

# Awake!

MARCH 22, 2004

A close-up photograph of a person's hand wearing a white cloth glove. The hand is gripping a silver hammer, which is positioned above a green and blue globe. The globe shows the Northern Hemisphere with labels for Canada, Greenland, and the United States. The background is dark.

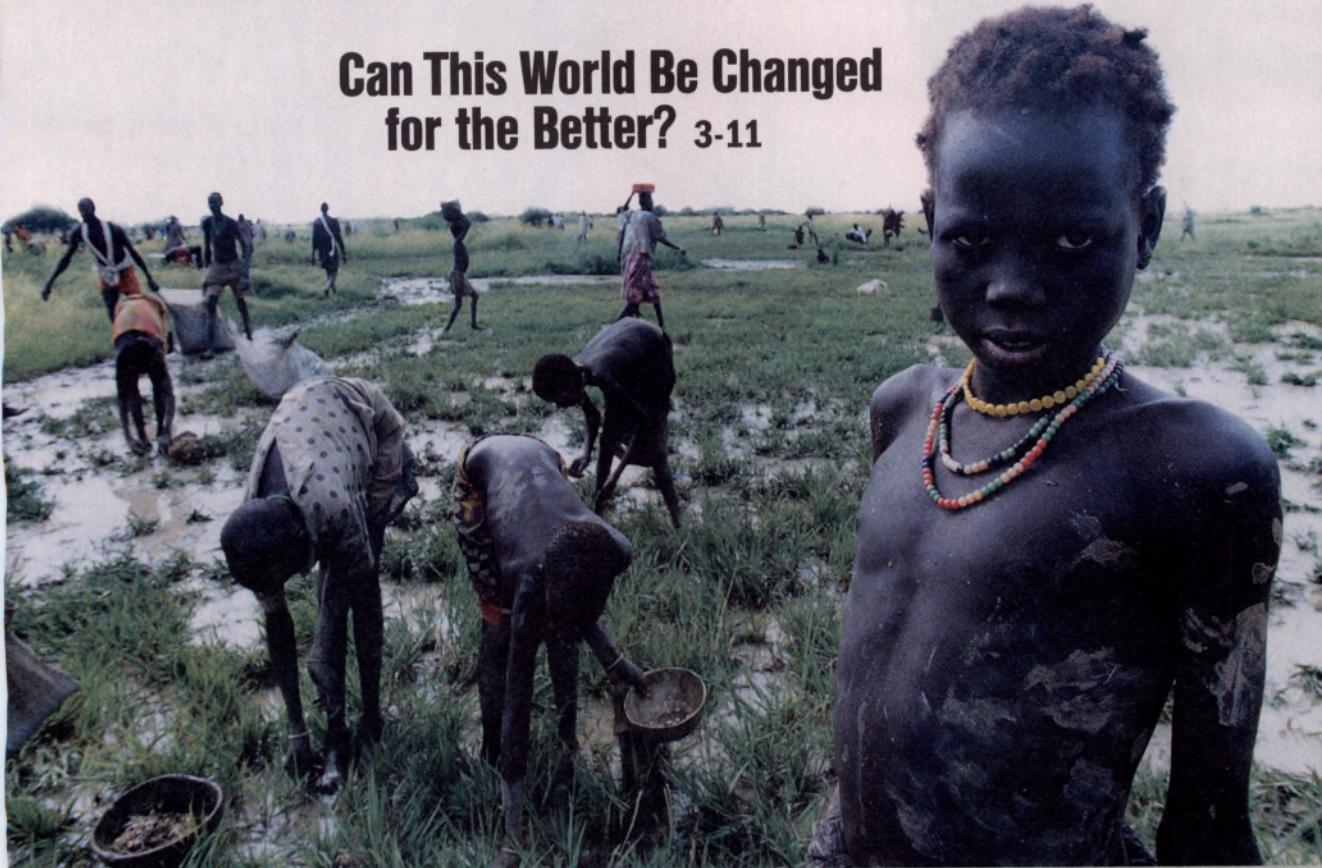
**Can This World  
Be Changed  
for the Better?**

# **Awake!**

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Many people feel that far-reaching reforms and social changes are necessary in this world. But do reformers have the solution? If not, who does?

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UN/DPI Photo by Eskinder Debebe

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—Sunday, April 4, 2004



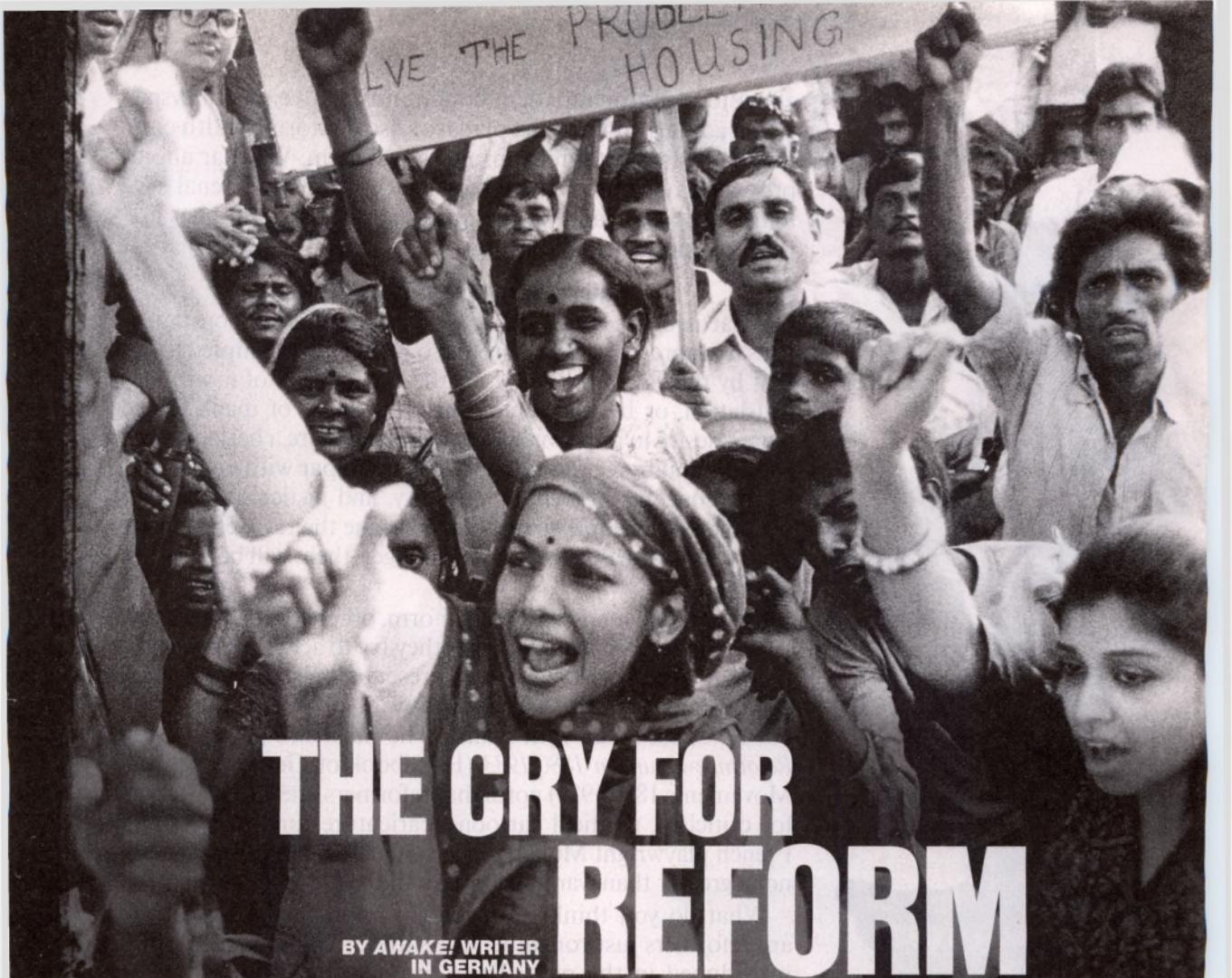
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LVE THE PRUDER  
HOUSING

# THE CRY FOR REFORM

BY AWAKE! WRITER  
IN GERMANY

**"If I were younger, I would start a reform movement!"**

exclaimed Anna, an 80-year-old woman in Germany.

**"What would you change?" asked Robert.**

**"Everything!" replied Anna.**

**M**ANY would agree with Anna. A poll carried out in Germany in the mid-1990's revealed that 2 out of every 3 people surveyed felt that 'far-reaching reforms and important social changes' were necessary. Perhaps the situation is similar in the country where you live.

When the public clamors for change, it is usually promised reform. Regarding education reform, Frederick Hess, an assistant professor of education and government, wrote: "Reform is largely a symbolic



effort to reassure impatient communities.” We read newspaper headlines announcing plans for fiscal reform, health-care reform, agricultural reform, and law reform. We hear about proposed reforms of the education, welfare, and penal systems.\* We also read that the members of some churches are pushing for doctrinal reform.

### Reform Versus the Status Quo

What is behind such demand for change? Man constantly tries to improve the world around him. He has attempted to do that by the use of the ballot, by the expenditure of money, by legislation, or by raw force. This is a result of man’s deep-seated desire to improve his lot in life, to secure a better future for his children, or to bring society up to par with his idealistic concepts of welfare, morality, and justice. As long as there are people struggling to escape the ravages of ignorance, disease, poverty, and hunger, there will be a cry for reform.

While many welcome reform, others think differently about reformers and what they try to achieve. Some prefer to keep society as it is, to preserve the status quo. They regard reformers as idealists who want to change the world but have lost touch with reality. The *Handbuch der deutschen Reformbewegungen 1880-1933* (Handbook of German Reform Movements 1880-1933) notes that reformers are “an easy target for criticism, political cartoons, caricatures and irony.” The French playwright Molière once stated: “Of all follies there is none greater than wanting to make the world a better place.”

What do you think? Can reform improve the world? Or are reformers just romantic visionaries? What about reforms introduced in the past? Have those responsible for them achieved their goals? The following articles will discuss these issues.

\* True to its stated purpose, *Awake!* “always stays politically neutral.” This discussion on reform is intended to inform our readers and point to the only real answer to man’s needs.

## Awake!®

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

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# DO REFORMERS HAVE THE ANSWER?

**F**RAUDULENT business practices, biased law enforcement, social injustice, poor health care, second-rate schooling, rip-offs in the name of religion, and the plundering of the environment—these are issues that leave most of us sighing in disappointment. These are also issues that propel reformers into action.

Reformers are found in almost every society, where they encourage change in an orderly, constitutional manner. Generally, they are not anarchists or revolutionaries, since most reformers stay within the law and refrain from violence. A few reformers occupy influential positions in society and take the initiative

in introducing change. Others lobby and prod those in power into taking some action.

Reformers try to get society to rethink its approach on issues. They do not just protest; they have ideas about how to improve things. To draw attention to their concerns, reformers may petition the public, demonstrate in the streets, or seek publicity in the media. Among the worst things that can happen to a reformer is for society to ignore him.

## Reformers in History

History has been punctuated by reforms. The Bible tells us that some 2,000 years ago, a public speaker commended Felix, the procurator of the Roman province of Judea, with these words: “Reforms are taking place in this nation through your forethought.” (Acts 24:2) About 500 years before Felix, Greek legislator Solon pushed through reforms to

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

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improve conditions for the poor. Solon "put an end to the worst evils of poverty" in ancient Athens, explains *The Encyclopædia Britannica*.

The history of religion abounds with reformers. For example, Martin Luther tried to reform the Roman Catholic Church, and his initiatives helped pave the way for Protestantism.

### The Scope of Reform

Reformers might also try to change the ordinary and the mundane. Some reformers promote a fundamentally different life-style. Such was the case with the *Lebensreform* (life-style reform) movement in Germany early in the 20th century. With the increasing industrialization of society, many people felt that life had become mechanical and impersonal. The reformers advocated a back-to-nature approach to life. They promoted fitness, outdoor pursuits, natural medicine, and vegetarianism.

Other reformers expose injustice and put pressure on the government to rectify the situation. Since the early 1970's, groups of environmental activists have protested against abuses and deterioration of the environment. Some of these groups have since grown into global organizations. The activists do more than demonstrate and protest against environmental hazards. They also offer suggestions as to how to remedy the situation. They have helped change legislation on, among other things, the dumping of toxic waste at sea and the hunting of whales.

In the 1960's, the Second Vatican Council undertook a reform of the Roman Catholic Church. The 1990's also saw would-be reformers from within the laity of the Catholic Church. They suggested, for instance, a change on the issue of celibacy. Reformers within the Church of England pushed

through a change allowing for the ordination of women to the priesthood.

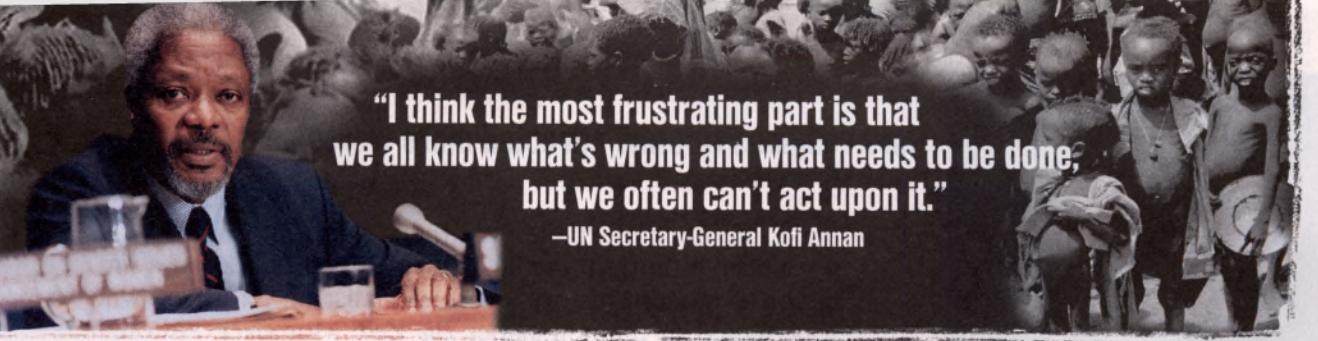
### Not Popular With Everyone

Some reforms have achieved immense good. For instance, in the Bible we find numerous examples of national leaders and others who promoted desirable reforms. Such efforts brought about spiritual revival, social renewal, and divine approval. (2 Kings 22:3-20; 2 Chronicles 33:14-17; Nehemiah, chapters 8 and 9) In more recent times, increased emphasis placed on basic liberties, civil rights, and human rights has done a lot to protect and defend underprivileged minorities and persecuted individuals.

However, reforms, once introduced, often bring surprises. John W. Gardner, a 20th-century public official, noted: "It is one of the ironies of history that reformers so often misjudge the consequences of their reforms." Consider some examples.

Starting in the early 1980's, agricultural reforms aimed at benefiting grassland and heathland habitats were initiated by the European Community. New agricultural policies freed more than 1,000 square miles of arable land in Germany and Italy for conversion to grassland. Despite the good intentions, there were unforeseen risks. "While initially welcomed as an opportunity to increase the ecological values of such areas," stated the United Nations Environment Programme, "'set-aside' measures can also have negative results—causing people to abandon traditional farming systems and adopt inappropriate forms of forestry or afforestation."

Regarding efforts to assist the poor, the International Fund for Agricultural Development stated: "All efforts to benefit the poor through institutional reform face a deep problem. Institutions are usually created and run in the interests of the powerful. . . . 'Big



**"I think the most frustrating part is that we all know what's wrong and what needs to be done, but we often can't act upon it."**

—UN Secretary-General Kofi Annan

*men' tend to run local institutions in their own interests."*

Another example is the feminist movement, which changed the lives of women in the Western world by gaining for them such things as voting rights and greater opportunities for higher education and careers. But even some supporters of women's liberation admit that feminism solved certain problems while exacerbating others. Writer Susan Van Scyoc asked: "Have we actually improved the lot of women or, in expecting women to be equal in the workplace without compensatory moves in their personal lives, have we condemned women to a living hell?"

#### Toothless Reforms

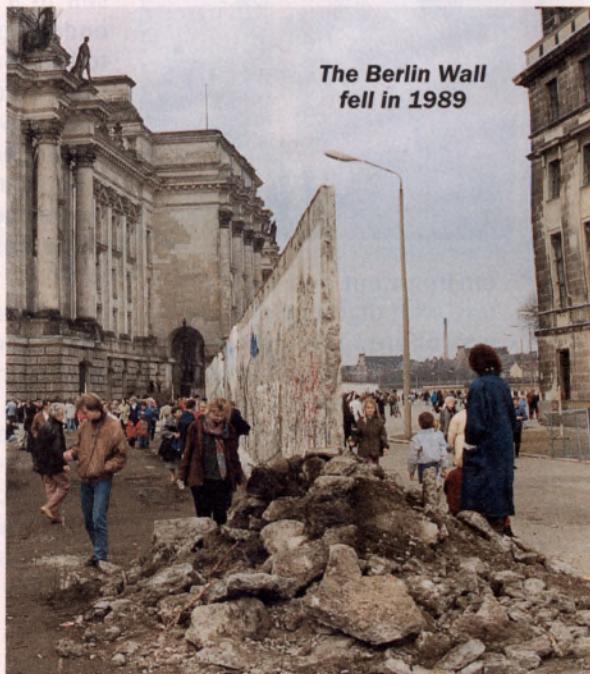
Some reformists have been accused of pursuing reform merely for its own sake. Describing what he called toothless reform, Frederick Hess, who has studied school reform, observed: "The problem with the dismal results of extensive reform efforts is with the nature of the reform enterprise itself. Instead of solving problems, these reform efforts have become alluring distractions that have actually aggravated" the problems they were supposed to solve. He continues: "Because each regime tends to initiate new reforms, the entire process starts anew every few years."

Reforms can also end up promoting a different, sometimes harmful, cause. The *Lebensreform* movement in Germany helped develop the theory of eugenics, the study of how to improve the human race by selecting parents who will produce stronger offspring.

Radicals misused this knowledge, however, to support the National Socialists in their ideological struggle to create a superrace.

Even fervent advocates of reform are occasionally disappointed by the results. UN Secretary-General Kofi Annan lamented: "I think the most frustrating part is that we all know what's wrong and what needs to be done, but we often can't act upon it. Sometimes a secretariat led by the secretary-general is given a mandate to do something about it, but the resources needed to carry through the decisions are not forthcoming. At times, when incredible things are happening and we want to awaken the conscience of the world, no one wants to move because of bad experiences in the past."

Reformers cannot hope to win popularity, for in drawing attention to their cause, they



**The Berlin Wall fell in 1989**



## Have religious reforms attracted more worshipers?

make life uncomfortable for others. "The reformer has always been a thorn in the flesh," said Jürgen Reulecke, a professor of modern history and a specialist on reformers who was quoted in the newspaper *Die Zeit*. Moreover, although most reformers keep within the law and refrain from violence, some become impatient if progress is slow. Under such circumstances a reform movement can breed militants who go beyond the law.

Have the widespread reforms of recent years made people in general more satisfied with life? This does not seem to be the case. In Germany, for instance, opinion polls indicate

## "I Risked My Life to Protect the Environment"

Hans went to sea for 48 years, including more than 35 years as a ship's captain. Toward the end of his career, he served as the captain of a vessel used by an environmental organization. He explains:

"I have always believed that mankind ought to respect the



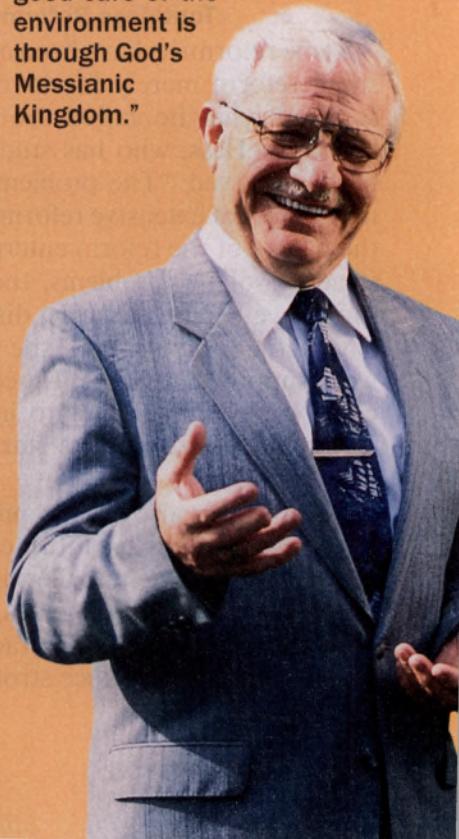
environment and treat nature with dignity. So when I was offered the chance to captain the ship of an environmental group, I accepted immediately. Our job was to expose threats to the environment. As soon as we planned a campaign at sea, we got the media involved to attract the attention of the public. We

went to sea and took action to try to stop the dumping of radioactive waste and toxic substances. In another campaign, we tried to halt the slaughter of seals and seal pups.

"This was no job for the timid. I risked my life to protect the environment. In one protest act, I handcuffed myself to a ship's anchor and ended up being dragged down to the seabed with it. Another time, I was in a rubber speed-boat traveling alongside a larger ship. Someone dropped a heavy metal drum onto our rubber boat, causing it to somersault. I was seriously injured."

Hans eventually realized that although the intentions of the organization were good, he was risking his life with little chance of making a lasting impact on the environment. (*Ecclesiastes 1:9*) Shortly after he left the environmental group, he studied the Bible with Jehovah's Wit-

nesses and became a baptized Witness. Today he is a full-time minister. "The Bible helped me realize that the only realistic hope of taking good care of the environment is through God's Messianic Kingdom."



that over the past 35 years or so, the level of satisfaction with life has remained virtually unchanged. What about religion? Have religious reforms attracted more worshipers? Are worshipers more satisfied with religion? No, as evidenced by the fact that the Western world is becoming more and more secularized and people are becoming less and less attracted to established religion.

#### **Was Jesus Christ a Reformer?**

Some might claim that Jesus Christ was a reformer. Is that true? This question is important for anyone who wants to be a true servant of God, since that involves being a close footstep follower of Christ.—1 Peter 2:21.

There can be no doubt that Jesus had the ability to bring about reform. As a perfect man, he could have blazed a trail with sweeping changes and innovations. Yet, Christ did not initiate a campaign to rid the world of corrupt officials or dishonest businessmen. He did not lead street protests against injustice, although he himself was to become the innocent victim of an outrageous miscarriage of justice. At times, Jesus had “nowhere to lay down his head.” Still, he did not start a pressure group to draw attention to the needs of the homeless. “You always have the poor with you,” he explained when some expressed concern over finances. Jesus kept himself neutral in conflicts of the world.—Matthew 8:20; 20:28; 26:11; Luke 12:13, 14; John 6:14, 15; 18:36.

Of course, such problems as poverty, corruption, and injustice did not leave Christ unmoved. In fact, the Bible shows that he was deeply upset over the pitiful state of mankind. (Mark 1:40, 41; 6:33, 34; 8:1, 2; Luke 7:13) But what he offered was a unique solution. What Christ had in mind was, not a simple reform, but a complete change in the way mankind’s affairs are governed. This change will be put into effect by the heavenly Kingdom introduced by the Creator of mankind, Jehovah God, and administered by Jesus Christ as King. This will be discussed in the next article.

## **She Fought for Reform**

Sara (not her real name) was born in Asia in the mid-1960's. She was a teenager when a revolution in her country brought a new regime to power, promising political and social reform. Initially, the citizens of her country were happy with the change, but within a year the new government began to persecute opposers, just as the old government had. Disillusionment was widespread, and Sara got involved in organized opposition to the new government. She explains:

“Our opposition group held meetings, and we protested publicly. I was on the streets of the capital city pasting up posters and passing out handbills when the militia arrested me. In the end they let me go. Others in our group were not so fortunate. Two of my girlfriends were arrested and executed. My life was in danger, so my father urged me to leave the country.”

Once in Europe, Sara studied the Bible and was baptized as one of Jehovah's Witnesses. Today she is a full-time minister. Looking back, Sara says:

“What I yearned for was justice and a solution to our social problems. I saw that the new government in our country started out with these same goals but became so extreme that it lost sight of the goals and began oppressing the population. I also realized that the protest group I belonged to did not have the answers to our country's difficulties. (Psalm 146:3, 4) Now I realize that the solution to all of mankind's problems is God's Messianic Kingdom.”



# SOMETHING BETTER THAN REFORM

**I**FA tree produces worthless fruit, the problem will not be solved by lopping off a few branches. The tree must be cut down and its roots removed from the ground. Then another tree should be planted, one that produces fine fruit.—Matthew 7:16-20.

For the same reason, even those reformers with the most honorable goals address only the symptoms of wrong in human society—corruption, injustice, deprivation, and robbery. The root cause, however, lies much deeper. What needs to be changed is the whole system. This is what the Bible promises.

The Kingdom of God is a heavenly government that will do more—much more—than just reshape, remodel, reorganize, or reform human

society. That government will introduce a completely new way of running man's affairs, uniting all mankind under its rule. This government will attend to such matters as education, work, housing, nutrition, health, and the environment.

Psalm 72:12-14 describes prophetically what the Messianic King will do for mankind: “He will deliver the poor one crying for help, also the afflicted one and whoever has no helper. He will feel sorry for the lowly one and the poor one, and the souls of the poor ones he will save. From oppression and from violence he will redeem their soul.”

But if society is to be completely free of corruption, injustice, and deprivation, surely not only will the government have to change

but the people will have to change as well. Hence, the Kingdom will give each individual personal guidance on how to lead a joyful, purposeful, and rewarding life. The Bible promises that God's Kingdom will help its earthly subjects to change themselves. How?

The Kingdom will educate its subjects in the ways of Jehovah God, thus helping them to develop faith and love. (Isaiah 11:9) Love for God moves the heart to action. In the first century, for instance, Jesus met Zacchaeus, a chief tax collector who was lining his own pockets by inflating the taxes levied on the people. Jesus did not put pressure on this corrupt official to shame him into changing his ways. Rather, Jesus helped Zacchaeus to recognize his own error and repent. Zacchaeus was moved by accurate knowledge of godly principles and by love for God. He made remarkable changes.—Luke 19:1-10.

Is that not a superior remedy for society's shortcomings? A perfect, righteous government to care for mankind's affairs coupled with personal motivation for each individual to change his ways. Will we then need reform? Not any longer, for God will have made all things new. The former things will have passed away.—Revelation 21:4, 5.



**While on earth  
Jesus helped  
individuals to  
make personal  
changes**

# Young People Ask . . .

## Why Does God Let Us Suffer?



***"God is up in heaven where everything is pleasant, while we are down here suffering."***

—Mary.\*

TODAY'S young people have been born into a cruel world. Tragic earthquakes and natural disasters that snuff out the lives of thousands seem to be commonplace. Wars and terrorist attacks dominate the news. Sickness, disease, crime, and accidents rob us of loved ones. For Mary, quoted above, evil hit close to home. Her bitter words were uttered after the death of her father.

When tragedy touches us personally, it is only human to feel frustration, loss, or even anger. 'Why did this have to happen?' you may wonder. 'Why me?' or 'Why now?' Such questions deserve satisfying answers. But to get the right answers, we must go to the right source. Granted, as a youth named Turrell observed, sometimes people are "hurting too much to think things through." So you may need to find a way to calm your emotions a bit so that you *can* think—logically and rationally.

\* Some of the names have been changed.

## Facing Unpleasant Realities

It may be unpleasant to contemplate, but death and suffering are facts of life. Job put it well when he said: "Man, born of woman, is short-lived and glutted with agitation."—Job 14:1.

The Bible promises a new world in which "righteousness is to dwell." (2 Peter 3:13; Revelation 21:3, 4) Before those ideal conditions are realized, however, mankind must go through a time of unprecedented wickedness. "Know this," says the Bible, "in the last days critical times hard to deal with will be here." —2 Timothy 3:1.

How long will these difficult times last? Jesus' disciples asked more or less the same question. But Jesus did not give them a specific day or hour when this misery-stricken system of things would end. Instead, Jesus said: "He that has endured to the end is the one that will be saved." (Matthew 24:3, 13) Jesus' words encourage us to take a long-range view. We must be prepared to endure many unpleasant situations before the end finally comes.

### Is God to Blame?

Does it make sense, then, to be angry with God because he permits suffering? Not when you consider that God has promised to end all suffering. Nor does it make sense to feel that God causes bad things to happen. Many tragic happenings are simply the result of random events. Imagine, for example, that the wind blows a tree down and it injures someone. People may call this an act of God. But God did not make that tree fall down. The Bible helps us to appreciate that such things are simply the sad result of "time and unforeseen occurrence."—Ecclesiastes 9:11.

Suffering may also stem from poor judgment. Suppose a group of youths indulge in alcoholic beverages and then go for a drive. A serious accident results. Who is to blame? God? No, they have reaped the consequences of their poor judgment.—Galatians 6:7.

'But isn't God powerful enough to end suffering now?' you may ask. Some faithful men in Bible times wondered about that. The prophet Habakkuk asked God: "Why is it that you look on those dealing treacherously, that you keep silent when someone wicked swallows up someone more righteous than he is?" However, Habakkuk did not jump to hasty conclusions. He said: "I shall keep watch, to see what he will speak by me." Later, God assured him that at an "appointed time," He would end suffering. (Habakkuk 1:13; 2:1-3) We must therefore be patient, waiting for God to end wickedness at his appointed time.

Avoid jumping to the rash conclusion that God somehow *wants* us to suffer or that he is personally testing us. It is true that suffering can bring out the best in us and that the Bible says that the trials God allows can refine our faith. (Hebrews 5:8; 1 Peter 1:7) Indeed, many people who undergo trialsome or traumatic experiences do become more patient or compassionate. But we should not conclude that their suffering was God's doing. Such thinking does not take God's love and wisdom into account. The Bible plainly states: "When under trial, let no one say: 'I am being tried by God.' For with evil things God cannot be tried nor does he himself try anyone." On the contrary, from God comes "every good gift and every perfect present"! —James 1:13, 17.

### Why God Permits Evil

From where, then, does evil come? Remember that God has opposers—principally the "one called Devil and Satan, who is misleading the entire inhabited earth." (Revelation 12:9) God placed our first parents, Adam and Eve, in a trouble-free world. But Satan convinced Eve that she would be better off without God's rulership. (Genesis 3:1-5) Sadly, Eve believed Satan's lies and disobeyed God. Adam joined her in this rebellion. The result? "Death spread to all men," says the Bible. —Romans 5:12.

Rather than immediately squashing this rebellion by destroying Satan and his followers, God saw fit to allow time to pass. What would that accomplish? For one thing, it would allow Satan to be exposed as a liar! It would allow proof to accumulate that independence from God brings nothing but ruin. Is that not exactly what has taken place? "The whole world is lying in the power of the wicked one." (1 John 5:19) Furthermore, "man has dominated man to his injury." (Ecclesiastes 8:9) Mankind's religions are a maze of conflicting teachings. Morals have fallen to an all-time low. Human governments have tried every conceivable form of rule. They sign treaties and adopt laws, but the needs of the common people are still unfulfilled. Wars add misery on misery.

Clearly, we need to have God intervene and end wickedness! But this will happen only in God's due time. Until then, it is our privilege to support God's rulership by obeying his laws and principles as found in the Bible. When bad things happen, we can take comfort in the confident hope of life in a trouble-free world.

### Not Alone

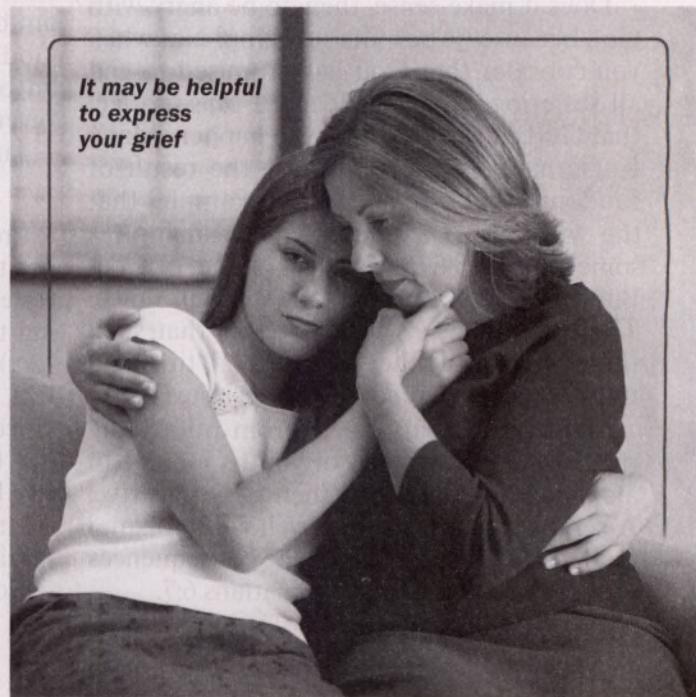
Still, when suffering touches us personally, we may find ourselves asking, "Why me?" The apostle Paul reminds us, however, that we are not alone in suffering evil. Paul says that "*all creation keeps on groaning together and being in pain together until now.*" (Romans 8:22) Knowing this fact can help you to cope with suffering. Nicole, for example, was emotionally traumatized by the terrorist attacks of September 11, 2001, in New York City and Washington, D.C. "I was horrified and scared," she admits. But as she read accounts of how her fellow Christians coped with that tragedy, her viewpoint changed.\* "I realized that

I'm not alone at all. Slowly I've begun to recover from my pain and grief."

In some cases, it is wise to seek out someone you can talk to—a parent, a mature friend, or a Christian elder. Pouring out your feelings to someone you trust will allow you to receive a "good word" of encouragement. (Proverbs 12:25) A young Brazilian Christian recalls: "I lost my father nine years ago, and I know that Jehovah will resurrect him one day. But something that helped me was putting my feelings in writing. Also, I talked things out with my Christian friends." Do you have any 'true companions' in whom you can confide? (Proverbs 17:17) Then benefit from their loving help! Don't be afraid to cry or express your emotions. Why, even Jesus once "gave way to tears" over the tragic loss of a friend!—John 11:35.

The Bible assures us that one day we will be "set free from enslavement to corruption" and enjoy "the glorious freedom of the children of God." (Romans 8:21) Until then, many good people may suffer. Take comfort in knowing why such suffering takes place—and that it will not last long.

*It may be helpful  
to express  
your grief*



\* See the series "Courage in the Face of Disaster," in the January 8, 2002, issue of *Awake!*

**I**N THE White Mountains of the western United States at 10,000 feet above sea level lives what is thought to be the oldest tree in the world—a bristlecone pine called the Methuselah Tree, also known as the Old Man. Estimated to be over 4,700 years old, Methuselah is the senior member in a grove of ancient bristlecone pines known as the Methuselah Grove.\*

These trees endure a brutal environment. "Average precipitation is less than 30 centimetres [12 inches] a year, most of which falls as snow, so there is very little moisture," says a report in the journal *New Scientist*. "And the trees stand on dolomite, a form of limestone that contains very few nutrients." Additionally, "the temperatures are extreme and the wind blows ferociously."

\* Methuselah, grandfather of Noah, lived 969 years—longer than any other man mentioned in the Bible record.—Genesis 5:27; Luke 3:36, 37.

# Methuselah on the Mountain

Yet, these very conditions are linked to the trees' longevity. "Conditions are so dry that even viruses and bacteria find it hard going. And [bristlecone pine] wood is so dense and resinous that it is impenetrable to insect pests. Lightning is a danger, but the trees are far enough apart for fire not to spread," explains *New Scientist*.

The trees' growing season lasts about 45 days. They conserve their limited energy reserves by growing very slowly. Their girth increases by as little as an inch a century, and their needles (leaves) last up to 30 years. The tallest tree stands about 60 feet high. Researchers estimate that the oldest pines may have another five centuries of life left in them.

In recent years, people who want to extend the human life span have taken a keen interest in the bristlecone pine, hoping to uncover its secrets. The real key to longevity, however, is much more readily available than something that might be found high on a mountain in a gnarled old tree. Says the world's most ancient book, the Bible: "This means everlasting life, their taking in knowledge of you, the only true God, and of the one whom you sent forth, Jesus Christ." (John 17:3) That knowledge is available to all. Why not investigate it for yourself?

*One of the bristlecone pines in the Methuselah Grove*



# Poland's Amazing COASTAL DUNES

By Awake! writer in Poland



PICTURES usually portray rural Poland as a deep-green landscape of well-watered farms, fields, and forests. But did you know that Poland also possesses an amazing landscape of rolling white dunes that are visible even from outer space? Confined to an 11-mile stretch of the Baltic Coast, this patch of quasi desert is one of the most popular features of Słowiński National Park.

There, says an official reference, "sea, lakes, rivers, dunes, forests, peatbogs and mead-

ows border on each other to form a diversified mosaic of environments. . . Only here do dunes run straight into lakes and forests." Indeed, the park's complex of migrating dunes—called the white dunes or white hills—and shallow lakes is unique in all of Europe.

These massive mounds of white and yellow sand constitute the largest dune area in Europe—about 1,200 acres—not stabilized by vegetation. Fittingly, Słowiński National Park's official symbol is a white gull soaring

The dunes are said to smoke  
when strong winter winds whip up  
plumes of sand

### **Common tern**

above a yellow dune and blue water.

More common in the park, but less dramatic, are the so-called gray dunes. Older than their white counterparts, they are overgrown with grass and trees that, besides forming soil, stabilize the sand by anchoring it and shielding it from direct exposure to the elements. One gray dune even has the distinction of being the highest of all the dunes in the park. Named the Czołpino dune, it is about 180 feet high.

When visitors see the dunes—especially the vast expanse of migrating white dunes—many naturally ask, “Where did all the sand come from? And why did so much of it accumulate on this relatively small section of the Baltic Coast?”

### **The Birth of the Dunes**

Although researchers have no definite answers to the aforementioned questions, evidence points to human involvement. Scien-

tists have deduced this by studying the pollen preserved in the various layers of soil, termed “fossil soil,” in the park. Their research has revealed that the area now occupied by dunes was once well forested, primarily with oak trees. So, what caused the radical change in the landscape?

It is believed that before our Common Era, large areas of coastal forest were destroyed by catastrophic fires resulting from the activity of the tribes inhabiting the region. “The sands, formerly stabilized by the forests, moved for the first time,” says the book *Słowiński National Park*. According to the pollen record, however, forest again took hold, first in the form of beech trees and later, pine trees.

But then during the Middle Ages, for some unknown reason, the dunes were stirred from their slumber and again went on the march. In the 16th century, they even threatened to engulf the old town of Łeba. The people reacted by building another town, away from the danger zone, but their efforts only



made matters worse. Says the book *Słowiński National Park*: “The building of the town and port was accompanied by massive felling of trees but nobody seemed aware of the consequences.” The logging, says the above reference, “resulted in movement of the dunes on a scale never seen before.” Moving at a rate of between 10 and 30 feet a year, migrating sands overwhelmed villages, fields, meadows, and even forest areas.

### Where Did the Sand Come From?

Humans may have played a role in the localized change in the landscape, but they did not bring in the sand. So where did it come from? And is the process continuing? The answers may indicate how the park will fare in the future.

Researchers believe that some sand may have come from inland deposits and that it was carried down to the sea by rivers. Another source may be the coastline itself, where wave action continuously erodes cliff faces—a process called abrasion. Along one stretch of the Baltic Coast, for example, waves roll in at a 45-degree angle to the shore, slowly wearing away the cliff face and carrying away the sand. The result is an accumulation of sand on the seabed.

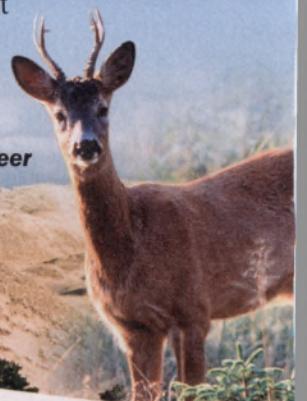
In ways not yet fully understood, ocean currents and waves work together to transport some of this sand from the seabed to just off the coast of the national park, where it forms large sandbars and shoals that run parallel to the shoreline. Waves and inshore currents then progressively shift sand to the beach, where sun and wind take over, drying it and blowing it inland. There it forms several parallel ridges that get progressively bigger as sand blows from one ridge to the next, ultimately forming the white dunes.

### Lakes by the “Desert”

Despite the foregoing, Słowiński National Park is far from being a lifeless desert. On the contrary, it is a thriving haven of life blessed with an abundance of water. In fact, dunes and beaches make up only about 5 percent of the park’s area, while rivers, lakes, and streams cover about 55 percent.

The largest of the lakes is Lake Łebsko, which has an area of 28 square miles and a maximum depth of about 20 feet. The biggest of the rivers, the Łeba, flows into this lake. The lake second

Roe deer

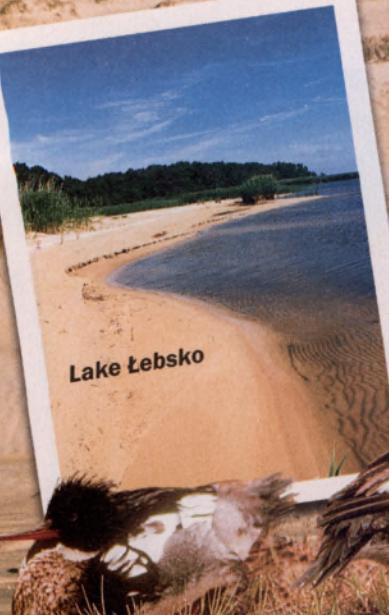


Unique sand formations



Mergansers

Lake Łebsko



in size is Gardno, which is fed by the Łupa-wa River. Because of their sandy, unstable surroundings, the shorelines of these two lakes undergo constant change.

### A Haven for Plants and Wildlife

The lakes, rivers, and streams complement the park's three major habitats—dunes, moors, and pine forest. Together these contrasting environments support almost 900 species of vascular plants, including orchids. One of the hardiest and most ecologically valuable plants is European beach grass, also called marram grass. A pioneer plant, beach grass usually begins the process of colonizing dunes. Its scaly underground stems spread out as far as 40 feet and send numerous shoots to the surface, forming tufts. In this way, beach grass gradually anchors and stabilizes dunes, making it possible for other plants to take root and grow.

Situated on an avian migratory route, Słowiński National Park teems with birds. Some 260 species, representing about 70 percent of all the kinds found in Poland, either make the park their home or use it as a stopover during their migration. Water birds include black-headed gulls, common terns, crested grebes, mallard, swans, and mergansers—ducks that are easily recognized by their spiky "hairdo." Other species include eagle owls, golden eagles, lesser spotted eagles, sea eagles, and ravens. If you have a sharp eye and walk quietly, you may also observe some of the mammals residing in the park, such as red deer and roe deer, wild boars, hare, and raccoon dogs, which are related to the fox.

### A Hiker's Paradise

Hiking is the only form of tourism allowed. To that end, the park has 85 miles of walking trails, which can take one progressively through each of the different habitats: coniferous forests; gray dunes, meadows, moors, and marshes; lakes with their viewing platforms

and watchtowers; white dunes; fore dunes; and, finally, miles of white sandy beaches.

Visitors who come in autumn or winter may even see the dunes put on their own special show as strong winds whip up plumes of sand from their crests, like the spray of an ocean wave. The dunes are then said to smoke. Sound is added to the spectacle as the millions of sand particles rub violently against one another, making the dunes hum, or sing.

As many as 800,000 people visit the park annually because of its amazing and diverse natural assets. No doubt many of the visitors like to escape the hustle and bustle of city life, seeking nature's therapy for jangled nerves in the solitude of the forest, the restful rumble of the surf, and the lonely cry of the gull.



## Słowiński National Park

This park is situated on Poland's central coast, between the towns of Łeba and Rowy. It is named after the Kashubian tribe of Słowińcy, a Slavic people who lived in the area until just before the end of the second world war. The park was inaugurated in 1967 and was designated a World Biosphere Reserve in 1977. It has an area of 45,985 acres, of which water covers more than half. The rest is composed of forests (25 percent), beaches and dunes (5 percent), swamps and moors (8 percent), and meadows and pastures (8 percent).

# THEY ESCAPED A DELUGE!

By Awake! writer  
in SWITZERLAND



**I**N October 2000, reports of floods were received from various parts of the world. Copious rains had soaked mountainsides, causing landslides that carried all sorts of rubble and even entire trees!

The canton of Valais in southern Switzerland was the site of such a disaster.



This section of land is divided lengthwise by the Rhône, a river that flows westward from the Rhône glacier in the Central Alps to Lake Geneva—a distance of about 100 miles. The mountain ranges on both sides of the river shed runoff water into the river by means of numerous brooks of varying sizes. Normally, this drain-

age functions smoothly. But when excess rainfall covers the entire area, calamity often follows.

This was particularly so in Gondo, on the border of Italy. This mountain village of 150 inhabitants was hit by an avalanche of mud and stones that destroyed a large section of the village. Soon other parts of Valais were inundated by the heavy rains. Roads and railway lines were blocked, and houses began filling up with mud and stones. In some places muddy slime piled up to 13 feet high. One woman watched as an avalanche of mud over a hundred feet high carried huge rocks and standing trees right toward her village!

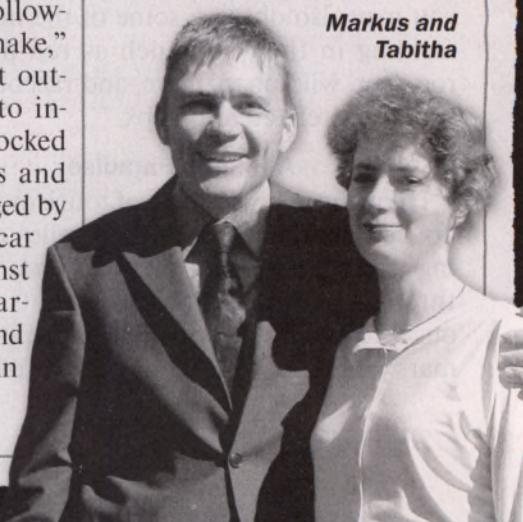
Markus and Tabitha, a married couple, were living in Mörel at the time of the disaster. "We were awakened just after 6:00 a.m. by a hollow-sounding blow and a shake," Markus recalls. "I went outside with a flashlight to investigate, and I was shocked at what I saw. Houses and bridges had been damaged by masses of rock, and a car had been slammed against a neighbor's house. Farther down, a neighbor and his wife were trapped in

their home. I helped them out through a window. When I returned home, Tabitha and I had just enough time to gather a few belongings."

Markus and Tabitha are Jehovah's Witnesses, and they found refuge with fellow believers outside the danger zone. "Although we escaped," says Markus, "Tabitha felt the shock of the event for days." What helped her endure the traumatic ordeal? "The company and support of our brothers and sisters in the faith," Tabitha answers, adding: "So did the interest shown by many in our neighborhood."

Markus and Tabitha were reminded of Proverbs 18:24, which states that there exists "a friend sticking closer than a brother." In times of disaster, how precious such friends prove to be!

**Markus and Tabitha**



**B**EES are famous for being industrious. One variety, though, stands out in that respect—the Carniolan bee.\* This honeybee is named after the district of Carniola, in what is now western Slovenia. Originally, this bee could be found only throughout the Balkan Peninsula and as far north as the Carpathian Mountains. Today, however, the Carniolan bee's popularity with beekeepers has spread its fame—as well as the bees themselves—around the globe.

What has made the Carniolan bee so popular? Besides producing an abundance of high-quality honey and being highly resistant to disease and cold weather, the Carniolan bee is gentle and nonaggressive. Although it has a tendency to swarm—a trait that can make large-scale beekeeping more difficult—this inclination has been reduced through selective breeding. But what is it about Carniolan bees that has earned them the reputation of being busier than the average bee? For one thing, they leave the hive earlier in the morning than other bees. Thus, they have time to bring home more nectar for making honey, and they can bring the nectar from a greater distance.

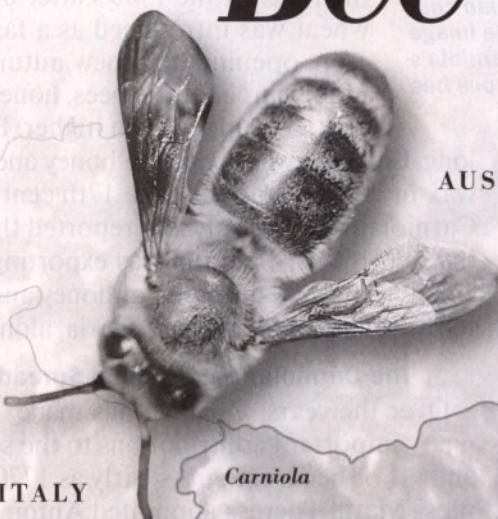
#### **"A Nation of Beekeepers"**

Beekeeping has a long and colorful history in Slovenia. Janez Gregori, a Slovenian biologist, goes so far as to describe his countrymen as "a nation of beekeepers." And, in fact, Slovenians were known as expert beekeepers as far back as the eighth century C.E. From that time until the 1800's, their beehives were made from hollow tree trunks. These hives were known in

\* The Carniolan bee is also known as the gray-banded bee because of the rings of fine gray hairs around its abdomen.

By *Awake!* writer in Slovenia

# *As Busy as a Carniolan Bee*



some Slovenian regions as *korita*, or troughs. In about the 15th century, however, with the advent of the sawmill, the old log troughs began to be replaced by hives made of boards. These were humorously referred to as *truge*, or coffins, because of their oblong shape.

The great demand for honey and beeswax made beekeeping so economically important that it drew the attention of the rulers

of the land, who vested certain favored individuals with exclusive rights to carry on the trade. Such high-level interest is understandable because beeswax was necessary for making candles, particularly for use in churches and monasteries, and because honey was the only sweetener available at the time. In the 1500's after buckwheat was introduced as a farm crop, opening up a new autumn food source for the bees, honey production jumped even higher. Before long, Carniola was exporting honey and beeswax in large quantities. The 17th-century Carniolan scholar Valvasor reported that by the mid-1600's, Carniola was exporting "many thousand quintals" of honey annually to the region of Salzburg, Austria, alone.\*

#### **The Carniolan Bee's Fame Spreads**

Over the years, Carniola has made many important contributions to the science and art of beekeeping. As early as 1770, Empress Maria Theresa appointed Anton Janša, a native of Upper Carniola, to be the first instructor of beekeeping at the recently established school of beekeeping in Vienna, Austria. By the late 1800's, bee researchers realized that Carniola's hardy bees were suited to the needs of beekeepers in many areas. It was also during this period that the Carniolan bee received its name and began to spread around the world. In fact, by

the beginning of the 20th century, Carniola was exporting "whole railway cars full of beehives," each hive housing a family of Carniolan bees.

During the same period, the traditional wooden-board beehive acquired the name *kranjič*, or "Carniolan beehive." What makes the *kranjič* particularly interesting is the unique art form it once bore. (See the box "Beehive Paintings," on page 24.) Today in Slovenia more than 7,000 beekeepers care for over 160,000 beehives. In the town of Radovljica, there is even a special apicultural museum, dedicated to the history of beekeeping in Slovenia.

#### **A Popular Symbol**

Slovenians have long regarded the bee as a symbol of industriousness and practical wisdom. The first scientific society in what is now Slovenia, established in 1693, was called the Society of the Industrious, and it incorporated the bee in its emblem. Its members even called themselves the *apes*, meaning "bees" in Latin. Also a symbol of thriftiness to Slovenians, the bee has even found its way into the financial world. The figure of a bee can be seen on the cover of bankbooks and on the back of some Slovenian coins.

Slovenians identify with the bee because of their own reputation as a hardworking people. There is a Slovenian saying, "Watch the bees, and follow suit." So whenever you see busy bees or taste honey—the sweet product of their labors—perhaps it will remind you of the hardworking Carniolan bees.

\* A quintal is equal to 100 kilograms or about 220 pounds.



The Carniolan bee is known for being gentle and nonaggressive



Larvae

*The queen bee surrounded by young worker bees*

Foto: Janez Gregori





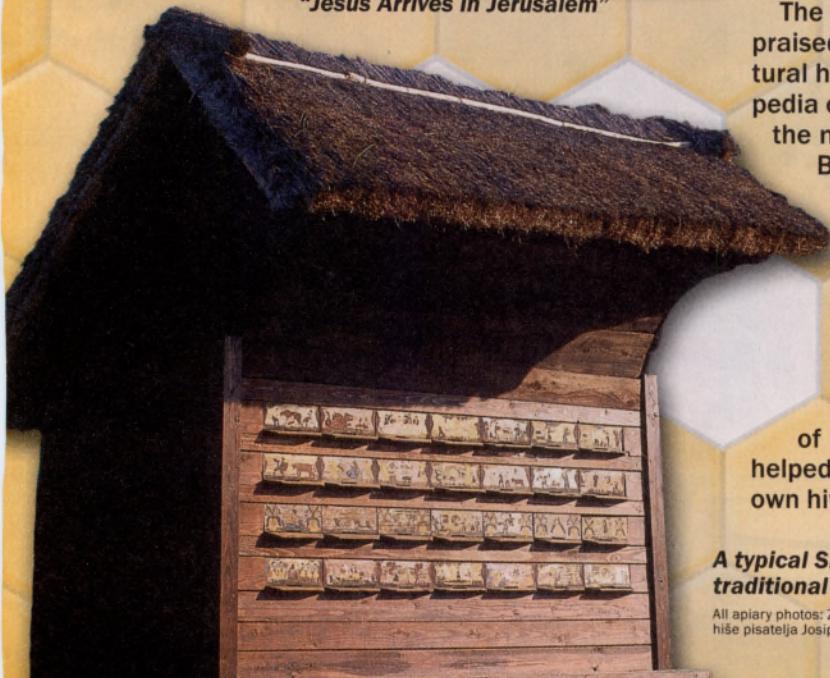
*"Adam and Eve"*



*"Joseph Sold Into Egypt"*



*"Jesus Arrives in Jerusalem"*



## Beehive Paintings

In a typical Slovenian apiary, the beehives are clustered together like drawers in a large rectangular chest, with short ends facing the front. The art of making oil paintings on the front boards of the beehives flourished from the early 1700's until the 1900's. Although some 3,000 examples of this unique art form have been preserved, this is only a small percentage of the beehives that were built and decorated over the years.

The designs on the boards are predominantly religious, depicting "saints" and Biblical stories. But the paintings also include portrayals of animals and of people practicing their occupations, along with various fanciful and humorous scenes. Some paintings deal with family relations. For instance, some show two demons using a grinding wheel to sharpen a slanderous woman's tongue, while others show a wife dragging her husband home from a pub.

The beehive paintings have been praised as "the pearls of Slovenian cultural heritage," as "a primitive encyclopedia of folk wisdom," and as "perhaps the most authentically Slovenian art."

But the paintings were also intended to serve a functional purpose. With numerous hives in the same location, a bee could make the fatal mistake of entering the wrong beehive, only to be killed as an unwelcome intruder. The beekeepers believed that the colorful designs on the ends of the hives, each one different, helped to guide the bees back to their own hives.

**A typical Slovenian apiary with traditional painted panels**

All apiary photos: Z dovoljenjem upravitelja rojstne hiše pisatelja Josipa Jurčiča

# UNDERSTANDING LACTOSE INTOLERANCE

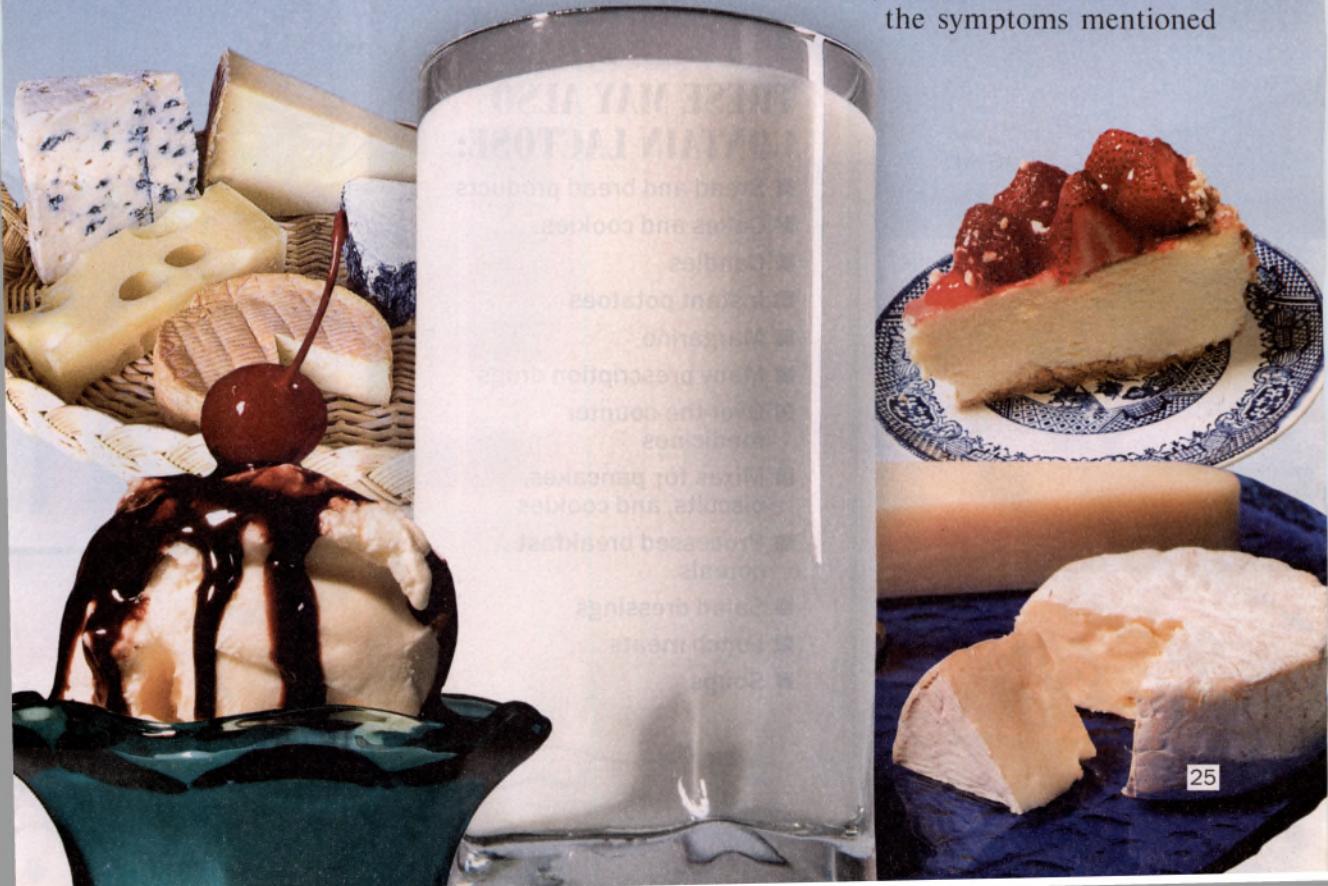
IT HAS been nearly an hour since you finished savoring your favorite ice cream or cheese. Your stomach feels tight and irritated, and you have gas. You once again seek relief from a medication that you have begun to keep handy. You are now at the point where you ask yourself, "Why is my stomach so sensitive?"

If you suffer from nausea, cramps, bloating, gas, or diarrhea after drinking milk or eating dairy products, you may be lactose intolerant. Lactose intolerance is a common reaction to dairy products. The National Institute of Diabetes and Digestive and Kidney Diseases reports that "between 30 and 50 million Americans are lactose intolerant."

According to *The Sensitive Gut*, a book published by Harvard Medical School, it has been estimated that "up to 70 percent of the world's population has some sort of problem with lactose." So, what is lactose intolerance?

Lactose is the sugar found in milk. The small intestine produces an enzyme called lactase. Its job is to break lactose down into two simpler sugars called glucose and galactose. This allows the glucose to be absorbed into the bloodstream. If there is not enough lactase to perform this task, the unaltered lactose passes into the large intestine and begins to ferment, producing acids and gases.

This condition, called lactose intolerance, results in some or all of the symptoms mentioned



above. Lactase is produced in high quantities during the first two years of life, after which there is a steady decline in its production. Hence, many may develop this condition and not realize it.

### Is It an Allergy?

Some conclude that they are allergic to milk because of the reactions they suffer after consuming a dairy product. So which is it, an allergy\* or an intolerance? According to some allergy experts, true food allergies are rare, with only 1 to 2 percent of the general population affected. In children, this figure is higher but less than 8 percent. Though the symptoms of an allergy and of lactose intolerance can be similar, there are differences.

The symptoms of a food allergy are the result of the immune system providing a de-

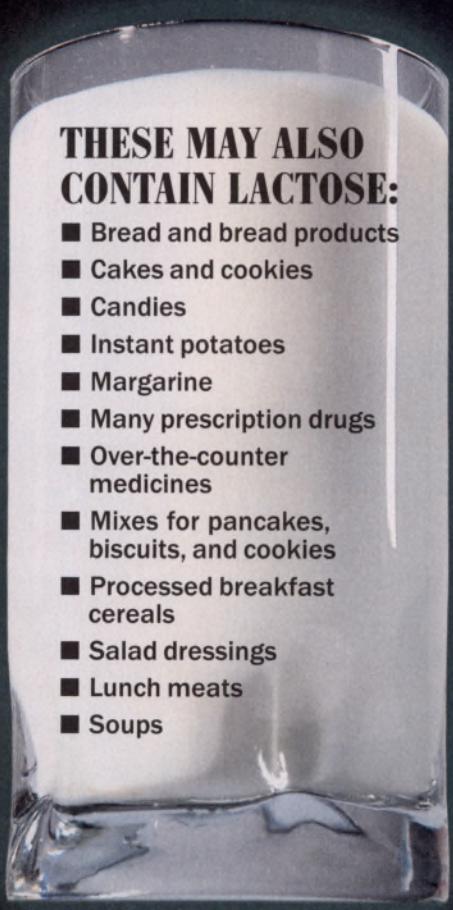
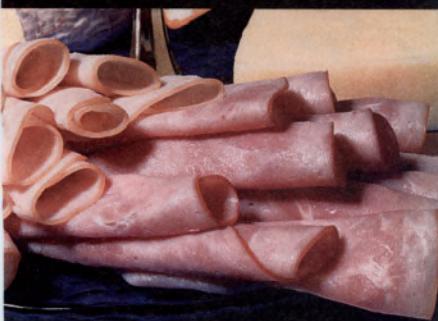
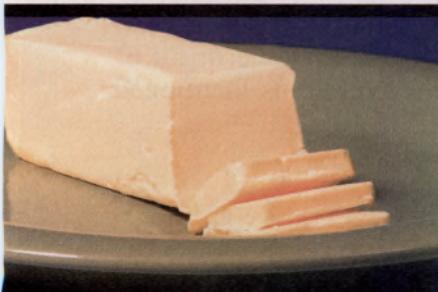
fense—histamine—against something you have been eating or drinking. Some symptoms involve the swelling of the lips or tongue, hives (rash), or asthma. Lactose intolerance will not cause these symptoms because the immune system is not involved. Lactose intolerance involves the body's inability to assimilate a food properly, thus resulting in a reaction.

What can help you tell the difference? The book *The Sensitive Gut* answers: "Genuine allergic reactions . . . occur within minutes of ingesting an offending food. Symptoms that arise more than an hour later most likely indicate an intolerance."

### The Effect on Infants

When an infant or a young child suffers a reaction from drinking milk, it can be distressing to the child as well as to the par-

\* Also called hypersensitivity.



### THESE MAY ALSO CONTAIN LACTOSE:

- Bread and bread products
- Cakes and cookies
- Candies
- Instant potatoes
- Margarine
- Many prescription drugs
- Over-the-counter medicines
- Mixes for pancakes, biscuits, and cookies
- Processed breakfast cereals
- Salad dressings
- Lunch meats
- Soups



ents. If a child develops diarrhea, dehydration could result. It may be wise for parents to seek the advice of a pediatrician. When intolerance is diagnosed, some doctors have recommended changing from milk to a supplement. The result for many has been relief from the distressing symptoms.

In the case of an allergy, there is more concern. Some doctors provide an antihistamine. However, if breathing is restricted, more will need to be done by a doctor to alleviate the situation. In rare cases, a potentially fatal condition called anaphylaxis can occur.

If an infant begins vomiting, another concern is a rare condition called galactosemia. As mentioned earlier, the galactose is separated by lactase, but galactose needs to be converted into glucose. If an accumulation of galactose occurs, severe liver damage, kidney deformity, mental retardation, hypoglycemia, and even cataracts can result. Hence, early and complete elimination of lactose from the infant's diet is vital.

### **How Serious Is Lactose Intolerance?**

One young woman had been suffering from chronic symptoms of gas and stomach cramps. Her condition became so severe that she sought medical attention. After a series of tests, she was diagnosed with inflammatory bowel disease (IBD).<sup>\*</sup> To control this disease, medication was prescribed. However, she did not stop her daily routine of consuming dairy products, so her symptoms remained. After doing personal research, she realized that her diet might be the culprit, so she systematically began to avoid certain foods. Eventually, she eliminated dairy products, and her symptoms began to disappear! Within a year—and after she had more

tests—her doctor told her that she did not have IBD. She was lactose intolerant. You can imagine her relief!

At this time, there is no treatment that can promote the production of lactase in the human body. However, lactose intolerance has not been found to be life threatening. So, what can you do to cope with the symptoms of lactose intolerance?

Through trial and error, some have learned how much dairy products they can tolerate. By being observant of the amount of dairy products being consumed and your body's reaction, you may determine how much you can and cannot digest.

Some have chosen to forgo dairy products altogether. By doing personal research or consulting a dietitian, some have found other ways to supplement their calcium needs. Certain green vegetables and some kinds of fish and nuts are high in calcium.

For those who want to continue enjoying dairy products, there are items on the market in the form of pills or liquid that can help. These products contain lactase to assist the intestines in converting lactose. Taking these products can help a person avoid the symptoms of lactose intolerance.

In today's world, managing one's health is a challenge. But thanks to medical research and our body's resilience, we are able to cope until the time comes when "no resident will say: 'I am sick.'"—Isaiah 33:24; Psalm 139:14.

## **In Our Next Issue**

- Moses—Man or Myth?
- Is It Possible to Overcome Bad Habits?
- Be on Time!

\* There are two types of IBD—Crohn's disease and ulcerative colitis. These very serious diseases can lead to the removal of a portion of the intestines. Complications from IBD can prove fatal.

# Watching the World

## Business Cards

### —Going out of Business?

"With the wave of kidnappings in Brazil, it is safer for executives not to go around with cards that reveal their job title and prestige," says security consultant Carl Palladini, as reported in the Brazilian business journal *Exame*. To criminals, such personal information is a tip-off concerning one's financial worth. Vagner D'Angelo, a director for Kroll, a large security firm, goes so far as to say that "the contents of your wallet can ruin your life." He advises business people in high-risk countries to remove all references to titles and status from their cards and to "dispense with the sophisticated paper [and] embossed details" on their cards. Fearing that criminals will soon wake up to this tactic as well, some executives have done away with business cards altogether.

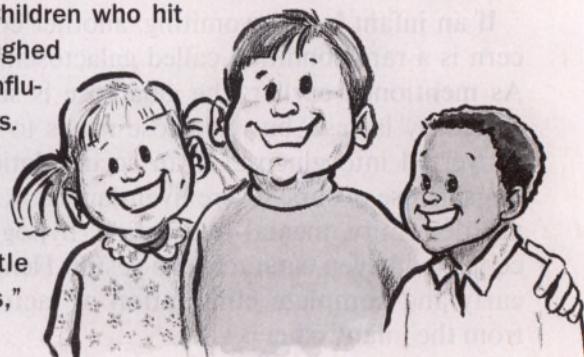
## AIDS Epidemic in the Caribbean

Next to Africa, the Caribbean has the highest rate of HIV infection in the world, reports the international edition of *The Miami Herald*. "Some estimates say 2.4 percent of the Caribbean's adult population is infected with [HIV]," and up to 12 percent is infected in some urban

## Friendly Children Are More Popular

"Having designer jeans and cutting-edge gadgets is no guarantee for popularity. In a peer group, it is much less a child's social status that counts and much more his friendliness," says the German magazine *Psychologie Heute*. Judith Schrenk and Christine Görtler, psychologists at the Max Planck Institute for Human Development, in Berlin, surveyed 234 children in the third and fifth grades from ten different elementary schools. They found that the children who wanted to get along better with others and who were friendly and open were more influential. Children who hit others or who laughed at them had less influence on their peers.

**"Even being good looking or having lots of pocket money counts little with schoolmates," says the report.**



areas. "The epidemic's full extent is obscured by fear, denial, limited treatment and a lack of public health resources," says the *Herald*. "Some 40,000 adults and children in the Caribbean are believed to have died of the disease in 2001 alone." Patricio Marquez, a health specialist for the Caribbean and Latin America at the World Bank, says that the AIDS threat "is affecting the most productive population in the most productive age group . . . There is the risk that an entire generation could be wiped out." Hardest hit is Haiti, with an

infection rate of over 6 percent. "Health experts and political leaders warn of the potential for devastation in a region of small . . . countries that depend on a limited pool of labor and resources, as well as tourism," says the paper.

## Dazzling Under UV Light

Many scientists have long believed that the brilliant colors of some birds help them to attract a mate. Biologists at Queen's University in Kingston, Ontario, Canada, have found that the feathers of one species reflect ultraviolet light. "Using a penlike sens-

ing device called a spectrometer," says *Canadian Geographic* magazine, "the researchers have revealed the unseen truth about the drab feathers of black-capped chickadees." The spectrometer revealed that "male chickadees are visually dazzling compared to females, with brighter whites and greater contrast. The caps and bibs of the most sexually successful males reflect more ultraviolet—a colour invisible to humans." This finding supports existing evidence that birds "see more colour and with greater acu-

ity than humans can," says *Canadian Geographic*.

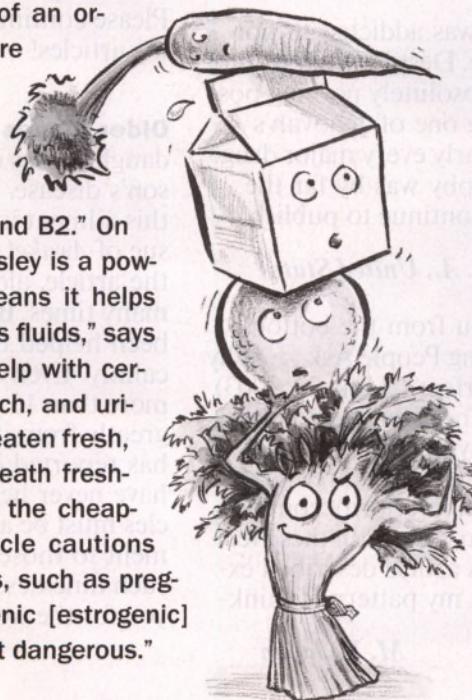
### The Solar System's Record-Breaking Eruption

Jupiter's moon Io experienced "the most powerful volcanic eruption ever recorded in the solar system," reports *Science News*. "The enormous tidal forces exerted by Jupiter's gravity relentlessly flex Io and heat it up, making it volcanically active. The moon may experience a dozen or so massive eruptions each year." According to the article, "material from

the record-breaking eruption appears to cover 1,900 square kilometers [730 square miles], an area about a thousand times the dominion of Italy's Mount Etna, one of Earth's most active volcanoes." Scientists spotted the eruption using Keck II, a powerful telescope situated on Hawaii's Mauna Kea, itself an extinct volcano. Keck II was able to pick up the eruption thanks to its adaptive optics, which "flex fast enough to compensate for the blurring caused by turbulence in Earth's atmosphere," says *Science News*.

### Powerful Parsley

Often used as just a garnish, parsley is a rich source of vitamins and minerals, says Australia's *Sunday Telegraph*. "A cup of parsley contains more beta carotene (Vitamin A) than a large carrot, has nearly twice the Vitamin C of an orange, and contains more calcium than a cup of milk. It also has more iron than liver, gram for gram, and is a good source of vitamins B1 and B2." On the medicinal side, "parsley is a powerful diuretic, which means it helps the body get rid of excess fluids," says the paper. It can also help with certain liver, spleen, stomach, and urinary complaints. When eaten fresh, "it is one of the best breath fresheners around, let alone the cheapest." However, the article cautions that "in some conditions, such as pregnancy, . . . its oestrogenic [estrogenic] components can make it dangerous."



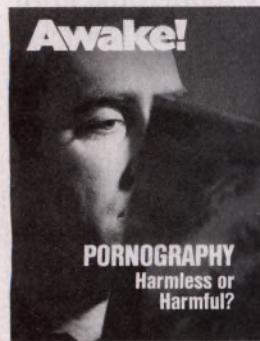
### How a Child's Death Affects Parents

"Dying of a broken heart can be more than just a figure of speech," states *The Times* of London. Researchers at Denmark's University of Århus "followed the lives of 21,062 parents in Denmark who had lost a child below the age of 18 to illness, accident, murder or suicide." They compared these parents with 300,000 others who had not lost a child. "In the first three years after a child's death, the chances of a mother dying of unnatural causes—usually accident or suicide—were nearly four times greater, while a father's risk increased by 57 per cent." The researchers suggest that increased stress may be the main reason for the higher death rate.

# From Our Readers

**Pornography** Thank you for the series “Pornography—Harmless or Harmful?” (July 22, 2003) I needed this straightforward counsel. I did not become a Christian until long after I had exposed myself to pornography. The articles helped me to see more clearly than ever how damaging it is and what decisive steps are needed to break free from its powerful, magnetic pull.

*E. P., United States*



This horrendous addiction changed his personality from kind and gentle to angry, lying, and animalistic. I used to feel so alone as a casualty of pornography, but now I realize it is a crisis that affects many. Thank you for this well-written series.

*L. T., United States*

Before studying the Bible, I was addicted to pornography for well over a decade. Despite what its proponents might claim, there is absolutely nothing positive about it. Before becoming one of Jehovah’s Witnesses, I was addicted to nearly every major drug. Of all my addictions, pornography was by far the most difficult to break. Please continue to publish articles like these.

*J. A., United States*

**Young People Ask** Thank you from the bottom of my heart for the article “Young People Ask . . . Why Do I Feel That I Have to Be Perfect?” (July 22, 2003) I am a 25-year-old full-time evangelizer. Ever since I was small, I have compared myself with my sister and my brother, who are four years and three years older than I am. I fought with an inferiority complex, thinking that I was worthless. To cope with these feelings, I strove to be perfect. This article described exactly how I feel. I want to adjust my pattern of thinking.

*M. Y., Japan*

I am 16 years old, and I was recently diagnosed with depression. I have always tried to do things perfectly, and I often berate myself for being a failure. This article came at just the right time. I could not stop crying as I read it. I never realized that many others battle with the same feelings. Thank you for the “Young People Ask” series. I look forward to the next article.

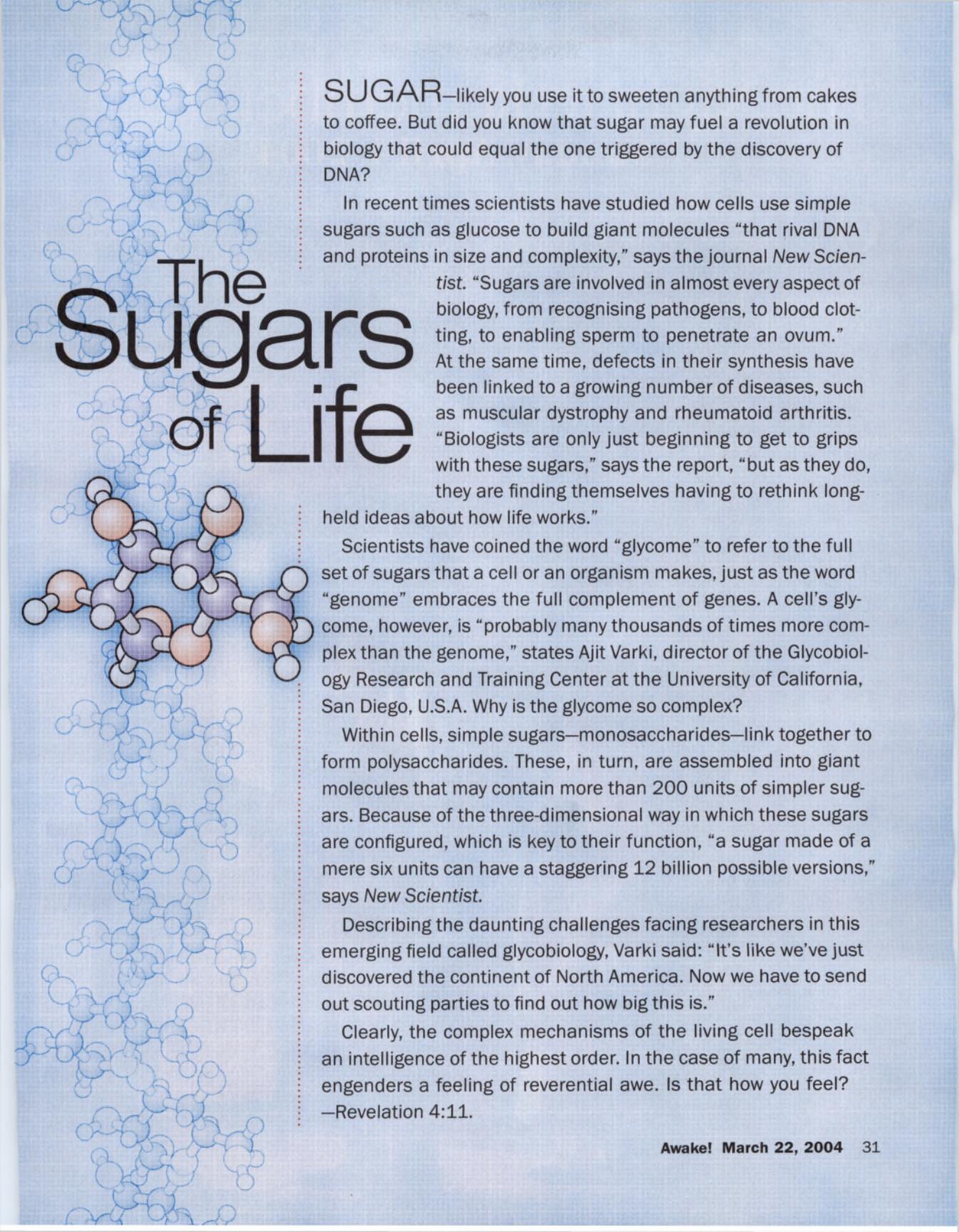
*L. S., United States*

**Zebra Mussels** I am 12 years old, and I really enjoyed the article “Pesky Purifiers.” (July 22, 2003) I was struck by the fact that a female can produce 500,000 eggs a year and that there can be as many as 600,000 mussels in just one square yard. We should respect the sea because it is the habitat of zebra mussels and other creatures. By doing so, we also show respect for Jehovah God. Please continue writing such interesting articles!

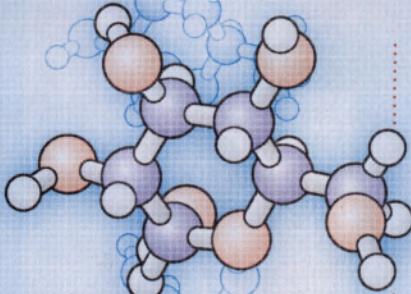
*E. T., Italy*

**Older Issues** Recently my adult daughter was diagnosed with Parkinson’s disease. I found an article on this ailment in the January 8, 1988, issue of *Awake!* Our entire family read the article, along with my daughter, many times. Because of this, we have been helped to face our situation calmly. Even though this article is more than 15 years old, we benefited greatly from it. Occasionally, *Awake!* has reported on illnesses that we have never heard of, and these articles must be a tremendous encouragement to those who are afflicted with such illnesses. My heartfelt thanks to you for the work that you do.

*E. M., Japan*



# The Sugars of Life



**SUGAR**—likely you use it to sweeten anything from cakes to coffee. But did you know that sugar may fuel a revolution in biology that could equal the one triggered by the discovery of DNA?

In recent times scientists have studied how cells use simple sugars such as glucose to build giant molecules “that rival DNA and proteins in size and complexity,” says the journal *New Scientist*. “Sugars are involved in almost every aspect of biology, from recognising pathogens, to blood clotting, to enabling sperm to penetrate an ovum.” At the same time, defects in their synthesis have been linked to a growing number of diseases, such as muscular dystrophy and rheumatoid arthritis. “Biologists are only just beginning to get to grips with these sugars,” says the report, “but as they do, they are finding themselves having to rethink long-held ideas about how life works.”

Scientists have coined the word “glycome” to refer to the full set of sugars that a cell or an organism makes, just as the word “genome” embraces the full complement of genes. A cell’s glycome, however, is “probably many thousands of times more complex than the genome,” states Ajit Varki, director of the Glycobiology Research and Training Center at the University of California, San Diego, U.S.A. Why is the glycome so complex?

Within cells, simple sugars—monosaccharides—link together to form polysaccharides. These, in turn, are assembled into giant molecules that may contain more than 200 units of simpler sugars. Because of the three-dimensional way in which these sugars are configured, which is key to their function, “a sugar made of a mere six units can have a staggering 12 billion possible versions,” says *New Scientist*.

Describing the daunting challenges facing researchers in this emerging field called glycobiology, Varki said: “It’s like we’ve just discovered the continent of North America. Now we have to send out scouting parties to find out how big this is.”

Clearly, the complex mechanisms of the living cell bespeak an intelligence of the highest order. In the case of many, this fact engenders a feeling of reverential awe. Is that how you feel?  
—Revelation 4:11.

# The Night to Remember

## Sunday, April 4, 2004

ON THE night before he died, Jesus Christ instituted the Memorial of his death. At a simple meal with his apostles in which he used wine and unleavened bread as symbols, Jesus commanded: "Keep doing this in remembrance of me."

—Luke 22:19.

Jehovah's Witnesses warmly invite you to share with them in remembering this annual Memorial. This year it will be held after sundown on Sunday, April 4, the date that corresponds to Nisan 14 on the Bible's lunar calendar. Please check with Jehovah's Witnesses locally for the exact meeting place and time.

[www.watchtower.org](http://www.watchtower.org)

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