## Enjoy That Yawn!

An infant in the womb starts yawning just 11 weeks after conception, explains the Spanish weekly magazine *Salud*. Apparently, most mammals, as well as certain birds and reptiles, manifest this involuntary reaction. Although the exact reason why we yawn has not yet been discovered, researchers have observed that actions like stretching are usually associated with yawning. These movements, they note, "increase blood pressure and heartbeat frequency, besides relaxing muscles and joints." When we inhibit yawning by clenching our jaws, we forgo the accompanying benefits. Thus, the research team recommends that if circumstances allow, we should "stretch our jaws and face muscles naturally" when yawning. You never know—a good yawn may well enliven your day!

regular armed forces, and imposes an obligation on States to raise the minimum age for voluntary recruitment to at least 16 years." It is estimated that "half a million children are currently serving in government armed forces, paramilitaries and armed groups in 85 countries worldwide; more than 300,000 of these are actively participating in fighting in more than 35 countries." According to the UN News Service Web page, many of these children have been abducted and "are beaten or killed if they attempt to escape. Girls are especially vulnerable, because they are often sexually exploited."

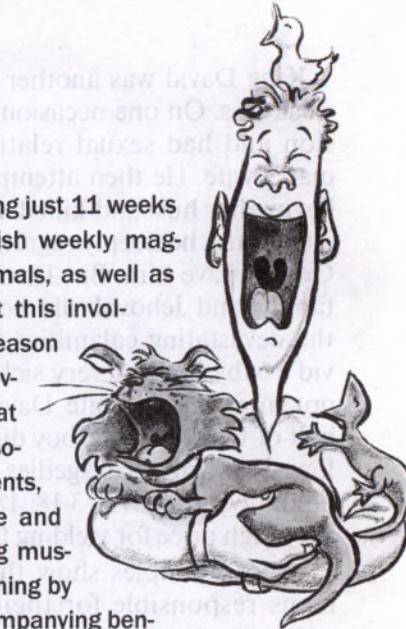
## Medication and the Elderly

"Persons over 60 take an average of three different drugs, three times as many as younger patients," says Germany's news-magazine *Der Spiegel*. "However, the risk of [drug] inter-

action, and as a result that of side effects, increases dramatically with the number of drugs taken." Another potential complication is that "family doctors ... often fail to take into account the reduced renal function in old age." The result is that drugs can accumulate in the body. Hence, "the right dose for a 40-year-old can poison a 70-year-old," explains *Der Spiegel*. "Many old people make things even worse by not drinking enough." Dehydration alone, adds the report, can produce side effects similar to those of drugs such as painkillers, tranquilizers, and antihypertensives. Symptoms include confusion, delirium, and dizzy spells, which are often simply blamed on old age.

## Deadly Ecstasy

Nine out of 10 people who go to all-night dance sessions called raves consume the amphetamine-based drug



known as ecstasy, reports the Spanish newspaper *El País*. Recently, two young people died from an ecstasy overdose at a rave in Spain. "You were being offered drugs constantly," recalls a friend of the deceased. What makes young people take the drug? Peer pressure and the temporary feeling of congeniality and self-esteem that ecstasy engenders. Youngsters frequently mix ecstasy with such drugs as hashish and cocaine or with alcohol, all of which heighten its dangerous side effects. Apart from memory loss and depression, ecstasy can cause 'respiratory problems, cerebral hemorrhage and even death,' warns Spain's National Antidrug Program.

### **Swearing in the Workplace**

Profanity has become commonplace in many work environments, reports *The Gazette* of Montreal, Canada. Some experts contend that swearing

adds to stress in the workplace. Karen Harlos, a professor of organizational behavior at McGill University, notes: "If profanity is part of negative criticism, it can have a detrimental effect on an employee's productivity, sense of self or health." According to the paper, "the boss often sets the tone" at the workplace, which others will follow. If you are bothered by swearing at your workplace, *The Gazette* suggests that you first approach "the person you think is crossing the line and politely ask him or her to drop the colourful phrasing in your presence."

### **Housework Is Good Exercise**

Can vacuuming, washing windows, and pushing a baby stroller be classed as healthy exercise? The answer is yes, according to a recent study conducted at the University of Queensland, Australia. Researchers fitted seven mothers who had children under five years of age with gas

analyzers to measure their oxygen intake during their daily routine, explains a report in *The Canberra Times*. According to the researchers, "the findings suggest that some of the tasks associated with domestic caring duties are conducted at an intensity which is sufficient to confer some health benefit." Professor Wendy Brown found that "the women's housework was roughly equivalent to moderate intensity exercise such as brisk walking, cycling or swimming," notes the report. "This is only preliminary research," said Brown, "but clearly you can't label women as inactive when they're on their feet all day."

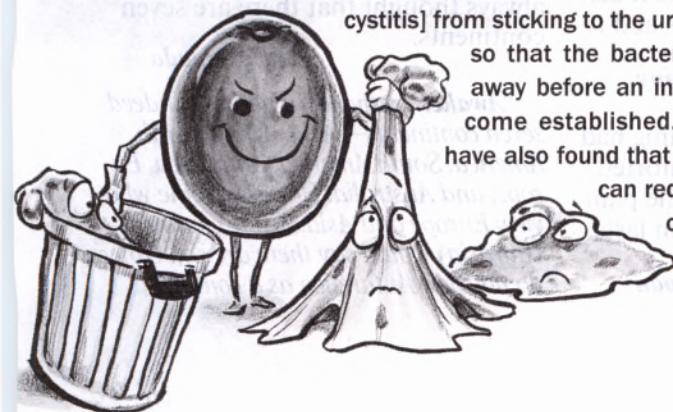
### **Rice Hulls Strengthen Concrete**

"Researchers are predicting a revolution in the construction industry," says Brazil's *Jornal da USP*, with "structures that last longer and stand up better to the weather and the environment. This is possible because of a new cement developed by researchers at the School of Engineering of the University of São Paulo" in Brazil. The scientists blended silica extracted from rice-hull ash with normal cement to produce an extremely fine, high-grade product. The resulting concrete is less porous, more resistant to pollution and the elements, and at least three or four times stronger than standard concrete. Thus, they are able to reduce column sizes by up to 30 percent, "but with comparable strength, [and] the results will be: greater space, lighter structures, shorter building time, lower expenditure with building materials, less labor," says *Jornal da USP*. Worldwide, about 80 million tons of rice hulls are produced annually, providing 3.2 million tons of silica.

### **Cranberries Combat Infection**

"Cranberry juice has a long and distinguished history," says *The Times* of London. "It had a great reputation both as a medicine and as a drink among Native Americans [and] had been used by American sailors to ward off scurvy." Rich in vitamin C and antioxidants, "cranberry juice also has antimicrobial qualities, which makes it especially effective in combating urinary-tract infections." But this is not due to the juice's effect on urine acidity, as was previously thought. Rather, says *The Times*, it stems from substances in the juice that "prevent the *E. coli* bacteria [the cause of most infections, including cystitis] from sticking to the urinary-tract wall,

so that the bacteria are flushed away before an infection can become established." Researchers have also found that cranberry juice can reduce the effects of gum disease.

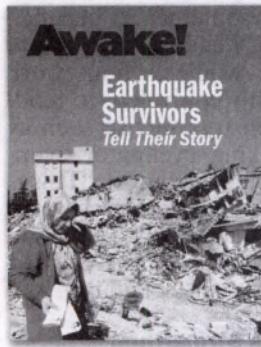


## From Our Readers

**Earthquakes** I read the cover series "Earthquake Survivors Tell Their Story." (March 22, 2002) In it you quote a source stating that "earthquakes of 7.0 magnitude and greater remained 'fairly constant'"

throughout the 20th century." Yet, the 1999 *World Almanac* shows a dramatic increase in earthquakes during the 1990's.

F. A., Italy



*"Awake!" responds: Without taking sides on this issue, our article merely pointed out what some seismologists assert regarding the overall frequency of earthquakes in the 20th century. The point was made that even if one believes that the number of earthquakes has remained "fairly constant," Jesus' prophecy recorded in Matthew chapter 24 is being fulfilled in our era. Jesus simply said that "great earthquakes" would occur.—Luke 21:11.*

**Miscarriage** When I saw the article "I Lost My Unborn Baby" (March 22, 2002), tears welled up in my eyes, as I remembered the loss of our unborn child. I immediately thanked Jehovah in prayer for providing this much-needed information and the comfort it brought. We will always find consolation in the fact that in God's new world, this will never happen to anyone again.

J. S., United States

I gave birth to a stillborn baby in the 30th week of my pregnancy. It was the worst experience of my life. What a great help and comfort this article is, as it discusses a subject that is often considered taboo, and it also gives practical advice.

K. W., Germany

I too lost my unborn baby. I acted as if nothing had happened. But in my heart I could not be comforted, and every day when I was alone, I just cried. The pain will probably not go away as long as this system lasts. But this article really helped me.

I. M., Japan

How right you are that mother and child bond early on. The grief is unimaginable. After 19 years, I still shed tears for our unborn child.

C. C., Britain

I have always found it difficult to talk to those who are in this situation. When I heard that a sister in our congregation lost her unborn child, I reread the article and wrote a letter to her and the expecting grandparents, expressing my deepest sympathy.

D. R., Germany

This article was an answer to my prayers. Thank you for being aware of the grief and trauma one suffers after a miscarriage. While reading the article, I felt as if Jehovah himself were wrapping his arms around me and comforting me.

C. P., United States

My mother lost a child between my younger sister and me. Her suffering was no doubt very great. After reading the box "How Family and Friends Can Help," I immediately wrote her a letter.

M. Y., Japan

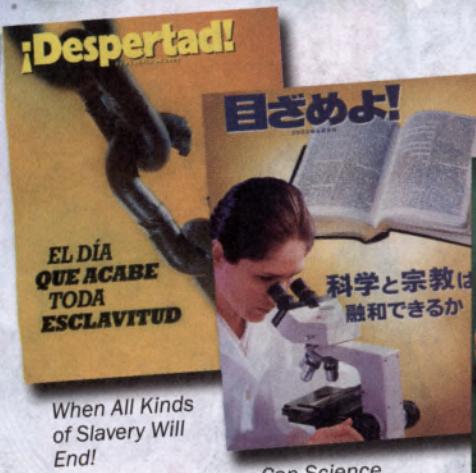
**How Many Continents?** On page 25 of the February 8, 2002, issue, you state that Australia is the "smallest of the world's five continents." I have always thought that there are seven continents.

L. U., Canada

*"Awake!" responds: There are indeed seven continents—Asia, Africa, North America, South America, Antarctica, Europe, and Australia. However, some who view Europe and Asia as one continent (Eurasia) would say there are six. Others do not view Antarctica as a continent.*



## THE ROLE OF THE PRESS



Can Science  
and Religion Be  
Reconciled?



"Edward Willis Scripps, founder of the Scripps newspaper chain, once said that the role of the press in America is to comfort the afflicted and afflict the comfortable," stated former White House press secretary Mike McCurry. He added: "You can't comfort or afflict people whom you leave ignorant."

"[McCurry] noted that our process for understanding what is happening around the world is lacking because our [U.S.] news media don't report on the world around us." The sad part is that the U.S. media believe that "American citizens don't want to have news about the world."—*Graphic Arts Monthly*.

*Awake!* has writers around the world and aims to inform its readers about current issues as well as scientific and social subjects. It builds confidence in a loving Creator. Published simultaneously in 61 of its 87 languages, it has a circulation of over 21 million each issue! Keep awake by reading *Awake!*

# Practical answers to the questions you've been asking!

- Why Don't My Parents Understand Me?
- Why Did Dad and Mom Split Up?
- How Can I Make Real Friends?
- Why Do I Get So Depressed?
- Why Won't the Kids Leave Me Alone?
- What About Sex Before Marriage?

