

Awake!

July 22, 2000

SPIRITISM Helpful or Harmful?





Average Printing 20,381,000

SPIRITISM HELPFUL OR HARMFUL? 3-8

Why have so many people worldwide turned to spiritism? Is it dangerous? If so, how can you protect yourself?

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What are the physical, mental, and emotional effects of this disease that strikes many women?



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Photo: Commander John Bortniak, NOAA Corps

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WHY THE WIDESPREAD INTEREST IN SPIRITISM?

Spiritism has been defined as the "belief that a spirit part of humans survives death of the physical body and can communicate with the living, usually through a person who serves as a medium."

IN 1998 a book explaining how to contact the dead became so popular in the United States that it quickly reached the top of the *New York Times* best-seller list.

A few years ago in Moscow, psychics and spiritistic séances became the rage with politicians and businessmen, who paid high prices for consultations.

In Brazil, television soap operas featuring spiritism draw large numbers of viewers.

For many people living in Africa or Asia, practicing spiritism is as common as bartering in the marketplace.

Why So Many Turn to Spiritism

Many turn to spiritism to find comfort after the death of loved ones. Through spirit mediums they may receive special information that seems to come from the dead. As a result, such bereaved ones are often convinced that their dead loved ones are alive and that making contact with the dead will help them to cope with their loss.

Others are attracted to spiritism because they have been told that the spirits will help them to find cures for ailments, escape the grip of poverty, be successful in romantic love, solve marital

Various Forms of Spiritism

The practice of spiritism may consist of consulting a spirit medium, inquiring of the dead, or looking for omens. One popular form of spiritism is divination—attempting to find out about the future or the unknown with the help of spirits. Some forms of divination are astrology, crystal-ball gazing, interpretation of dreams, palmistry, and fortune-telling with the help of tarot cards.



problems, or find employment. And many others turn to spiritism simply out of curiosity.

One more reason, though, why millions of people have turned to spiritism is that they have been taught that spiritism is, as one expert in this field described it, "a supplementary religion" that stands "alongside Christianity." The religious situation in Brazil is a case in point.

Brazil has the largest Roman Catholic population on earth, but as author Sol Bi-

derman puts it, "millions of the faithful light candles at more than one altar and feel [that there is] no discrepancy whatsoever." In fact, Brazil's newsweekly *Veja* reported that 80 percent of those who frequent spiritistic centers in Brazil are baptized Catholics who attend Mass as well. Add to this the fact that even some clergymen participate in spiritistic gatherings, and one can see why many believers think that getting in touch with spirits for comfort and guidance is approved by God. But is it?

WHY YOU SHOULD AVOID SPIRITISM

IF YOU have been taught that some forms of spiritism are ways to contact good spirits, it may surprise you to learn what the Bible says about spiritism. For instance, it states: "Do not turn yourselves to the spirit mediums, and do not consult professional foretellers of events, so as to become *unclean* by them."—Leviticus 19:31; 20:6, 27.

The Bible, in fact, describes the one practicing spiritism as "something detestable to Jehovah." (Deuteronomy 18:11, 12) Why? A closer look at what the Bible says about

one major feature of spiritism—claimed communication with the dead—will answer that question.

Are the Dead Alive?

Contrary to what many people think, God's Word, the Bible, teaches that it is not possible for humans to communicate with loved ones who have died. Why not? Well, if anyone is to talk with the dead, the dead must actually be alive. There must be a part of them that survives death. Some claim that the soul lives on when the body dies. Is that true?

Awake!®

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

Awake! (ISSN 0005-237X) is published semimonthly by Watchtower Bible and Tract Society of New York, Inc.; Milton G. Henschel, President; Lyman A. Swingle, Secretary-Treasurer; 25 Columbia Heights, Brooklyn, NY 11201-2483. Periodicals Postage Paid at Brooklyn, N.Y., and at additional mailing offices. **Changes of address** should reach us 30 days before your moving date. Give us your old and new address (if possible, your old address label). **POSTMASTER:** Send address changes to *Awake!*, c/o Watchtower, **Wallkill, NY 12589**.

Vol. 81, No. 14 Printed in U.S.A. © 2000 Watch Tower Bible and Tract Society of Pennsylvania. All rights reserved. Semimonthly ENGLISH

The Bible account of man's creation says: "Jehovah God proceeded to form the man out of dust from the ground and to blow into his nostrils the breath of life, and the man *came to be* a living soul." (Genesis 2:7) Does this not reveal that the person himself *is* a soul and that he does not *have* an immortal soul that lives on after the death of the body? In fact, the Scriptures say: "The soul that is sinning—it itself will die." (Ezekiel 18:4) "The living are conscious that they will die; but as for the dead, they are conscious of nothing at all . . . There is no work nor devising nor knowledge nor wisdom in Sheol," mankind's common grave.—Ecclesiastes 9:5, 10.

So according to the Bible, the soul is not something that survives the death of the body and that living humans can thereafter communicate with. Here are two examples of respected Bible scholars who have reached the conclusion that the soul dies. Canadian theologian Clark H. Pinnock observed: "This concept [that the human soul is immortal] has influenced theology for a long, long time but it is not biblical. The Bible does not teach

the natural immortality of the soul." Similarly, British scholar John R. W. Stott stated: "The immortality—and therefore indestructibility—of the soul is a Greek not a biblical concept."

Nevertheless, people do receive messages and hear voices that seem to come from the dead. Who, then, are speaking?

According to the Bible, the living cannot communicate with the dead

Communication With Whom?

The Bible relates that an invisible spirit person used a serpent, much as a ventriloquist uses a dummy, to communicate with the first woman, Eve, and lead her to rebel against God. (Genesis 3:1-5) The Bible calls this spirit person, or angel, "the original serpent, the one called Devil and Satan, who is misleading the entire inhabited earth." (Revelation 12:9) That one, Satan, succeeded in enticing other angels into rebellion. (Jude 6)

These wicked angels are called demons and are enemies of God.

The Bible shows that demons have the power to influence humans. (Luke 8:26-34) It is no wonder, then, that God's Law says: "There should not be found in you anyone . . . who consults a spirit medium or a

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professional foreteller of events or anyone who inquires of the dead. For everybody doing these things is something detestable to Jehovah." (Deuteronomy 18:10-12) What are the risks of ignoring this law?

A real-life experience of King Saul of ancient Israel answers that question. Because of fear of his enemies, King Saul sought out a spirit medium. He asked her to contact the dead prophet Samuel. On hearing the spirit medium's description of an old man, Saul assumed this apparition to be Samuel. And what message did Saul receive? Israel would be given into the hands of enemies, and Saul and his sons would be with "Samuel," indicating that they would die. (1 Samuel 28:4-19) What was God's reaction to Saul's decision to consult a spirit medium? The Scriptures tell us: "Saul died for his unfaithfulness . . . and also for asking of a spirit medium to make inquiry." (1 Chronicles 10:13) What a high price to pay!

Likewise today, those involved in spiritism put themselves at grave risk. The Bible warns that "those practicing spiritism" will suffer "the second [or, everlasting] death." (Revelation 21:8; 22:15) Clearly, then, the wise and lifesaving course to take is to avoid spiritism in all its forms.

How to Resist Wicked Spirits

What if you have already become involved in spiritism? Then you will do well to take immediate steps to protect yourself and your family from being harmed by wicked spirits. What steps? To illustrate: How does a person protect his home and family against vermin? After removing them from his house, he rids his house of items that attract the vermin. He seals cracks and reinforces the walls to stop the vermin invasion, and if the vermin plague



I.

Get rid of all objects related to spiritism

persists, he may ask for the help of local authorities to deal with it.

A similar approach can help you to resist wicked spirits and to break free from them. Consider the example of the first-century Christians in Ephesus who practiced spiritism before becoming Christians. After they made up their mind to break free from spiritism, they took three steps to protect themselves against the verminlike attacks of wicked spirits. What did they do?

The First Step

The Bible explains: "Quite a number of those who practiced magical arts brought their books together and burned them up before everybody." (Acts 19:19) By destroying their books on divination, those new Christians set an example for all who wish to resist wicked spirits today. *Get rid of all objects related to spiritism.* This would in-

clude all books, magazines, comic books, videos, posters, material from electronic sources, and music recordings that have spiritistic overtones, as well as amulets or other items worn for "protection."—Deuteronomy 7:25, 26; 1 Corinthians 10:21.

One man in South America who had been steeped in spiritism for decades took this Scriptural advice to heart. "One day," he recalls, "I gathered all my spiritistic belongings in front of my house, grabbed an ax, and chopped them to pieces." Then he burned everything until nothing was left. After that he made good spiritual progress and before long became a zealous minister in one of the congregations of Jehovah's Witnesses.

Yet, that first step is not enough. Why not? Well, even some years after those Christians in Ephesus had destroyed their books on magic, the apostle Paul wrote: "We have a wrestling . . . against the wicked spirit forces." (Ephesians 6:12) The demons had not given up. They were still seeking to gain an advantage. What else did those Christians need to do?

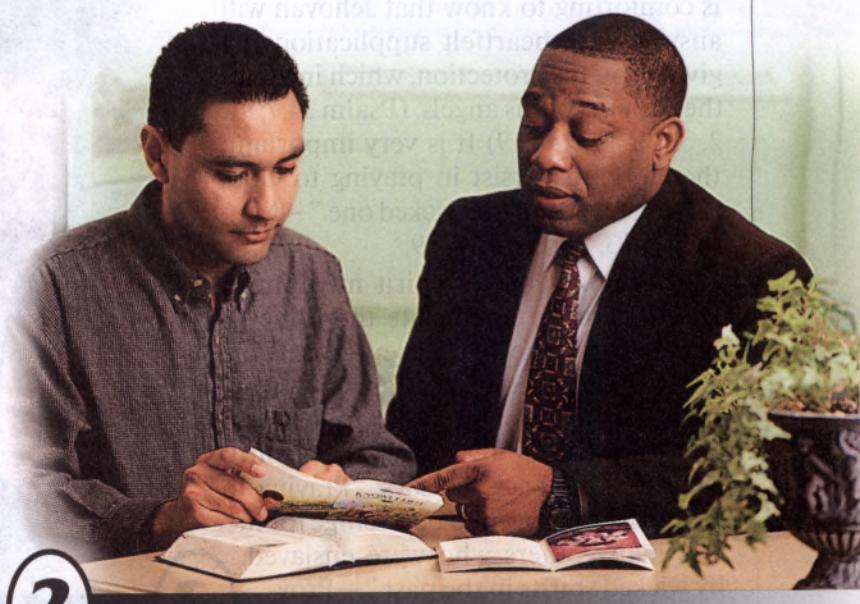
The Second Step

Paul urged the first-century Ephesians: "Put on the complete suit of armor from God that you may be able to stand firm against the crafty acts of the Devil." (Ephesians 6:11, footnote) That advice is still valid today. Much like the person who is trying to keep vermin out of his home, the Christian must fortify his wall-like defenses in order to stay out of the reach of wicked spirits. What does this second step include?

"Above all things," stresses Paul, "take up the large shield of faith, with which you will be able to quench all the wicked one's burning missiles." (Ephesians 6:16) This shield is absolutely necessary. The firmer your faith, the stronger your resistance to wicked spirit forces will be.—Matthew 17:20.

How, then, can you fortify your protective defenses? By *continuing your study of the Bible*. In what way is Bible study related to faith? Well, just as the firmness of a wall depends much on the strength of its foundation, so the firmness of one's faith depends greatly on the strength of its base. What is that base?

Accurate knowledge of God's Word. The apostle Paul explains: "Faith follows the thing heard. In turn the thing heard is through the word about Christ." (Romans 10:17) You are invited to request a free Bible study from one of Jehovah's Witnesses, at a time and location convenient for you. Such a study will fortify your faith. (Romans 1:



2.

Continue to study the Bible

11, 12; Colossians 2:6, 7) The result? Before long your faith will become a bulwark that will serve as a shield against the influence of wicked spirits.—Psalm 91:4; 1 John 5:5.

What is the third step that those Christians in Ephesus had to take?

The Third Step

Back in Ephesus those new believers had taken steps to resist wicked spirits, but those Christians were still living in a city infested with demonism. They needed further protection. So when the apostle Paul wrote to fellow believers, he told them what to do: “With every form of prayer and supplication . . . carry on prayer on every occasion in spirit. And to that end keep awake with all constancy and with supplication in behalf of all the holy ones.”—Ephesians 6:18.

Surely, *praying intensely and constantly* for Jehovah’s protection was, and still is, a decisive step that is necessary for protection against wicked spirits. And it is comforting to know that Jehovah will answer your heartfelt supplications by giving you his protection, which includes the support of his angels. (Psalm 34:7; 91:2, 3, 11, 14; 145:19) It is very important, therefore, to persist in praying to God, “Deliver us from the wicked one.”—Matthew 6:13; 1 John 5:18, 19.

Antônio, a former spirit medium in Brazil, came to appreciate the value of prayer. After he had accepted a Bible study and learned God’s name, Jehovah, he began to pray intensely to Jehovah God for help to break away from spiritism. Looking back, he says: “Praying to Jehovah has proved to be a refuge for me and many others who were enslaved by wicked spirits in the past.”—Proverbs 18:10.

You Can Succeed

It is vital that after coming to know Jehovah, you put full trust in him, submit to his authority, and obey his commands. If you do this, when you call out to him for help, using his personal name, he will give you protection. Antônio received such protection. Today he is a Christian elder in one of the congregations of Jehovah’s Witnesses in São Paulo and is grateful to have found the truth that set him free.—John 8:32.

Like Antônio and thousands of other former spiritists who now serve Jehovah God, you can be successful in breaking free from spiritism. Therefore, get rid of objects related to spiritism, strengthen your faith through Bible study, and pray for Jehovah’s protection. Take these steps—your life depends on it!

3.

Pray intensely and often



My Struggle With ENDOMETRIOSIS

AS TOLD BY DEBORAH ANDREOPoulos



RIIGHT from the beginning, I need to say that I am not the sort of woman who is constantly concerned about her health. I do not get disturbed over minor aches here and there. I try to take life as it is. Some days are good; others are bad.

However, during my teenage years, I began struggling with severe pain. During the difficult days of my menstrual period, I often had biting pain in my ovaries as well as headaches, diarrhea, dizziness, nausea, and lower back pain. Sometimes I would suffer from more than one of these symptoms at a time. I noticed then that exercise and rest helped, but it was hard to find the time.

Pain is a personal thing. You cannot measure it, and you cannot always describe it to others convincingly. Sometimes I would spend whole days in bed, exhausted from the symptoms mentioned above, or I would force myself to get up and follow a more active routine, drugged with painkillers. My ability to work and carry on a normal life was hampered. I was extremely disappointed. I had the feeling that something was not right. But when I had my routine medical checkups, the reassuring words of doctors chased that thought away.

The symptoms worsened as I passed the age of 30. Burning aches came and went for no apparent reason. Severe pain woke me up in the middle of the night. At one point, I slept only a few hours during a whole week. Moreover, I occasionally had a moderate fever for a number of days. I ended up using painkillers for various aches, spasmolytic pills for my bowels, pills for my stomach, and ointments and pills for my back.

A Master of Mimicry

The symptoms tormenting me could be attributed to a number of well-known illnesses. My condition was putting on the appearance of migraine, pelvic adhesions, dysmenorrhea (menstrual cramps), irritable bowel syndrome, colitis, and gastritis. I kept blaming much of the aching on dysmenorrhea, but at the time I did not know that the intensity of dysmenorrhea pain is totally different from what I was experiencing.

I was told that it was common to have difficult periods and pain and that heredity, lack of regular exercise, long hours working at a desk, hormonal problems, fatigue, and stress as well as having passed the age of 30 without giving birth could be factors. One doctor even told me that all my symptoms were a sign of good health!

But what about the other disturbing symptoms? My exhaustion was attributed to hard work and stress. My fever was attributed to fatigue. My bowel pains and stomach disturbances were attributed to stress and bad diet. A problem in the spine and bad posture were blamed for my back pain. So everything seemed to have an explanation. Yet, the fact remained that I was feeling really terrible.

At Last, a Proper Diagnosis

I had an ultrasound in April of 1998, but the results indicated that my ovaries were

clean. During the following four months, my health deteriorated further. I decided to visit a doctor. He ordered an ultrasound again and found something very large outside my uterus. Then he sent me to a gynecologist. The gynecologist confirmed that I had either a very large cyst or a formation of cysts next to my uterus, measuring 4.1 inches by 4.6 inches—as big as if I were four months pregnant! And then he suspected that the cause of my problems was endometriosis.

At first I was perplexed. I knew very little about endometriosis. I had so many questions. What causes it? How would this affect my life? The next feeling that came over me was relief. For many years I had felt as if I were trapped in a tunnel of pain. When after repeated medical exams no soothing therapy or satisfying explanation was provided, I really felt helpless and depressed, and I ended up accusing myself of overreacting to normal, everyday pain. I told myself that the in-

Communicate!

Disease and pain may cause stress in any relationship. Yet, at the same time, they also offer opportunities for growth. When the disease seems unending, the behavior of the afflicted person may be noticeably different. This can present challenges for family members, particularly spouses. Instead of giving up, spouses should try to develop and use their communication skills—being slow to accuse and quick to forgive.

A woman suffering from endometriosis should remember that the entire menstrual cycle is foreign to a man's experience and that her condition may be totally confusing to him. However, if her husband is involved in the entire process of evaluating the problem, he can reach a higher level of understanding. Here are a few tips for the patient.

- Your husband cannot read your mind; tell him how and where you hurt
- Choose a doctor who will educate both you and your husband about endometriosis and who will take extra time if needed
- Tell your husband about changes in the way you feel—including positive changes!
- Ask him to read about the condition



tensity of the pain was only in my imagination. Now, however, all the puzzling symptoms had an explanation.

Causes, and Treatment Options

The doctor suggested that I have surgery within the next few days—the cyst or cysts could burst at any moment. Before proceeding, however, my husband and I decided to examine this diagnosis and learn as

much as we could about the stranger called endometriosis.

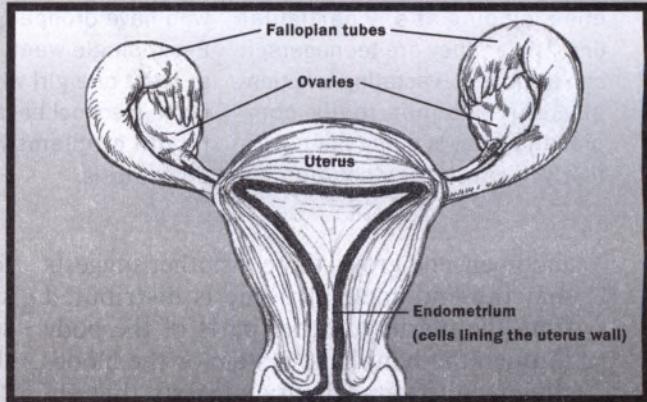
We learned that according to some estimates, up to 30 percent of women of reproductive age may have endometriosis! The cause of endometriosis is not known. One theory is that during menstruation some of the menstrual tissue backs up through the Fallopian tubes, implants itself in the

What Is Endometriosis?

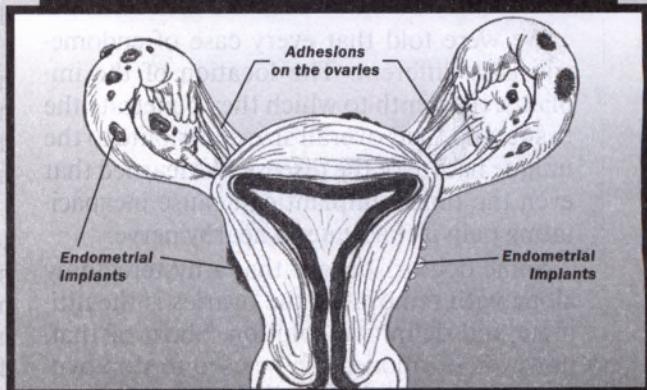
Endometriosis takes its name from the endometrium—the layer of cells lining the uterus (womb). Endometriosis is a condition in which tissue similar to the endometrium appears at various locations outside the uterus. The disease may be found in nearby organs such as the ovaries, the bladder, and the intestine, and in some cases it may be present throughout the pelvic region.

Although endometriosis involves an abnormal growth of tissue, it is usually not cancerous. What makes endometriosis an abnormality is not the tissue itself but its location outside the uterus. Inside the uterus, endometrial tissue helps nourish a developing fetus during pregnancy. In non-pregnant women, it is expelled during menstruation.

However, endometrial tissue outside the uterus has no way of leaving the body. The result is internal bleeding, degeneration of the blood and tissue shed from the implants, inflammation of the surrounding areas, and formation of scar tissue. Some other complications, depending on the location of the implants, can be the formation of adhesions, intestinal bleeding or obstruction, interference with bladder function, and rupture of implants, which can spread the disease. Symptoms may worsen with time, though cycles of remission and recurrence are the pattern in some cases.



Each month, endometrial implants break down and bleed but have no way of being expelled from the body



"SOME WEIRD FEMALE DISEASE"?

To find out more about the mental and emotional effects of endometriosis, *Awake!* spoke with Mary Lou Ballweg, president of the Endometriosis Association, in Milwaukee, Wisconsin. Here is an excerpt from that interview.

Q: What emotional effects does endometriosis have on women?

A: A lot depends on what the disease is doing at any particular time. When they are teenagers, it can be quite devastating emotionally. Girls cannot really comprehend what is going on, particularly because their condition is

usually not diagnosed at that time. They are also very sensitive about these issues. They do not want to talk to their parents about them or to anybody else. So these youngsters may come to believe that they are not as strong or as good as other people. Often they have difficulty keeping up with schoolwork, and their social life suffers. We know of many girls who have dropped out of school. Every single week we hear from at least one girl who is not making it in school because of severe health problems related to endometriosis.

Q: What about married women and older women?

A: Pain may cause havoc in a marriage, particularly if the woman's condition is not diagnosed. Once it is diagnosed, husband and wife can work together because they know what is going on. Then together, hopefully, they can find ways to counteract the effects of the disease. But when a woman's condition is not diagnosed correctly, it is really devastating. We have one woman on our staff here whose doctor told her—in front of her husband—that the symptoms were all in her head. The husband believed the doctor, and now they are divorced. This lack of understanding is a ma-

abdomen, and grows there. Another suggests that the endometrial tissue is distributed from the uterus to other parts of the body through the lymphatic system or the bloodstream. A genetic theory suggests that endometriosis may be carried in the genes of certain families or that certain women may have factors predisposing them to it. Others blame toxins and dioxins in our polluted environment.

We were told that every case of endometriosis is different. The location of the implants, the depth to which they penetrate the tissue, and their overall size contribute to the unique nature of the disease. We learned that even the tiniest implant can cause incapacitating pain if it irritates a nearby nerve.

Some doctors believe that a hysterectomy along with removal of the ovaries is the ultimate and definitive solution. Short of that, however, hormones can be used to stop ovulation for as long as possible. This can sometimes force endometriosis into remission during the time of treatment and sometimes

for months or years afterward. Conservative surgery, either major or through the laparoscope, involving removal or destruction of the growths is also recommended in some cases, and this can relieve symptoms.

Surgery and Recurrence

This last option seemed to be the most appropriate for my case. After the cysts were surgically removed, I was surprised when my doctor told me that the operation would not correct all my health problems. He said that hope and acceptance would be needed for me to continue to live life as fully as possible despite future setbacks. He assured me that he would be available to help me at any time.

The doctor said that I should have an ultrasound examination of my ovaries every three months and that I should be prepared to take medication from time to time, depending on my condition. He recommended that I immediately start treatment with gonadotropin-releasing hormone. This basically stopped the release of hormones that stimulate ovarian function and put me into a pseudo meno-

jor challenge. If you go home and tell your family that you have some chronic disease, such as multiple sclerosis, you are likely going to get some sympathy and support. But if you go home and tell them that you have endometriosis—well, what is that? To them it is some weird female disease that nobody even wants to talk about. You may not get any support at all.

Q: What kind of support do you think husbands, children, and parents can give to a woman who has endometriosis?

A: First of all, I think they need to believe the woman and believe what is happening to her. They should try to offer the support

that they would offer if any other kind of health problem came along. A big part of it is to learn everything they can about the disease. Once you know more about the disease, you can understand its effects and you can also understand the side effects of some of the drugs. Moreover, I think

that most of our societies worldwide have created a taboo—they are embarrassed to talk about female biology. This is really sad. So I think that the biggest challenge we face worldwide is probably changing people's attitudes about just what it means to be female.

pause. This drug can be taken for only six months because it could cause a loss in bone density or other changes associated with menopause.

About one and a half months after the completion of the treatment, I felt prickling pain again. I had read about recurrence rates and had tried to prepare myself for the next attack of endometriosis. But I did not expect it to come so soon. The ultrasound showed that I now had a large cyst on my left ovary. I immediately took the recommended medication for a week, and the pain lessened. After some months this cyst was gone. A year later, though, another cyst appeared. At any rate, for the rest of my life, I will have to be on the alert and under a doctor's care.

Since endometriosis is a hormonal and immune system disease, there are other things besides medication that help my body find its balance. I have had to adjust my diet by including more fresh vegetables and plenty of fruits as well as vitamins and reducing my caffeine intake. I exercise more, and I devote

more time to rest. All of this has helped me to reduce the side effects of the medication and make my body stronger.

During this ordeal, I have cherished the compassionate support and loving understanding of my husband. Additionally, my coworkers—all volunteers at the Greece branch of the Watch Tower Society—have been supportive, and this has warmed my heart. Above all, I have drawn strength from my personal relationship with Jehovah, the one who "has sustained me upon a divan of illness."—Psalm 41:3.

IN OUR NEXT ISSUE

**Everyday Chemicals
—Are They Making You Sick?**

**Languages—Bridges and Walls
to Communication**

Should Grief Be Expressed?



Mary Lou
Ballweg

THE LAST FRONTIER

BY AWAKE! CORRESPONDENT IN AUSTRALIA

PARTS of Antarctica can get so cold, says one writer, that "if you drop a steel bar it is likely to shatter like glass, . . . and if you haul up a fish through a hole in the ice within five seconds it is frozen . . . solid." Because of its extreme conditions and its surreal, naked beauty—at times complemented by breathtaking displays of the southern lights—Antarctica could pass for another world.

But Antarctica is very much a part of this world. In fact, it has been likened to a vast natural laboratory for studying the earth and its atmosphere as well as global environmental changes, including those related to human activities. It is in relation to these studies that scientists are becoming increasingly

Like Visiting Mars!

As you venture into Antarctica's interior, you see fewer and fewer signs of life, especially when you reach the areas called dry valleys. Covering some 1,000 square miles, these polar deserts are mostly set high in the Transantarctic Mountains—a chain of ranges spanning the continent and rising in places to over 14,000 feet. Icy gales whistle through the dry valleys and quickly whip away any snow that might fall. Scientists believe these valleys to be the nearest earthly equivalent to the surface of Mars. Hence, they were deemed a suitable venue for testing space equipment before launching the Viking mission to Mars.

Yet, even the dry valleys host life! Inside porous rocks, in tiny air pockets, live exception-

A N T A R C T I C A

concerned. They have observed ominous new phenomena in the South Polar Regions, and these suggest that all is not well. But first, let us see why Antarctica is a unique continent.

To begin with, Antarctica—the most isolated continent in the world—is a continent of contradictions. It is supremely beautiful and pristine but brutally inhospitable. It is the windiest, coldest place on earth, yet it is singularly delicate and sensitive. It has less precipitation than any other continent, but its ice represents 70 percent of the planet's fresh water. With an average thickness of some 7,100 feet, the ice makes Antarctica earth's highest continent, averaging 7,500 feet above sea level. It is also earth's fifth-largest continent, yet Antarctica has no permanent residents larger than a half-inch wingless midge, a type of fly.

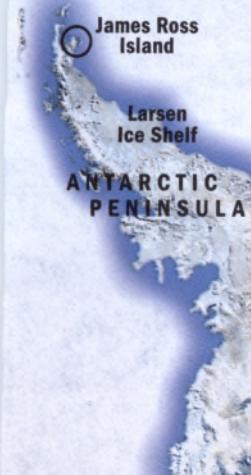
ally hardy forms of bacteria, algae, and fungi. They survive on the barest trace of moisture. Outside, their surreal world is one of stark rock formations called ventifacts, whose bizarre shape and high sheen are the result of countless centuries of Antarctica's unremitting winds.

Named Before It Was Discovered

Speculation about a giant southern landmass goes way back to the ancient Greek philosophers. Aristotle, for one, postulated the need for a southern continent to counterbalance lands known to exist in the Northern Hemisphere. The book *Antarctica—Great Stories From the Frozen Continent* says that "as the northern hemisphere lay under the constellation of *Arktos*, the Bear, so, Aristotle (384–322 BC) reasoned, the unknown land to the south must be *Antarktikos*—in other words, the

ATLANTIC OCEAN

Drake Passage



ANTARCTIC PENINSULA

▲ Vinson Massif
(the tallest mountain,
16,066 feet)

TRANSANTARCTIC MOUNTAINS

The lowest temperature ever recorded on earth was in Antarctica —minus 128.6 degrees Fahrenheit

Ross
Ice
Shelf

Mt. Erebus
(an active
volcano)

+ South Pole

INDIAN OCEAN

0 500 miles
500 km
U.S. Geological Survey

C T I C A

PACIFIC OCEAN

POLES APART

Though they have similarities, the North Pole and the South Pole are 'poles apart' in more ways than location. Consider the following.

The immediate North Pole region is all ice and sea, whereas the South Pole is near the center of earth's fifth-largest continent.

The North Pole is hemmed in by the populated landmasses of America, Asia, and

Europe, whereas Antarctica is surrounded by a vast ocean. Indeed, the most tempestuous one on the planet.

Tens of thousands of families live within the Arctic Circle, which is also home to thousands of plants and animals. However, not one human calls Antarctica home. The only indigenous life forms are algae, bacteria, mosses, lichens, two species of flowering plants, and a few species of insects.

"Antarctica has been called the pulsating continent," says the *Encyclopædia Britannica*, "because of the annual buildup and retreat of its secondary ice-fronted coastline." At its peak, the ice pack expands up to 1,000 miles out to sea. This expansion and contraction is six times that of the Arctic ice pack, giving Antarctica a greater influence on global weather.



• Chinstrap penguins gather on a rare blue iceberg

total opposite”—or the antipode. So Antarctica enjoys the distinction of being named, in effect, some 2,000 years before it was discovered!

In 1772, British explorer Captain James Cook sailed south in search of this postulated southern continent. He entered a world of windswept islands and huge icebergs, or “ice islands,” as he called them. “Some of them,” he wrote, were “near two miles in circuit and 60 feet high, and yet the sea broke quite over them, such was the force and the weight of the waves.” Determined, Cook continued south, and on January 17, 1773, his ship, the *Resolution*, and its companion, the *Adventure*, were the first vessels known to cross the Antarctic Cir-

cle. Cook doggedly navigated his way through the pack ice until eventually he was blocked. “I could see nothing to the southward but ice,” he wrote in his log. He was, in fact, just 75 miles from Antarctic soil when he turned back.

So who first saw Antarctica? Indeed, who first set foot on it? To this day nobody is sure. It may even have been whalers or seal hunters, for when Cook returned home, his reports of an abundance of seals, penguins, and whales sent hunters scrambling to this region.

Blood on the Ice

Cook “stumbled upon what was probably the largest congregation of wildlife that exist-



A humpback whale



Southern elephant seals



At the South Pole



The Ross Ice Shelf

ed in the world, and he was the first man to let the world know of its existence," wrote Alan Moorehead in his book *The Fatal Impact*. "For the Antarctic animals," says Moorehead, "[the result] was a holocaust." The book *Antarctica—Great Stories From the Frozen Continent* states: "Towards the end of the eighteenth century, sealing in the southern hemisphere took on all the appearances of a gold rush. The insatiable demands from China and Europe for skins soon cleared all the [previously] known sealing grounds leaving sealers desperate to find new land with unplundered rookeries."

After the sealers had all but killed off their livelihood, whalers began plundering the seas.

"No one will ever know how many whales and seals were killed in the southern ocean," writes Moorehead. "Was it ten million or fifty million? Figures become meaningless; the killing went on and on until there was virtually nothing left to kill."

Nowadays, however, international laws protect all Antarctic flora and fauna. Additionally, an absence of land predators combined with a bountiful marine food supply make the Antarctic coast a summer haven for wildlife. But Antarctica shows signs of a more insidious assault, one that may be beyond the reach of international agreements.

WHAT IS AN ICE SHELF?

High in Antarctica's interior, streams of ice formed by falling snow work their way down toward the coast—some flowing as much as half a mile a year, according to recent satellite radar images. Many of these ice streams merge like tributaries, forming huge rivers of ice. When they reach the sea, these frozen rivers float on the water to form ice shelves, the largest being the Ross Ice Shelf (shown here). Fed by no less than seven ice streams or glaciers, it is the size of France and up to half a mile thick in places.*

Under normal circumstances, ice shelves do not retreat.

As the glaciers feed more ice into the shelf, the outer extremity of the shelf is pushed farther out to sea, like toothpaste being squeezed from a tube. There huge chunks eventually break off (a process called calving), and these chunks become icebergs. Some icebergs are "as huge as 5,000 square miles," says *The World Book Encyclopedia*. In recent years, though, calving has accelerated and ice shelves have retreated, some even disappearing altogether. Even so, this does not raise sea levels. Why not? Because ice shelves are already afloat, displacing their weight in water. But if the ice on the Antarctic main-

land were to melt, it would be like emptying a seven-million-cubic-mile reservoir into the sea! Sea levels would rise some 200 feet!

* Ice shelves are not to be confused with pack ice. Pack ice begins as ice floes that form on the sea during winter when the water surface freezes. These floes then merge to form pack ice. The reverse occurs during summer. Icebergs do not form from pack ice but, rather, from ice shelves.

Tui De Roy

ANTAR

Massive blocks of ice calve off the Ross Ice Shelf. The ice shelf here rises about 200 feet above sea level



A CONTINENT IN TROUBLE

WHEN astronauts view the earth from space, says the book *Antarctica: The Last Continent*, the most distinctive feature of our planet is the ice sheet of Antarctica. It "radiates light like a great white lantern across the bottom of the world," the astronauts reported.

Containing some seven million cubic miles of ice, Antarctica is an ice-manufacturing machine of continental proportions. Snow falls on the continent and packs down to form ice. Gravity forces the ice to flow slowly toward the coast, and there it slips into the sea to form massive ice shelves.—See the box on page 18.

Receding Ice Shelves

In recent years, however, accelerated melting has reduced the size of a number of ice shelves, and some have disappeared altogether. In 1995

(and again in 1998) a massive section of the Larsen Ice Shelf collapsed and broke up into thousands of icebergs, according to one report.

The area that has been affected so far by receding ice is the Antarctic Peninsula. A continuation of the Andes mountain range of South America, this S-shaped peninsula has seen a 4.5-degree-Fahrenheit rise in temperature over the past 50 years. As a result, James Ross Island, once enclosed by ice, can now be circumnavigated. Receding ice has also brought about a sharp increase in vegetation.

Because significant melting has occurred only in the region of the Antarctic Peninsula, some scientists are not convinced that it is an indication of global warming. However, according to a Norwegian study, Arctic ice is also in retreat. (Because the North Pole is not situated on a landmass, much Arctic ice is sea ice.) All these changes, according to the study, fit the pattern predicted to occur with global warming.

But Antarctica does more than respond to temperature changes. The continent has been described as "the vital engine which drives much of our global climate." If that is so, then future weather patterns may be affected if the continent continues to undergo changes.

In the meantime, high above Antarctica a hole twice the size of Europe has formed in the atmosphere's ozone layer. Ozone, a form of oxygen, shields the earth from harmful ultraviolet radiation that damages eyes and causes skin cancers. Because of the increase in radiation, researchers in Antarctica must protect their skin from the sun and don goggles

C T I C A

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or sunglasses with special reflective coatings to protect their eyes. Only time will tell to what extent Antarctica's seasonal wildlife is affected.

Delicate Continent—Tread Lightly

The above heading might be a fitting welcome for visitors to Antarctica. Why so? For several reasons, according to the Australian Antarctic Division. First, because of Antarctica's simple ecological relationships, the environment is highly sensitive to disturbances. Second, plants grow so slowly that a footprint in a moss bed may still be visible ten years later. Damaged or weakened plants are at the mercy of Antarctica's high winds, which can destroy whole plant communities. Third, extreme cold means that waste products can take decades to decompose. Fourth, people may inadvertently

bring in microscopic life-forms alien to this isolated, and hence vulnerable, continent. Finally, the places tourists and scientists tend to frequent are the coastal fringes—the areas that are also most favorable for wildlife and vegetation. Because these areas comprise only about 2 percent of the landmass, it is easy to see why Antarctica could soon become overcrowded. That raises the question, Who polices this huge continent?

Who Rules Antarctica?

Although seven countries claim portions of Antarctica, the continent as a whole has the unique distinction of having neither a sovereign nor a citizenry. "Antarctica is the only continent on earth to be completely governed

A Weddell seal pup

Photo: Commander John Bortniak, NOAA Corps

by an international agreement," reports the Australian Antarctic Division.

Called the Antarctic Treaty, the agreement was signed by 12 governments and entered into force on June 23, 1961. Since then, the number of participating nations has grown to over 40. The treaty's objective is "to ensure, in the interest of all mankind, that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord."

In January 1998 the Environmental Protection Protocol to the Antarctic Treaty came into

force. This protocol bans all mining and mineral exploitation in Antarctica for a minimum of 50 years. It also designates the continent and its dependent marine ecosystems as a "natural reserve devoted to peace and science." Military activities, weapons testing, and the disposal of nuclear wastes are prohibited. Even sled dogs are banned.

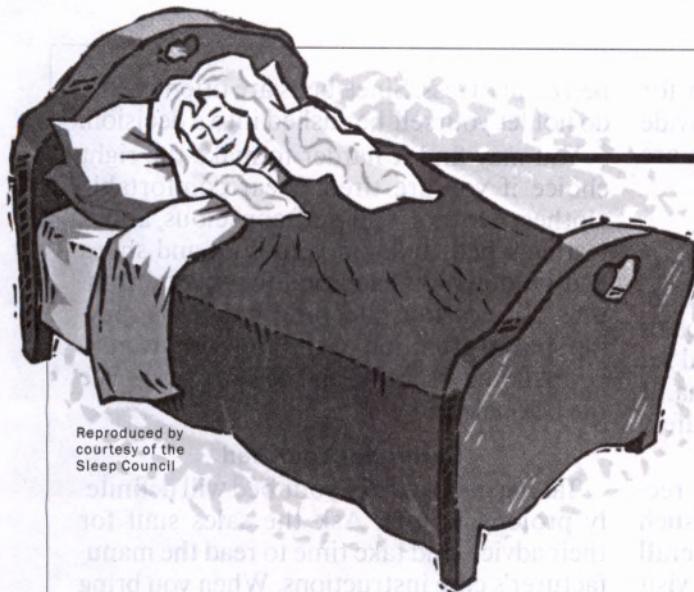
The Antarctic Treaty has been hailed as "an unprecedented example of international cooperation." However, there are still many problems to be resolved, including sovereignty. Who, for instance, will enforce the treaty, and how? And how will the member nations deal with the rapid growth of tourism—a potential threat to Antarctica's delicate ecology?

In recent years over 7,000 ship-borne tourists have visited Antarctica annually, and this figure is expected to double before long.

Other challenges may arise in the future. For instance, what if scientists find valuable mineral or oil deposits? Will the treaty prevent commercial exploitation and the pollution that often follows? Treaties can be changed, and the Antarctic Treaty is no exception. In fact, Article 12 makes provision for the treaty to be "modified or amended at any time by unanimous agreement of the Contracting Parties."

Of course, no treaty is capable of shielding Antarctica from the effluents of the modern, industrialized world. What a pity if the beautiful "white lantern" at the bottom of the globe were to be sullied by the far-reaching effects of human greed and ignorance! To hurt Antarctica is to injure humankind. If Antarctica teaches us anything, it is that the whole earth—like the human body—is an interrelated system, perfectly coordinated by the Creator both to sustain life and to give us enjoyment.





Reproduced by
courtesy of the
Sleep Council

By Awake! correspondent in Britain

Is It Time for a **NEW BED?**

Do you frequently have a restless night, tossing and turning in an effort to find a comfortable position, and then in the morning wake up feeling stiff and sore? If so, the problem could be your bed.

THIS piece of furniture can be your friend or your foe. If you live in a land where beds are used, you likely spend a third of your life resting on one, but your bed will not last forever. Is your present bed serving you well?

Do You Need a New Bed?

A bed will normally give good service for about ten years. A heavier person may wear out a bed more quickly. Bear in mind also that your needs and preferences change as you grow older. To decide whether you need a new bed, ask yourself these questions. 'Do I wake up with a stiff neck or a backache? Is my bed too small? Can I feel any springs or ridges? Do I hear creaks or grinding noises when I move? Do my mate and I find ourselves unintentionally rolling toward each other? Is the base uneven or sagging? Are the legs and casters worn out?' Your answers to these questions may help you to determine whether it is time to buy a new bed.

What Makes a Good Bed?

A good bed gives you comfort and support, suiting your particular needs and pref-

erences. Most beds consist of a mattress and a supporting frame, but the mattress is the key to your comfort. It has several components. First comes the cover, or ticking, which keeps everything together. Then follow layers of padded upholstery to cushion you and allow body moisture to escape. The third section, which provides the support and firmness, usually contains tempered steel coils or springs. There are various forms of interior support, but as a general rule, the more springs there are and the thicker the wire used, the better the support. A popular alternative these days is the polyurethane or latex foam mattress; it is lighter than the spring interior.

However, a good mattress only works well if it has a suitable base, usually the one for which it was designed. A divan bed is often sold as a set, with a mattress and base. Its deep-sided, boxlike foundation acts as a large shock absorber, allowing the mattress to breathe and thus significantly prolonging its life. Another option is the bedstead. It usually has a slatted base and is open

underneath, affording good ventilation for its appropriate mattress. Solid slats provide a firm foundation, while sprung slats are more flexible.

Choosing the Right Bed

What should you keep in mind when buying a bed? A secondhand bed will have absorbed other people's sweat and skin scales and may be full of dust mites that could set off allergic reactions, asthma, or eczema. It also may not conform to health or safety standards.

Before you shop for a new bed, it is recommended that you set your priorities, such as price, health considerations, or overall size. Try to set aside plenty of time to visit stores with a good reputation, and ask for as much information as possible about each

bed or mattress. Since beds are often costly, do not let yourself be rushed into a decision.

You may find it harder to make the right choice if you are tired. Wear comfortable clothes. Do not feel self-conscious about testing a bed. Take off your coat and shoes and lie down on each bed for several minutes. Try various sleeping positions, paying special attention to the support given to your shoulders, hips, and lower back.—See the box below.

Caring for Your Bed

Taking good care of your bed will definitely prolong its life. Ask the sales staff for their advice, and take time to read the manufacturer's care instructions. When you bring your new bed home, take off its polyethylene wrappings as soon as possible. This will

Which Bed Is Right for You?

Comfort and support. A mattress does not have to be as hard as a board to be good for you. In fact, it is thought that too firm a bed might aggravate back problems. Let your body tell you what feels best. Lie down on your back. If you can slide your hand into the hollow of your back so that it fits snugly and if you can turn over easily, the mattress is about the right firmness for you. A supportive mattress should allow your spine to remain in a straight line when you lie on your side. A heavier person will need a firmer bed.

Size. Choose a bed that gives you freedom of movement. If two people will share the bed, keep in mind that two adults sleeping on a standard-size double bed will each have the same amount of space as a baby in a crib.

Matching sets. If possible, buy a mattress and base that match and are designed to work together for your comfort and support. An old base may damage a new mattress as well as affect its guarantee or warranty.

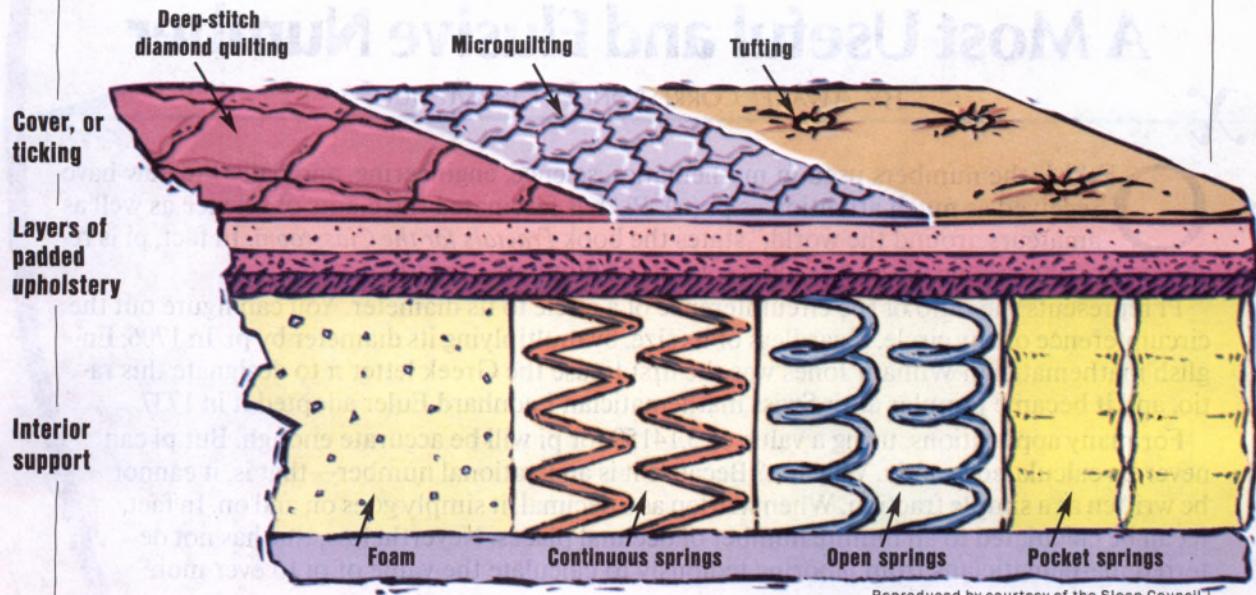
Value. You often get what you pay for, so buy the best quality bed you can afford.

Space. If space is limited, a Murphy, or wall, bed, which folds away into a closet, may be worth considering. Another possibility is a futon, a cushion made from layers of fluffed-up cotton that is quickly rolled out on the floor at night. Futons may also be sold as sofa beds with slatted, convertible frames.

Health problems. If you are uncomfortable in a conventional bed, an adjustable bed offers a range of different sleeping positions. A water bed supports and distributes body weight evenly, and it may help those who suffer discomfort caused by pressure points.

Allergy sufferers. If you are allergic to dust or natural fillings, a mattress containing synthetic fibers or foam may be a good choice. It is also worth noting that allergens do not readily accumulate in a bedstead with a slatted base or in a water bed.

Older people. Make sure that the soles of your feet can touch the floor when you sit on the edge of your bed. A firm-edged base will make it easier for you to get in and out of bed from this sitting position.



Reproduced by courtesy of the Sleep Council

help to prevent condensation, which may cause dampness, mildew, and rotting. Here are a few additional suggestions.

- Turn over a new spring mattress from side to side and from top to toe every week or two for the first few months and every three months thereafter. This will help the fillings settle and will ensure even wear. If you have a back problem, a foam mattress is worth considering, since it may not need regular turning.

- Never bend, roll up, or squash a mattress. To avoid damaging the fabric, use its handles merely to position it, not to support its full weight.

- Each morning throw back your bedcovers for at least 20 minutes to air out your bed and allow body moisture to evaporate.

- Keep your mattress clean by using a washable protective cover. Regularly vacuum both mattress and base to remove fluff and dust, and mop up any stains and spills quickly with a mild soap and cool water.

- Try not to sit in the same place on the edge of the mattress all the time. Do not let children or anyone else jump on the bed.

Your bed is much more than an investment of money. It is an investment in one third of your life—which can have a noticeable effect on the other two thirds. If you choose your supportive friend wisely and look after it, it will take good care of you.

Safety Suggestions

- Wear flame-resistant nightclothes.
- Make sure that bedding is placed well away from fires and heaters.
- Check an electric blanket often for frayed fabric, deep creases, scorch marks, and a worn electrical cord. Never use the blanket when it is wet, but let it dry naturally. Do not put heavy items on the bed when the blanket is switched on.
- Do not fill a hot-water bottle with boiling water, nor use it with an electric blanket. Remove it before a child gets into bed.

A Most Useful and Elusive Number

BY AWAKE! CORRESPONDENT IN MEXICO

X

O F ALL the numbers used in mathematics, science, engineering, and daily life, few have received as much attention as pi (π). Pi "has fascinated the giants of science as well as amateurs around the world," states the book *Fractals for the Classroom*. In fact, pi is regarded by some as one of the five most significant numbers in mathematics.

Pi represents the ratio of the circumference of a circle to its diameter. You can figure out the circumference of any circle, regardless of its size, by multiplying its diameter by pi. In 1706, English mathematician William Jones was the first to use the Greek letter π to designate this ratio, and it became popular after Swiss mathematician Leonhard Euler adopted it in 1737.

For many applications, using a value of 3.14159 for pi will be accurate enough. But pi can never be calculated exactly. Why not? Because it is an irrational number—that is, it cannot be written as a simple fraction. When written as a decimal, it simply goes on and on. In fact, it can be calculated to an infinite number of decimal places. Nevertheless, this has not deterred mathematicians from laboring tediously to calculate the value of pi to ever more decimal places.

It is not known who first realized that pi remains constant regardless of the size of the circle. But an accurate value of the elusive number has been sought since ancient times. The Babylonians approximated pi as $3\frac{1}{8}$ (3.125), and the Egyptians, slightly less accurately, as about 3.16. In the third century B.C.E., Greek mathematician Archimedes made perhaps the first scientific effort to compute it, arriving at a figure of about 3.14. By the year 200 C.E., it had been worked out to the equivalent of 3.1416, a figure that Chinese and Indian mathematicians had independently confirmed by the early sixth century C.E. Today, with the help of powerful computers, pi has been calculated to billions of decimal places. But as useful as pi has proved to be, notes *Fractals for the Classroom*, "it would be hard to find applications in scientific computing, where more than some 20 digits of [pi] are necessary."

Pi shows up in formulas that are used in many fields—physics, electrical and electronic engineering, probability, structural design, and navigation, to name but a few. Just as there is no end to its digits, it seems that there is also no end to the number of practical applications for useful, elusive pi.

y

$x \cdot \pi = y$

3.14159

"When I arrived at the airport, all I wanted to do was go home! . . . I had lost all my thirst for adventure and all my joy of discovery. In a word, I was more homesick than I had ever been before."—Uta.



IT IS a scary feeling to be all by yourself in a foreign land. But as a previous article in this series showed, many youths are choosing to spend some time living abroad. Some go to get an education or to receive special training. Some want to learn a language. Some simply want to earn money. Others, though, have moved to serve in foreign lands where there is a need for Kingdom preachers.

Assuming that you are staying abroad for wise reasons—reasons that take into account your spiritual needs and goals*—what can you do to ensure that your stay will be a success?

Be Determined to Adapt

First, you must be willing to adapt. That does not mean abandoning Christian principles or your spiritual routine. But it might mean acquiring a taste for new foods, learning some new rules of etiquette, or trying new ways of doing things. These new customs may be very different from the way you did things back home. But Jesus' command

to "stop judging" could well be applied here. (Matthew 7:1) Really, no race or culture has the right to declare itself superior to others. (Acts 17:26) Just as older people should avoid making critical comparisons between the youth of yesteryear and those of today, so young people abroad should avoid making critical comparisons between a foreign country and their own. (Ecclesiastes 7:10) Focus on the positive things that this new land and culture have to offer. Also, the quicker you learn the language of this land, the quicker you will begin to feel at home.

The apostle Paul successfully adapted to different cultures in his work as a missionary because he was willing to become "all things to people of all sorts." (1 Corinthians 9:22) A similar attitude can help you to adapt. Adrianne is an au pair living in Germany, doing domestic work for a family in exchange for room and board. She explains: "I

* See the article "Young People Ask . . . Should I Live Abroad?" appearing in the issue of June 22, 2000.

have to be very flexible because I cannot expect others to adapt to me."

'I'm Homesick!'

During the first few weeks, it is not unusual to feel sad and homesick. The Bible shows that Jacob was 'yearning intensely for the house of his father,' even though Jacob had been in a foreign land for over 20 years! (Genesis 31:30) So don't be surprised if you sometimes have crying spells. Of course, if you constantly dwell on what you left behind, you will only increase your feelings of sadness. (Numbers 11:4, 5) The best way to beat the blues is to work at getting used to your new routine and environment. While it's good to keep in touch with your family by letters or phone calls, too many calls home might hinder you from adjusting to your new home.

Many Christian youths find that getting back into their spiritual routine is the best antidote for loneliness. (Philippians 3:16) Amber recalls her first weeks abroad: "I found it hard in the evenings, when there was nothing to do, so I tried to do some extra studying or to read a book." Young Rachel, a British au pair in Germany, speaks from personal experience when she advises: "Get involved straightaway. Start attending the meetings at once." Initially, you may need some help in getting to the meetings. But within the Christian congregation, you can find wholesome friends who can be like "brothers and sisters and mothers."—Mark 10:29, 30.

Sharing in the Christian evangelizing work is also an important part of a good spiritual routine. Preaching will not only benefit you spiritually but also help you to adjust to the new culture and language.

Finally, keep up a routine of prayer and personal study. They are vital to your staying spiritually healthy. (Romans 12:

12; 1 Timothy 4:15) For this reason, Adrienne, mentioned earlier, made sure that she brought along Bible literature in her mother tongue.

Living With a Host Family

Some young Christians have arranged to live with believing families while they are abroad. While a host family cannot be expected to take on the job of parenting, they can be good association and a source of spiritual encouragement.—Proverbs 27:17.

Even so, open communication with the host family is essential to maintaining a good relationship. (Proverbs 15:22; 20:5; 25:11) Amber notes: "You should have an outline of what you will have to do. You need to know what your hosts' expectations are. And they should be aware of what your expectations are." Find out what the family house rules are and to what extent you are expected to share in chores. Such matters should be thoroughly discussed.

Your situation will be particularly challenging if, for example, you are working for a host family that does not share your beliefs. Since the family may not understand your stand on Bible principles, you could find yourself in compromising situations. (Proverbs 13:20) Demands to fulfill domestic duties could conflict with spiritual obligations, such as attending Christian meetings. So if

If misunderstandings occur with your host family, talk them over in a calm way





unavoidable circumstances force you to stay with a family that does not share your beliefs, then a number of precautions should be taken.

Rachel recommends: "Make sure that they know that you are a Christian. It is best that you tell them honestly right away." Explaining your religious and moral standards can serve as a protection. Also, you should make clear to your employer how important Christian meetings and preaching are to you. Finally, it is wise to make sure that important matters such as working hours, time off, and payment have been put in writing before you start. This can prevent frustration later on.

Solving Problems

In spite of your best efforts, trouble can still arise. For example, what if your hosts demand that you leave their home? This can be quite devastating. If some sort of misunderstanding occurs, you might try talking things out with your hosts in a calm and reasonable way. (Proverbs 15:1) Be willing to admit any mistakes you may have made. Perhaps they will change their minds. If not, you will have to find another accommodation.

Other problems may require that you ask someone for help. You might, for example, run into financial trouble or get ill. Fearing that your parents might come to take you home, you may be hesitant to let them know what is going on. Besides, they are miles away and may not know how to deal with such a situation in a foreign land. The local congregation elders, however, may have experience in dealing with such problems and might be able to offer some practical advice. They may also be able to help you decide if this is a matter that should come to the attention of your parents.

Returning Home

In spite of difficulties and challenges, spending time abroad can be a rewarding experience, particularly if you go there for spir-

Safety Tips

- Keep your passport, money, and return ticket in a safe place.
- Make photocopies of your passport as well as your entry permit and/or visa, your return ticket, and other important papers. Keep one set of those copies with you, and send one set to your parents or friends at home.
- Always have along with you the telephone numbers of your parents or friends at home and of your host family.
- Maintain chaste conduct with members of the opposite sex, be they in the host family, at school, at work, or at other places.
- Learn at least some basic words and phrases in the language of the host country.
- Get a medical checkup before departing. Make sure that you have adequate supplies of any medication needed.

itual reasons. Of course, the time may come when you will have to return home. Andreas says: "With so many positive memories—negative ones are soon forgotten—it was very hard for me to leave." Even so, do not expect your friends or family back home suddenly to change their way of doing things now that you have returned with new attitudes that you have learned abroad. In addition, do not irritate them with constant reminders of how things are done elsewhere. Naturally, you will want to tell everybody your story, but don't be frustrated if not everyone shares your excitement.

Clearly, the decision to live for a while in a foreign land is one that should be taken seriously. If after discussing the matter with your parents, you decide that there are sound reasons to make the move, be prepared to cope with the challenges you will face. As with any big decision you face in life, it is wise to count the cost first.—Luke 14:28-30.

WATCHING THE WORLD

Destructive Beauty

The water hyacinth is an aquatic plant that produces a beautiful purple flower. Introduced into Africa's Lake Victoria some decades ago, the hyacinth has proliferated so fast that it now covers 770 square miles of the lake's surface, disrupting the vital fishing industry that feeds millions of people in the bordering countries of Kenya, Tanzania, and Uganda. It has caused serious problems for Uganda's water and hydroelectric plants by clogging the pipes that supply water. It also provides an ideal environment for mosquitoes, snails, and snakes, resulting in a rise in snakebites and cases of malaria and schistosomiasis (bilharzia). While weevils that feed exclusively on hyacinths have been introduced, so far they have been unable to keep pace with the plant's explosive growth. Fishing communities have resorted to removing the weed manually, harvesting thousands of tons. But this has proved to be only a temporary solution. The World Bank is involved in a multimillion-dollar project to clean up the lake.

Feathered Fossil a Hoax

A fossil found in Liaoning Province, China, was reported by *National Geographic* to be "a true missing link in the complex chain that connects dinosaurs to birds." The fossil, named *Archaeoraptor liaoningensis*, was said to have the tail of a dinosaur and the chest and shoulders of a bird. Now, however, scientists are becoming convinced that "they have

been snookered by a bit of fossil fakery," reports *Science News*. Paleontologists who examined the fossil became suspicious after they noticed that the bones connecting the tail to the body were missing and that the rock slab showed signs of being reworked. Philip Currie, of the Royal Tyrrell Museum of Paleontology in Drumheller, Alberta, Canada, suspects that someone "sought to enhance the value of *Archaeoraptor* by pasting one part of the dinosaur's tail to a bird fossil," says the report.

Underwater Gunslingers



It looks like a Western movie: The duelists face each other, their weapons loaded and cocked. After the first combatant has fired and retreated, the other aims and fires. But when pistol shrimps fight, no one gets hurt, since they always keep a safe distance from each other. However, as reported in the newsmagazine *Der Spiegel*, the jets of water spouting from their right claw are not always harmless. The water pistol is also used to stun and kill such prey as worms, crabs, and little fish. The jet of water, produced by snapping shut the claw with great force, is even strong enough to shatter the glass side of an aquarium.

Should a pistol shrimp lose its weapon, the little "gunslinger" becomes left-handed, its left claw developing into a new pistol, while the former shooting hand grows a new regular claw.

Living Buddha Enthroned

"Chinese authorities have presided over the enthronement of a 2-year-old boy as an important 'living Buddha' in the Tibetan religion," reports *The New York Times*. The boy, Soinam Puncog, was selected from among 670 boys to serve as the seventh Reting Lama. The monks who chose the lama are said to have used divination to select him. "But whether most Tibetan people and monks will accept the boy's authenticity is in question," says the paper. Why? Because earlier the Dalai Lama, the highest religious leader of Tibet, announced his own choice for Reting Lama. In times past, the Reting Lamas have served as regents when the Dalai Lamas were absent.

Polluting Idols

Immersing idols in the nearest body of water after a ceremonial holiday is a common practice among Hindus. This wasn't an environmental problem when idols were painted with colors made from flower or vegetable dyes. However, when manufacturers switched to paints made with heavy metals and carcinogens, some areas of India experienced severe water pollution after thousands of idols were dropped into streams and lakes. In order to limit water pollution, the

residents in one town collected hundreds of idols and took them to a large plot where they broke the idols into pieces. The magazine *Down to Earth* suggests that this be done everywhere in India and that makers of idols revert to using traditional dyes instead of synthetic paints. "Otherwise," says the magazine, "the rivers that Hindus worship may be poisoned by the idols they worship."

World Survey of Youths

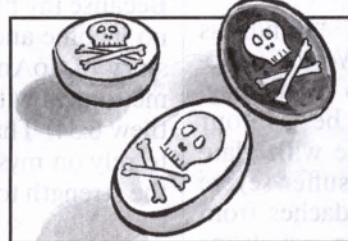
A survey of more than 4,300 youths between the ages of 12 and 24 reveals that today's youths prize traditional values, such as trustworthiness, courtesy, and hard work, reports *The Globe and Mail*. According to the Angus Reid Group, which polled youths from 11 different countries, 95 percent said that the most important value is 'keeping your word.' "Showing courtesy to others" was identified by 92 percent as the next most important value, and "working hard" was highly regarded by 83 percent of respondents. While "nearly eight out of 10 thought it important to have a lifelong partner," only 56 percent considered getting married as being important. Surprisingly, only 31 percent thought that "being really rich" was an important value. The findings also indicate that only 45 percent "feel positive about the 21st century."

Web-Site Facts

The World Wide Web is a vast computer network that links millions of computers throughout the world. To find out how extensive it is, Inktomi, an Internet software developer, spent four months exam-

ining and cataloging the Web. What did it find? The number of unique pages came to over one billion! English was by far the most common language found on the Web. It is used over 86 percent of the time. French appears in slightly over 2 percent of all Web documents, and Dutch accounted for about 0.5 percent.

Toxic Medicine?



Medical mistakes kill anywhere from 44,000 to 98,000 hospitalized Americans a year, reports the Institute of Medicine. The problem is said to be the result of flaws in the way hospitals, clinics, and pharmacies operate. For example, pharmacists filling prescriptions are often hampered by doctors' poor handwriting. Did the doctor prescribe ten milligrams or ten micrograms? Compounding the problem are the many drugs having similar-sounding names, which can cause confusion among doctors, nurses, pharmacists, and patients alike. The Institute of Medicine has called for a 50-percent reduction in medical errors within five years.

The Internet and the Elderly

Electronic mail is proving to be a boon to the institutionalized elderly. "Experts say nursing home residents, even frail ones, take to computers quickly and can revital-

ize their lives through e-mail and the Internet," says *The New York Times*. "People who master the technology gain confidence that spreads into other aspects of their lives, and many take pride in helping teach the skills to their fellow residents." Not only does E-mail put the elderly in touch with distant family members, health-care providers, and old friends but it also does much to overcome the helplessness, boredom, and loneliness that descend on those confined to nursing homes and wheelchairs as a result of illness and advanced age. Morale is boosted, and depression drops as well. Some elderly ones even participate in on-line educational programs, enabling them to pass on their accumulated knowledge and wisdom to future generations. However, some changes need to be made. These include keyboards that are easier to use and a convenient way to increase print size.

Man-Made Food Shortages

"Human induced disasters such as civil strife and economic crises have more effect on food shortages than nature-induced crises," reports the Food and Agriculture Organization of the United Nations (FAO). Dr. Hartwig de Haen, assistant director-general of FAO, said: "In 1984, man-made disasters contributed to only about ten percent of total emergencies. Now, it is more than 50 percent." It is estimated that 52 million people from 35 countries face food shortages. The report adds: "That is the largest number of people to face serious food shortages since a drought hit sub-Saharan Africa in 1984."

FROM OUR READERS

Universe I want to thank you for the articles that provide information on our awesome universe, such as "What Lies Beyond the Planets?" (July 22, 1999) and "The Red Planet Revisited." (November 22, 1999). They were truly fascinating and increased our appreciation for our Creator.

M.A.T., Italy

Glaucoma I read your item "Blindness Warning" in "Watching the World." (November 22, 1999) Six years ago I was diagnosed with glaucoma. It may be, as your article states, that many people with glaucoma feel no pain. However, I suffer severe pain in my eyes as well as headaches from time to time in spite of taking eye drops daily. Could it be that some who read the article may conclude that glaucoma is always painless?

H. M., Japan

Our brief item was not an in-depth discussion of this serious malady. The article "Glaucoma—Insidious Stealer of Sight!" in our May 8, 1988, issue was more thorough, and it acknowledged that some patients do indeed suffer pain.—ED.

Premature Baby I want to express my sincere thanks for the article "We Learned to Rely on God Through Adversity." (November 22, 1999) It was about the Major family and their beautiful daughter JoAnn. My little sister's autism was diagnosed when she reached the age of two. Coping with my sister's illness is hard and trying, but the Majors' experience has deepened our appreciation of how important it is to lean on Jehovah, in spite of what life throws at us.

M. C., United States

Our daughter was born in 1992, the same year as JoAnn. She weighed just 24 ounces at birth! Doctors suggested a blood transfusion.

One doctor even said that she would be brain damaged if we did not give her a transfusion. But we prayed to Jehovah and were able to stand firm. Today she is going to school and shows no evidence of brain damage.

C. H., Japan

I'm a wife and a mother of three children. Because my husband is out of work, we have no income and no health insurance. But the story of JoAnn and her family has helped me to deal with life one day at a time. (Matthew 6:34) Thank you for reminding me not to rely on myself but to look to Jehovah for the strength to cope.

K. A., United States

Twentieth Century I am writing regarding the series "The 20th Century—Critical Years of Change." (December 8, 1999) I was impressed by the clear information you presented on the difficult times we experienced during the 20th century. I was also able to see how violence is destroying mankind little by little. I congratulate you on the marvelous work you are doing.

W. G., Puerto Rico

Avocados I just finished the article "The Avocado—Truly a Versatile Fruit!" (December 22, 1999) I really think many will enjoy that article. I started eating avocados when I was nine months old. When I was three, I started learning to make guacamole. Now I'm ten. And I was thinking about the people who just can't eat onions, which are part of the recipe your article suggested. So in my recipe for guacamole, I use avocados, lemon juice, salt, hot sauce, and minced garlic.

N. E., United States

Thanks for your suggestion!—ED.



AN AMAZING EMPEROR

THE largest of all penguins, the emperor stands nearly four feet tall and weighs up to 85 pounds. When other penguins head north to escape Antarctica's brutal, dark winter, emperors head south—for Antarctica! Why? Amazingly, to have their young.

When the female emperor lays her egg, the male quickly scoops it up off the ice and onto his feet. He then tucks it under his brood pouch—a fold of skin on his lower abdomen. The female then heads for the open sea and food. For 65 days, during the harshest of weather, the male incubates the egg while living off his body fat. To preserve body heat while being raked with blizzards that may reach 120 miles per hour, these canny birds huddle together in large groups, each one taking its turn on the outside, with its back to the wind.

With incredible timing, the egg hatches just when the female returns. But how does she find her mate among the thousands of look-alikes? By means of a song. During their initial courtship, the pair sang to each other and committed each other's rendition to memory. When the females return, males and females sing with all their heart. Humans would be thoroughly confused by the cacophony, but the emperors soon find their mates. Then, after reluctantly handing over the newly hatched chick, the near-starving male waddles and belly-slides across some 45 miles of ice in his quest for open water and food.

By courtesy of
John R. Peiniger



Raising Well-Adjusted Children—How?

"Children learn self-respect and self-control by receiving both love and discipline from parents," says a report in *The Gazette*, a Montreal, Canada, newspaper. What does this involve? According to Montreal clinical psychologist Constance Lalinec, it is vital to set clear limits on child behavior.

Lalinec, who works with children and families, also notes that "when we prevent children from experiencing the consequences of their actions, we also prevent much of their learning." Permissiveness can adversely affect a child's development.

Time-tested wise advice on child rearing from the Bible is most fitting. It says: "Let your word Yes mean Yes, your No, No." (Matthew 5:37) Once reasonable rules have been established and your children understand them, enforce them promptly and consistently. Support your words with effective action. This sends a clear message to children about parental rules and expectations—that people 'will reap what they sow.' (Galatians 6:7; Romans 2:6) The desired objective of loving and effective discipline is for children to learn to comply with rules and to tolerate frustration and delayed gratification so that they can develop qualities that they need in order to grow into well-adjusted, responsible adults.

