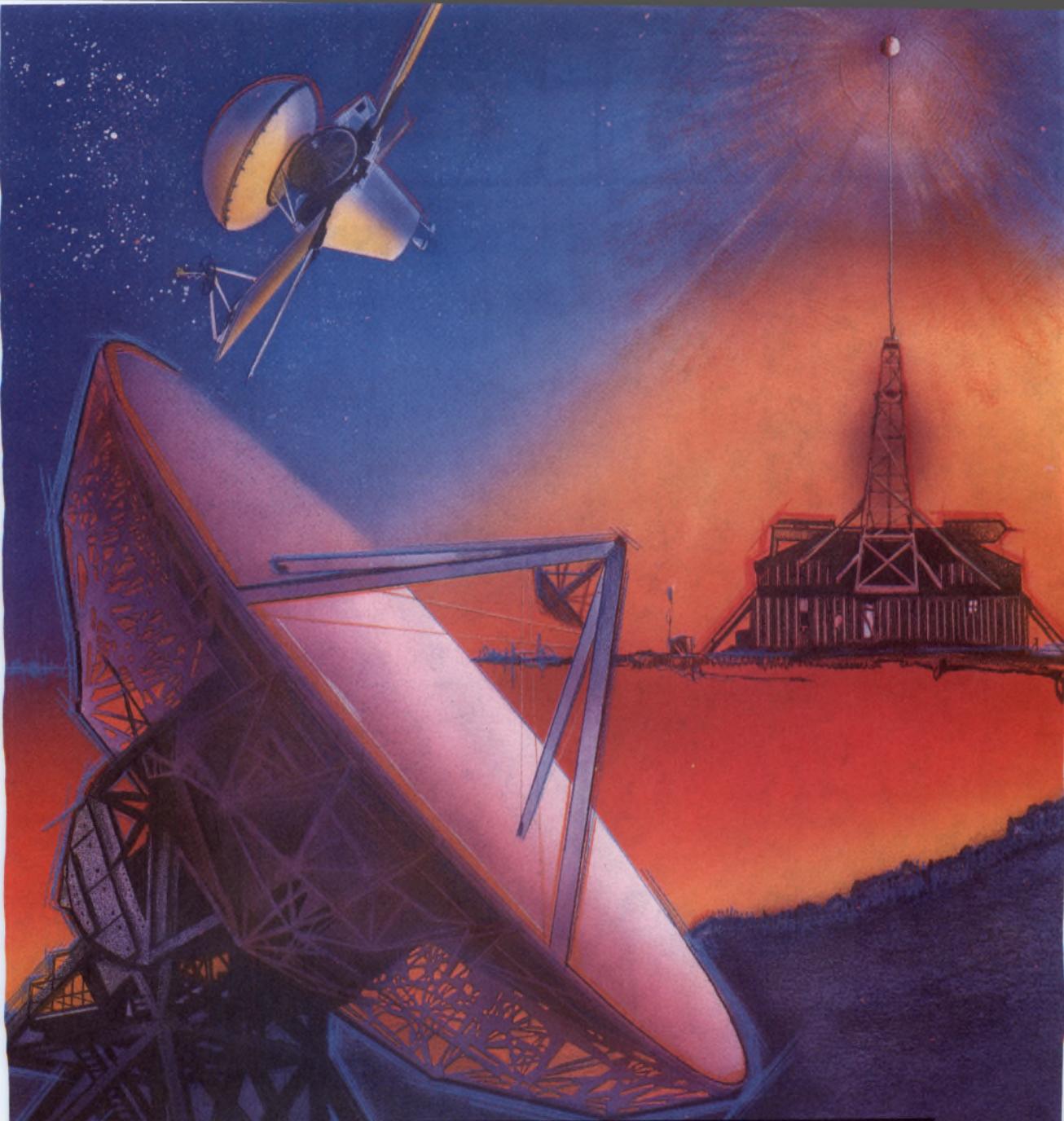


Awake!

April 8, 1990



IS
THERE
LIFE
BEYOND
THE EARTH?



Humans have long been fascinated by the idea of life existing beyond the earth. From the primitive electric device of 1899 (top right) to giant radio telescopes (bottom) first used in 1957 to space explorers such as the 1976 *Viking* (top left), there has been an ongoing attempt to contact life in outer space.

Drawing based on NASA photo

Is Anyone Out There?

bone, zipping silhouettes and the full moon made growl, pants down, going down, and a dog's mouth like a violin, purring his requieat, and so melancholy will they be, the old and aged or the young, and the young and the old, the young and the old, the young and the old.

THREE is a man in Massachusetts, U.S.A., who as part of his work every day checks to find out if any messages have come in. Day after day, none do. For years now, none have. But he still checks regularly, and he is disappointed regularly. Is he unpopular? Is his answering machine broken?

Neither. He checks a machine, but it is not hooked up to a telephone line. It is a computer connected to a huge electronic ear that points up, away from our world, into the depths of outer space: a radio telescope. This man is helping a team of scientists to scan the stars for a message from intelligent extraterrestrials, beings from beyond our world.

Others, like him, have also been listening for 30 years now. In 1960 astronomer Frank Drake became the first man to listen with a radio telescope for signs of extraterrestrial intelligence. Since then, man has, in effect, put his ears in space. Some 50 different extended searches of the sky have been made so far.

Radio telescopes all over the world have joined in the hunt—in France, the Federal Republic of Germany, the Netherlands, Australia, the Soviet Union, Argentina, the United States, and Canada. As one person put it:

“SETI [an English-language acronym for mankind’s Search for Extraterrestrial Intelligence] is becoming as international as space itself.” One symposium on the subject drew some 150 scientists from 18 countries spanning all five continents.

The most ambitious SETI project yet, though, is due to be launched in 1992. NASA, the National Aeronautics and Space Administration of the United States, plans to use a powerful new device that will make it possible to scan millions of radio frequencies at the same time. The search is projected to last ten years at a cost of \$90 million. It will be some ten thousand million times more extensive than all the previous searches put together.

But when man asks of the vast universe, “Is anyone out there?” he will need more than high-tech hardware to find an answer. In many ways it is a spiritual question. In groping for an answer, man reveals some of his most cherished hopes: the end of war, the end of disease, perhaps even the attaining of immortality itself. So the stakes are high. But after centuries of wondering and decades of searching, how close is man to an answer?

Extraterrestrials *The Age-Old Dream*

MODERN-DAY science-fiction writers did not invent the notion of extraterrestrials. Some 23 centuries ago, a Greek philosopher named Metrodorus taught that a universe containing merely one inhabited world would be as unlikely as a large field growing only one ear of corn. Lucretius, a Roman poet of the first century B.C.E., wrote that "in other parts of space there are other earths and various races of men."

This teaching, called the plurality of worlds, was in disfavor in Christendom for many centuries. But from about 1700 to the early part of our own century, most educated people, including some of the greatest scientists in history, believed firmly in life on other worlds. In fact, one educator of the mid-1800's was widely attacked when he dared to write a paper denying the doctrine.

People seemed eager to believe in extraterrestrials, even on the flimsiest of evidence. In 1835 a newspaper reporter wrote that astronomers had discovered life on the moon. He

wrote that strange animals, exotic plants, and even little people with wings, hovering about and gesturing visibly, were all seen through a telescope! The circulation of his newspaper soared. Many continued to believe the tale even after it was exposed as a fraud.

Scientists were optimistic as well. In the late 1800's, astronomer Percival Lowell was convinced that he could see a complex system of canals on the surface of the planet Mars. He mapped them out in detail and wrote books on the civilization that had constructed them. In France, the Academy of Sciences was so sure that there was life on Mars that it offered a reward to the first person who communicated with any extraterrestrials *other than Martians*.

Some proposed outlandish schemes to communicate with beings on nearby worlds, ranging from lighting huge fires in the Sahara Desert to planting geometrically shaped forests across Siberia. In 1899 an American inventor erected a mast topped with a copper ball and sent powerful electric pulses through

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it to signal the Martians. People's hair stood on end, and lights glowed for 30 miles around, but there was no answer from Mars.

Full of Hope

While the technology behind today's search for life on other worlds may be new, one thing remains unchanged: Scientists are still confident that mankind is not alone in the cosmos. As astronomer Otto Wöhrbach wrote in the German newspaper *Nürnberg Nachrichten*: "There is hardly a natural scientist who would not say yes if asked if there was extraterrestrial life." Gene Bylinsky, author of *Life in Darwin's Universe*, put it this way: "Any day now, if radio astronomers are to be believed, a signal from the stars will flash across the unimaginable gulf of space to end our cosmic loneliness."

Why are scientists so sure that life exists on other worlds? Their optimism starts with the stars. There are so many of them—thousands

of millions in our galaxy. Then the assumptions begin. Surely, many of those stars must also have planets circling them, and life must have developed on some of those worlds. Following that line of reasoning, astronomers have speculated that there are anywhere from thousands to millions of civilizations right here in our own galaxy!

Are scientists on solid ground when they assert that the universe is teeming with populated worlds?

WHY "AWAKE!" IS PUBLISHED

"AWAKE!" is for the enlightenment of the entire family. It shows how to cope with today's problems. It reports the news, tells about people in many lands, examines religion and science. But it does more. It probes beneath the surface and points to the real meaning behind current events, yet it always stays politically neutral and does not exalt one race above another.

Most importantly, this magazine builds confidence in the Creator's promise of a peaceful and secure new world before the generation that saw the events of 1914 passes away.

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Does It Matter?

What difference does it make whether there is life beyond Earth or not? Well, scientists feel that either answer would have a tremendous impact on the human family. They say that learning that we are alone in the universe would teach mankind to value life here in view of its uniqueness. On the other hand, one respected scientist reasons that alien civilizations would likely be many millions of years more advanced than our own and might share their vast wisdom with us. They might teach us to cure our diseases, to end pollution, wars, and starvation. They might even show us how to overcome death itself!

No more disease, war, death—that kind of hope means a lot to people in our troubled times. No doubt it does to you as well. You will probably agree, though, that it is better to have no hope at all than to lean on a false one. It is important for us to find out, then, if scientists are on solid ground when they assert that the universe is teeming with populated worlds.

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Extraterrestrials Where Are They?

ACCORDING to science writer Isaac Asimov, this is "a question that, in a way, spoils everything" for those who believe in life on other planets. Originally posed in 1950 by nuclear physicist Enrico Fermi, the question capped an argument that went something like this: If intelligent life has arisen on other planets in our galaxy, many civilizations should now exist that are millions of years ahead of our own. They should have developed interstellar travel long ago and spread abroad in the galaxy, colonizing and exploring at will. So where are they?

While some SETI scientists are admittedly shaken by this "Fermi paradox," they often reply to it by pointing out how difficult it would be to voyage between the stars. Even at the speed of light, enormous though that is, it would take a spaceship a hundred thousand years to traverse just our own galaxy. Surpassing that speed is deemed impossible.

Science fiction that features ships hopping from one star to another in a matter of days or hours is fantasy, not science. The distances between stars are vast almost beyond our comprehension. In fact, if we could build a model of our galaxy so tiny that our sun (which is so huge that it could swallow a million earths) was shrunk to the size of an orange, the distance between the stars in this model would still average a thousand miles!

That is why SETI scientists lean so strongly on radio telescopes; they imagine that since advanced civilizations might not travel between stars, they would still seek out other

forms of life by the relatively cheap and easy means of radio waves. But Fermi's paradox still haunts them.

American physicist Freeman J. Dyson has concluded that if advanced civilizations exist in our galaxy, finding evidence of them should be as easy as finding signs of technological civilization on Manhattan Island in New York City. The galaxy should be buzzing with alien signals and their immense engineering projects. But none have been found. In fact, one article on the subject noted that "searched, found nothing" has become like a religious chant for SETI astronomers.

The Doubts Begin

A number of scientists are beginning to realize that their colleagues have made far too many optimistic assumptions in addressing this question. Such scientists come up with a much lower number of advanced civilizations in our galaxy. Some have said that there is but one—us. Others have said that mathematically, there should be fewer than one—even we shouldn't be here!

The basis for their skepticism is not hard to see. It could be summed up with two questions: If such extraterrestrials existed, where would they live? And how did they get there?

'Why, they would live on planets,' some might reply to the first question. But there is only one planet in our solar system that is not downright hostile to life, the one we occupy. But what about the planets circling the thousands of millions of other stars in our galaxy?



Even if other habitable planets exist, is there any evidence that life could originate on them by chance?

Might not some of them harbor life? The fact is that up to now scientists have not conclusively proved the existence of a single planet outside of our solar system. Why not?

Because to detect one is exceedingly difficult. Since stars are so distant and planets do not emit any light of themselves, detecting even a giant planet, such as Jupiter, is like trying to spot a speck of dust floating around a powerful light bulb miles away.

Even if such planets do exist—and some indirect evidence has accumulated to indicate that they do—this still does not mean that they orbit precisely the right kind of star in the right galactic neighborhood, at precisely the right distance from the star, and are themselves of precisely the right size and composition to sustain life.

A Crumbling Foundation

Yet, even if many planets do exist that meet the stringent conditions necessary to sustain life as we know it, the question remains, How would life arise on those worlds? This brings us to the very foundation of the belief in beings on other worlds—evolution.

To many scientists, it seems logical to believe that if life could evolve from nonliving matter on this planet, that could be true on others as well. As one writer put it: "The general thinking among biologists is that life will begin whenever it is given an environment where it *can* begin." But that is where evolution faces an insurmountable objection. Evolutionists cannot even explain how life began on this planet.

Scientists Fred Hoyle and Chandra Wickramasinghe estimate that the odds against life's vital enzymes forming by chance are one in $10^{40,000}$ (1 with 40,000 zeros after it). Scientists Feinberg and Shapiro go still further. In their book *Life Beyond Earth*, they put the odds against the material in an organic soup ever taking the first rudimentary steps toward life at one in $10^{1,000,000}$. If we were to write out that number, this magazine in your hand would be well over 300 pages thick!

Do you find these cumbersome figures hard to grasp? The word "impossible" is easier to remember, and it is just as accurate.*

* The rest of evolutionary theory is equally fraught with trouble. Please see the book *Life—How Did It Get Here? By Evolution or by Creation?* published by the Watchtower Bible and Tract Society of New York, Inc.

Still, SETI astronomers blithely assume that life must have originated by chance all over the universe. Gene Bylinsky, in his book *Life in Darwin's Universe*, speculates on the various paths evolution might have taken on alien worlds. He suggests that intelligent octopuses, marsupial men with pouches on their

Visitors From Beyond?

Many people believe that man is being visited, or has been visited in the past, by extraterrestrials. Scientists generally dismiss these claims; they cite the lack of verifiable evidence in all cases and maintain that most UFO (unidentified flying object) sightings can be explained by natural phenomena. They tend to relegate the abduction claims to unexplored areas of the troubled human psyche or to psychological and religious needs.

One science-fiction writer noted: "The urge to investigate and believe in this stuff is almost religious. We used to have gods. Now we want to feel we're not alone, watched over by protective forces." Further, some UFO experiences reek more of the occult than of science.

But many scientists believe in "visitors" in their own way. They see the impossibility of life originating by chance here on the earth, so they claim it must have drifted here from space. Some say that aliens seeded our planet with life by sending rockets loaded with primitive bacteria. One has even suggested that aliens visited our planet ages ago and that life originated by chance from the garbage they left behind! Some scientists draw conclusions from the evidence that simple organic molecules are fairly common in space. But is that really evidence for the chance formation of life? Is a hardware store evidence that a car must accidentally build itself there?

stomachs, and bat-people who make musical instruments are not at all farfetched. Renowned scientists have praised his book. However, other scientists, such as Feinberg and Shapiro, see the gaping flaw in such reasoning. They decry the "weakness in the basic experimental foundations" of scientists' theories about how life got started on earth. They note, though, that scientists nonetheless "have used these foundations to erect towers that extend to the end of the Universe."

The Wrong Religion

'Why,' you may wonder, 'do so many scientists take the impossible for granted?' The answer is simple and rather sad. People tend to believe what they want to believe. Scientists, for all their claims of objectivity, are not exempt from this human failing.

Hoyle and Wickramasinghe observe that "the theory that life was assembled by an intelligence" is "vastly" more probable than spontaneous generation. "Indeed," they add, "such a theory is so obvious that one wonders why it is not widely accepted as being self-evident. The reasons are psychological rather than scientific." Yes, many scientists recoil from the idea of a Creator, even though the evidence points that way. In the process, they have created a religion of their own. As the above authors see it, Darwinism simply replaces the word "God" with the word "Nature."

So in answer to the question, "Is anyone out there?" science clearly gives no grounds for belief in life on other planets. In fact, as the years pass and the silence from the stars continues, SETI is a growing embarrassment to scientists who believe in evolution. If various types of life evolve readily from nonlife, then why do we not hear from them in this vast universe? Where are they?

On the other hand, if the question belongs in the realm of religion, how do we find an answer? Did God create life on other worlds?

Extraterrestrials *Finding the Answer*

ON February 17, 1600, a man named Giordano Bruno was burned alive in a public square of Rome, Italy. Why? His writings had offended the church. Among other things, he taught that there were many inhabited worlds in the universe. Back in the 11th century, the church had declared that doctrine, the plurality of worlds, a heresy. To teach it was to die. Bruno died.

Until the 19th century, the debate over whether life exists on other worlds was carried on in the arena of religion. For centuries, religious leaders and scientists under their influence insisted that the earth was at the center of the universe; that the universe was created in 4004 B.C.E.; and so forth.

Small wonder, then, that many scientists and others have little respect for religion. In the process, though, many have lost their respect for the Bible as well, imagining that it was the source of all those misconceptions. Nothing could be further from the truth.

The Bible does not purport to be a science textbook. However, it is never inaccurate when it touches on the subject of the universe or on any scientific matter. For example, the Bible never says that the earth and man are the center of the universe. On the contrary, its inspired writers showed a clear sense of how insignificant man is compared to the vast cosmos.—Psalm 8:3, 4.*

* For evidence that the Bible is in harmony with proved science, please see the book *The Bible—God's Word or Man's?* published by the Watchtower Bible and Tract Society of New York, Inc.

So, then, according to the Bible, is anyone out there?

The Bible Answers

According to the Bible, extraterrestrial life not only exists but exists in abundance. It is more complex, more interesting, and more believable than anything that evolutionists, science-fiction writers, and moviemakers have dreamed up. After all, an extraterrestrial is simply a being who originates outside this earth and its atmosphere.

Scientists wonder if there might be life-forms beyond our ability to detect. The Bible assures us that such beings do indeed exist. But they are not the products of evolution. Like all life in the universe, in whatever form, they came from the Source of life, Jehovah God. He is a spirit Being, and he has created myriads of other spirit beings of different types: angels, cherubs, and seraphs. They perform different work and functions in his intricate heavenly organization.—Psalm 104:4; Hebrews 12:22; Revelation 19:14.

What About Life on Other Planets?

Some influential religious figures have insisted that God would not create any world without purpose and that all habitable worlds must therefore be inhabited. Is that what the Bible says? No. The Bible indicates that it is very unlikely that God at this point has created intelligent physical creatures on any planets other than our own. How so?

If God did create such beings, he did so before he created Adam and Eve. Such beings either remained faithful to their Creator, or like Adam and Eve, they sinned and fell into imperfection.

But if they became imperfect, they needed a redeemer. As one essayist put it: "One has this dreadful thought that on Friday [the day Jesus Christ was executed], every Friday, somewhere in the universe Jesus is being

hanged high for someone's sins." But that is not Scriptural. The Bible tells us that Jesus "died with reference to sin *once for all time.*" —Romans 6:10.

What if these beings had remained perfect? Well, when Adam and Eve sinned, they were, in effect, questioning God's right to rule over a world of intelligent physical beings. If another planet existed at that time, a world full of intelligent physical beings who were living

The Messages Scientists Are Hoping for in Their Search for Extraterrestrial Intelligence:

*Might be false alarms, as these are not uncommon; hoaxes possible.

*Might offer education and the benefits of millions of years of experience.

*Might teach us to avoid nuclear holocaust and all war.

*Might offer cures for diseases and even death; only death by accident would remain.

*Might end mankind's 'cosmic loneliness.'

*Might be impossible to translate; would take thousands—perhaps millions—of years to respond and converse.

*All of the above are based on speculation and assumption.

The Message They Ignore—God's Word, the Bible:

*Does come from a superhuman extraterrestrial Intelligence.—Isaiah 55:9; 2 Timothy 3:16.

*Does currently provide education for millions, with the benefits of wisdom older than the universe.—Job 36:26; Psalm 103:14; Isaiah 48:17; Revelation 4:11.

*Does teach peace to millions right now; its Author promises to preserve the earth forever and destroy those destroying it.—Psalm 104:5; Isaiah 2:2-4; Revelation 11:18.

*Its Author has demonstrated his ability to cure all diseases; he promises both to end death and to undo its effects, bringing about everlasting life. —Luke 7:22; John 20:30, 31; Revelation 21:4.

*Right now the Bible's Author is "not far off from each one of us."—Acts 17:27.

*Is readily accessible to the human family. We can read it now and respond. Our messages are instantly received.—John 17:3; 1 Thessalonians 5:17; 1 Peter 3:12.

*Our faith in the above is based on evidence and reason.—Hebrews 11:1.

harmoniously and loyally under God's rule, would they not have been called in as witnesses to testify that God's rule does indeed work? This conclusion seems inescapable, since he has already used even imperfect humans as witnesses in his behalf on that very issue.—Isaiah 43:10.

Does that mean, then, that God created all those countless millions of suns (and planets if they exist) for no purpose? Not at all. While we know, considering the uniqueness of Jesus Christ, that the earth is the only inhabited planet in the universe right now, and while we know, too, that it will forever stand unique as the planet where the Creator vindicated the rightfulness of his rulership, what the future holds we do not know.

We Are Not Alone

Day after day, year in and year out, SETI astronomers continue to comb the skies for signals from intelligent life. They feel that their search may take another decade, or it may take a century. How ironic! They are spending their lives, their hopes, and huge amounts of money looking for a signal that mankind received centuries ago. For the Bible itself is a message from an extraterrestrial Intelligence, and it is superior in every way to the signals that even the most optimistic scientists envision.—See box on page 10.

How has mankind responded to the only genuine extraterrestrial message? How do humans, by and large, respond to the Bible? They ignore it. They deliberately misapply it to their own ends. They insult its Sender with an appalling array of baseless and supersti-

tious teachings. They even call it a fraud and deny the very existence of its Sender. Needless to say, our Creator has been far from pleased with humanity's response. Still, he has continued to communicate. By means of his Word, he is educating millions of people today in the ways of peace. These people represent Jehovah and carry his communications to the world. But only a tiny minority of mankind listens to them. The world in general turns a deaf ear.—Isaiah 2:2-4; Matthew 24:14.

Happily, though, each of us can communicate with the greatest Being in the universe, and this without expensive technology, without waiting ages for messages to cross the void of space. You can listen now by studying your Bible and proving for yourself whether it does indeed come from a superhuman Source. You can respond by prayer and by the way you live your life. We are not alone. Our Creator

promises that "he is not far off from each one of us."—Acts 17:27; see also 1 Chronicles 28:9.

He has not finished communicating with humanity either. He has promised to change drastically the course of world history, to end mankind's headlong rush toward self-destruction by completely dismantling this unworkable system of things and replacing it with a government of his own making, one that will really work for the good of all. (Daniel 2:44; Isaiah 9:6, 7) Yes, the next communication from the greatest extraterrestrial Intelligence promises to come in the form of action, not words.—2 Thessalonians 1:6-9.



We can communicate with the greatest Being in the universe

What Was the Original Sin?

WHAT was the original sin? "Sex," many people will answer. They believe that the forbidden fruit in the garden of Eden was a symbol of sexual relations and that Adam and Eve sinned by committing a sexual act.

The idea is not new. According to historian Elaine Pagels, "the claim that Adam and Eve's sin was to engage in sexual intercourse" was "common among such [second-century] Christian teachers as Tatian the Syrian, who taught that the fruit of the tree of knowledge conveyed *carnal* knowledge." Also, to Christendom's Church Father Augustine of the fifth century C.E., sin had its beginnings in sexual desire on Adam's part. In fact, *Psychology Today* said "Adam's sin was carnal knowledge."

Others have taken the position that the tree of knowledge of good and bad represented knowledge itself. The *Encyclopædia Britannica* asserts that the "knowledge of good and evil" was "a classic expression for all knowledge." That would mean that God wanted Adam and Eve to be ignorant and that they rebelled against him by seeking to expand their knowledge.

Both interpretations certainly paint a picture of an unfair and capricious Creator. Why would he create man with both sexual and intellectual needs and then allow him no means of fulfilling those desires without incurring a death penalty? Who would feel drawn to love and serve such a God?

Was Sex the Original Sin?

Many do not know that both these interpretations flatly contradict the context of the Genesis account. Let's consider first the idea that God's prohibition in Eden was really one against sexual relations. The law in question is recorded at Genesis 2: 16, 17: "From every tree of the garden you may eat to satisfaction. But as for the tree of the knowledge of good and bad you must not eat from it, for in the day you eat from it you will positively die."

Was that really a veiled reference to sex? Well, as recorded at Genesis 1:27, 28, God commanded the man and the woman to "be fruitful and become many and fill the earth." How were Adam and Eve to obey that command without having sexual relations? Are we really to suppose that God gave them a command and



Gustave Doré
Did Adam and Eve commit the original sin by having sexual relations?

then sentenced them to death for trying to obey it?

Besides, the Genesis account shows that Adam and Eve sinned separately, not simultaneously. Chapter 3, verse 6, makes it clear that Eve was seduced to eat of the fruit first and that "afterward she gave some also to her husband when with her and he began eating it." So eating of the forbidden fruit would make an inept and farfetched symbol of sexual intercourse.

Was It Knowledge?

What about the claim that the forbidden fruit was a symbol of all knowledge? Actually, both Adam and Eve had already taken in plenty of knowledge before they disobeyed the law at Genesis 2:16, 17. Their Creator, Jehovah himself, was directly involved in their education. For instance, he brought all animals and birds to the man for him to name them. (Genesis 2:19, 20) No doubt Adam would have had to study each one carefully in order to give it an appropriate name. What an education in zoology! Eve, although created later, was also not ignorant. When questioned by the serpent, she showed that she had been educated in God's law. She knew the difference between right and wrong, and she even knew the consequences of wrong actions.—Genesis 3:2, 3.

Interpretation of original sin as either sex or knowledge is just that—human interpretation, nothing more. Its weakness is shown up by the question of the faithful man Joseph: "Do not interpretations belong to God?" (Genesis 40:8) The Bible is much easier to understand when we do not impose human ideas on it but, rather, let it interpret itself. What, then, was the original sin? Well, the Genesis account gives us every reason to be-

lieve that the tree of knowledge of good and bad was an actual tree. We are told where it was in the garden, and it is spoken of in relation to the other trees. Its fruit was real, and Adam and Eve actually ate the fruit.

Was It Disobedience?

By eating of that fruit, what were they doing? The *New Catholic Encyclopedia* timidly suggests: "It could have been, simply, an open defiance of God, an insolent refusal to obey Him." Is that not what Genesis clearly says? Romans 5:19 confirms the point: "By one man's disobedience many were made sinners." (*The New Jerusalem Bible*) The original sin was an act of disobedience.

While a sin of disobedience may seem simple on the surface, consider its profound implications. A footnote in *The New Jerusalem Bible* puts it this way: "It [the knowledge of good and bad] is the power of deciding for himself what is good and what is evil and of acting accordingly, a claim to complete moral independence . . . The first sin was an attack on God's sovereignty." Yes, "the tree of the knowledge of good and bad" symbolized God's prerogative to set the standards for man as to what is approved or what is condemned. By refusing to obey God's law, man was calling into question God's very right to rule over him. Jehovah justly answered the challenge by allowing man to rule himself. Wouldn't you agree that the results have been disastrous?—Deuteronomy 32:5; Ecclesiastes 8:9.

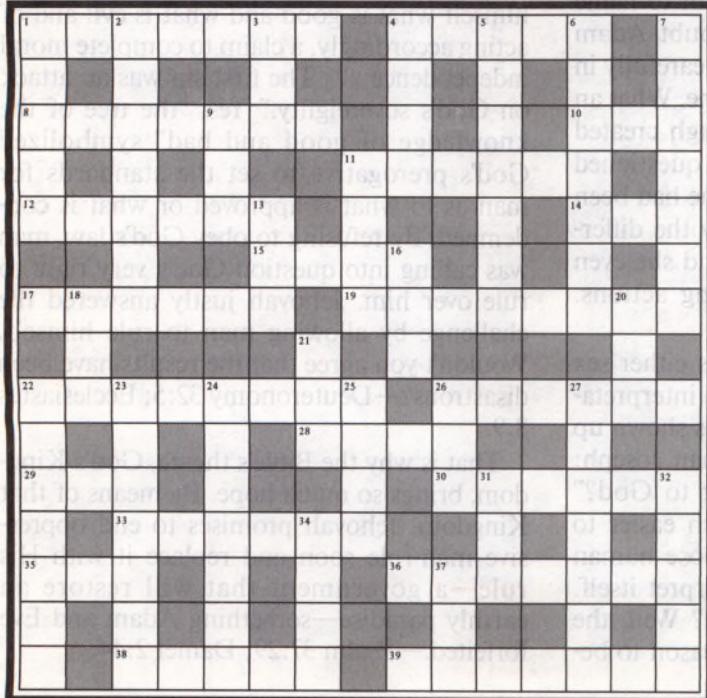
That is why the Bible's theme, God's Kingdom, brings so much hope. By means of that Kingdom, Jehovah promises to end oppressive man-rule soon and replace it with His rule—a government that will restore an earthly paradise—something Adam and Eve forfeited.—Psalm 37:29; Daniel 2:44.

CROSSWORD PUZZLE

Clues Across

1. A Levite musician who accompanied the ark of the covenant when it was moved to Jerusalem (1 Chronicles 15:18)
4. Where the prophet Amos raised sheep (Amos 1:1)
8. Paul passed through this region twice on his first missionary tour (Acts 14:24)
10. The place to which the neighborly Samaritan took the injured man (Luke 10:33-36)
11. "Let us stay awake and keep our -----" (1 Thessalonians 5:6)
12. Inactive in death (Psalm 13:3)
14. A son of Zophah from the tribe of Asher (1 Chronicles 7:36, 37, 40)
15. Likewise (Acts 10:26)
17. His grandfather was Seir the Horite, one of the original inhabitants of Seir, which was

CROSSWORD SOLUTIONS PAGE 27



- later taken over by Esau's descendants (Genesis 36:20, 21, 26)
19. Solomon placed him in charge of "those conscripted for forced labor" (1 Kings 5:14)
22. Nebuchadnezzar appointed him governor of the Jews remaining in the land after the destruction of Jerusalem (2 Kings 25:22)
26. One of the metals first known (Genesis 4:22)
28. "The August One" to whom Paul appealed (See Acts 25:25.)
29. The first good king of the southern kingdom of Judah (1 Kings 15:9-11)
30. Lures (See Luke 4:2.)
33. The title of "the August One" in 28 across (Acts 25:21)
35. A tree included as part of the "glory of Lebanon" (Isaiah 60:13)
36. A place mentioned in the flight of the Midianites as they were pursued by Gideon's forces (Judges 7:22)

38. Satan's location during Christ's Thousand Year Reign (Revelation 20:1-3)
39. Sins are likened to this color (Isaiah 1:18)

Clues Down

1. The place from which Jonah attempted to flee to Tarshish (Jonah 1:3)
2. His hair weighed five pounds when cut annually (2 Samuel 14:25, 26)
3. "My God" (Mark 15:34)
4. This ancient city had two parts (Amos 1:10)
5. Especially a male relative (Ruth 2:1)
6. The second son of Shammai, a descendant of Judah (1 Chronicles 2:28)
7. God's ----- will stand forever (Daniel 2:44)
9. What God warned would positively happen to Adam if he disobeyed (Genesis 2:17)
11. Another name for Shushan (Ezra 4:9)
13. The container in which Tamar baked "the bread of consolation" for Amnon (2 Samuel 13:6-9)
16. Peculiar
18. The last of God's earthly creative works (Genesis 2:1, 2, 22; 3:20)
20. The time one has lived (Judges 8:32)
21. Prohibition (Ezra 10:8)
22. A food storehouse (See Jeremiah 50:26.)
23. A Greek silver coin (Luke 15:8)
24. Freedom (Isaiah 61:1)
25. Listen (Revelation 2:7)
26. A small bed (Acts 9:33)
27. Material used to make the ark for Moses (Exodus 2:3)
31. What Malchus lost when Peter struck him with the sword (John 18:10)
32. Because of news of this King's defeat, the Gibeonites made peace with Israel (Joshua 9:10)
34. One of Jesus' ancestors (Luke 3:25)
37. Go astray (See 1 Kings 8:47.)



Am I Ready to Get Baptized?

Dear Watchtower Society:

My name is Sharon and I'm 13 years old. I have been wondering if I am ready for baptism. I think I am, but I'm still not sure. I'm sure this is also on the minds of other young Christians. Could you please write an article to help set me straight?

SHARON is right. Baptism is indeed on the minds of many God-fearing youths. Among Jehovah's Witnesses, youths recognize that they must make their own decision to serve God, that their parents cannot make the decision for them. They also appreciate that Jesus Christ commanded his followers to symbolize their dedication to God by water baptism.—Matthew 28:19, 20.

To make public declaration as a dedicated servant of God is a great responsibility. Certainly you would not want to rush into it simply to please your friends or parents. Furthermore, no one should coerce you into baptism. (Psalm 110:3) However, Jesus did advise all to "calculate the expense" of being his disciple. (Luke 14:28) This does not mean that you should weigh whether you want to become Christ's disciple or not. Clearly, this is the right thing to do. You should, though, be fully aware of what being a Witness of Jehovah involves.* Next, you should determine whether

you are really ready to take on this responsibility.—Compare Proverbs 20:25.

'Am I Old Enough?'

As teenagers get older, they often feel that they have a right to enjoy certain privileges and responsibilities. They are quick to insist on driving the family car, to plead for permission to have after-school jobs, to want their own spending money. But when it comes to baptism, many youths excuse themselves as being too young or not ready for that responsibility. A youth named Andre observes: "A lot of youths wait until they are 17 or 18 to get baptized, which is a little old." Why? "Because long before that they're old enough to make other decisions for themselves."

Yes, the mere fact that you are a teenager is no excuse to 'limp upon two different opinions,' nor is it a valid reason to refrain from taking a stand as a Christian. (1 Kings 18:21) "Remember, now, your Grand Creator in the days of your young manhood," exhorts the Bible. (Ecclesiastes 12:1) The prophet Samuel was one who began serving Jehovah at a very tender age. (1 Samuel 3:1-18; 12:2) The psalmist David could likewise say: "You are my hope, O Sovereign Lord Jehovah, my confidence from my youth."—Psalm 71:5.

Similarly, thousands of Christian youths today—including some preteen-agers—have proved themselves responsible enough to

* See "Should I Get Baptized?" in the March 22, 1990, issue of *Awake!*

make a dedication to serve God. Granted, some teenagers lack seriousness and are too irresponsible and emotionally immature to make as far-reaching a decision as baptism. (Proverbs 22:15) But is this really true in your case? (Your parents will undoubtedly have much to say in this regard.) God hardly expects a teenager to have the maturity of a 40-year-old. He well knows that you are subject to "the desires incidental to youth." (2 Timothy 2:22) But if you are old enough to be reasonably serious and responsible, then you are most likely old enough to consider making a dedication. However, there are other questions you should ask yourself.

'Have I Taken in Sufficient Knowledge?'

The book *The Adolescent*, by F. Philip Rice, observes that "a shallow, naive concept of religion will not often stand up under attack and trial." Yet, Mr. Rice notes: "There are some indications that today's youths are woefully uninformed. A study of the Biblical knowledge of Protestant and Jewish university sophomore students revealed real ignorance of the Old and New Testaments."

This should not be true of one getting baptized. One must first 'take in knowledge' in order to be a disciple, or taught one. (John 17:3; Matthew 28:19) So would it not be reasonable to expect that before getting baptized, you know at least "the elementary

Many young people qualify for baptism. Do you?

things of the sacred pronouncements of God"? (Hebrews 5:12) That would include knowing what the Bible teaches on such matters as the soul, the condition of the dead, the sanctification of God's name, the Kingdom, and the ransom.

True, you are bound to know something about the Bible simply by virtue of having accompanied your parents to Christian meetings. But knowledge gained that way may be superficial and is not likely to "stand up under attack and trial." You must be able to give others a "reason for the hope in you."—1 Peter 3:15.

Terry says that she believed the Bible's truths. Yet she confesses: "I had never satisfied myself by asking my own questions and then answering them. Recently, I began to do this." The result of such a program of Bible study? "My faith is increasing, and I now find



I'm able to talk to people with real *conviction*. I tell all Witness youths not to be afraid to ask themselves if this is the truth. *Find out!* Research, study. 'Make sure of all things.' Then you'll be able to dedicate yourself wholeheartedly to Jehovah."—1 Thessalonians 5:21.

"Doers of the Word"

We must, however, be "doers of the word, and not hearers only." (James 1:22) You cannot present yourself for baptism and be one who 'hides what he is' by concealing serious wrongs. (Psalm 26:4) Such wrongs would include sexual immorality, drunkenness, drug abuse, or any of the sins mentioned at 1 Corinthians 6:9, 10. If you have had problems along these lines, why not arrange with your parents to talk with some Christian elders? Be assured that kindly assistance will be given you.—James 5:14, 15.

It may also be that some changes are needed in the way you treat your parents or view counsel coming from Christian elders, even in the way you choose friends. (Proverbs 6:20; 13:20; 1 Corinthians 15:33; Hebrews 13:17) It may not be easy to make such changes, but Proverbs 11:19 reminds us: "The one firmly standing for righteousness is in line for life, but the one chasing after what is bad is in line for his own death."

Does Jehovah require that you be perfect? Not at all. "Who can say: 'I have cleansed my heart; I have become pure from my sin?'" asks Proverbs 20:9. Being imperfect, we are still prone to make mistakes. But because of Christ's ransom, we can remain in good standing with God. (1 John 2:1, 2) For example, a youth putting up a hard fight against a bad habit, such as the unclean practice of masturbation, need not feel that he or she is necessarily disqualified for baptism.* Indeed, by strenuously resisting unrighteousness, one

* See chapters 25, 26 of the book *Questions Young People Ask—Answers That Work*, published by the Watchtower Bible and Tract Society of New York, Inc.

can make Jehovah's heart rejoice!—Proverbs 27:11.

'Have I Made God My Friend?'

Perhaps the most critical question, though, involves your relationship with God. Remember: You dedicate yourself, not to a work or to a cause, or even to an organization, but to God himself. Does God seem abstract, distant? Or have you come to know and love him as a *Person*? (Exodus 34:6, 7) If so, you will find yourself talking to him often, not mechanically, but from the heart.—Psalm 62:8.

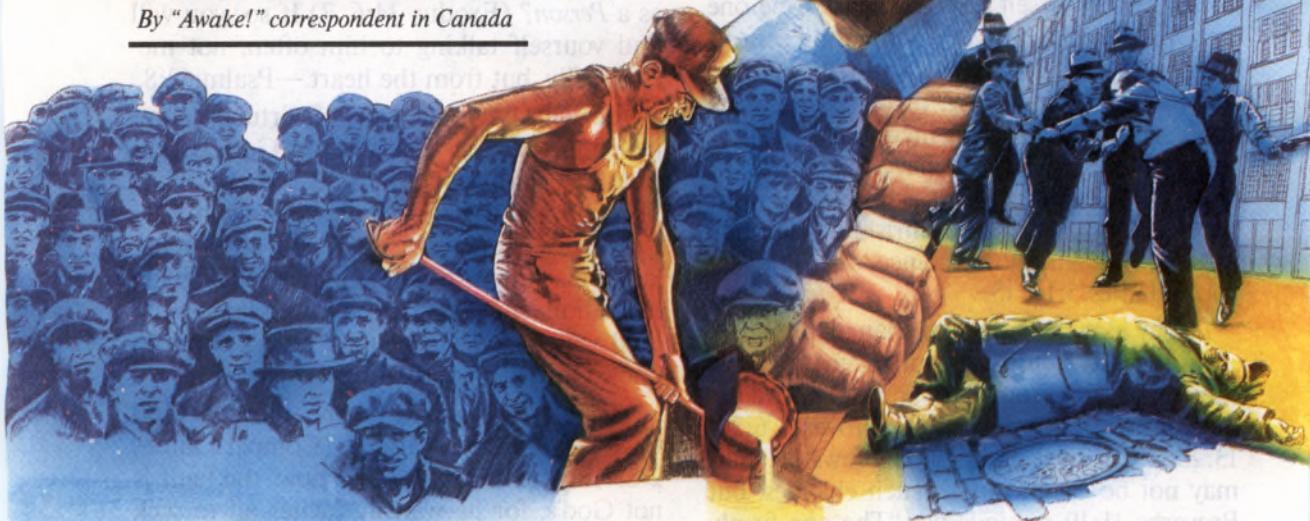
You will also find yourself virtually compelled to speak to others about God. (Compare 2 Corinthians 5:14.) Says Proverbs 15:7: "The lips of the wise ones keep scattering knowledge about." Are you doing so by regularly preaching to others? Or are you allowing recreation, entertainment, or even laziness to hold you back from helping others come to know God?—Proverbs 19:24.

Yes, for baptism to be meaningful, God must be your closest friend. (Compare James 2:23.) If this is not the case now, the fault is not God's, for he warmly invites all to seek him. (Acts 17:27) And by persisting in personal study, prayer, and association with his people, you will in time come to feel closer to God. (Romans 12:12; 1 Timothy 4:15; Hebrews 10:24, 25) Baptism will be the natural result of such a 'drawing close to God.' —James 4:8.

Consider, for example, a young girl named Cindy. She writes: "At the age of 14 I was baptized. I know how it is to be reluctant about doing so. But I want to say that it is the most wonderful thing you could do. Imagine, knowing that Jehovah has approved of you and that 'he will never leave you nor forsake you!' (Hebrews 13:5) If anyone was to ask me if he should dedicate himself to Jehovah, I would say yes! But don't do it to please someone else. Do it because you want to."

Where is the LABOR MOVEMENT HEADED?

By "Awake!" correspondent in Canada



WEALTH accumulates, and men decay," observed a poet. Yet, many are attracted by the lure of perpetually increasing material riches. That is why capitalism emerged in the Middle Ages.

Workers realized that, for many, a decay in the quality of life often accompanied capitalism. To protect themselves, they formed unions. Wherever capitalism flourished, the labor movement developed.

However, critics and even some supporters express concern that organized labor may be in decay. Columnist Anthony Westell charges: "The labor movement lives in the past, unable or unwilling to change." *The Economist*, under

the heading "Dwindling Band of Brothers," notes that British trade union membership declined by "at least two million" in five years. University of Illinois professor Adolf Sturmthal writes of a "crisis in the international labor movement."

Statistics seem to support their findings. The *Japan Quarterly* reported a decline of Japan's union workers from 32 percent in 1960 to 29 percent in 1984 and in the United States from 33 percent to 19 percent. While Britain and West Germany claimed increases, *The German Tribune* said that "the picture is not as rosy as the figures might indicate." It noted a loss of commitment by members and increases in nonunionized sectors of the economy. Australian trade-union membership, says the *Far Eastern Economic Review*, al-

though at a high of 55 percent, is "gripped by a sense of unease, even crisis."

Problems Within the Labor Movement

To succeed, labor must be in unity. Yet, many labor movements are far from united. *The Times* of London observed that with changes in work attitudes, to present a "single employee viewpoint will be suspect: there patently is none." Australian strikes are often caused by jurisdictional disputes between unions. With unions fighting unions in Canada, trade unionists were reported to be furious at the strong-arm tactics of a United States-based union. More than 400 laid-off workers in Canada accused two unions of "scuttling the . . . deal" that would have saved their jobs.

A second internal problem besetting unions is a lack of commitment. The working class, once mainly blue-collar manual labor, is increasingly clerical, technical, or professional. This white-collar sector "has been traditional-

ly difficult for unions to penetrate," notes *Labour Law and Industrial Relations in Canada*.

For many, membership in a union is a necessity. Take the example of a graduate engineer who joined the staff of a government department. He told *Awake!*: "I was not even told I had joined the union. My name just appeared on the list of members. When a vote to strike was circulated, I had no preference one way or the other, so I abstained."

Corruption or criminal activity contributes to disaffection. In New York City, a major trial of reputed criminal gangs uncovered widespread union involvement. Some Australian unions are reportedly "infested with criminals." Illegal actions during recent Canadian strikes resulted in over 700 arrests, including a provincial political leader.

Problems Beyond Labor Control

Other factors beyond union control frustrate labor leaders. Human society is in

Capitalism

According to one dictionary, capitalism is a system in which "the means of production and distribution are privately owned and operated for profit."

Jakob Fugger, a wealthy merchant of the Middle Ages from Augsburg, Germany, also operated the General Agency of the pope, which collected fees for indulgences. Historian Erich Kahler believes that capitalism originated with Fugger, writing:

"Some modern economists and sociologists have tried to prove that there were traces of capitalism as far back as Babylon. But what they discovered is not capitalism. Capitalism is not

identical with wealth and mobile property, it is not identical with money-making and money-lending, not even with a mere productive investment of property. All this is no capitalism in itself, for all this may serve a life principle, alien to economic aims, it may be done for a human end, a human purpose, for something a human being can enjoy. But here, for the first time, . . . business in itself, money-making in itself, production of goods and heaping up of comforts, assumed such power over man that he spent all of his vitality, his heart, all his present and future, all his *human being*,

in the literal sense of the word, in a restless, a persistently growing and devouring production per se, a production, the final meaning of which he has completely lost and forgotten.

"And this is the beginning of capitalism, which is the rule of capital over man, the rule of the economic function over the human heart. Here begins the autonomy of economy, the restless, boundless progress of exploitation of nature and production of goods which nobody has the leisure or the capacity to enjoy any longer. The consequences of this development are today clearly revealed."—*Man the Measure*.

upheaval. The camaraderie of union members has eroded. One man—49 years a boilermaker and for a time a shop steward—told *Awake!* how little his retirement meant to fellow union members: "On my last day, they passed a hat and gave me \$35. A couple of the men shook my hand, and that was it. Because I was laid off during the depression, I was six months short of 50 years, so I didn't get the usual gold watch!"

To some extent, alienation results from a failure to remain true to historic ideals. Some union business interests have grown into large empires in which the union is the employer. Observes Gerald Stewart of *The Canberra Times*: "Unions lost their moral right to criticize capitalism when they copied its less appealing aspects."

Technological changes and recessions may result in fewer assembly-line positions. *Time* magazine reported a drop in Milwaukee's blue-collar employment from 223,600 in 1979 to 171,300 in 1986. Then, too, newer types of

jobs attract younger people with specific skills. The trade union is not always relevant to this type of individualized worker.

Workers are looking for more than just money. But day-care services, shorter work-weeks, flexible shifts, job sharing, and health plans may benefit only certain categories of workers. It is more difficult for any one organization to appeal to so many interests. And employers often circumvent unions by offering creative benefits directly to employees.

In some countries, political or religious involvement by unions draws criticism from members. They may not want membership dues to be used to support activities with which they do not agree. Canadian courts upheld the right of a member to refuse to pay dues to a union on such grounds.

While the ultimate weapon of the union is the strike, it has been less successful than before. In Canada a provincial justice minister called for the removal of the right of the police to strike, and Quebec passed tough laws

History of the Labor Movement

"Labor movement" is "the term used to designate all of the organized activities of wage earners which have as their purposes the betterment of their own conditions in the present or future."—*The American Peoples Encyclopedia*.

Some claim that the refusal of the Hebrew slaves in Egypt to make bricks without straw was the first laborers' strike, but the Israelites were not wage earners; they were slaves. (Exodus 5:15-18) Similarly, the apostle Paul's sending of Onesimus back to Philemon does not apply to wage earners in that Onesi-

mus was a slave.—Philemon 10-20.

The development of craft guilds, associations of craftsmen who employed laborers and apprentices, of the 14th and 15th centuries paved the way for unions. As early as 1383, according to *The History of Trade Unionism*, hired men "combined against their rulers and governors."

The first labor law in England was the Ordinance of Labourers (1349 or 1350). The Statute of Apprentices (1563) codified labor relations in England for generations. By the 20th century,

most countries relaxed the laws restricting unions.

The I.L.O. (International Labor Organization) was established in 1919 under Article 23 of the Covenant of the League of Nations and still exists. The covenants of the I.L.O. have been adopted into the social legislation of most nations.

Unions are permitted by law in most countries. They may be open-shop unions, in which employees may or may not join on commencing employment, or closed-shop unions, in which membership is mandatory as a condition of employment.

to deal with illegal health-sector walkouts. In the United States, the federal government intervened to disband the air-traffic controllers union when it struck. Other countries, such as Australia, have compulsory arbitration.

Employers have developed strategies for union busting. Several major corporations have undergone a form of bankruptcy to escape burdensome labor contracts. Some sue for harassment, while others band together to present a united front to the union movement.

Adjustments to Survive

In many respects, the needs that originally gave rise to the labor movement no longer exist. Social legislation—prompted by organized labor—now protects children, sets minimum employment standards, and protects collective bargaining. But labor leaders see the power of big business and increasing unemployment in some countries as proof of their continued need.

New generations of labor leaders are rekindling support. Acknowledging that unions are no longer popular with many of the public, one union president says that “the labor leader today is looking more closely at preparation and research,” rather than table-pounding. Their success will require changes in the organization and methods of labor unions.

In certain industries, the labor movement has adapted and survived. Automakers won many concessions from industry unions to increase productivity. New manufacturing plants that reduce labor in favor of robotics have also attracted union support. “There’s concern,” a union official admitted in connection with one such operation, “but there’s also a feeling of accomplishment that our folks played a role.”

Although some unions oppose efforts to reduce the work force, others compromise with management and experiment by job sharing,

or work rotation. The Seafarers International Union of Canada is one example. A trial project provides for units of four men, each of whom, on a rotation schedule, works 90 days at a time and then takes off 30. “The main advantage,” reports Toronto’s *Globe and Mail*, “is that more seamen get work.”

While there have been notable failures in unionizing larger industries, unions still find success among smaller employers. In one Canadian province, only 42 of 704 new units certified during one year employed more than a hundred people. “But the days when unions could add large numbers of members in big chunks are long gone for the most part,” an observer stated.

Clearly, many of the causes of decay in the labor movement, as with the decay of society in general, are beyond human control. Men and women drawn to the labor movement out of a desire for a better world deserve commendation for their sincere efforts to help their fellowman. Right-minded people recognize such endeavors to secure better working conditions. Still, the present state of labor unions gives us one more evidence of well-meaning but merely human institutions that have indeed gone adrift in our critical times.—2 Timothy 3:1-5.

IN OUR NEXT ISSUE

What Prospects for Longer Life?

*Oberammergau’s “Passion Play”
—How Close to the Bible?*

*Faith Helped Me Face
Brain Surgery*

Those Lovely Kofu Crystals

HAVE you ever been fascinated by the beauty of crystal jewelry or carvings? Likely you have. But like most of us, you probably do not know how they are made. For more information about this, let us go to Kofu, Japan, a city northwest of famous Mount Fuji. It is one of the largest gem-producing centers in the world.

First, we'll visit the Lapidary Research Institute, where the staff informs us of archaeological finds indicating that in times past Japanese warriors used crystals to tip their arrows. Some arrow tips may date back to the time of Christ. We also learn of the part that crystals played in religion. The Shinto religion centers around natural objects such as the sun, mountains, trees, and rocks. Anything that was outside the ordinary was a candidate for worship. So when unusual crystals were found, they were preserved in local shrines.

During Japan's feudal era, crystals were rarely bought or sold. But in 1867 Emperor Meiji began to rule and shortly thereafter the feudal system came to an end. With this change, people now mined and sold crystals freely. Kofu's crystal industry was born.

What Are Crystals?

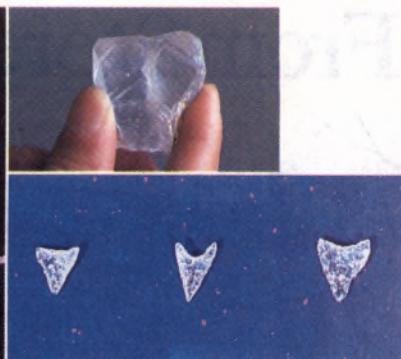
Professor Kenro Tsunoda of Yamanashi University answers: "The word 'crystal' can refer to any solid substance that has a regular, repeating arrangement of atoms. Diamonds, snowflakes, and even common table salt are crystalline in structure."

From where did crystals come? Professor Tsunoda answers: "Quartz crystals are made up of silicon and oxygen, the two most abundant elements in the earth's crust. After the earth's creation, it cooled, and lighter chemical materials floated to the surface. As they hardened, a thin, rocky crust was formed. Hot granitic magma from the earth's interior, however, would at times break

**By Awake!
correspondent
in Japan**



Yamanashi Jewelry Museum



The Shakado Museum of Jomon Culture

through this crust. The result: a volcano. At other times the magma would protrude only enough to cause a mound under the earth's crust." Over the centuries, the continual rise and slow cooling of the hot magma caused a mix of just the right elements, temperatures, and pressures to form clear quartz crystals.

"No matter what their size or shape," continues the professor, "these crystals always have six sides. Their smooth, flat surfaces meet at 60 degree angles and come to a point at the top. Of course, they are not as hard as diamonds, which are formed under far greater heat and pressure. But they do have a hardness of seven on the Mohs' scale of hardness, compared to nine for sapphires and rubies. And they can be quite large."

From Mineral to Masterpiece

Mr. Momose, owner of one of the larger workshops in Kofu, has kindly agreed to show us how crystals are taken in their rough form and made into beautiful gems. "In years past," says Mr. Momose, "most crystals used here were mined in Japan. Now, for economic reasons, there are no mines in operation in Japan. Some 480 tons of crystal are imported each year, mostly from Brazil, with some stones coming from Africa, West Germany, and the United States."

The stones are cut into slices with a Carborundum blade, much as you slice a loaf of bread. Then a foreman traces out on the stone where he will cut each gem. For ease in cutting, the craftsman glues the gems onto a long stick. Then, sitting at a spinning table, he skillfully grinds the facets by hand. He may use oval, brilliant, emerald, or other beautiful cuts. Next, the stones are polished on a revolving table. Each stone has been turned into a masterpiece!

The value and beauty are greatly enhanced when these stones are put into elegant settings by a jeweler. We visit a local jeweler and see a dazzling display of gems. We notice that a great variety of things can be made from crystal: brooches, cuff links, paperweights, tie tacks, pendants. And on the wall are impressive displays of Mount Fuji, colorful birds, and the famous Japanese carp.

Jewelers use gold, platinum, white gold, or silver in seemingly endless ways to set off the natural beauty of the gems. And combining the crystals with precious stones, such as diamonds, greatly increases their splendor and value. But tiny quartz crystals in less glamorous settings now serve as oscillators in watches, televisions, radios, and other electronic devices. And who knows what future use will be found for them? In the meantime, however, we are content to gaze with admiration at their lustrous beauty.

From Storehouses to Stadiums



By *Awake!* correspondent
in Spain

FROM hilltop to seashore, a familiar feature of the landscape of Galicia, northwest Spain, is the *hórreo*. Few Galician homesteads are without one. Usually made of granite or wood and invariably adorned with a cross, the *hórreo* might easily be mistaken for a family burial tomb.

Its purpose, however, is more mundane. It is a small storehouse, or granary, used for keeping corn, potatoes, and other crops dry during the damp winter months. The mushroomlike pillars on which it rests serve to outwit the rodents, who would dearly love to feast on the harvest.

But 30 years ago, one particular *hórreo* in the small village of Xeoane had its cross removed. (See photo above.)

This small storehouse—just 108 square feet—served as the first secret meeting place of Jehovah's Witnesses in Galicia. As many as 23 Witnesses would crowd into this tiny space, arriving and departing under cover of darkness to avoid being arrested during Franco's dictatorship.

Now, about two decades have passed since Jehovah's Witness-

es were granted religious freedom in Spain. Recently, the Witnesses in Galicia held their annual district convention. A regional newspaper, *La Voz de Galicia*, said:

"Just as the early Christians met together in the Roman catacombs to hold their ceremonies, forbidden by the authorities, so the first Jehovah's Witnesses of Galicia, back in the '50's, used an *hórreo*. . . . Now there are 4,000 [Witnesses] in the four Galician provinces. . . . This time, their meeting place—the municipal sports stadium—is more spacious." It was indeed a far cry from that humble *hórreo*! And now, throughout Spain, there are some 80,000 Witnesses in over a thousand congregations!



Large convention in football stadium in Barcelona

The Prostate and Its Problems

DO YOU have prostate problems? If you are a male and over 40, you could very well begin experiencing them. It is estimated that more than half of the North American male population over 60 years of age has prostate enlargement and about 95 percent of those who reach their 80's will suffer from this trouble. But what is this gland called the prostate? Where is it, and what does it do?

Shaped like an inverted pyramid, the prostate lies in the lower abdomen under the bladder. It is peculiar to the male but related in tissue type to the female breast. At the time of birth, it is not much larger than an almond. However, with the onset of puberty, it grows to be as big as a chestnut.

The prostate is made up of a well-muscled capsule within which are found 30 to 50 sac-like glands. These glands produce the prostatic fluid, without which a man would almost certainly be infertile. The tissue within the glands is folded, allowing for expansion and storage as the fluid is produced. After a male reaches puberty, the sacs begin producing a small amount of fluid each day, which is normally voided with the urine if he has no sexual relations.

Not all the prostate's functions are known, but its primary purpose seems to be to produce the fluid that nourishes millions of

sperm cells and provides them with a medium to swim in. Thus, it is vital for a man's fertility. It can, though, also cause him problems as he gets older. What are the signs of prostate trouble, and is there anything sufferers can do?

Warning Signs

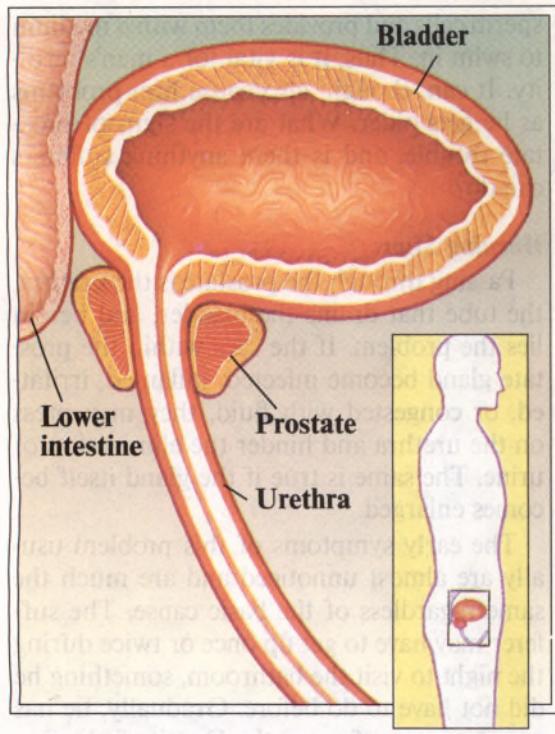
Passing through the prostate is the urethra, the tube that drains the bladder, and herein lies the problem. If the sacs within the prostate gland become infected, inflamed, irritated, or congested with fluid, they may press on the urethra and hinder the elimination of urine. The same is true if the gland itself becomes enlarged.

The early symptoms of this problem usually are almost unnoticed and are much the same regardless of the basic cause. The sufferer may have to get up once or twice during the night to visit the bathroom, something he did not have to do before. Gradually, he has to get up more frequently. Despite feeling an intense need to urinate, the stream is weak and hesitant. He has a feeling of fullness even though he has just been to the bathroom. Now the prostate is making its existence known in a painful, irritating, and sometimes embarrassing way. Understanding why will help men, as well as their wives, to handle the problem.

Prostate Problems

Several different things can cause prostate problems, and we will briefly discuss them one by one:

Prostatitis: This is an inflammation of the prostate gland and may be either infectious or congestive. Bacteria, such as from a venereal disease like gonorrhea or from an infection in another part of the body, could contribute to inflammation in the gland. Such infections occur in any age group after the prostate gland reaches its adult size.



Congestive prostatitis is more perplexing. This condition is linked by some doctors to sexual activity and erotic thought. Dr. Stanley Brosman of the University of California School of Medicine suggests two reasons for this problem: "irregularity of sexual activity" and "inability of the prostate to empty itself during ejaculation." Why the prostate gland does not clear itself remains a mystery, however.

Enlargement: Strangely, as a man grows older, the prostate gland may start to enlarge. Although numerous studies have been made, doctors are still baffled as to why this happens. Some suggest that it is due to changes in the body's hormones. Enlargement may pose no problem for some men. However, as the number of elderly males increases, so does the number of cases of prostate enlargement leading to urination problems.

Cancer: Prostate cancer is among the most common cancers in men. The problem here is that it is seldom detected early. The cancer usually grows slowly, and most men die of other causes before prostatic cancer proves fatal. Essential to locating prostate cancer early is a regular, annual checkup by a doctor, including a rectal examination. With a rubber-gloved finger, the doctor can feel part of the gland and determine if there are any hard, buttonlike nodules, which could mean cancer. If any spots are found, further tests will be performed, including a biopsy, to determine if cancer cells are present.

Treatment

Just as there are a number of causes of prostate problems, there are several methods of treatment.

Medicine: If prostatitis is caused by an infection, antibiotic treatment is usually used. The doctor may also recommend a restricted diet. Dr. Harvey Gordon writes: "I do believe that the irritative symptoms in posterior urethritis are indeed aggravated by the ingestion of alcohol and spicy foods. Moreover, I suspect that coffee may be similarly indicted."

Surgery: Cutting away some of the prostate gland can take the pressure off the urethra. Different surgical procedures are used for this. As long as the nerves behind the prostate are not damaged, a man will remain potent. However, he may be infertile. Why? Surgery on the prostate may damage the sphincter muscle that normally closes at the neck of the bladder. As a result, semen will now follow the course of least resistance into the bladder, where it will be voided with the urine.

Cancer treatment: When cancer is discovered, different forms of treatment are available, depending on the state of growth. No single treatment has proved best, but among those available are hormonal treatment, radi-

ation, and laser or conventional surgery. With surgery the gland is removed, resulting almost invariably in impotence.

Diet: Interestingly, studies have been made that show the prostate to be a major center for the concentration of zinc in the body. When a man's diet is inadequate in zinc, the prostate gland begins to lose this trace element, and some researchers link this with a variety of prostate problems. Many men claim to have found relief for their troubles with the aid of a dietary supplement of zinc.

In discussing this form of treatment, Dr. Monroe Greenberger, a New York urologist, gives sound advice: "To the man who is reaching the age where prostatic problems are most likely to plague him, good diet is essential . . . Although much of the value of zinc, vitamins, and diet to prostatic health is still in the exploratory stage and the statistics are not conclusive, the evidence is convincing enough for me to sit up and listen carefully, and I think others should do the same. However—and this is important in all self-care—never rely *only* on diet, vitamins, or minerals for good health. See your doctor regularly."

—*What Every Man Should Know About His Prostate.*

Bible's Moral Standard a Protection

Good prostate health seems also to relate to the Bible's high moral standard. All males would do well to note two principles in particular:

Faithful to wife: Hebrews 13:4 admonishes: "Let marriage be honorable among all, and the marriage bed be without defilement." Since infection of the prostate gland may be the result of venereal disease, promiscuous sexual activity may lead to prostate trouble as well as other problems.

Guarding one's thoughts: At Matthew 5:28 Jesus Christ counsels: "But I say to you that

everyone that keeps on looking at a woman so as to have a passion for her has already committed adultery with her in his heart." Following Jesus' advice can contribute to good prostate health. How? When passion is aroused in a man, the prostate gland prepares for intercourse. Dr. Brosman writes that repeated episodes of arousal without accompanying ejaculation cause an accumulation of fluid in the prostate and the seminal vesicles and can lead to prostate trouble.

Today, many men seek sexual excitement by reading pornographic or sexually stimulating literature or by watching immoral movies or television programs. How much better to follow the apostle Paul's advice: "Let fornication and uncleanness of every sort or greediness not even be mentioned among you, just as it befits holy people."—Ephesians 5:3; see also Philippians 4:8.

Yes, the prostate is another marvel of our Creator. Without it, there would possibly be no procreation. So out of respect for his own body and God's design, every man ought to take steps to keep his prostate gland healthy.

CROSSWORD SOLUTIONS

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WATCHING THE WORLD

SAD STATE OF AFFAIRS

UNICEF (United Nations International Children's Emergency Fund) predicts a bleak future for children. In its annual State of the World's Children report, UNICEF sees a hundred million children dead from illness and malnutrition during this decade unless \$2.5 thousand million is spent each year on low-cost cures that are now available. How large an outlay is this? It equals the amount spent yearly by U.S. companies on cigarette advertising, reports *The Wall Street Journal*.

SUIT BY AIDS SUFFERERS

Hospitals and medical institutions in Australia are being sued by AIDS sufferers. The victims claim that they contracted the deadly disease because of negligence or lack of sufficient warning of the dangers associated with blood transfusion. In addition, they allege that they were never informed about the availability of treatments that could have been used instead of blood transfusion. Most publicity to date has been given to a 16-year-old hemophiliac who is dying of the killer disease, but another 31 victims have banded together as a group and launched court action. The 16-year-old's statement was read to the Supreme Court. He said in part: "It's like a story book — a story book with the last page ripped out. There's no happy ending."

COMMUNICATION PROBLEMS

Dial Service, a telephone counseling service for children in Japan, says that recently many children who have no pressing problems and want no advice are calling up just to talk to someone about their day.



They choose this alternative to make up for the lack of family conversation, says the service. However, the counselors too have communication problems. "Children hang up when they hear a preaching note in the voice of the counselor," commented a staff member.

DRUG ABUSE TARGET: CHILDREN

■ Drug dealers have targeted schools as the third-best market (after nightclubs and bars) for their deadly trade. "Drug merchants exploit adolescents between 13 and 15 years of age, the period of self-assertion; to introduce them to vice, they appeal to courage, manliness, and fear of isolation from the group," reports the Brazilian newspaper, *O Estado de S.Paulo*. Even teachers and students are among the drug dealers. Be-

cause of the increasing drug abuse, another São Paulo newspaper, *Jornal da Tarde*, gave a warning: "In any country, youths are the most precious asset, and drugs are burning the brains of these young people in the same way that we are burning the forest."

■ Why are children inclined to drug abuse? Psychiatrist Claude Olievenstein, in an interview published in *O Estado de S.Paulo*, comments on some of the causes: "We teach our small children to solve their problems of fear and sleeplessness by using tranquilizers. These children grow up, and when they start having problems, they try to find the solution in drugs." He then pins the blame on the collapse of two formerly stable institutions: "The family is going through great upheavals when it comes to traditional values. At the same time, religion has lost much of its importance, and parental authority has also diminished."

MORE TWINS AND TRIPLETS

Every 50th pregnancy in the Federal Republic of Germany results in the birth of two or more children. Why the rise in the number of twins and triplets? Mainly, say gynecologists, because of modern medical techniques for treating infertility, for example, by means of hormonal regimen and in vitro fertilization. Another reason is that now more women desire to

have a baby later in life, and the probability of multiple births increases. These pregnancies, however, seem to bear higher risks for mother and child.

WALKING GOOD FOR HEALTH

Besides preventing cardiovascular troubles, moderate exercise may have a preventive value against cancer as well, claims Rui Bevilacqua, a professor of oncology at the University of São Paulo, Brazil. Regular walking or other forms of exercise appears to stimulate slow-functioning intestines. Bevilacqua said: "Much of the food we consume is carcinogenic, and if it remains for some time in the intestines, it may cause cancer of the colon." Likewise, Fábio Pileggi, professor of cardiology at the University of São Paulo, believes that walking is the ideal exercise for those who do not engage in sports.

WORLD'S LONGEST TRAIN

On August 26, 1989, a train of 660 fully laden freight cars, 3 other cars, and 16 locomotives, stretched 4.3 miles down the rail tracks. It was on a special 535-mile journey from a South African mining town to a coastal harbor with a load of iron ore sufficient to fill an entire ship. It weighed over 70,000 tons. The preparations for this trip had taken seven years. Normally, three trains are used for this amount of freight. So why the long train? So that it could be entered in the *Guinness Book of Records* as the longest and heaviest train ever run.

CANE-TOAD MENACE

Back in 1932, Australia imported about a hundred cane toads from Latin America to fight the beetle infestation of sugarcane farms. The tactic has apparently done more harm than good. Now, nearly 60 years later, parts of Australia face a virtual plague of cane toads; the prolific females produce up to 40,000 eggs at a time. A four-page color brochure called *101 Ways to Kill a Cane Toad* was designed to



coach citizens in the offensive against this huge toad that secretes a toxic substance fatal to dogs and cats. A Brisbane alderman has organized a "Cane Toad Eradication Campaign." He suggests putting toads in the freezer to kill them humanely: "The cane toads think it's an early winter, go to sleep and never wake up," he says.

HOW SAFE IS "SAFE"?

Because of growing public concern about the potential health risks of relatively low exposures to radiation, toxic chemicals, and pesticides, science has been endeavoring to find a more accurate way to assess what a "safe level" of exposure is. Until now, human risk assessments have been estimations based on tests using laboratory animals exposed to heavy doses of poten-

tial gene-damaging agents. The *International Herald Tribune* reports that a new and more accurate technique has been developed, showing that exposures previously considered safe can cause measurable genetic damage. A measurable increase in the frequency of a certain type of mutant white blood cell is found in people known to have been exposed to gene-damaging agents. Interestingly, they found that smokers have a 50 percent higher frequency of damage to a certain gene than nonsmokers have.

WIGNAPPING

"British barristers and judges have worn wigs since Charles II imported the idea from France in the 1670s," notes *The Wall Street Journal*. "The wigs distinguish barristers from solicitors, lawyers who ordinarily don't appear in court." But now, more and more of the treasured old wigs, which connote experience and wisdom, are disappearing from courtrooms and changing rooms, and it is feared that "most of the culprits may be barristers." The wearing of new wigs, which are made from horsehair, is shunned, as they make a barrister look as if he just came out of school. So those who must obtain one make it look old by using it as a dust mop for a while or by hanging it out in the rain. Meanwhile, desperate requests for the return of missing wigs are found posted in nearly all criminal courts in London, although wigs are rarely recovered. While security is tight for those going into the courts, nobody challenges those walking out.

FROM OUR READERS

Do-It-Yourself Your article (November 8, 1989) was very interesting, but do you realize that the man climbing the extension ladder is using it the wrong way round? This is *very dangerous.*

G. R. H., Britain

Thank you for calling this to our attention. Extension ladders should always have the extension side out—not in, as improperly shown in our photograph.—ED.

Fighting Parents I read the article "Young People Ask . . . What Should I Do if My Parents Fight?" (December 8, 1989) Although I am not so young anymore, I can remember how my parents used to fight regularly. The whole family can suffer when parents fight. But I now realize that you increase the suffering if you take sides as I did. Thank you very much for the article.

G. H., Netherlands

Satanism I can only express profound thanks for the article on Satanism. (October 22, 1989) My mother gave a fine outward appearance, and many people thought well of her. However, she was in with a group of people who practiced demonism. I was subjected to such things as sexual abuse and drug abuse. After years of suffering, I even tried to commit suicide. At any rate, I never joined her in satanic practices, and I later became one of Jehovah's Witnesses. This was a great blow to my mother because she realizes there is no greater power than Jehovah God.

A. M., United States

Religious History Having just completed the final article in the series "Religion's

Future in View of Its Past" (December 22, 1989), I simply must write to say how very much I have appreciated the series. What a lot I have learned about Buddhism, Hinduism, Confucianism, and other religions! The development of Christendom up to the present day was particularly interesting. Not only can I clearly see the extent of Christendom's involvement in wars and bloodshed but I am able to recognize more clearly the privilege of having found the true religion.

G. V., Federal Republic of Germany

The concluding article in your series was one of the most beautiful articles I have read in *Awake!* in the almost 40 years I've been reading it. The article was forthright in telling of the 'lying, deceptive, treacherous, and hateful ways that have made false religion ugly in the sight of both God and man.'

M. M., Spain

Ten Ways to Stop Smoking I have smoked for 40 years and have tried to quit by means of acupuncture, hypnosis, and pills of all kinds, so your front-page photo of a skull smoking a cigarette strongly affected me. (July 8, 1989) With the help of prayer, I am going to quit smoking.

B. H., United States

I am almost 15 years old. My teacher asked us to think of ten reasons not to smoke and to come up with ten ideas on how to quit. The *Awake!* articles were very useful to me in that I was the only one that found answers to all the questions. The teacher congratulated me and gave me a good grade.

S. C., France

THAT was a headline in *The Lawyers Weekly*, a Canadian law journal. The accompanying article gave details of a noteworthy decision rendered by the Supreme Court of Nova Scotia, Canada. In that decision, the court affirmed the right of noncustodial parents to expose their children to parental religious beliefs.

The case involved parents who had separated in 1983, with the wife gaining custody of the two children, eight- and ten-year-old boys. The issue in the case arose more recently when the father became one of Jehovah's Witnesses. The mother tried to bar the father from exposing the children to his religion during their visits with him.

In the ruling, Nova Scotia Supreme Court Judge Donald M. Hall declared that although the mother had custody of the children, she could not interfere with the father's exposing the boys to his religious beliefs. Judge Hall said that he was satisfied "beyond any question of doubt, that no harm is coming to the children from their exposure to their father's church, his friends in the church, and the beliefs and practices of the church."

Judge Hall added: "It seems to me that the values and basic teachings of the church will be of assistance to the children in establishing for themselves proper standards of values and standards of conduct as they mature."

The Lawyers Weekly noted: "Both Mr. Pole [a lawyer for the father] and John M. Burns, of W. Glen How & Associates in Georgetown, Ont., a firm which represents Jehovah's Witnesses across the country, charge that it is 'completely unethical' for lawyers to use religious beliefs against parents in child custody and access proceedings."

The Supreme Court of Nova Scotia agreed, for Judge Hall stated: "It is inappropriate to call into question a person's beliefs in a proceeding such as this except for very strong reasons, and it indeed may be unconstitutional." The decision followed a similar ruling in favor of Jehovah's Witnesses by an Ontario court a few months previously.

"Exposing Kids to Parent's Religion Desirable"



Design Regions Describe Friends Kids to Playground

"If we can't imagine because we feel embarrassed in 1885, with the old people of the time in the middle, we can't imagine it now," says Nova Scotia's Honorary Constable Judge Dona M. Hall, describing just what it means to be a mother past century. "It's difficult to see how things will fit into the past or the future," says Hall, 52, who has been a mother to four children, "but I'm still trying to pass on the love of design to my own children, my nieces and nephews, and the people in the community, and the people who are part of the town and the province." Hall adds, "I think it's important to keep the tradition of craftsmanship alive, and to keep the tradition of family alive."

At the same time, Nova Scotia's Honorary Constable Judge Dona M. Hall, 52, describes just what it means to be a mother past century. "It's difficult to see how things will fit into the past or the future," says Hall, 52, who has been a mother to four children, "but I'm still trying to pass on the love of craftsmanship alive, and to keep the tradition of family alive."

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