

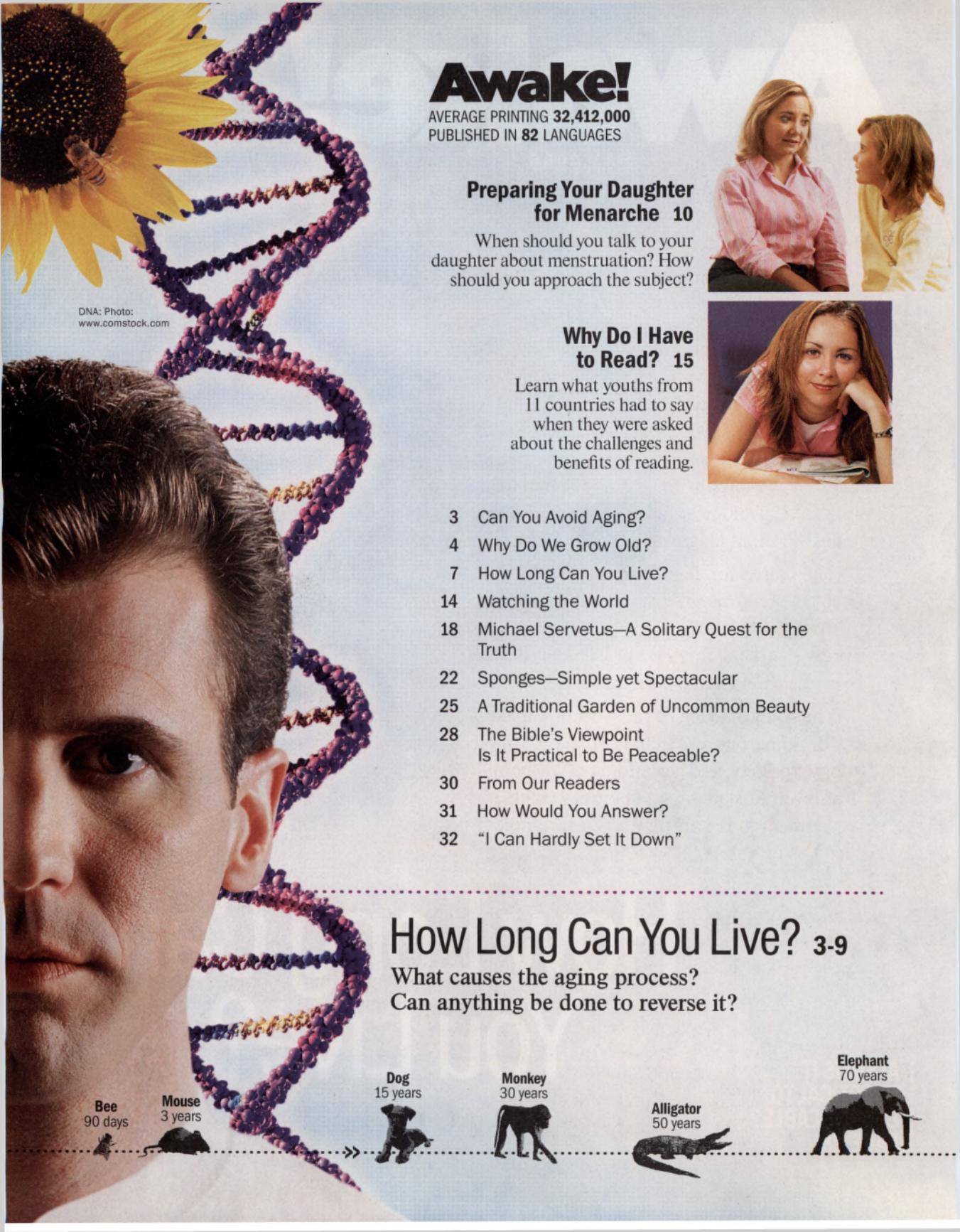
Awake!

MAY 2006



How Long Can You Live?

ALSO: IS IT
PRACTICAL TO
BE PEACEABLE?
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Awake!

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How Long Can You Live? 3-9

What causes the aging process?
Can anything be done to reverse it?

Bee
90 days

Mouse
3 years

Dog
15 years

Monkey
30 years

Alligator
50 years

Elephant
70 years



Can you avoid aging?

"Seventy years is all we have—eighty years, if we are strong;

... life is soon over, and we are gone."—PSALM 90:10, TODAY'S ENGLISH VERSION.

MAGINE always enjoying the prime of life. Imagine vigorous health and keenness of mind that never fade. Does such a delightful prospect sound like fantasy to you? Then consider this curious fact: Although some species of parrots can live up to a hundred years, mice rarely live more than three. Such diverse life spans have led some biologists to reason that aging must have a cause and that if aging has a cause, it may have a cure.

The search for an effective treatment for aging has attracted investment from drug companies. In addition, for people born after the second world war and now entering their 60's, finding a way to slow down aging has become a personal concern.

The study of aging has also become a major priority for numerous researchers in genetics, molecular biology, zoology, and gerontology. The book *Why We Age*, by Steven Austad, says: "There is a subdued but palpable excitement in the air now when gerontologists meet. We are closing in on the fundamental processes of aging."

Ideas to explain aging abound. One view is that aging results from wearing out; another is that aging is programmed. Some say that the answer involves both ideas. How well is the aging process understood? Is there reason to expect an effective treatment for aging?



Some parrots can
live 100 years,
but humans live
about 80 years.
Researchers ask:
"What causes
aging?"

Human
80 years



Parrot
100 years



Giant tortoise
150 years



Giant sequoia
3,000 years



Bristlecone pine
4,700 years



APPROXIMATE LIFE SPANS



Why do we grow old?

“Man, born of woman, has a short life yet has his fill of sorrow.”

—JOB 14:1, THE JERUSALEM BIBLE.

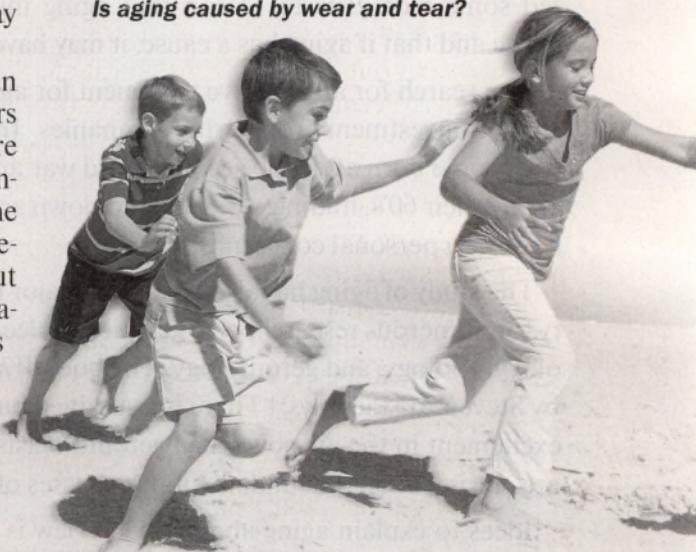
YOU may have imagined that all living things must inevitably wear out. Cars and vacuum cleaners in daily use eventually stop working. It is easy to suppose that animals age and die in a similar way. But professor of zoology Steven Austad explains: “Living organisms are very different from machines. The most fundamental defining character of living organisms, in fact, may be their ability to repair themselves.”

The way your body repairs itself after an injury is marvelous, but the routine repairs it makes are, in some respects, even more remarkable. Consider your bones, for example. “Seemingly inert when viewed from the outside, bone is a living tissue that ceaselessly destroys and rebuilds itself throughout adult life,” explains *Scientific American* magazine. “This remodeling essentially replaces the entire skeleton every 10 years.” Other parts of your body are renewed more often. Some cells in your skin, liver, and intestines may be replaced almost daily. Every second, your body produces about 25 mil-

lion new cells as replacements. If this did not happen and all the parts of your body were not constantly repaired or replaced, you would grow old during childhood.

The fact that we do not wear out was seen to be even more remarkable when biologists began studying the molecules within living

Is aging caused by wear and tear?

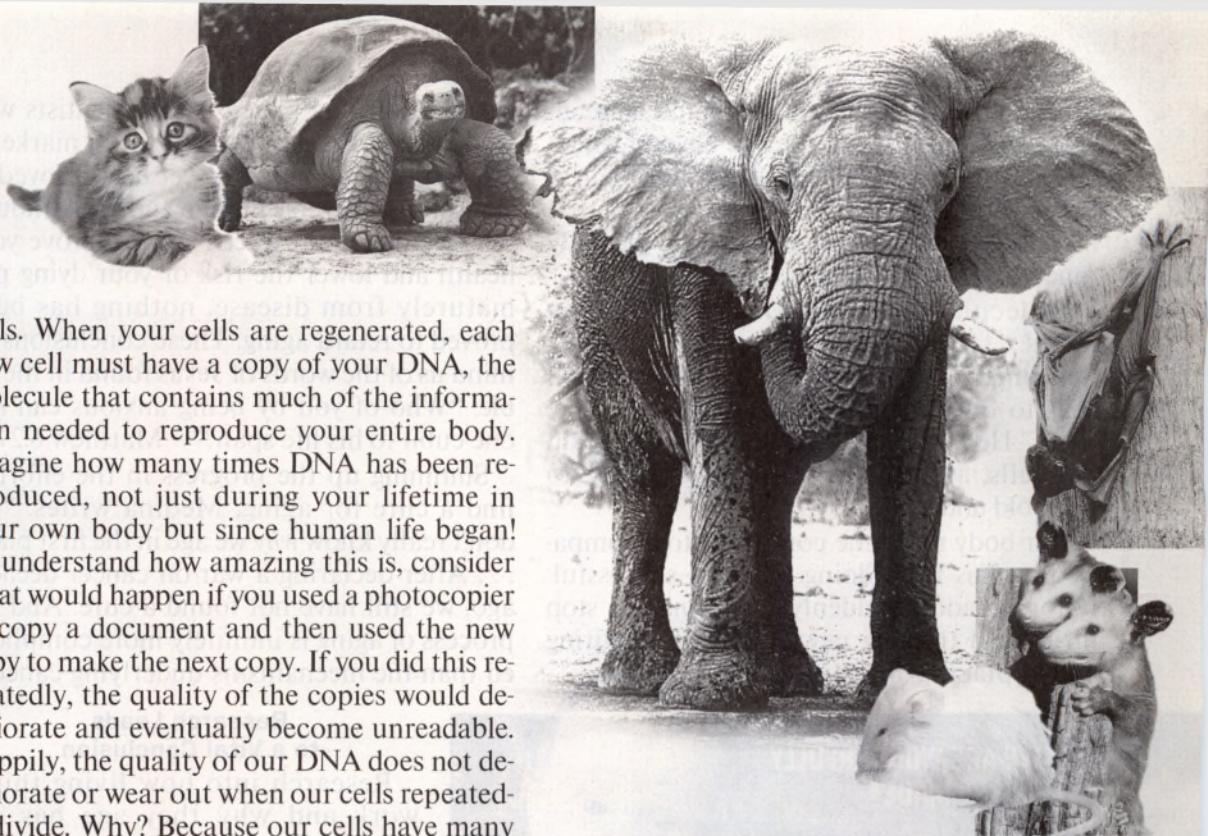


Awake!®

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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cells. When your cells are regenerated, each new cell must have a copy of your DNA, the molecule that contains much of the information needed to reproduce your entire body. Imagine how many times DNA has been reproduced, not just during your lifetime in your own body but since human life began! To understand how amazing this is, consider what would happen if you used a photocopier to copy a document and then used the new copy to make the next copy. If you did this repeatedly, the quality of the copies would deteriorate and eventually become unreadable. Happily, the quality of our DNA does not deteriorate or wear out when our cells repeatedly divide. Why? Because our cells have many ways of repairing DNA copy errors. If that were not true, mankind would long ago have become a pile of dust!

Since all the parts of our body—from the major structures to the tiny molecules—are constantly replaced or repaired, wear and tear does not fully explain aging. The body's numerous systems repair or replace themselves for decades, each in a different way and at a different pace. So, then, why do they all begin to close down about the same time?

Languages: Afrikaans, Albanian, Amharic, Arabic, Bulgarian, Cebuano, Chichewa, Chinese, Chinese (Simplified), Croatian, Czech,[#] Danish,⁺ Dutch,[#] English,^{#+○} Estonian, Finnish,[#] French,[#] Georgian, German,[#] Greek, Hebrew, Hiligaynon, Hungarian, Iloko, Indonesian, Italian,[#] Japanese,[#] Korean,[#] Latvian, Lithuanian, Macedonian, Malagasy, Malayalam, Myanmar, Norwegian,[#] Polish, Portuguese,[#] Romanian, Russian, Serbian, Sesotho, Sinhala, Slovak, Slovenian, Spanish,^{#+} Swahili, Swedish,⁺ Tagalog, Tamil, Thai, Tsonga, Tswana, Turkish, Ukrainian, Xhosa, Zulu

[#]Audiocassettes also available.

⁺ CD also available.

[○] MP3 CD-ROM also available.

Is Aging Programmed?

Why does a house cat live 20 years, but a similar-size opossum lives only 3 years?^{*} Why can a bat live 20 or 30 years, but a mouse only 3? Why can a giant tortoise live 150 years, but an elephant only 70? Factors such as diet, body weight, brain size, or rate of living do not explain such diversity of life spans. The *Encyclopædia Britannica* states: "Locked

* The common opossum is a marsupial found in North America.

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

within the code of the genetic material are instructions that specify the age beyond which a species cannot live." Maximum life span is written in the genes. But as the end of that life span approaches, what causes all the body functions to start closing down?

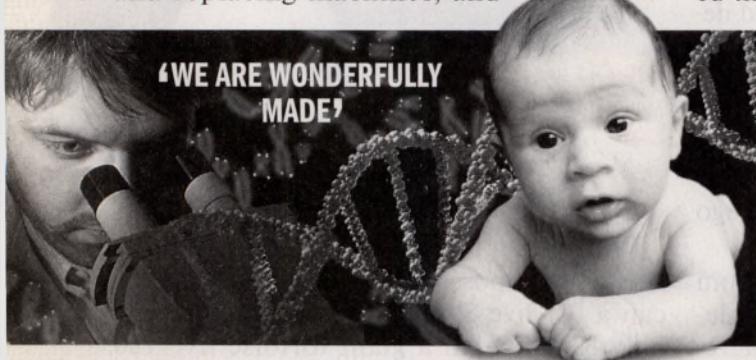
Molecular biologist Dr. John Medina writes: "There seem to be mysterious signals that simply show up at certain times and tell cells to quit doing their normal adult functions." He also notes: "Genes exist which can tell cells, and indeed entire organisms, to grow old and die."

Our body might be compared to a company that has been doing business successfully for decades. Suddenly the managers stop hiring and training new staff, stop repairing and replacing machines, and

lished a warning issued by 51 scientists who study aging. It said: "No currently marketed intervention—none—has yet been proved to slow, stop or reverse human aging." Although sensible diet and exercise may improve your health and lower the risk of your dying prematurely from disease, nothing has been proved to retard aging. These conclusions remind us of the words of Jesus found in the Bible: "Who of you by being anxious can add one cubit to his life span?"—Matthew 6:27.

Summing up the progress in the effort to find a cure for aging, Medina writes: "We don't really know *why* we age in the first place. . . . After declaring a war on cancer decades ago, we still have not found a cure. And the process of aging is infinitely more complicated than the mechanisms underlying cancer."

'WE ARE WONDERFULLY MADE'



stop maintaining and rebuilding the premises. Soon the business will start to deteriorate. But why did all those managers change their successful policies? That question is similar to the one facing biologists who study aging. The book *The Clock of Ages* says: "In aging research, one of the great mysteries is trying to understand why cells stop replicating and start dying."

Can Aging Be Cured?

Aging has been called "the most complex of all biological problems." After decades of effort, scientific research has not revealed the cause of aging, much less found a cure. In 2004 the magazine *Scientific American* pub-

Research Leads to a Vital Conclusion

Research into how living things work and why they age has not crushed all hope of living longer. Some have found that their research has led them irresistibly to a conclusion that is vital to the understanding of aging. Molecular biochemist Michael Behe writes: "Over the past four decades modern biochemistry has uncovered the secrets of the cell. . . . The result of these cumulative efforts to investigate the cell—to investigate life at the molecular level—is a loud, clear, piercing cry of '*design!*'" Someone intelligently designed living things. Of course, Behe is not the first one to arrive at that conclusion. After contemplating the structure of the human body, an ancient psalmist wrote: "In a fear-inspiring way I am wonderfully made."—Psalm 139:14.

If all living things are designed, then an intriguing question arises, Did God, the Great Designer, create mankind with a life span that is about the same as that of many animals, or does he want us to live longer than animals?

How long can you live?

“Let his flesh become fresher than in youth;

let him return to the days of his youthful vigor.”—JOB 33:25.

WHEN a dog dies after living 10 or 20 years, it has probably done most of the things that dogs do. It may have raised puppies, chased cats, buried bones, and protected its master. But when a human dies after living 70 or 80 years, he has realized only a fraction of his potential. If he enjoyed sports, he likely excelled at only one or two of them. If he liked music, he probably mastered only one or two instruments. If he loved speaking to people in their own tongue, he may have become fluent in

AFTER 80 YEARS OF LIFE, A PERSON HAS REALIZED ONLY A FRACTION OF HIS POTENTIAL

only two or three languages. He could have enjoyed so much more—meeting people, discovering new things, and drawing closer to God—if only he had lived longer.

You may wonder, ‘Why would God create man with a mind able to enjoy so much and then frustrate him with a life span that allows him to experience so little?’ Man’s short life span does not seem to fit into the pattern of purposeful design so evident in creation. You may also wonder, ‘Why would God make man with unique qualities such as justice and compassion and at the same time give him a tendency to act badly?’

If you see a fine car with an ugly dent, do you conclude that it is part of the design? Of course not! You no doubt reason, ‘This is not how the car was meant to be. It must have

been well made, but afterward someone damaged it.’ Similarly, when we contemplate our awesome heritage of human life, we can only conclude that it is not now as it was meant to be. Our short life span and tendency to act badly are like tragic dents. Evidently someone wrecked mankind’s heritage. Who did it? Bible evidence points strongly to one culprit.

If the human race started out with the capacity for life without end, who could afterward have damaged the heritage of the entire human race? It could only have been the original ancestor of all humans, the one from whom we are all descended. Anyone else could only damage the genes of a mere section of mankind—that is, of his own descendants. God’s Word, the Bible, is thus in harmony with the observable facts when it says: “Through one man [Adam, the first human] sin entered into the world and death through sin, and thus death spread to all men.” (Romans 5:12) So the Scriptures convict Adam of having wrecked our heritage. What was human life originally designed to be like?

Was this car originally designed with a dent?





BY DESIGN HUMANS ARE A HIGHER FORM OF LIFE THAN ANIMALS

Perceiving the Original Design

In saying that death “entered into the world,” the Bible suggests that mankind was not originally meant to experience death. For humans, old age and death are the result of the first man’s rebellion against God. Animals, on the other hand, were not meant to live forever.—Genesis 3:21; 4:4; 9:3, 4.

People were designed to be different from animals. We are a higher form of life than animals, just as angels are a higher form of life than humans. (Hebrews 2:7) Unlike animals, man was made “in God’s image.” (Genesis 1:27) Also in contrast with the animals, the Bible calls Adam a “son of God.” (Luke 3:38) We thus have sound reason to believe that man was not meant to grow old and die. God does not die, and neither did he create his sons to die.—Habakkuk 1:12; Romans 8:20, 21.

Further insight into God’s original design for human life is furnished by the historical records of the first generations of mankind. People back then lived for centuries before aging. Adam lived for 930 years. A few generations later, Noah’s son Shem lived just 600 years, and Noah’s grandson Arpachshad lived 438 years.* (Genesis 5:5; 11:10-13) Later, Abraham lived 175 years. (Genesis 25:7) The effects of sin on life span seem to have been progressive, causing life spans to shorten as mankind became further removed from the original perfect design. But initially man was made to live forever. It is, therefore, only natural to

* Some assert that the years mentioned in this Bible account are really months. However, the text says that Arpachshad fathered Shelah at 35 years of age. If that is taken to mean 35 months, then Arpachshad was a father before turning three years of age—which is clearly impossible. In addition, the first chapters of Genesis distinguish solar cycles of years from lunar cycles of months.—Genesis 1:14-16; 7:11.

wonder, ‘Does God still want people to enjoy life without end on earth?’

A Release From Aging

Since Jehovah God had declared that anyone disobeying him would pay the price for his sin by dying, Adam’s descendants appeared to be in a hopeless situation. (Genesis 2:17) Nevertheless, the inspired Scriptures presented the hope that someone would pay for a release from the aging process. We read: “Let him off from going down into the pit! I have found a ransom! Let his flesh become fresher than in youth; let him return to the days of his youthful vigor.” (Job 33:24, 25; Isaiah 53:4, 12) The Bible here presented a wonderful prospect—that of someone paying a ransom to effect a release from the process of aging!

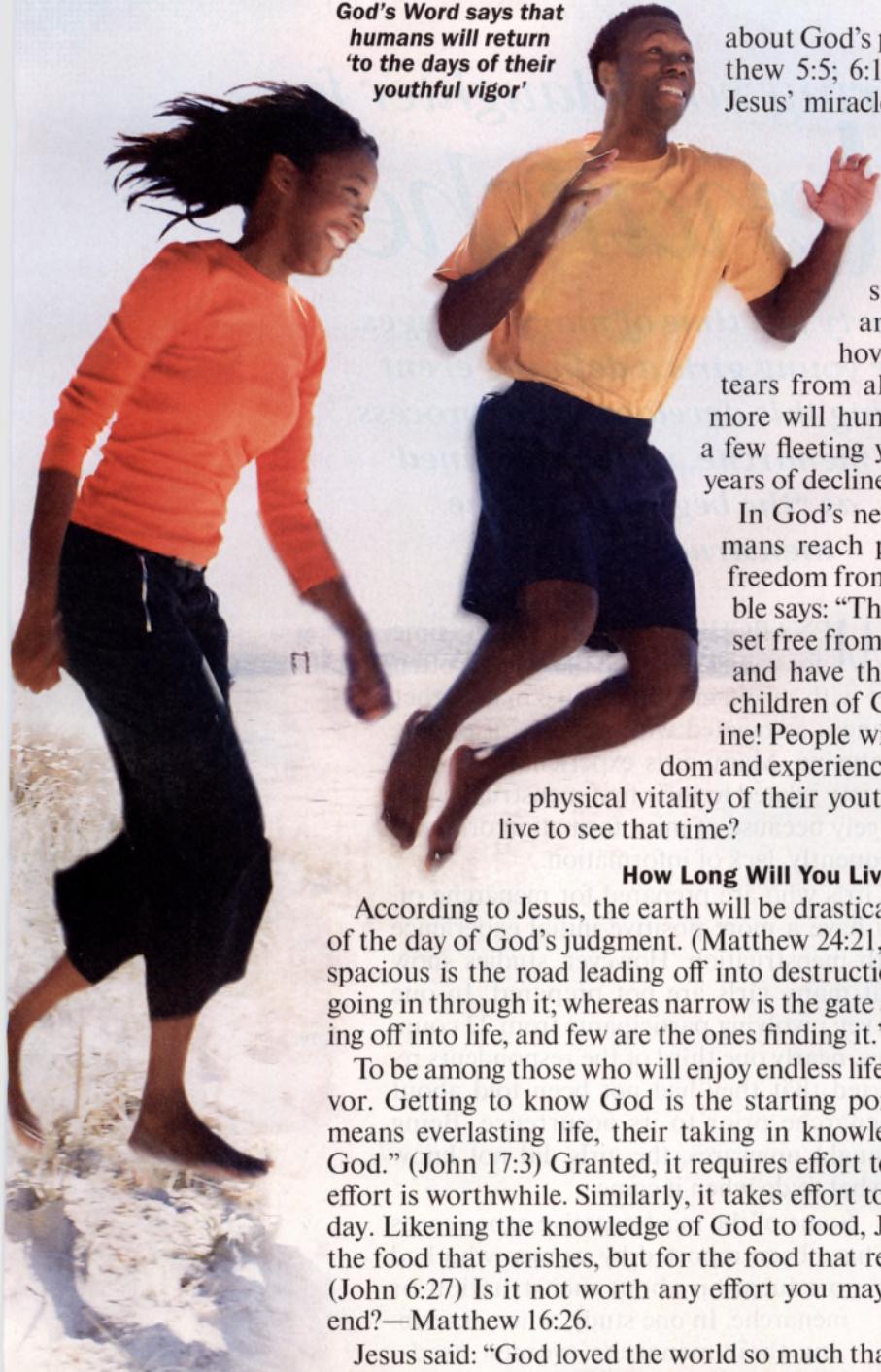
Who could pay this ransom? The price was more than money can buy. Referring to imperfect humans, the Bible says: “Not one of them can by any means redeem even a brother, nor give to God a ransom for him . . . that he should still live forever.” (Psalm 49:7-9) However, Jesus Christ had something of greater value than money. While on earth, he had perfect human life because as God’s Son, he was protected from inheriting the sin of Adam. Jesus said that he came “to give his soul a ransom in exchange for many.” On another occasion he said: “I have come that they might have life and might have it in abundance.”—Matthew 20:28; John 10:10.

The hope of endless life was a major theme of Jesus’ preaching. His faithful follower Peter once said to him: “You have sayings of everlasting life.” (John 6:68) What does the Bible mean when it speaks of everlasting life?

Life Without End

The apostles of Jesus looked forward to enjoying life without end in heaven as part of Jesus’ Kingdom government. (Luke 22:29; John 14:3) Nevertheless, Jesus often spoke

**God's Word says that
humans will return
'to the days of their
youthful vigor'**



about God's purpose for the *earth*. (Matthew 5:5; 6:10; Luke 23:43) Therefore, Jesus' miracles and his teachings about everlasting life confirm God's promises made far in advance through the prophet Isaiah, who wrote: "He will actually swallow up death forever, and the Sovereign Lord Jehovah will certainly wipe the tears from all faces." (Isaiah 25:8) No more will human life amount to merely a few fleeting years of youth followed by years of decline and decrepitude.

In God's new world, when faithful humans reach perfection, they will enjoy freedom from the aging process. The Bible says: "The creation itself also will be set free from enslavement to corruption and have the glorious freedom of the children of God." (Romans 8:21) Imagine! People will continue to grow in wisdom and experience. But as centuries pass, the physical vitality of their youth will never fade. Will you live to see that time?

How Long Will You Live?

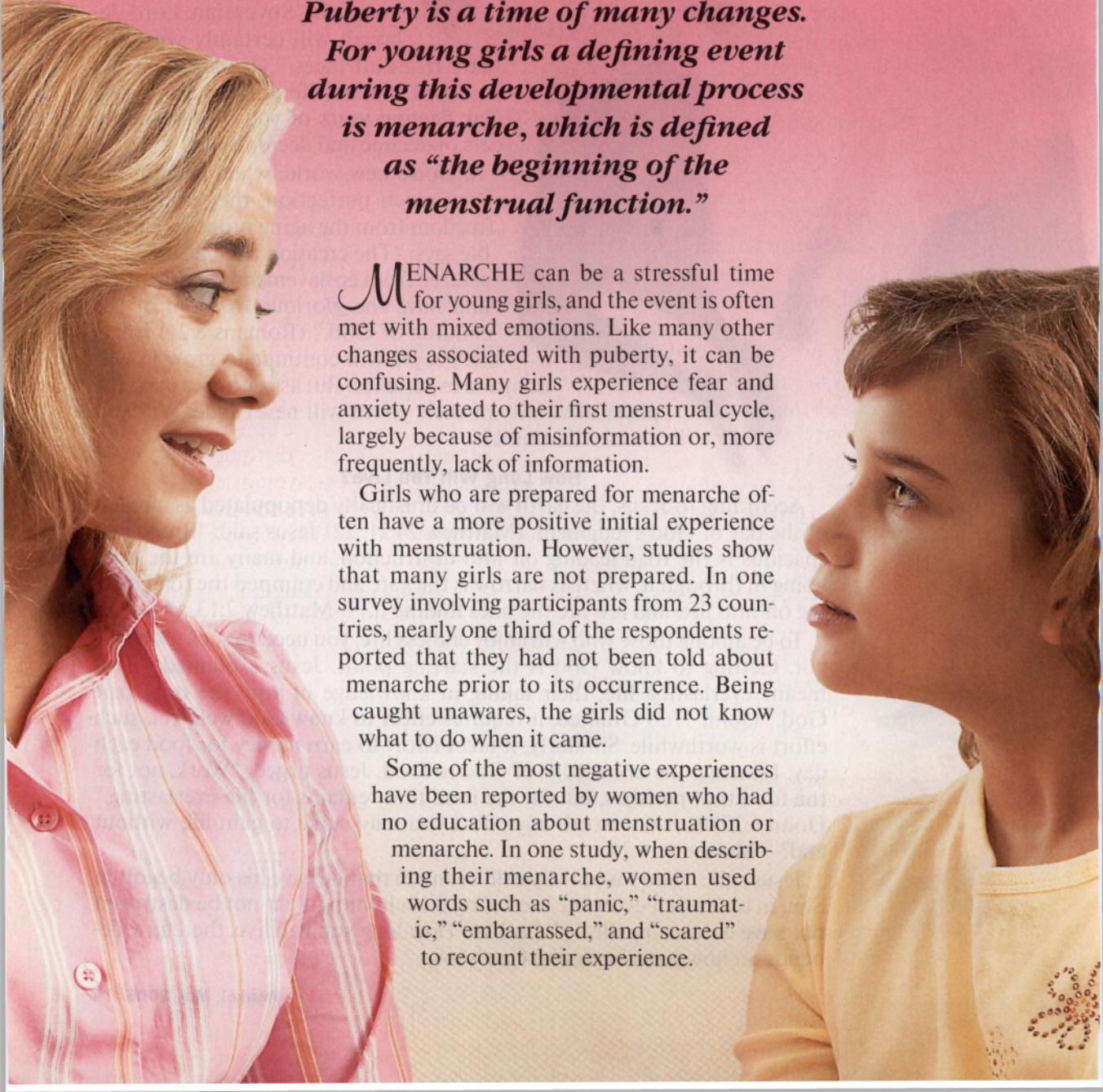
According to Jesus, the earth will be drastically depopulated as a result of the day of God's judgment. (Matthew 24:21, 22) Jesus said: "Broad and spacious is the road leading off into destruction, and many are the ones going in through it; whereas narrow is the gate and cramped the road leading off into life, and few are the ones finding it."—Matthew 7:13, 14.

To be among those who will enjoy endless life, you need to seek God's favor. Getting to know God is the starting point. Jesus explained: "This means everlasting life, their taking in knowledge of you, the only true God." (John 17:3) Granted, it requires effort to know God well; yet, such effort is worthwhile. Similarly, it takes effort to earn money for food each day. Likening the knowledge of God to food, Jesus urged: "Work, not for the food that perishes, but for the food that remains for life everlasting." (John 6:27) Is it not worth any effort you may make to gain life without end?—Matthew 16:26.

Jesus said: "God loved the world so much that he gave his only-begotten Son, in order that everyone exercising faith in him might not be destroyed but have everlasting life." (John 3:16) How long you will live, therefore, depends on how you respond to God's love.

Preparing your daughter for Menarche

*Puberty is a time of many changes.
For young girls a defining event
during this developmental process
is menarche, which is defined
as "the beginning of the
menstrual function."*

A photograph showing a woman with blonde hair on the left and a young girl with brown hair on the right. They are both looking towards each other with expressions of concern or tenderness. The woman is wearing a pink button-down shirt. The background is a soft, out-of-focus pink.

MENARCHE can be a stressful time for young girls, and the event is often met with mixed emotions. Like many other changes associated with puberty, it can be confusing. Many girls experience fear and anxiety related to their first menstrual cycle, largely because of misinformation or, more frequently, lack of information.

Girls who are prepared for menarche often have a more positive initial experience with menstruation. However, studies show that many girls are not prepared. In one survey involving participants from 23 countries, nearly one third of the respondents reported that they had not been told about menarche prior to its occurrence. Being caught unawares, the girls did not know what to do when it came.

Some of the most negative experiences have been reported by women who had no education about menstruation or menarche. In one study, when describing their menarche, women used words such as "panic," "traumatic," "embarrassed," and "scared" to recount their experience.

The sight of blood generally frightens people, since bleeding is usually associated with pain or injury. Thus, it is not difficult to see that when proper explanation or preparation is lacking, cultural stereotypes, myths, or even plain ignorance can cause one wrongly to associate menstruation with disease or injury or to view it as something of which to be ashamed.

Your daughter needs to know that menstrual bleeding is a normal process that all healthy girls experience. As a parent, you can help her allay any feelings of anxiety or fear. How?

Parents' Role Essential

There are many sources of information on menstruation, such as schoolteachers, health-care practitioners, printed material, and even educational films. Many parents find that these sources often provide valuable information on the biology of menstruation as well as menstrual hygiene. Still, girls may have questions and needs that these sources do not address. Even if they know what to do when their period comes, girls are often uncertain about how to deal with the varied emotions and feelings associated with menstruation.

Grandmothers, older sisters, and particularly mothers can help to provide the additional information and emotional support that young girls need. Most often, girls consider their mother to be the most important source of information about menstruation.

What about fathers? Many girls feel embar-

rassed to talk to them about menstruation. Some want their father to play an indirect role by offering support and understanding, while others prefer that he not be involved.

In many countries the number of single-father households has increased over the past few decades.* Thus, more and more fathers will need to rise to the challenge of educating their daughters about menstruation. These fathers will need to be familiar with the basics of menstruation as

well as with the other physical and emotional changes their daughters are facing. Fathers may choose to turn to their own mothers or sisters for practical advice and help in this regard.

When to Start Discussions

In industrialized countries, such as the United States, South Korea, and parts of Western Europe, the average age for menarche is generally between 12 and 13 years, although it can occur as early as 8 and as late as 16 or 17. In parts of Africa and Asia, the average age for menarche tends to be higher. For example, in Nigeria the average age is 15. Several factors, such as genetics, economic status, nutrition, physical activity, and altitude, can affect the timing of menarche.

It is best to start sharing information with your daughter *before* she has her first period. Hence, conversations regarding body changes and menstruation should begin early, perhaps when your daughter is about eight years of age. You may feel that this is too early, but if your daughter is between the ages of eight and ten, it is likely that her body is already beginning to mature internally in response to surges of hormones. You will notice external physical changes associated with puberty, such as breast development and an

IN OUR NEXT ISSUE

- When Terrorism Will End
- How Can I Control My Spending?
- Heeding the Warnings
Made a Difference

* In Japan the number of single-father households reached a record high in 2003. In the United States, single-father households make up about 1 in 6 of all single-parent households.

Be understanding. Your daughter might be reluctant to talk about personal matters



increase in body hair. Most girls experience a growth spurt (rapid increase in height and weight) right before menarche.

How to Approach the Subject

Girls who are approaching menarche are often curious about what to expect. Likely they have heard other girls at school discussing the subject. They have questions, but many have difficulty formulating exactly how to ask about it. They may be embarrassed about the subject.

The same is true for parents. Although mothers are usually the primary source of information about menstruation, they often feel ill-prepared and awkward when discussing the subject. Perhaps this is how you feel. So how do you begin a conversation about menarche and menstruation with your daughter?

Preteen girls who are approaching menarche are likely to understand simple, concrete information. Such information might include how often a period occurs, how long it lasts, or how much blood is lost. Thus, in the early stages of menstrual education, it may be best to focus on the more immediate and practical aspects of how to deal with menstruation. In addition, you may need to answer such questions as: How will it feel? or What should I expect?

Later, you may wish to discuss details of the biology of menstruation. Oftentimes, you can get educational materials from health-care practitioners or from the library or bookstore. Such reference works may be helpful in explaining the details. Some girls may prefer to read this material themselves. Others may feel comfortable if you read the material together with them.

Pick a quiet place to start the conversation. Begin with a simple discussion about growing up and maturing. Perhaps you could say: "Someday soon you are going to experience something very normal that happens to all girls. Do you know what it is?" Or a mother might start with a personal comment, such as: "When I was your age, I started to wonder about what it was like to have a period. My friends and I talked about it in school. Have your friends started talking about it yet?" Find out what she already knows about menstruation and clear up any misunderstandings. Be prepared for the fact that in your

1. The Pool of Siloam.—John 9:7. ♦ Jesus made a clay with his saliva and put it on the blind man's eyes.—John 9:6. ♦ The man's parents, they are afraid man's eyes.—John 9:1-23.
2. 1027 B.C.E. ♦ 1512 B.C.E.—John 9:18-23.
3. 1512 B.C.E.—John 9:18-23.
4. 515 B.C.E. ♦ Hiram, king of Tyre, sent Solomon 1 Kings 7:13, 14; 2 Chronicles 2:12-14. ♦ Bezalel, Exodus 17:11, 12; 35:30, 31.

*H*OW TO TALK TO YOUR DAUGHTER ABOUT MENSTRUATION

❖ Find out what she already knows.

Clear up misconceptions. Make sure you and she have accurate information.

❖ Share your experience.

By reflecting upon and sharing your own experience of menarche, you can provide much-needed emotional support for your daughter.

❖ Offer practical information.

Common questions young girls ask include: "What do I do if I get my period at school?" "What menstrual products should I use?" "How do I use them?"

❖ Present factual material simply.

Adapt material to your daughter's age and ability to grasp it.

❖ Promote continuous learning.

Begin talks with your daughter before she reaches menarche, and continue such talks as necessary, even after she begins menstruating.

initial conversations, you may need to do most if not all of the talking.

As a woman who no doubt experienced your own anxieties and concerns about menarche, you can draw upon your personal experience when discussing this subject. What did you need to know? What did you want to know? What information was helpful? Endeavor to provide a balanced view of the positive and negative aspects of menstruation. Be open to questions.

A Continuing Process

Menstrual education should be viewed as a continuing process rather than as a one-time discussion. You do not need to cover all the details in one sitting. Too much information all at once can be overwhelming for a young girl. Children learn things in stages. Also, repetition of information on different occasions may be necessary. As young girls grow older, they are more able to understand additional details.

Another factor is that girls' attitudes toward menstruation change throughout adolescence. After your daughter gains more experience with her periods, she will likely face new concerns and questions. Hence, you need to continue to share information with her and answer her questions. Focus on what is most

meaningful and appropriate for your daughter's age and ability to understand.

Take the Initiative

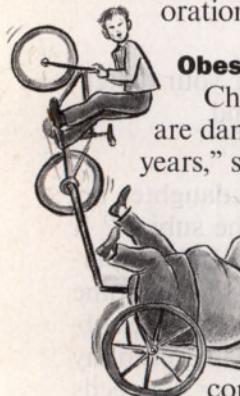
But what do you do if your daughter appears not to be interested in the subject? It may be that she is reluctant to talk about personal matters. Or maybe she just needs some time to feel comfortable enough with the subject to formulate questions. She may even say that she already knows everything she needs to know.

In one study of sixth-grade girls in the United States, most of the girls viewed themselves as prepared for menarche. However, upon further questioning, it was clear that their knowledge was incomplete and reflected that they had already accepted as truth a variety of misconceptions based on cultural stereotypes and myths. So, even if your daughter says that she is ready for menarche, she still needs to have you talk to her about it.

It will likely be up to you to initiate short talks about menstruation and continue them. Really, it is your parental responsibility. Whether she acknowledges it at the time or not, your daughter *needs* your help. You may feel frustrated and inadequate, but do not give up. Be patient. In time, your daughter will no doubt come to appreciate just how valuable your efforts were.

Marriage Breakups Increasing in Spain

In the year 2000, there were twice as many marriages in Spain as there were separations and divorces. But by 2004, two marriages were failing for every three weddings. Since 1981, when laws permitting divorce came into effect, over a million children have seen their parents split up. What explains the increase in marital breakdown? According to psychologist Patricia Martínez, "the precarious nature of marriage relationships [is] caused above all by cultural changes, the loss of religious and moral standards, the incorporation of women into the workforce, and the lack of male collaboration in caring for household chores."



Obesity in China

China "will have 200 million people who are dangerously overweight within the next 10 years," says *The Guardian* of London. Fast-food outlets "have become ubiquitous in many cities—a rising middle class is doing less physical exercise, driving more, and spending more time motionless in front of televisions, computers and video games." The number of children considered obese is increasing by 8 percent every year, and in Shanghai more than 15 percent of primary school children are already obese.

River Indicates Vast Drug Use

Water samples taken from Italy's Po River indicate that cocaine use by residents of the river basin is vastly greater than official estimates, says a study published in the magazine *Environmental Health*. Cocaine users excrete benzoylecgonine in their urine. The presence of this breakdown product in a person is often used as forensic evidence of cocaine consumption. The levels of the chemical entering the river through the sewage system indicate that about nine pounds of cocaine, or 40,000 doses, is consumed every day in the catchment area—a figure 80 times greater than previous estimates.

Preventable Mortality

"This year, almost 11 million children under five years of age will die from causes that are largely

■ In Brazil, use of amphetamines to lose weight by eliminating appetite increased 500 percent from 1997 to 2004.

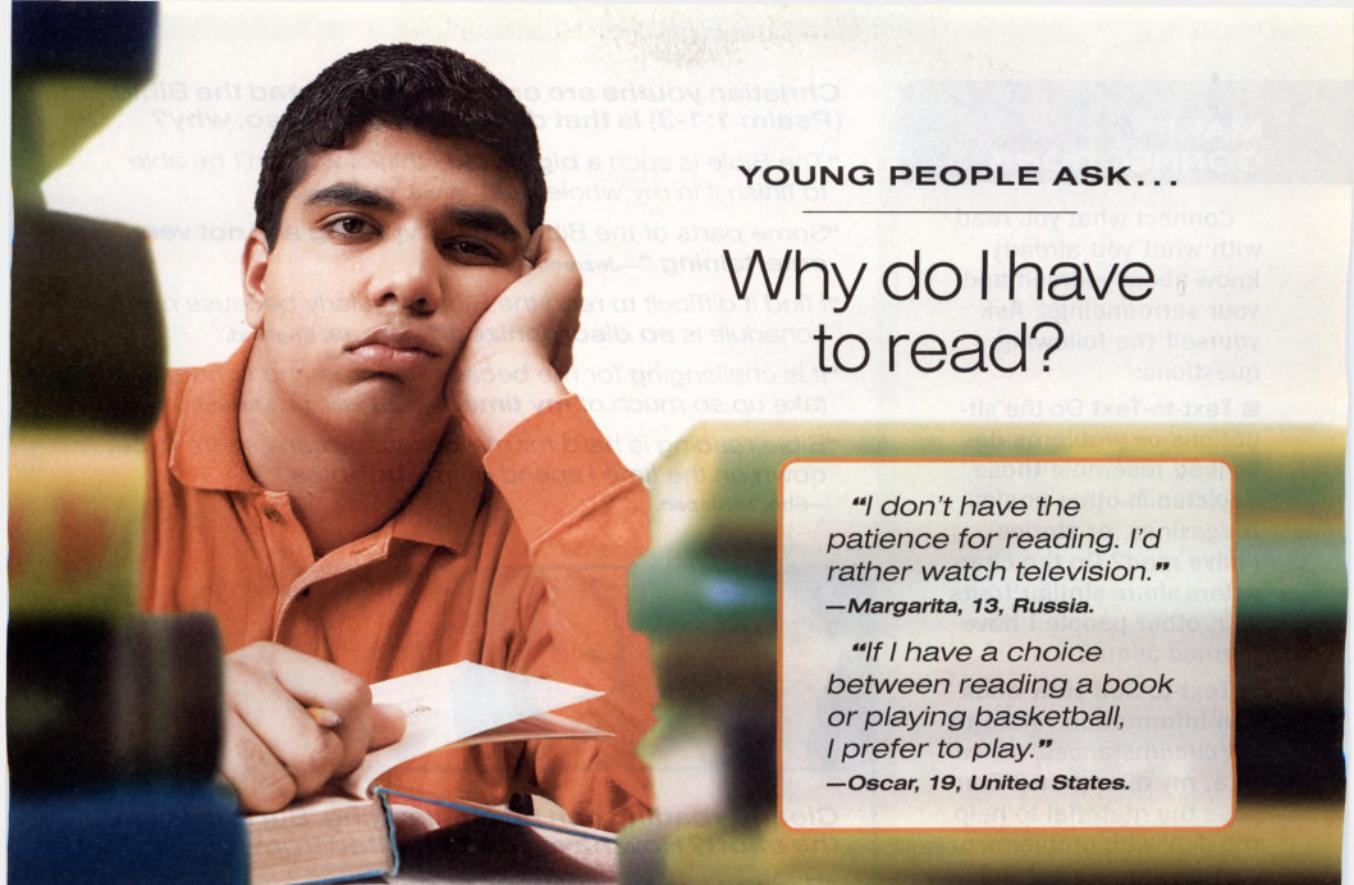
—FOLHA ONLINE, BRAZIL

■ Airline pilots are three times more likely than others to develop cataracts, possibly because of increased exposure to cosmic rays.—THE WALL STREET JOURNAL, U.S.A.

■ Over the next decade, almost half of Asia's 1.27 billion children will be deprived of some of their basic needs, such as safe water, food, health care, education, and shelter.—PLAN ASIA REGIONAL OFFICE, THAILAND.

■ Secondhand cigarette smoke is "more dangerous than anyone suspected." In the 18 months following a ban on smoking in offices, restaurants, and other indoor spaces in Pueblo, Colorado, U.S.A., the number of heart attacks among residents fell by 27 percent.—TIME, U.S.A.

preventable," states the World Health Organization's 2005 report. Some 90 percent of these deaths are due to just a few causes: acute neonatal conditions such as preterm birth, infections, and birth asphyxia; lower respiratory infections, primarily pneumonia; diarrhea; malaria; measles; and HIV/AIDS. "Most of these deaths are avoidable through existing interventions that are simple, affordable and effective," says the report. Additionally, over half a million women die in pregnancy or childbirth each year, mainly because of "lack of access to skilled care."



YOUNG PEOPLE ASK...

Why do I have to read?

"I don't have the patience for reading. I'd rather watch television."

—Margarita, 13, Russia.

"If I have a choice between reading a book or playing basketball, I prefer to play."

—Oscar, 19, United States.

If you have taken the time to read this far, you probably realize that reading is an important skill to learn. Even so, you might view the prospect of reading a book or even a magazine article as being a little like taking medicine: You know it is good for you, but you prefer to avoid it.

Awake! interviewed youths from 11 countries to find out what they had to say about the challenges and the benefits of reading. The following is what they said.

Why do you find reading such a challenge?

"I seldom seem to be able to find time for it."—Semsihan, 19, Germany.

"Reading is hard work. I think I am a little lazy."—Ezekiel, 19, Philippines.

"I hate being forced to read about boring subjects."—Christian, 15, England.

"If a book is thin, I might feel like reading it. But if it is thick, it intimidates me."
—Eriko, 18, Japan.

"I am easily distracted by other things. I can't concentrate."
—Francisco, 13, South Africa.

MAKE CONNECTIONS

Connect what you read with what you already know about yourself and your surroundings. Ask yourself the following questions:

■ **Text-to-Text** Do the situations or problems described resemble those depicted in other books, magazines, or stories I have read? Do the characters share similar traits with other people I have learned about?

■ **Text-to-Self** How does this information relate to my circumstances, my culture, my dilemmas? Can I use the material to help me deal with problems or to make my life better?

■ **Text-to-Surroundings** What does this material teach me about nature, the environment, different cultures, or problems in society? What does this information teach me about the Creator?

Christian youths are encouraged to read the Bible. (Psalm 1:1-3) Is that difficult for you? If so, why?

"The Bible is such a **big book!** I think I wouldn't be able to finish it in my whole life!"—Anna, 13, Russia.

"Some parts of the Bible are heavy going and **not very entertaining.**"—Jezreel, 11, India.

"I find it difficult to read the Bible regularly because my schedule is **so disorganized.**"—Elsa, 19, England.

"It is challenging for me because chores and schoolwork take up so much of **my time.**"—Zurisadai, 14, Mexico.

"Bible reading is hard for me because I can't seem to cut down on the time I spend on my **hobbies.**"

—Sho, 14, Japan.



Clearly, reading can be challenging. But is it worth the effort? How have you benefited from reading?

"Reading has expanded my knowledge, and that has made me **more confident** when I talk to people."

—Monisha, 14, India.

"Reading **relaxes** me and takes my mind off my troubles."—Alison, 17, Australia.

"Reading takes me to **places** I would otherwise never be able to visit."—Duane, 19, South Africa.

"Reading helps me investigate things **for myself**, instead of having to rely on what others tell me."—Abihú, 16, Mexico.

What has helped you to enjoy reading?

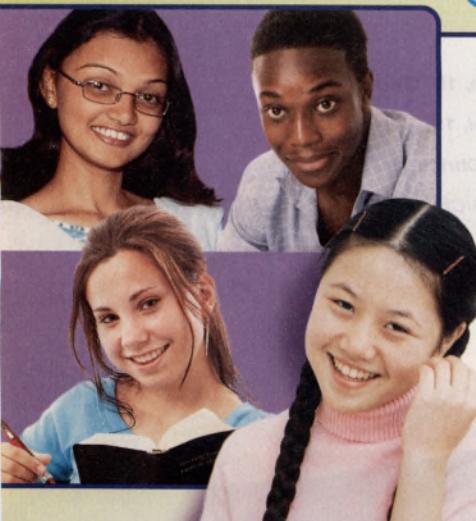
"From the time I was very young, my parents have encouraged me to **read aloud.**"—Tanya, 18, India.

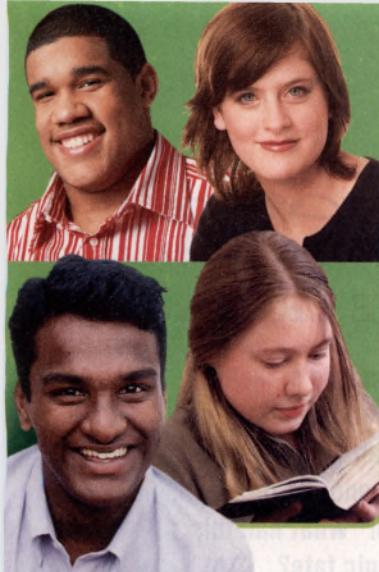
"My parents encouraged me to **use my imagination** while reading, to visualize the action."—Daniel, 18, England.

"My father suggested that I start off with the Bible books that I find **more appealing**, like Psalms and Proverbs. Now I find Bible reading a joy, not a burden."

—Charlene, 16, South Africa.

"By the time I was four, my parents had provided me **a desk and a shelf** with all the books they had set aside for me since I was born."—Airi, 14, Japan.





Why do you think it is important to read the Bible?

"People believe many things about the Bible that are not true. It's much better if **you can check** these things out for yourself." (Acts 17:11)—Matthew, 15, United States.

"The Bible requires a lot of thought. But reading it has helped me to **express myself confidently** and clearly when I talk to others about my beliefs." (1 Timothy 4:13)—Jane, 19, England.

"When I read the Bible, I feel that Jehovah is speaking to me directly. Sometimes it **touches my emotions.**" (Hebrews 4:12) —Obadiah, 15, India.

"I am learning to enjoy reading the Bible because it tells me what Jehovah **thinks about me** and it gives me good advice." (Isaiah 48:17, 18)—Viktoria, 14, Russia.

When do you find time to read the Bible and Bible literature?

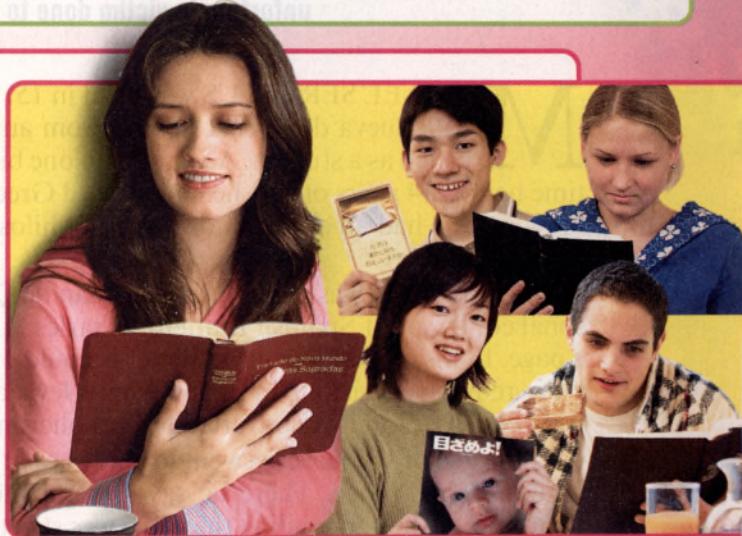
"I have a schedule. I read one chapter of the Bible **first thing each morning.**"—Lais, 17, Brazil.

"I read the Bible and other Christian literature on the train **during my commute** to school. For the past four years, I have been able to keep up this routine."—Taichi, 19, Japan.

"I read a little of the Bible **each night** before I go to sleep."—Maria, 15, Russia.

"I read **four pages** of either 'The Watchtower' or 'Awake!' each day. I am able to complete a whole magazine before the next one arrives."—Eriko, 18, Japan.

"I read the Bible each morning **before I go to school.**"—James, 17, England.



As the above comments show, reading can boost your confidence and broaden your knowledge. Reading the Bible and Bible-based literature—including this magazine—will also help you to “draw close to God.” (James 4:8) So even if you find reading to be a challenge, do not give up!

TO THINK ABOUT

- Why is it important for you to read God's Word?
- How can you 'buy out time' to read the Bible and Bible literature?
—Ephesians 5:15, 16.



Michael Servetus

A SOLITARY QUEST FOR THE TRUTH

On October 27, 1553, Michael Servetus was burned at the stake in Geneva, Switzerland. Guillaume Farel—the executioner and vicar of John Calvin—warned the onlookers: “[Servetus] is a wise man who doubtless thought he was teaching the truth, but he fell into the hands of the Devil.”

... Be careful the same thing does not happen to you!" What had this unfortunate victim done to deserve such a tragic fate?

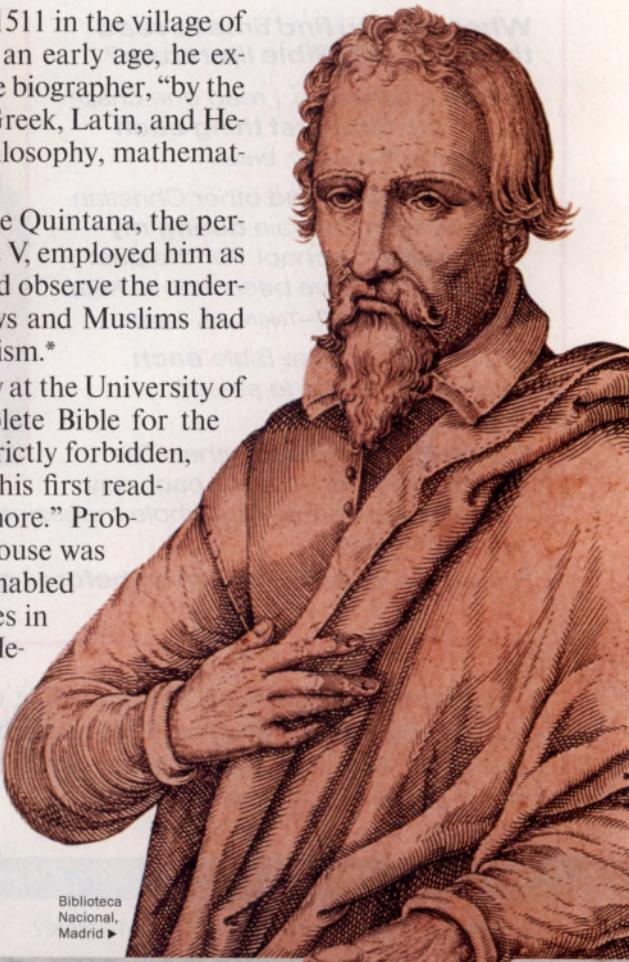
MICHAEL SERVETUS was born in 1511 in the village of Villanueva de Sijena, Spain. From an early age, he excelled as a student. According to one biographer, "by the time he was 14 years of age, he had learned Greek, Latin, and Hebrew, and he had an ample knowledge of philosophy, mathematics, and theology."

When Servetus was still a teenager, Juan de Quintana, the personal confessor of Spanish Emperor Charles V, employed him as a page. In his official journeys, Servetus could observe the underlying religious divisions in Spain, where Jews and Muslims had been exiled or forcibly converted to Catholicism.*

At the age of 16, Servetus went to study law at the University of Toulouse, in France. There he saw a complete Bible for the first time. Although reading the Bible was strictly forbidden, Servetus did so in secret. After completing his first reading, he vowed to read it "a thousand times more." Probably, the Bible that Servetus studied in Toulouse was the Complutensian Polyglot, a version that enabled him to read the Scriptures in

him to read the Scriptures in the original languages (Hebrew and Greek), along

* Spanish authorities banished 120,000 Jews who refused to accept Catholicism, and several thousand Moors were burned at the stake.



A 15th-century engraving of the compulsory baptism of Muslims living in Spain

Canilla Real, Granada

Biblioteca
Nacional,
Madrid ►

Qui pascis Israel auscultat quod
seph, qui sedes super Cherym, &
Ephraim, & Biniarnim, & Menasle
& veni ad salutem nobis. Deus conuer
tuam, & seruabitur. Dñe deus exercituum, & seru
tuam, & seruabitur. Dñe deus exercituum, & seru
tuam, & seruabitur.

with the Latin translation.* His study of the Bible, together with the moral degeneracy of the clergy that he had seen in Spain, shook his faith in the Catholic religion.

Servetus' doubts were reinforced when he attended the coronation of Charles V. The Spanish king was crowned emperor of the Holy Roman Empire by Pope Clement VII. The pope, seated on his portable throne, received the king, who kissed his feet. Servetus later wrote: "I have seen with my own eyes how the pope was carried on the shoulders of the princes, with all the pomp, being adored in the streets by the surrounding people." Servetus found himself unable to reconcile that pomp and extravagance with the simplicity of the Gospel.

His Quest for Religious Truth

Servetus discreetly left his employment with Quintana and began his solitary search for the truth. He believed that Christ's message was not directed to theologians or philosophers but to common people who would grasp it and put it into practice. Thus, he resolved to consult the Bible text in the original languages and to reject any teaching at odds with the Scriptures. Interestingly, the word "truth" and its derivatives appear more often than any other word in his writings.

Servetus' historical and Biblical studies led him to the conclusion that Christianity had become corrupted during the first three centuries of our Common Era. He learned that Con-

* See the article "The Complutensian Polyglot—A Historic Translation Tool," in the April 15, 2004, issue of *The Watchtower*.

stantine and his successors had promoted false teachings that eventually led to the adoption of the Trinity as an official doctrine. At the age of 20, Servetus published his book *On the Errors of the Trinity*, a work that made him a principal target of the Inquisition.

Servetus saw things clearly. "In the Bible," he wrote, "there is no mention of the Trinity.... We get to know God, not through our proud philosophical concepts, but through Christ."** He also came to the conclusion that the holy spirit is not a person but, rather, God's force in action.

Servetus did provoke some favorable response. Protestant Reformer Sebastian Franck wrote: "The Spaniard, Servetus, contends in his tract that there is but one person in God. The Roman church holds that there are three persons in one essence. I agree rather with the Spaniard." Nevertheless, neither the Roman Catholic Church nor the Protestant churches ever forgave Servetus for challenging their central doctrine.

The study of the Bible also led Servetus to reject other church doctrines, and he considered the use of images to be unscriptural. Thus, a year and a half after publishing *On the Errors of the Trinity*, Servetus said with respect to both Catholics and Protestants: "I do not agree or disagree in everything with either one party or the other. Because all seem to me to have some truth and some error, but everyone recognizes the other's error and nobody discerns his own." His was a solitary quest for the truth.[#]

His sincerity, however, did not prevent Servetus from reaching some mistaken conclusions. For example, he calculated that Armageddon and the Millennial Reign of Christ would come during his own lifetime.

* In his work *A Statement Regarding Jesus Christ*, Servetus described the doctrine of the Trinity as perplexing and confusing and noted that the Scriptures contained "not even one syllable" in its support.

** While in prison, Servetus signed his last letter with these words: "Michael Servetus, alone, but trusting in Christ's most sure protection."

DE TRINITATIS ERRORIBVS LIBER PRIMVS



N S C R V tendit diu ne Trinitatis arcana, ab homine exordiatur ex deo duxi, quia ad Verbum per calcinationem, funda mento CHRISTI, sacerdotibus, quoniam ploramus etrem, qui parum est nobis homini tribuimus, & secundum CHRISTVM M. solitudo primus traducit: quid ego ad membrum, qui sit illi CHRISTVS, reducere curiose. Secundum, quid, quoniamque CHRISTI Orbiendum, indicabit ecclesia. Tria haec tria haec manifeste demonstrant hominem, quem habet, manentes appellent, concedant-hoc tristis. Primo inferente, et hoc in IESVS CHRISTVS. Secundo, et huius est regis Verbo. Tertio, hoc est Deus.

From the book *De Trinitatis Erroribus*, by Michael Servetus, 1531.

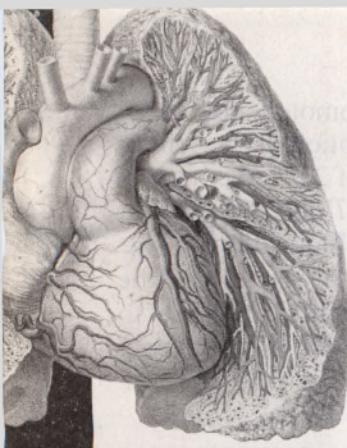
First page of "On the Errors of the Trinity"

From the book *De Trinitatis Erroribus*, by Michael Servetus, 1531.

habitoribus Sor. Etiam Altur copulatus esse, fuerunt brachium filii Lodi, Selah. Fac illis sicut Midian, sicut Sisera, sicut Iabin in torrente Chison. Disperierunt in Hendor, fuerunt ut stercus terra. Pone eos & duces eorum, sicut Horeb, & sicut Zeb, & sicut Zebach, & sicut Salmunnah omnes principes

coram i.e. ut tu domine deus misericors, & clemens, jugis ad iram, & multus misericordia, & Awake! May 2006 19
serere mei, da fortitudinem tuam seruo tuo, & ferua tibum angelum tuum. Fac mecum signum in bonitate, & videant odio habentes me, & pudore afficiatur, quoniam tu domine adiunctor mei, & confortans me.

Psalms 100v, 101v, 102v,



Servetus studied the pulmonary circulation of blood

Anatomie descriptive et physiologique, Paris, 1866-7, L. Guérin, Editor

Comments were made 75 years before the complete circulatory system was described by William Harvey.

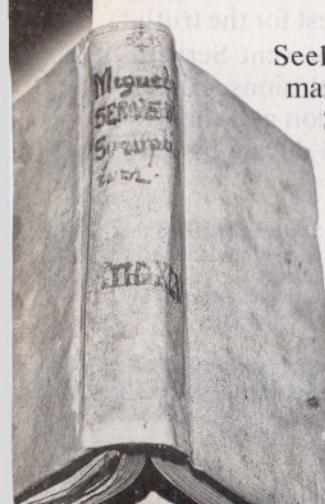
Servetus also prepared a new edition of Ptolemy's *Geography*. It proved so successful that some have called him the father of comparative geography and ethnography. Later, at his trial in Geneva, Servetus was denounced for his description of Palestine as a sparsely cultivated, sterile land. Servetus defended himself by arguing that his description applied to the present time rather than to the age of Moses, when it doubtless flowed with milk and honey.

Servetus also wrote the *Universal Treatise on Syrups*, which provided a new, balanced approach to a type of medicine. The wealth of medical knowledge found in that book made him a pioneer in the field of pharmacology and the use of vitamins. In view of Servetus' expertise in so many fields, a historian described him as "one of the greatest minds in human history, one who contributed to universal culture."

A Formidable Opponent

Seekers of the truth have always had many opponents. (Luke 21:15) Among Servetus' many adversaries was John Calvin, who had established an authoritarian Protestant state in Geneva. According to historian Will Du-

Servetus' book "Universal Treatise on Syrups" pioneered ideas in the field of pharmacology



Searching for Scientific Truth

Forced to flee from his persecutors, Servetus changed his name to Villanovanus and settled in Paris, where he obtained degrees in art and medicine. His scientific curiosity led him to practice dissection in order to understand the workings of the human body. As a result, Servetus became perhaps the first European to describe the pulmonary circulation of blood. His findings were included in his work *The Restitution of Christianity*. Servetus' comments were made 75 years before the complete circulatory system was described by William Harvey.

rant, Calvin's "dictatorship was one not of law or force but of will and character," and Calvin "was as thorough as any pope in rejecting individualism of belief."

Servetus and Calvin probably met in Paris when they were both young men. From the outset their personalities clashed, and Calvin became Servetus' most implacable enemy. Although Calvin was a leader of the Reformation, he finally denounced Servetus to the Catholic Inquisition. Servetus barely succeeded in escaping from France, where he was burned in effigy. However, he was recognized and imprisoned in the frontier city of Geneva, where Calvin's word was law.

Calvin meted out cruel treatment to Servetus in prison. Nevertheless, in his debate with Calvin during the trial, Servetus offered to modify his views, provided his opponent gave Scriptural arguments to convince him. Calvin proved unable to do so. After the trial, Servetus was condemned to be burned at the stake. Some historians claim that Servetus was the only religious dissenter who was both burned in effigy by the Catholics and burned alive by the Protestants.

A Herald of Religious Freedom

Although Calvin eliminated his personal rival, he lost his own moral authority. The unjustified execution of Servetus outraged thinking people throughout Europe, and it provided a powerful argument for civil libertarians who insisted that no man should be killed for his religious beliefs. They became more determined than ever to press on in the fight for religious freedom.

Italian poet Camillo Renato pro-

Q uia pascis Israhel ausculta, qui ducis tanq̄ pecudes Ioseph, qui sedes super Cherubim, illustrare fac. Coram Ephraim, & Biniamin, & Menashé, suscita fortitudinem tuā, cōscia dixit, q̄d & veni ad salutē nobis. Deus conuerte nos, & illustra faciem tuā, & seruabimur. Dñe deus exerceitū, vñcuecum fregit.

tested: "Neither God nor his spirit have counselled such an action. Christ did not treat those who negated him that way." And French humanist Sébastien Chateillon wrote: "To kill a man is not to protect a doctrine, but it is to kill a man." Servetus himself had said: "I consider it a serious matter to kill men because they are in error on some question of scriptural interpretation, when we know that even the elect ones may be led astray into error."

Regarding the lasting impact of Servetus' execution, the book *Michael Servetus—Intellectual Giant, Humanist, and Martyr* says: "Servetus's death was the turning point in the ideology and mentality dominating since the fourth century." It adds: "From

a historical perspective, Servetus died in order that freedom of conscience could become a civil right of the individual in modern society."

In 1908 a monument to Servetus was erected in the French city of Annemasse, some three miles from the spot where he died. An inscription reads: "Michel Servet[us], . . . geographer, physician, physiologist, contributed to the welfare of humanity by his scientific discoveries, his devotion to the sick and the poor, and the indomitable independence of his intelligence and his conscience. . . . His convictions were invincible. He made a sacrifice of his life for the cause of the truth."

Servetus and the Name Jehovah

Servetus' quest for the truth also led him to use the name Jehovah. Some months after William Tyndale employed this name in his translation of the Pentateuch, Servetus published *On the Errors of the Trinity*—in which he used the name Jehovah throughout. He explained in this work: “The other name, the most holy of all, יהוה . . . can be interpreted as follows, . . . ‘He causes to be,’ ‘he who brings into being,’ ‘the cause of existence.’” He noted: “The name of Jehovah can properly apply only to the Father.”

In 1542, Servetus also edited the renowned Latin translation of the Bible by Santes Pagninus (shown below). In his extensive marginal notes, Servetus highlighted the divine name again. He included the name Jehovah in the marginal references to key texts such as Psalm 83:18, where the word for "Lord" appeared in the main text.

In his final work, *The Restitution of Christianity*, Servetus stated regarding the divine name, Jehovah: "[It] is clear . . . that there were many who pronounced this name in ancient times."



John Calvin became a fierce enemy of Servetus

Biblioteca Nacional, Madrid

The monument in Annemasse, France





BY AWAKE! WRITER
IN AUSTRALIA

Sponges

SIMPLE YET SPECTACULAR

WOULD you fancy taking a bath with the remains of an animal? The idea may sound less than appealing. However, the natural bath sponge is actually the fibrous skeleton of one such creature.

"Sponges occupy the oldest and lowest branch on the animal family tree," states *National Geographic News*. This has led some individuals to speculate that an ancient sponge was the evolutionary ancestor of animals and humans. One television-documentary media release even hailed the sponge as "the animal Eve"—the "ancestor that started it all for us."

What has science learned about sponges? Are they merely simple creatures, or do they show evidence of spectacular design?

No Heart, No Brain, No Problem

Sponges may look like plants, but Aristotle and Pliny the Elder accurately described sponges as animals. Experts estimate that at least 15,000 species live throughout the world's lakes and oceans and include a stunning variety of shapes and colors. Sponges may resemble slender fingers, bulging barrels, spreading carpets, elegant fans, and even delicate crystal vases—to mention only a few designs. Some are smaller than a grain of rice, while others grow taller than a man. Scientists believe that some sponges may be hundreds of years old.

"In structure, function, and development, sponges are distinct from other animals," says the *Encyclopædia Britannica*. How so? Unlike other animals, sponges have no internal body organs. With no heart, brain, or nervous system, how do sponges live? Tiny cells within the sponge care for the many functions

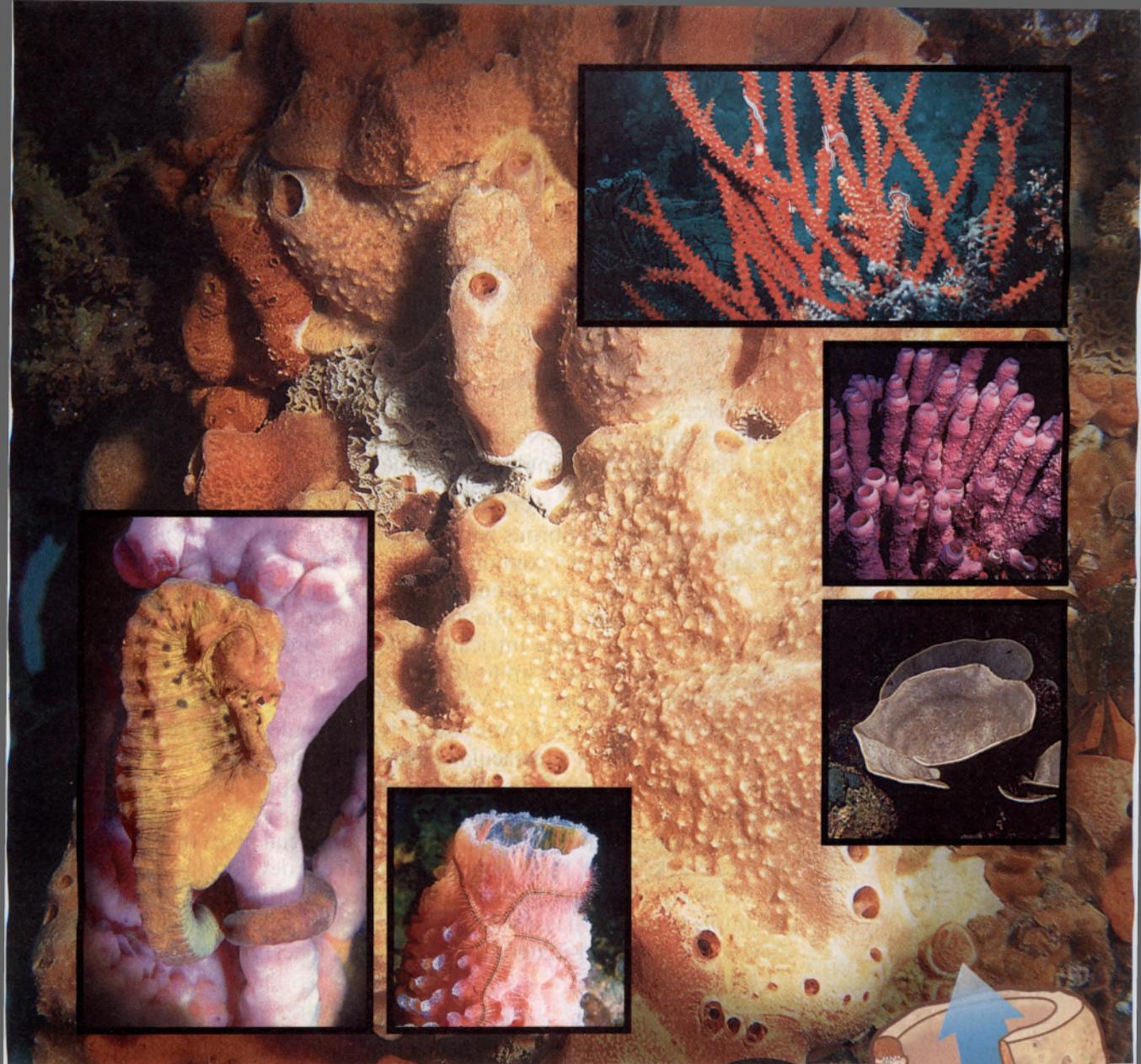
that sustain life. Specialized cells catch food, transport nutrients, or remove waste. Others labor to construct skeletal or skin components. Some cells may even switch from one cell type to another should the need arise.

Sponges are unique in additional ways. Mash a live sponge through a sieve, and the cells will group together to reform the original animal. Grind two sponges together, and the cells will gradually separate to reconstitute each original parent. "No other plant or animal can resurrect itself this way," observes *National Geographic News*.

Sponges also have remarkable reproductive flexibility. Some sponges equip and launch cellular "spaceships" to colonize other areas. Traveling in a state of suspended animation, the "settlers" finally land, reawaken, and then exit their "ship" to produce a new sponge. Other sponges reproduce sexually, with individual sponges switching between male and female roles as the need arises. Some sponges lay eggs. "The more closely we look at even the simplest organisms, the more complexity we see," marvels writer Paul Morris.

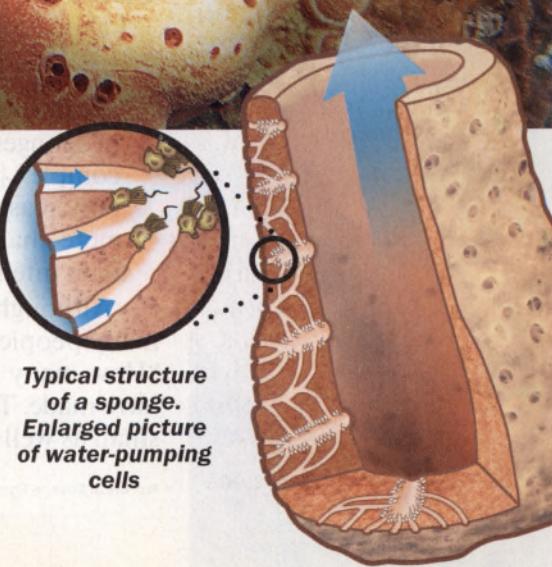
Marine Vacuum Cleaners

Sponges possess "a feeding system unique among animals," writes zoologist Allen Collins. Tiny pores in the outer skin lead to a maze of tunnels and chambers that honeycomb the sponge. Millions of tiny rowing cells, or choanocytes, line the walls of this labyrinth. Each cell projects a whiplike filament



that beats backward and forward. "Like oarsmen on a Roman galley, [these cells] propel a steady stream of water past the sponge's other cells, which are designed to capture and ingest the food particles the water contains," explains writer Ben Harder. Pumping up to ten times its own volume in water each hour, the sponge extracts nutrients, toxic chemicals, and about 90 percent of all bacteria present in the water. A sponge may even regulate or reverse its pumping

Sea horse: Rudie H Kuiter; 3 right-hand inset photos: Dr. John Hooper, Queensland Museum





Sponge
spicules



Venus's
flower-basket

action to compensate for changing water currents or to purge internal sediment. "Sponges are . . . the most efficient vacuum cleaners of the sea," states Dr. John Hooper.

The constant flow of food and water through a sponge makes it an ideal home for shrimps, crabs, and other tiny creatures. One sponge contained 17,128 residents. Numerous bacteria, algas, and funguses enjoy cooperative, or symbiotic, relationships with sponges. Bacteria may constitute up to 50 percent of a sponge's wet weight.

Scientists have found sponges and their symbionts to be a promising source of new and unique pharmaceutical drugs. Some believe that such drugs may prove useful in combating AIDS, cancer, malaria, and other diseases. Referring to one such sponge compound, researcher Shirley Pomponi says: "Nature offers much more interesting molecules than even our computers can come up with."

Crystal Creativity

Unlike the soft and fibrous bath sponge, many sponges are abrasive or rigid. These sponges contain millions of tiny crystals called spicules. When spicules are examined under a microscope, their beauty and variety stagger the imagination. Linked together in various ways, spicules can create intricate skeletons, protective armor, and even cables that measure up to 10 feet long and 1/3 of an inch thick. One carnivorous sponge uses Velcro-like fishing nets to catch its prey.

The deep-sea Venus's flower-basket uses spicules to weave an intricate glass lattice of spectacular beauty. The ultrapure silica fibers closely resemble commercially designed fiber-optic cables. "These bio-optical fibers are extremely tough," explains one scientist. "You could tie them in tight knots and, unlike commercial fiber, they would still not crack." How these sophisticated fibers develop in seawater and at low temperatures has scientists baffled. "In this case, a relatively simple organism has a solution to a very complex problem in integrated optics and materials design," says Cherry Murray of Bell Laboratories.

Chance or Design?

After reviewing the many spectacular biological features evident in sponges, Hooper observes: "The 'simple sponge' is in fact a very complex [animal], which even today is not well understood." It is only reasonable to ask: How and why did this complexity arise. Is mere chance responsible? Or do sponges give eloquent testimony to an intelligent Designer?

Although some may refuse to consider the existence of a Creator, many people will agree with the observation of the ancient psalmist: "How many your works are, O Jehovah! All of them in wisdom you have made. The earth is full of your productions . . . , living creatures, small as well as great."—Psalm 104:24, 25.

A TRADITIONAL GARDEN OF Uncommon Beauty

THEY lived in a beautiful place but could not enjoy its delights. From the 17th century onward, that was the lot of thousands of unfortunate Africans who were kidnapped from their homelands and brought to Guadeloupe and Martinique. Slavery in the sugarcane fields of these Caribbean islands would occupy most of their waking hours for the rest of their life.

Many plantation owners on the islands made the slaves responsible for feeding themselves, so the slaves planted gardens. More work was the last thing they needed, but at least they could grow foods that they liked. They raised manioc, yams, and other foods that tasted better and were more nutritious than anything they might have received from their mas-

ters. They also cultivated medicinal herbs as well as spices for cooking.

In 1848 the French government abolished slavery on the islands, but the newly freed citizens kept planting their gardens. Today the people of Guadeloupe and Martinique, many of them descendants of those hardworking Africans, continue to cultivate what are now known as Creole gardens.

A Rain Forest in Miniature

The slave households came to have two types of gardens. The vegetable garden was usually set off a distance from the house. The "house garden" (or, *jardin de case*, as it is locally known)





A woman with dark hair tied back, wearing a wide-brimmed straw hat and a red lace-trimmed blouse, sits in a lush tropical garden. She is smiling warmly at the camera. The background is filled with dense green foliage, including several large red flowers (likely alpinia) and various tropical plants.

**Inset photos
(from top):**

**alpinia,
pepper,
pineapple,
cacao, and
coffee**



WHAT DOES “CREOLE” MEAN?

The word “Creole” originally referred to people of European descent who were born in the New World, but it has come to have a multiplicity of meanings. Some Haitians use “Creole” to describe something very attractive or of high quality. Certain languages in Jamaica, Haiti, and other places are called Creole. Basically, a creole is a language that evolved from a pidgin language but has become a native language of a group of speakers.

“Creole” has also come to designate a spe-

cific way of life, the indigenous culture that has developed on many Caribbean islands. In Puerto Rico and the Dominican Republic, the related Spanish word *criollo* has that connotation. In the Caribbean the descendants of natives, Africans, and Europeans have intermingled and married one another over the centuries, producing beautiful children and intriguing traditions. It is in the spirit of such traditions that the Creole garden of Guadeloupe and Martinique got its name.

grew next to the house, and the typical Creole garden today takes this form. Such a garden holds an interlocking abundance of flowers, grasses, trees, and bushes that can be as thick as the undergrowth of a rain forest. Since vegetation fills all available space, your first impression might be one of delightful disorder. But this garden is well organized and divided into sections. Narrow paths allow the gardener to get up close to all of his plants.

The garden extends from the back of the house to the front, where it serves as a spectacular reception area. When visitors call, the family welcomes them amid iridescent crottons, golden-trumpets, and the brightly colored leaves of bougainvillea and ixora.

Medicinal plants occupy other parts of the Creole garden, often those areas shaded by the house. Basil, cinnamon, goatweed, bay leaf, and jack in the bush are part of the traditional pharmacopoeia of the islands. Lemon grass also grows in the garden, and burning its dried leaves helps keep mosquitoes away.

Many people in the islands treasure their knowledge of medicinal plants. In times past, when someone fell ill or was injured, the doctor was often far away. So the herbs of the Creole garden allowed people to treat their own health problems. These plants are still used medicinally, but self-medication can be dangerous. Instead of curing the patient, an herb applied incorrectly could make him

worse. So, modern residents of the islands generally entrust their medical care to those trained to administer it.

The main part of the Creole garden, the part located behind the house, is set aside for food plants. There you will find yams, eggplants, corn, spleen amaranth, garden lettuce, and other crops, with the spices used in preparing those foods growing close by. Banana plants may grow there, and you might see such trees as breadfruit, avocado, guava, or mango.

Feel the Attraction

When you walk by a Creole garden, you may feel drawn to enjoy its beauty up close. Once inside, you can admire blossoms and leaf arrangements as the sun highlights their colors. Meanwhile, the breeze stirs a mixture of fragrances that bottled perfume cannot imitate. Yes, you take pleasure in the garden, and you are just visiting. Imagine the enjoyment of the householder who planted that garden and spends time in it every day!

Will the Creole garden survive? Some islanders lament the lack of interest younger ones show in maintaining such an attractive and beneficial tradition. Still, many young people, as well as older ones, treasure the garden’s beauty and its cultural meaning. Each Creole garden is a reminder of how African slaves made the best of bad circumstances.

Is It Practical to Be Peaceable?

IN HIS most famous sermon, Jesus Christ said: "Happy are the peaceable." He also said: "Happy are the mild-tempered ones, since they will inherit the earth." (Matthew 5:5, 9) Being peaceable involves more than being at peace or feeling calm. A peaceable individual initiates goodwill and actively promotes peace.

Are the above-quoted words of Jesus practical in our day? Some think that to succeed in this modern world, one must be intimidating, aggressive, and even violent. Is it wiser to meet like for like, aggression for aggression? Or is it practical to be peaceable? Let us consider three reasons why we should give thought to Jesus' words: "Happy are the peaceable."

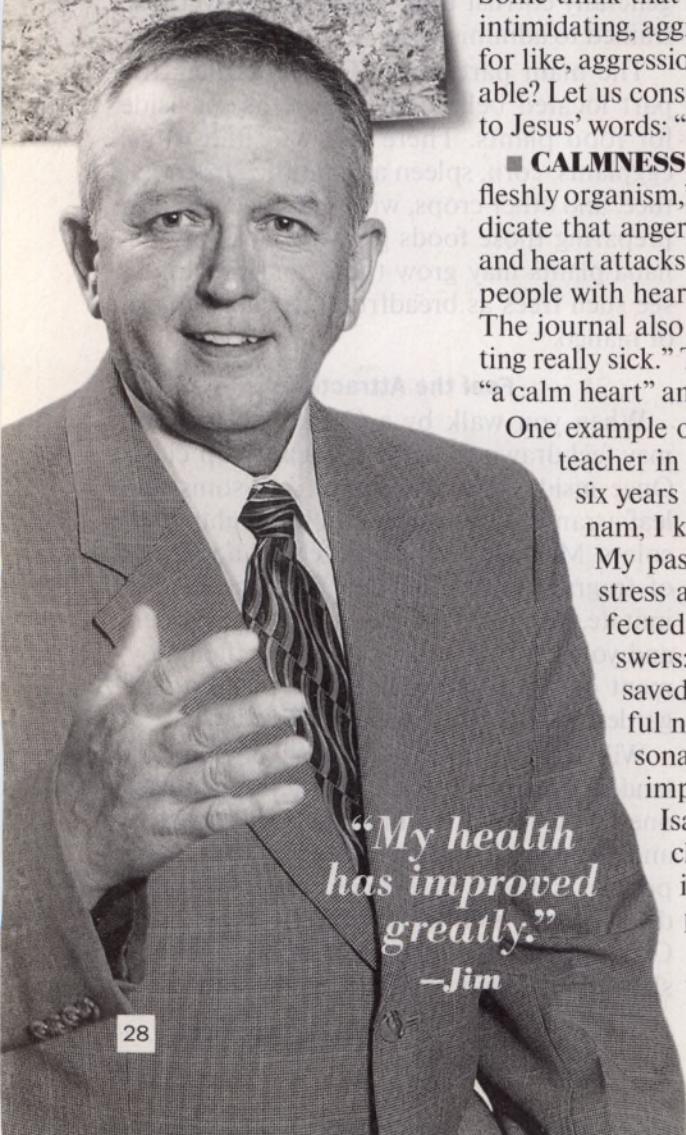
■ **CALMNESS OF HEART** "A calm heart is the life of the fleshly organism," says Proverbs 14:30. Many medical reports indicate that anger and hostility can become triggers for strokes and heart attacks. Recently, a medical journal, when speaking of people with heart disease, compared explosive anger to poison. The journal also stated that "getting really mad can mean getting really sick." Those who pursue peace, however, can develop "a calm heart" and reap benefits.

One example of this is Jim, a 61-year-old who is now a Bible teacher in a Vietnamese community. He explains: "After six years in the military and three combat tours in Vietnam, I knew violence, anger, and frustration very well. My past plagued me, causing sleep problems. Soon stress as well as stomach and nervous conditions affected my health." What provided relief? He answers: "Studying the Bible with Jehovah's Witnesses saved my life. Learning God's purpose for a peaceful new world and how I can put on 'the new personality' has given me a calm heart. My health has improved greatly as a result." (Ephesians 4:22-24; Isaiah 65:17; Micah 4:1-4) Many others have concluded from personal experience that developing a peaceable spirit can improve emotional, physical, and spiritual health.—Proverbs 15:13.

■ **HAPPIER RELATIONSHIPS** Our relationships with others will benefit when we

*"My health
has improved
greatly."*

—Jim



display a peaceable spirit. The Bible mentions that “anger and wrath and screaming and abusive speech” should “be taken away . . . , along with all badness.” (Ephesians 4:31) Those who display aggressive behavior often drive others away and find themselves alone, without dependable friends. Proverbs 15:18 states: “An enraged man stirs up contention, but one that is slow to anger quiets down quarreling.”

Andy, a 42-year-old Christian elder in New York City, grew up in an aggressive environment. He explains: “I was put in the ring and trained to box at the age of eight. I did not think of opponents as people. Instead, my thought was ‘hit or be hit.’ Soon I was running with a gang. We shared in many street fights and brawls. I’ve had guns held to my head and knives pulled on me. Many of my friendships were troubled and based on fear.”

What made Andy pursue peace? He says: “One day I went to a meeting at a Kingdom Hall of Jehovah’s Witnesses, and I could immediately sense the loving spirit among the people there. Since then, my association with these peace-loving people has helped me to develop a calm heart, and it eventually melted away my old way of thinking. I have made many lasting friendships.”

■ **HOPE FOR THE FUTURE** The most important reason to be peaceable is simply this: It shows honor and respect for the expressed will of our Creator. God’s own Word, the Bible, urges us: “Seek to find peace, and pursue it.” (Psalm 34:14) Acknowledging Jehovah God’s existence and then learning and obeying his life-giving teachings opens the door to a personal friendship with him. With that strong relationship, we gain “the peace of God.” This is an excelling peace regardless of the challenges that life may bring.—Philippians 4:6, 7.

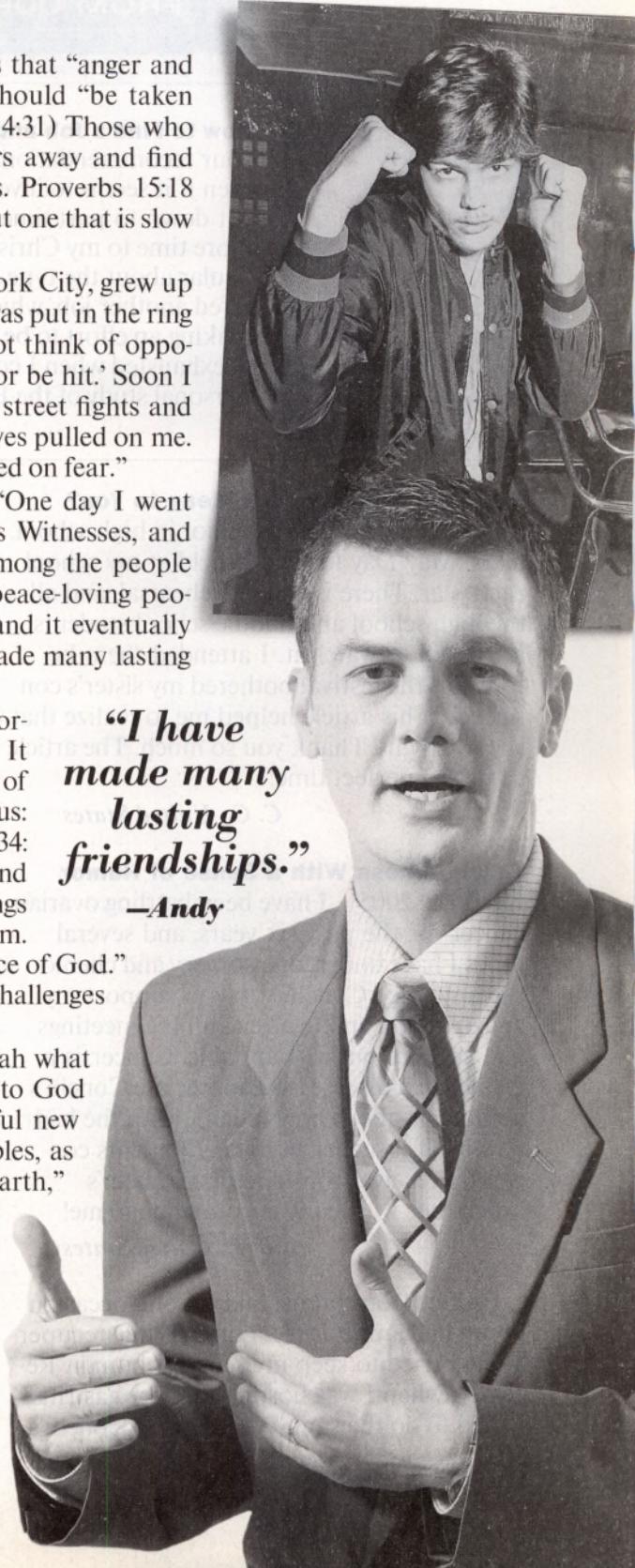
Further, by being peaceable, we show Jehovah what kind of person we want to be. We can prove to God now that we will fit into his promised peaceful new world. When he removes the wicked and enables, as Jesus said, the mild-tempered to “inherit the earth,” we can be there to see it. What a blessing!

—Psalm 37:10, 11; Proverbs 2:20-22.

Yes, the practical value of Jesus’ words “happy are the peaceable” is clear to see. We can experience a calm heart, meaningful relationships, and a solid hope for the future. These blessings can be ours when we do our best to “be peaceable with all men.”—Romans 12:18.

*“I have
made many
lasting
friendships.”*

—Andy





How to Find a Job and Keep It (July 8, 2005) I appreciated your recommendation to follow up on each job opportunity, even if it seems to involve menial work. I recently wanted to cut down to part-time employment so that I could devote more time to my Christian ministry. But I was being too particular about the type of work I would accept. Then I was offered another job, which I accepted. It is menial work, but I'm making an effort to be satisfied with it. At least I'm not mentally exhausted when I come home, and I can concentrate on my personal study of the Bible.

M. I., Japan

May Day—What Does It Mean to You?

(April 22, 2005) I am a senior in high school, and a May Day festival is held at my school each year. There is a dress rehearsal, and all the high-school and middle-school students are asked to watch it. I attended them before, but the festival bothered my sister's conscience. This article helped me to realize that she was right! Thank you so much. The article came at a perfect time!

C. C., United States

Facing Illness With a Sense of Humor

(April 22, 2005) I have been battling ovarian cancer for the past six years, and several times I have undergone surgery and chemotherapy. Like Conchi, I try to support my congregation and to attend all the meetings and conventions as I am able. Cancer is a challenging disease, so I appreciate Conchi's comments about how to cope with the bad news that it seems we cancer patients constantly receive from doctors. Conchi's experience was really encouraging to me!

B. F., United States

I suffer from lupus, and on one occasion I even had amnesia for a time. While recuperating, I tried to keep my sense of humor. Recently, when I was hospitalized for gastritis, I tried to do the same. I agree with Conchi's

words, "It's no joke being sick, but you have to try to keep your sense of humor."

M. A., Venezuela

Watching the World (July 8, 2005) Regarding the item entitled "Vitamin Supplements and Cancer," I would like to point out that the views of Dr. Sullivan as quoted are *not* shared by many nutritionists. Reports in countless scientific publications and a multitude of studies have shown that the substances you list have proved useful in preventing—and treating—some forms of cancer. I feel that including one-sided information of this nature could endanger the neutral stand of *Awake!*

A. B., Netherlands

"Awake!" responds: Evidently, as this reader notes, studies have shown that the substances mentioned in our item have in a number of cases had a beneficial effect upon cancer patients. We regret any misunderstanding that publishing this item may have caused. "Awake!" takes a neutral position when it comes to health treatments. The fact that we present health-related information for our readers' consideration does not mean that we endorse it. Likewise, when we quote a publication or an expert in some field of study, we understand that—as is often the case—other publications and other experts may hold a different view. We leave it up to our readers to make informed decisions when it comes to their health.



WHERE DID IT HAPPEN?

1. In what place did this man, blind from birth, receive his sight? Circle your answer on the map.

♦ What did Jesus do to him before sending him there?

♦ Who are the older couple in the background of the picture, and why are they afraid?

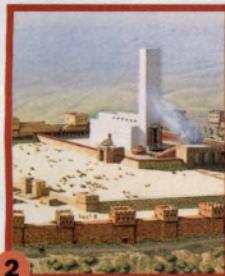
■ For Discussion:

What do you learn from this incident?



WHEN IN HISTORY?

Draw a line from each place of worship to the year it was completed.



2
1 Kings 6:1, 37, 38



3
Exodus 40:1, 2, 33



4
Ezra 6:15

1513
1473
1512

1027

515

455 B.C.E.

WHO AM I?

5. I served a pagan king, but my skills were used to build the temple.

WHO AM I?

6. My grandfather held up Moses' arm, and my work held up the tabernacle.

(Answers on page 12)

FROM THIS ISSUE

Answer these questions, and provide the missing Bible verse(s).

Page 3 What is the expected life span of humans at present? (Psalm 90:____)

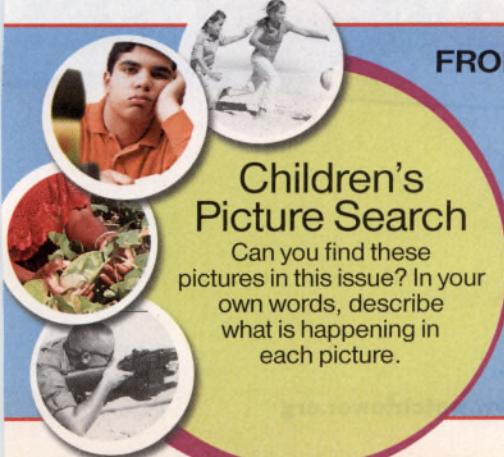
Page 9 What will Jehovah do with death? (Isaiah 25:____)

Page 17 What does reading the Bible help you to do? (Acts 17:____)

Page 24 The sea sponge is evidence of what? (Psalm 104:____)

Children's Picture Search

Can you find these pictures in this issue? In your own words, describe what is happening in each picture.



"I Can Hardly Set It Down"

■ Last year a new 224-page colorfully illustrated book designed for study of basic Bible teachings was released at conventions of Jehovah's Witnesses throughout the world. It is entitled *What Does the Bible Really Teach?*

"I can hardly set it down," wrote one reader. "This book has gathered all the best of every study book that I have seen and put it all in these few pages."

Another reader said: "Every page encourages you to read on. I also like the way the end of each chapter tells you what is coming up in the following chapter. There are many passages that have brought tears to my eyes. There are so many things I love about this book that I could write a book about it!"

Still another appreciative person wrote: "Believe me, this book is a jewel of incalculable value in a spiritual sense, and it will be an excellent tool to help teach new disciples."

