

Awake!

OCTOBER 8, 2002



**SINGLE-
PARENT
FAMILIES
CAN
SUCCEED**





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Answers 2 questions
pertaining to God's Word
and His love for us.
Also covers common questions
asked by children. 0721 needs
to be used with 0720.

Single-Parent Families on the Rise

"Many nights I would pray to God in tears and say to him: 'I don't know what to do tomorrow.'"'

—GLORIA, A SINGLE MOTHER OF THREE.

SINGLE-PARENT families have become a permanent and noticeable feature in many societies today.* As the traditional structure of husband, wife, and children gives way to other forms of family life, demographers and sociologists in many parts of the world are asking why.

Sociology professors Simon Duncan and Rosalind Edwards note that "long-term changes are taking place in family patterns and gender relations." Why? Some observers

* Sociologists point out that the number of single mothers 'overwhelmingly outweighs the number of single fathers.' Hence, these articles deal primarily with single mothers. However, the principles discussed apply equally to single fathers.

state that this is the result of people's choices about how they live their lives, within a context of economic, cultural, and social change.

Let us consider some of these changes, as well as the choices being made. Pressures of life are a major factor affecting people's lives. The outside world intrudes on their every waking hour. Time formerly spent on family activities is now spent on the Internet, in front of the TV, on the phone, in the car, on the run.

Economic pressures also take a toll. Modern conveniences come at a cost, so more parents are working. Being part of a mobile society has led many family members to live and



work far away from the support system of their extended family and in some cases even far away from their spouse. In many lands popular culture is not helping either, as it often focuses on tearing down institutions that provide a sense of stability, such as marriage and family.*

The New Single Mother

Today's single mother does not necessarily fit the old stereotype of an unwed teen living on welfare. Unwed motherhood has lost much of its stigma and has even been glamorized by celebrity role models. In addition, many women are better educated and better able to support themselves—so marriage is no longer a financial prerequisite to motherhood.

Some single mothers, especially adult children of divorced parents, remain single because they do not want to make their offspring suffer the pain of watching a parent leave. Other women become single mothers as a result of abandonment, not by choice. "Lone parenthood is not generally a selfish and wilful choice," states the Joseph Rowntree Foundation of Britain, "and children in lone-parent families are not neglected and undisciplined."

Still, the prevalence of single-parent families is a matter of concern because single parents and their children may suffer emotional stress, economic need, and social disadvantages. Some people may wonder if it is possible for one parent to raise children successfully. What are some of the special challenges facing single-parent families? How can a Christian successfully meet the challenge of raising children as a single parent?

* For a detailed discussion of the general challenges of motherhood, see "Motherhood—Does It Take a Superwoman?" in the April 8, 2002, issue of *Awake!*

Awake!®

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

United States:

"The number of single mothers increased between 1970 and 2000, from 3 million to 10 million; over the same time frame, the number of single fathers increased also, from 393,000 to 2 million."—U.S. Census Bureau.

Mexico:

According to the newspaper *La Jornada*, teenage mothers account for about 27 percent of the total number of pregnancies in the country.

Some Definitions

Various terms are used around the world to describe mothers who raise children alone. In some countries "single mother" is used to refer to never-married mothers, while in other lands "lone mother" is a term that encompasses a whole range of mothers who are bringing up children without a male partner in their household. Such mothers may be divorced, separated, or widowed, or they may never have been married.

In this series of articles, we use the terms "single parent" and "single mother" to refer to parents raising children without a spouse.

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SINGLE PARENTHOOD—A TREND IN MANY LANDS

Ireland: The rate of single-parent households increased from 5.7 percent in 1981 to 7.9 percent in 1991. "Marital breakdown remains a very important route into single motherhood."—*Single Mothers in an International Context*, 1997.

France: "Since the late 1970s, the proportion of single-parent families has increased by more than 50 per cent."—*Single Mothers in an International Context*, 1997.

Greece: "Since 1980, the number of unwed mothers in [Greece] has increased by 29.8 percent. And according to data provided by the European Union, in 1997 the percentage of children born out of wedlock was 3.3 percent, while in 1980 it was only 1.1 percent."—*Ta Nea* newspaper, Athens, September 4, 1998.

Germany: "The number of single parents has doubled in the past two decades. Nearly all single-parent families... are headed by the mother."—*Single Mothers in an International Context*, 1997.

Japan: "Lone-mother families have been on the increase since the 1970's. In 1997, 17 percent of all households were headed by single mothers."—*Single Mothers in an International Context*, 1997; *The World's Women 2000: Trends and Statistics*.

Australia: Nearly 1 in 4 children live with only one of their biological parents. This is usually the result of a breakdown in the parents' marriage or relationship. It has been projected that one-parent families will increase between 30 percent and 66 percent over a 25-year period. —Australian Bureau of Statistics.

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Single Parents, Multiple Challenges

"I deal with a lot of emotions. I spend nights in the bathroom crying. It's kind of hard."

—JANET, A SINGLE MOTHER OF THREE.

THE routes to single parenthood are many. Some families are left with a single parent because of war, natural disaster, or disease.

Parents of some children decide not to marry each other. For example, in Sweden almost half the children are born out of wedlock. Divorce also creates single-parent households. Research suggests that over 50 percent of American children will live in a single-parent household for some period of their childhood.

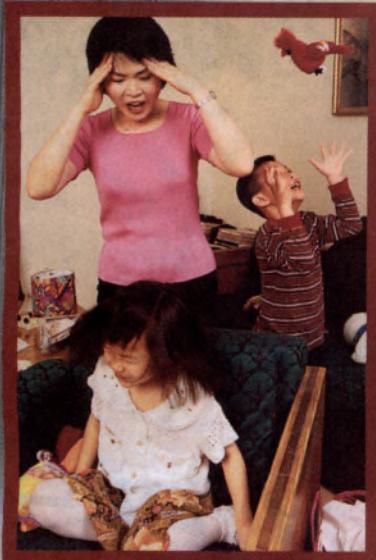
Understanding the Challenges

Mothers who have recently become widows have a special burden to carry. They must assume responsibility for their household while still grieving for their lost mate. Their adjustment to this role may take months, even years, as they cope with economic challenges and the responsibility of consoling their children. The widowed mother may find it extremely difficult to assume these added responsibilities. This may leave a child without adequate parenting at a time when he or she desperately needs attention and reassurance.

Single mothers who have not married their child's father are often very young and in-

experienced. They may not have had an opportunity to complete their formal education. Without adequate job skills, they are more likely to be poor and employed in low-paying jobs. Without the support of relatives, such as their parents, they will also have the added responsibility of providing suitable day care for their child. The unmarried mother may also be struggling with emotional burdens, such as feelings of shame and loneliness. Some may fear that the presence of a child will preclude their ever finding a suitable mate. As children in such households grow older, they too may be plagued by unanswered questions about their background and by a need to be recognized by the absent parent.

Similarly, parents going through divorce are under enormous stress. Some parents may feel great anger as a result of the divorce. Feelings of low self-worth and a deep feeling of rejection may also rob some parents of their ability to extend themselves emotionally to their children. Mothers who need to enter the job market for the first time may have difficulty coping with the responsibility of managing a household. They may feel that they have neither the time nor the energy for



the special needs of the children, who themselves have to cope with dramatic changes after the divorce of their parents.

Unique Challenges of Divorced Parents

Single parents realize that their children's individual needs are different and in a constant state of flux. For divorced single parents, providing reasonable opportunities for spiritual guidance may bring unique challenges.

For example, some divorced parents who are Jehovah's Witnesses may not have custody of their children. They have sought to have their visitation at a time when they can include attending a Christian meeting. This arrangement for visits would give the child regular contact with the Christian congregation, which is of great benefit to children of divorce.

Divorced parents who have fewer opportunities for regular contact with their children need to look for ways to assure them of their love and affection. To be successful, a parent needs to be sensitive to the child's changing emotional needs. This is particularly true when the child reaches adolescence and takes a growing interest in social activities and friends.



The successful parent also understands the child's capabilities, personality, and manner of thinking. (Genesis 33:13) Parent and child enjoy close, intimate, and warm conversations and association with each other. The lines of communication are open. The child is involved in the parent's life, and the parent is involved in the child's life.

The Need for Reasonableness

After a divorce, children benefit from regular contact with both parents. Suppose the parents have different religious beliefs; one is one of Jehovah's Witnesses, and the other is not. Regular and open communication helps to avoid unnecessary conflict. "Have a reputation for being reasonable," wrote the apostle Paul. (Philippians 4:5, Phillips) Children should be taught to respect both parents' rights to practice their religion.

The non-Witness parent may insist on having the child attend religious services at his church. What can the parent who is one of Jehovah's Witnesses do? She can also share her religious convictions with the child. In time, the child can make his own decision regarding religion, as did young Timothy, whose mother and grandmother likely taught him Bible principles. (2 Timothy

3:14, 15) If the child feels uneasy attending services in another religion, perhaps he can consider the Bible character Naaman, who after becoming a true worshiper continued to carry out his duties by accompanying the king who worshiped at the house of Rimmon. This account may reassure the child of Jehovah's love and understanding despite his presence at religious ceremonies to which he is unaccustomed.

—2 Kings 5:17-19.

The successful parent is able to mold the thinking of the child or children and to understand their feelings. (Deuteronomy 6:7) True, parents who were never married might feel embarrassed over their former life course. However, such parents need to remember that children have two biological parents. Children want to know about both parents, and they need to feel that they are wanted, not just unfortunate accidents. By speaking respectfully of the absent parent and giving answers that someone the child's age can grasp or



needs to know, the parent can provide the child with loving reassurance.

Parents should remember that a child's first impressions of love, authority, and power are shaped by the relationship the child has with his parent. By the loving exercise of authority and power, the Christian parent can do much to prepare the child to have a loving relationship with Jehovah and to have respect for arrangements in the congregation.—Genesis 18:19.

Children's Cooperation Essential

Children living in single-parent families also need to understand that their cooperation is essential to the success of the family. (Ephesians 6:1-3)

Their obedience to parental authority shows that they love their parent and respect the added effort that the parent makes to provide a safe and happy household. Since communication is a two-way street, children in a single-parent family



need to remember that they must be willing to support the parent's efforts to maintain good communication in the family.—Proverbs 1:8; 4:1-4.

Such children are often required to assume responsibilities quicker than those who live in two-parent households. With loving and patient instruction, boys and girls will gain self-confidence and a sense of self-worth as they master life skills at an early age. Also, some chores may be delegated to children so they can assist in the orderly management of the household.

This does not mean that the objective of the single parent is to make her children into little, self-sufficient adults who have no need of parental direction. Certainly, it is most unwise to leave a young child alone or unsupervised.

Single parents are often mistakenly drawn into thinking that they must be buddies or chums with their children. While a close relationship is necessary, single parents should keep in mind that children need a parent and that a child is not emotionally mature

enough to be the parent's confidant or peer. Your children need you to act like a parent.

Single parents and children cooperating together in a loving relationship can contribute to a successful family. As more and more children are being raised in single-parent households, everyone should be aware of the particular challenges facing single parents and their children and be willing to offer loving encouragement and support.



Effects on Children

Single parents in general may have less time for each individual child than two parents would. Sometimes a single parent lives with a partner who is not his or her spouse. However, cohabiting relationships are less stable than marriages. Children living in such families are more likely to grow up with a revolving set of adults in their lives.

According to some studies, "children from single-parent families are more likely to experience less healthy lives, on the average, than children from intact families." However, closer analysis of such studies indicates that lack of income may be "the single most important factor in accounting for the differences in children from various family forms." This, of course, does not mean that children from a single-parent family are condemned to failure. With proper guidance and training, they can overcome negative effects.



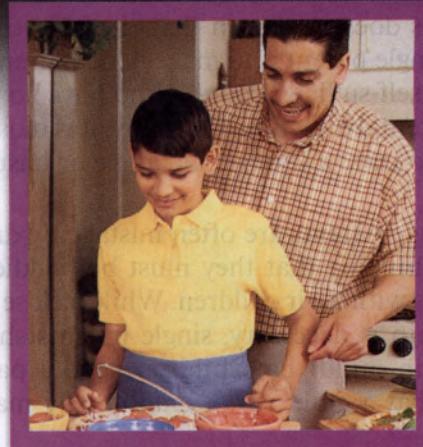
A Lone Parent, but Not Alone

*"When my children
come home and give me a
hug and tell me that they love me,
that's the best part of being a mother."*

—DORIS, A SINGLE MOTHER OF TWO.

SINGLE parents can find reassurance in the Bible statement: "Children are a blessing and a gift from the LORD." (Psalm 127:3, *Contemporary English Version*) When children are raised in a single-parent family, they are no less precious in God's eyes. Our Creator desires to see single-parent families succeed. The Bible says of him: "The fatherless boy and the widow he relieves." (Psalm 146:9) Single parents can be certain that God is ready to support them.

A child is entitled to be raised in a loving, safe, and secure environment that will allow him to develop physically, emotionally, and spiritually. It is each parent's duty and privilege to be used by God to train a child.



Many single parents have found that success requires diligent prayer, consistent application of Bible principles, and complete reliance on Jehovah. This is in line with the exhortation found at Psalm 55:22: "Throw your burden upon Jehovah himself, and he himself will sustain you."

From time to time, grandparents, local elders, and experienced parents in the Christian congregation may be available to assist a single-parent family to manage trying situations. True, family members and fellow worshipers can offer much to support the efforts of single parents, but the ultimate God-given responsibility rests with a child's parents.*

* For additional information on how single-parent families can succeed, see *The Secret of Family Happiness*, chapter 9, published by Jehovah's Witnesses.



Happily, many single parents have managed successfully to handle the unique challenges of their situation and raise responsible, well-behaved, God-fearing children. *Awake!* spoke with a number of them. Here are some of the things such parents have in common.

- **Sound home management.** Successful single parents strive to be well organized and work hard to coordinate schedules. Proper planning and organization are essential. The Bible says: "The plans of the diligent one surely make for advantage."—Proverbs 21:5.

- **Commitment.** Successful single parents make family life one of their first priorities. They focus on putting the needs of their children ahead of their own.—1 Timothy 5:8.

- **A balanced approach.** Successful single parents neither minimize nor exaggerate problems; they seek solutions. They accept the difficulties and try to cope with them without self-pity or bitterness.

- **Good communication.** Successful single parents foster communication. They encourage clear and open expression of thoughts and feelings in the family. Says a single father about his children: "I talk to them at every opportunity. We have 'cozy moments' when

we prepare dinner. It is then that they really confide in me."

- **Caring for oneself.** Despite the demands on their time, successful single parents recognize that caring for their own spiritual, emotional, and physical needs is important. Ethel, a divorced single mother of two, explained: "I try to save some time for myself. For example, when a friend gives the children music lessons, that gives me an hour to myself. I sit down and leave the TV off."

- **A positive attitude.** Successful single parents maintain a positive outlook toward parenting and life in general. They see positive aspects in stressful situations. One single mother states: "I've come to realize that being a single parent is not all negative."

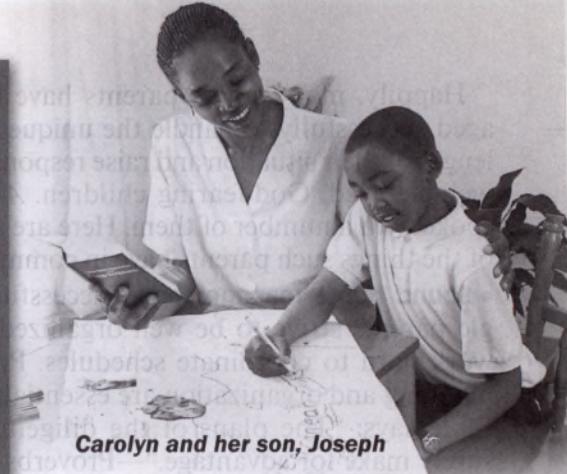
Success Stories

Are these principles effective? Yes, as can be seen from numerous success stories of single parents. Gloria, a divorced, single



Family Bible study has helped Gloria's three children to become full-time Christian ministers. Here they look at a letter from and a photo of the oldest son, now serving as a missionary





Carolyn and her son, Joseph

working mother in England, who was mentioned in the first article, raised two sons and a daughter. All three of them grew up to become full-time Christian ministers, devoting their lives to promoting Bible education. When asked how she managed, Gloria explained: "The first challenge was to keep up a regular, interesting family Bible study. I wanted the children to be happy, to have peace of mind, to be content, and to be protected from pitfalls. I found a job working nights. My aim was to have the children with me whenever I could. Before I went to work, we had a family prayer and I put them to bed. My aunt stayed in the house while I was at work."

How did Gloria help her children set the right priorities? She continues: "My greatest aim was to put spiritual things first. We didn't have much money, and I was very open about this with the children. Whatever I asked them to do, I would do myself, and they were all co-

operative." Reminiscing about how she kept a close-knit family, Gloria says: "The secret was doing things together. Nobody went off to his or her own room. We cooked, cleaned, decorated together. We balanced our activities. I always made sure there was recreation too."

Carolyn, a single mother of a young boy named Joseph, is pleased with the way he is growing up. What is her secret? "We read the Bible together at bedtime," she says, "and then I ask him questions about what he has learned. Additionally, we consider selected paragraphs from Bible-based publications and apply them personally. This helps Joseph when he faces problems, such as bullying at school." Carolyn admits that her life is by no means easy, but she does not feel that she is alone. She observes: "It is a constant struggle, but I feel that Jehovah has really helped me. I also receive a lot of encouragement from the Christian congregation."

The success stories of thousands of single parents, such as Gloria and Carolyn, prove that parents today can rely on the time-tested principles of the Bible to raise fine, spiritually strong children. (Proverbs 22:6) Success is possible! Single parenting provides many challenges that are opportunities for growth and sharing. Relying fully on God and being convinced that he will provide help is the best way to cope with the demands of single parenthood.—Psalm 121:1-3.

In Our Next Issue

■ **Prayers for Peace
—Can They Stop Terrorism?**

■ **A Unique Reunion After 30 Years**
■ **Do I Need a Mobile Phone?**

Crossword Puzzle

Clues Across

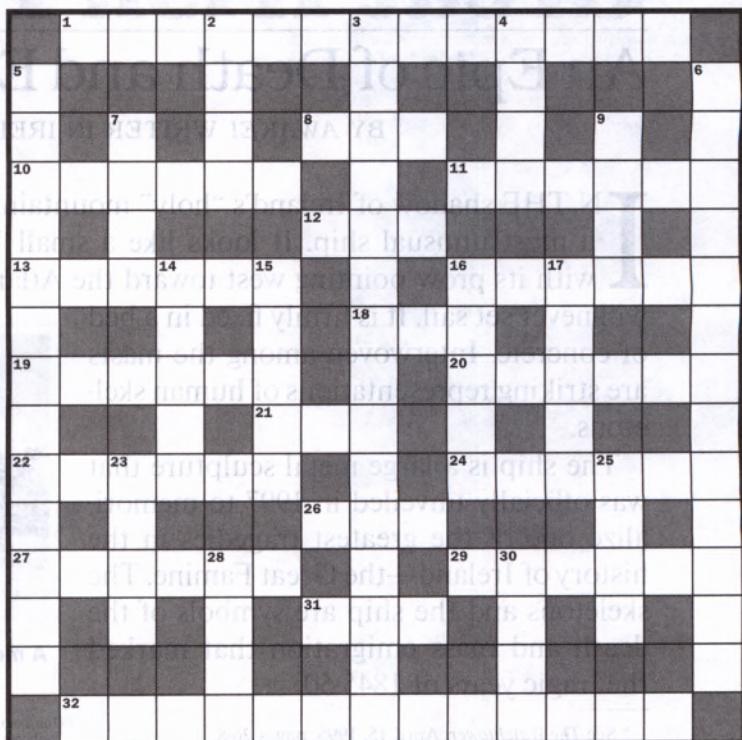
1. In King Nebuchadnezzar's dream, an angel declared that this would be given to the immense tree that was chopped down [4 words] (Daniel 4:16)
8. The pass by which the armies of Moab, Ammon, and the Ammonites came against Judah during Jehoshaphat's reign (2 Chronicles 20:16)
10. The developments that centered on this provided the occasion for Samson to kill 30 Philistines at Ashkelon (Judges 14:12-19)
11. Because of an unchangeable law, this ruler of Babylon was forced to have Daniel thrown into the lions' pit (Daniel 6:8, 9)
12. Son of Abdiel, a family head of the tribe of Gad (1 Chronicles 5:15)
13. A city of Zebulun given to the Merarite Levites (Joshua 21:35)
16. One of the seven court officials whom King Ahasuerus dispatched to bring Queen Vashti before him so that he could show off her beauty (Esther 1:10)
18. Enemy (Psalm 89:43)
19. "Clean and undefiled" worship includes looking after a child in this situation (James 1:27)*
20. This city that lay toward the border of Edom was assigned to the tribe of Judah (Joshua 15:22)
21. If a Hebrew slave did not want to be set free from his master, his ear would be pierced with this (Exodus 21:6)
22. He and his brother Abiram supported Korah in rebelling against Moses and Aaron (Numbers 16: 1-3)
24. This disfiguring of the skin was forbidden for Israelites (Leviticus 19:28)
26. The mother of King Hezekiah (2 Kings 18:2)
27. To make use of for a specific purpose (James 4:3)
29. Listed under "the Levites," he attested by seal to Nehemiah's "trustworthy arrangement" (Nehemiah 9: 38; 10:9, 13)
31. A Levite musician who accompanied the Ark when it was moved to Jerusalem (1 Chronicles 15:18)

* The scripture cited has a form of the word needed.

32. Solomon said that there is one "for everything" and "for every affair under the heavens" [2 words] (Ecclesiastes 3:1)

Clues Down

2. After King Jehoiakim burned the first one, Jehovah commanded Jeremiah to make another that was even longer (Jeremiah 36:27-32)
3. The new nation of Israel was warned that if they disobeyed Jehovah, they would become this "to all the earth's kingdoms" [2 words] (Deuteronomy 28:25)
4. He was known as both a priest and a skilled copyist (Nehemiah 8:9)
5. Mercenaries [2 words] (Jeremiah 46:21)
6. They were among "the finest products of the land" that Jacob's sons brought as a gift when they returned to buy food in Egypt [2 words] (Genesis 43:11)
7. He was made "in the likeness of God" (Genesis 5:1)
9. Herb mentioned by Jesus in ref-
14. One of Benjamin's sons (1 Chronicles 8:2)
15. It was in the dining room of this man's sons that Jeremiah tested the obedience of the Rechabites in regard to their forefather's command not to drink wine (Jeremiah 35:4)
16. After seeing his son's blood-stained garment, Jacob assumed that this had killed Joseph (Genesis 37:33)
17. Goliath is the most famous one mentioned in the Bible
23. Variety (1 Chronicles 16:5)
25. When Moses grabbed hold of this part of the serpent, it became "a rod in his palm" (Exodus 4:4)
28. The mountain from which Moses viewed the Promised Land and upon which he died (Deuteronomy 32:49, 50)
30. The tabernacle and later temples faced this direction (Numbers 3:38)





The Great Irish Famine

An Epic of Death and Emigration

BY AWAKE! WRITER IN IRELAND

IN THE shadow of Ireland's "holy" mountain, Croagh Patrick,* stands a most unusual ship. It looks like a small 19th-century sailing ship with its prow pointing west toward the Atlantic Ocean. But this ship will never set sail. It is firmly fixed in a bed of concrete. Interwoven among the masts are striking representations of human skeletons.

The ship is a large metal sculpture that was officially unveiled in 1997 to memorialize one of the greatest tragedies in the history of Ireland—the Great Famine. The skeletons and the ship are symbols of the death and mass emigration that marked the tragic years of 1845-50.

* See *The Watchtower*, April 15, 1995, pages 26-8.



A monument to the Great Famine

Top sketch: Courtesy of the "Views of the Famine" Web site at <http://vassun.vassar.edu/~staylor/FAMINE>

Ireland is not unique, of course, in experiencing famine. Many countries have suffered in this way. In many ways, though, the Great Irish Famine was exceptionally tragic. In 1845, Ireland's population was about eight million. By 1850, perhaps one and a half million had died as a result of the famine! A further million had emigrated in search of a better life, mainly to Britain or the United States. A great famine? Most certainly.

What caused so great a famine? What help was given to its victims? What can we learn from this calamity? To appreciate the answers to these questions, let us first briefly examine what Irish life was like in the years before the famine.

Before the Great Famine

By the start of the 19th century, Britain had extended its dominion over a large part of

**Searching for potatoes, as depicted
in the "Illustrated London News,"
December 22, 1849**



the earth. That included Ireland. Much of Ireland was owned by English landlords, many of whom resided in England. These absentee landlords extracted high rents from their Irish tenants and paid low wages for their labor.

Thousands of small farmers, or cottiers, lived in abject poverty. Unable to buy meat or many other foods, the people grew the cheapest, easiest, and most substantial crop they could under these circumstances, the potato.

The Importance of the Potato

The potato was introduced into Ireland about 1590. It was very successful because Ireland's wet and mild climate suited its growth and the potato could be grown in very poor soil. It was used as food for both man and animal. By the mid-1800's, just under a third of all arable land was being used to grow potatoes. Almost two thirds of them were for human consumption. The average Irish male ate potatoes every day—and little else!

Since so many people were totally reliant on the potato for food, that situation was a recipe for disaster. What would happen if the crop failed?

First Crop Failure

The potato crop had occasionally failed before. Short-term relief measures coped with this, and when the next year's crop was good, hardship had been minimal. Thus, when the potato crop failed in 1845, the authorities saw little reason for concern.

But this time things were much more serious. We now know that the fungal disease, *phytophthora infestans*—otherwise known as blight—caused the 1845 crop failure. This airborne fungus spread rapidly from one field of potatoes to another. The infected potatoes literally rotted in the ground, and those in storage were said to be "melting away." Since only one variety of potato had been sown, the entire national crop was affected. And since the seed for the following year came from that year's harvest, this fungus had a devastating effect on future crops as well.

Second Crop Failure

The poor-quality seed potatoes that could be rescued were sown the next year, 1846, but blight also destroyed this second crop. As there was nothing left worth harvesting, many farm workers lost their jobs. Farm owners simply could not afford to pay them.

The government set up various relief works, hiring many of these poor folk—mainly for road building—so that they could provide for their families.

Some could only get work in workhouses. These institutions employed destitute people. In return for their labor, workers received food and lodging. The work was harsh. Often, the food was rotten, and the accommodations were very primitive. Some workers did not survive.

These measures did provide some relief. But there was worse to come. The winter of 1846/47 was extremely cold, and it curtailed most of the outside work. Various government agencies distributed free food. After two years, however, government funds for this relief work began to run out, and all the aid provided was hopelessly inadequate for the ever-increasing flood of physically weakened people. Then another devastating blow hit Ireland.

Absentee landlords—many facing large debts themselves—continued to demand

Distributing clothing to destitute families



▲ and page 15: From the newspaper *The Illustrated London News*, December 22, 1849

their rents. Many of the tenants were unable to pay, and as a result, thousands were evicted from their land. Some tenants simply left the land and went to the cities hoping for a better life. But with no food, no money, and no housing, where were they to go? For growing numbers, emigration became the only option.

Emigration En Masse

Emigration was not new. Since the beginning of the 18th century, there had been a steady trickle of emigrants from Ireland to Britain and America. After the winter of 1845, the trickle became a torrent! By 1850, 26 percent of the residents of New York were Irish—there were more Irish-born citizens there than in Ireland's capital city, Dublin.

During the six years of the famine, five thousand ships made the hazardous 3,000-mile journey across the Atlantic. Many of the ships were old. Some had previously served as slave ships. They only continued in service because of the emergency. Little improvement had been made in their claustrophobic living quarters. There was no sanitation, and passengers had to survive on only the barest rations.

Thousands of passengers, already weakened by the famine, became sick. Many died while at sea. In 1847, ships bound for Canada came to be called coffin ships. Of the 100,000 or so emigrants they carried, over 16,000 died either at sea or soon after landing. Letters sent back to friends and relatives in Ireland told of these perilous conditions—but still the emigrants left in droves.

A few landlords assisted their former tenants. One, for example, chartered three ships and contributed toward the passage of a thousand of his tenants. Most emigrants, though, had to struggle to find their own fare. Often only one

Bradford Art Galleries and Museums,
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or two from a large family could afford the passage. Imagine the heartbreak at the dock-side as thousands of family members said farewell—likely never to see one another again.

Disease and a Third Crop Failure

After two successive failed potato crops and mass evictions, the decimated population had to contend with yet another savage blow. Disease! Typhus, dysentery, and scurvy claimed more lives. Many of the survivors must have thought that things could not possibly get worse, but they were wrong.

Encouraged by a successful crop in 1847, farmers trebled the acreage of potato planting in 1848. Then came catastrophe! That summer proved to be very wet. Blight struck once more. The crop was lost for the third time in four seasons. Government agencies and charities were stretched to the breaking point. Even then, the worst was not over. In 1849 a cholera epidemic claimed the lives of a further 36,000.

The Aftermath

That epidemic, however, marked a turning point. The next potato crop was successful. Slowly, things improved. The government enacted new laws that canceled all debts resulting from the famine. The population began to

"The Emigrant Ship"

(Painting by Charles J. Staniland, c. 1880)



Ruined houses are a stark reminder of harsh times that resulted from the famine years

grow once more. Although the blight affected a few crops in following years, there was never again anything approaching the scale of the horrors that accounted for the loss of over a quarter of Ireland's population during these tragic years of famine.

Today, all over Ireland, broken-down stone walls and ruined houses stand as stark reminders of the harsh times that resulted in the widespread Irish diaspora. In the United States alone, over 40 million can claim Irish descent. U.S. President John F. Kennedy as well as Henry Ford, inventor of the Ford motor car, were directly descended from emigrants who sailed from Ireland on famine ships.

The repeated failure of the potato crop was, of course, a major factor in this sad story of death and emigration. Another important factor was what the ancient Bible writer described as 'man dominating man to his injury.' (Ecclesiastes 8:9) Thankfully, we are assured in God's Word, the Bible, that the Creator of the earth and all its produce will establish a paradisaic new world, bringing lasting peace and prosperity to all. (2 Peter 3:13) Also, the ancient psalmist foretold: "There will come to be plenty of grain on the earth; on the top of the mountains there will be an overflow."

—Psalm 72:16.



ARCHAEOLOGY NECESSARY FOR FAITH?

In 1873 the English clergyman Samuel Manning wrote concerning Jerusalem: "Drawn by an irresistible attraction, pilgrims flock hither from the very ends of the earth. The crumbling walls, the squalid filthy streets, the mouldering ruins, are regarded with a profound and reverential interest by millions of mankind, such as no other spot on earth can excite."



Above: Jerusalem in 1920; Roman coin for Jewish use, 43 C.E.; ivory pomegranate in blossom, possibly from Solomon's temple, eighth century B.C.E.

THE lure of the Holy Land has drawn people since at least the time of Roman Emperor Constantine.* For some 1,500 years, pilgrims came and went, seeking a religious, personal contact with the Holy Land. Yet, surprisingly, it was not until the early 19th century that scholars began accompanying these pilgrims, thus opening the era of Biblical archaeology—the study of the artifacts, peoples, places, and languages of the ancient Holy Land.

The findings of archaeologists have resulted in an increased understanding of many aspects of Bible times. Also, the archaeological record has often harmonized with Bible history. But is such knowledge necessary to a Christian's faith? To answer, let us focus our attention on the site of many archaeological digs—the city of Jerusalem and its temple.

'A Stone Will Not Be Left Upon a Stone'

On the Jewish calendar date of Nisan 11, in the spring of 33 C.E., Jesus Christ, accompanied by some of his disciples, left the temple in Jerusalem for the last time. As they made their way to the Mount of

* Both Constantine and his mother, Helena, were interested in identifying Jerusalem's holy places. She personally visited Jerusalem. Many others followed in her footsteps for centuries to come.

Olives, one of the disciples said: "Teacher, see! what sort of stones and what sort of buildings!"—Mark 13:1.

These faithful Jews felt a deep love for God and his temple. They were proud of this magnificent complex of buildings and the 15 centuries of tradition they represented. Jesus' reply to his disciple was shocking: "Do you behold these great buildings? By no means will a stone be left here upon a stone and not be thrown down."—Mark 13:2.

Now that the promised Messiah had arrived, how could God allow the destruction of his own temple? Only gradually, with the aid of holy spirit, would Jesus' disciples fully grasp what he meant. What, though, do Jesus' words have to do with Biblical archaeology?

A New "City"

On Pentecost 33 C.E., the Jewish nation lost its favored position before God. (Matthew 21:43) This made way for something much greater—a heavenly government that would bring blessings to all mankind. (Matthew 10:7) True to Jesus' prophecy, Jerusalem with its temple was destroyed in 70 C.E. Archaeology supports the Bible's record of such an event. Yet, for Christians, faith is not dependent on whether ruins of that ancient temple have been found. Their faith is centered on another Jerusalem, but this one is a different type of city.

In the year 96 C.E., the apostle John, who had heard Jesus' prophecy about the destruction of Jerusalem and its temple and had lived to see its fulfillment, was given the following vision: "I saw also the holy city, New Jerusalem, coming down out of heaven from God." A voice from the throne said: "He will reside with [mankind], and they will be his peoples. And God himself will be with them. And he will wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore."—Revelation 21:2-4.

This "city" is made up of faithful Christians who will serve as kings with Christ in heaven. Together they form the heavenly govern-

ment—God's Kingdom—that will rule over the earth, bringing the human race back to perfection during the Millennium. (Matthew 6:10; 2 Peter 3:13) The first-century Jewish Christians who were to be part of that group realized that nothing they had in the Jewish system of things could compare with the privilege of ruling with Christ in heaven.

The apostle Paul, writing of his former prominent position in Judaism, speaks for them all: "What things were gains to me, these I have considered loss on account of the Christ. Why, for that matter, I do indeed also consider all things to be loss on account of the excelling value of the knowledge of Christ Jesus my Lord."—Philippians 3:7, 8.

Since the apostle Paul had the greatest respect for God's Law and the temple arrangement, his words obviously do not imply that these divine arrangements were to be looked down on.* (Acts 21:20-24) Paul was simply showing that the Christian arrangement was superior to the Jewish system.

No doubt Paul and other Jewish Christians of the first century had specific knowledge of many fascinating details of the Jewish system of things. And since archaeology opens windows to the past, some of those details can now be appreciated by Christians. Yet, note where Paul told the young man Timothy to focus his main attention: "Ponder over these things [having to do with the Christian congregation]; be absorbed in them, that your advancement may be manifest to all persons."—1 Timothy 4:15.

commendably, Biblical archaeology has expanded our understanding of the background of the Bible. Yet, Christians realize that their faith is dependent, not on evidence unearthed by men, but on God's Word, the Bible.—1 Thessalonians 2:13; 2 Timothy 3:16, 17.

* For a period of time, first-century Jewish Christians in Jerusalem observed various aspects of the Mosaic Law, likely for the following reasons. The Law was from Jehovah. (Romans 7:12, 14) It had been ingrained in the Jewish people as custom. (Acts 21:20) It was the law of the land, and any opposition to it would have caused unnecessary opposition to the Christian message.

THRILL SEEKERS

Why the Fatal Attraction?

IN THE ancient Roman arena, the excited crowds—50,000 strong—were on the edge of their seats. Their anticipation had been building for days as widespread advertising had proclaimed that the events to take place would provide “spectacular thrills not to be missed.”

While magic shows, pantomimes, clowns, and comedy still drew crowds in local theaters, the events in the arena were very different. The discomfort of the hard seats and the cares of the day would soon be forgotten in the breathtaking thrills to be played out before the eyes of the spectators.

Now came the singers, followed by the robed priest. Then incense bearers led a succession of idols depicting gods and goddesses, carried aloft for all to see. This gave the events the appearance of having divine blessing.

Animals Slaughtered

Now the great entertainment features were about to begin. First, ostriches and giraffes, which few in attendance had ever seen, were loosed in the arena with no way of escape. Scores of skilled archers with bows and arrows slaughtered the helpless animals, down to the last one, to the joy of the thrill-seeking audience.

The cheering crowds were next treated to a life-and-death battle between two huge elephants whose tusks had been fitted with long, sharp iron spikes. There is thunderous applause as one mighty animal falls to the blood-soaked sand mortally wounded. This scene has only whetted the appetite of the spectators for the main event just minutes away.

The Main Event

The thrill-seeking crowds rise to their feet as human gladiators make their appearance in the arena, amid great fanfare. Some are armed with swords and shields and metal helmets or with daggers, and some are lightly armed and lightly clad. They fight hand to hand, often to the death of one or both as the spectators cheer. Records show that at one event 5,000 animals were killed in 100 days. At another event 10,000 gladiators were slaughtered. Still the public clamored for more.

Criminals and prisoners of war provided a steady supply of manpower for the games. However, states one source, “they should not be confused with the group of skilled gladiators who fought with weapons, who earned considerable fortunes, and who were under no life sentence.” In some places gladiators attended special schools to be taught the art of hand-to-hand combat. Adrenaline flowing, they were caught up in the thrill of the sport and its fatal attraction. The need to fight another day was a dominant passion. “It was a very successful gladiator who completed a career of fifty fights before he retired,” concludes one source.

Bullfighting

In our time the world has entered a new millennium. But it is apparent that very little has dampened the passions of the many people who are captivated by living-on-the-edge sports, especially those that are death defying. For example, bullfighting has been a popular event in South America and Mexico for centuries. Today it flourishes in Latin America, Portugal, and Spain.



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ring fighting are housed in corrals only a half mile from the arena.

On the mornings of the fights, the corral gates are thrown open, releasing six bulls, plus one in reserve, that will fight that night. The street is lined with buildings, and barricades block entrance to side streets. This makes a suitable passageway for the bulls' run to the arena, which will take them about two minutes if all goes well.

Years ago men, defying disaster, decided to try their skills at outrunning the bulls. Every year some still try it.

Over time it has become an international event. Many have been severely injured by the bulls, and others gored to death. "If you think you can outrun them," said one runner, "you're making a big mistake." In a 20-year period, according to the Spanish Red Cross, there was "an average of one goring injury each day." Another 20 to 25 people were also treated daily for injuries.

Why this fatal attraction? Answered one runner: "Those seconds when you're right up there with the bulls, pacing them, smelling them, hearing the clatter of hooves, and watching those horns go up and down a few inches away—that's what the [running] is all about." The runners are spurred on by the cheering crowds. Will some be disappointed if they do not witness a fatal goring or a runner being violently thrown over the shoulder of a 1,500-pound charging bull? Could bloodshed hold the same attraction for some of them as it did for the crowds in the Roman arenas?

Reportedly there are about 200 arenas in Mexico and over 400 in Spain. One arena in Mexico seats 50,000 people. Many of these arenas are filled to capacity with people who come to watch men pit their bravery against charging bulls. Any show of cowardice on the part of the bullfighter brings the displeasure of the jeering crowds.

Now female fighters have become matadors, earning millions of dollars for killing bulls. One female matador interviewed on television declared that nothing could satisfy her thrill-seeking passions like being in a bullring with a charging beast, the ever-present threat of being gored to death notwithstanding.

Running of the Bulls

"The crowd is four deep at Sixto's on Pamplona's Calle Estafeta, and the noise level is a steady roar," noted one report. "The talk is multilingual—Basque, Castilian, Catalan, English." Crowds gather early to watch the event. Bulls kept for bull-

Flirting With Death

Then there are those who have a passion for flirting with death in other ways. There are motorcycle stuntmen who defy death and serious injury by jumping over 50 cars parked side by side or over a number of huge passenger buses or over a wide canyon. One such stuntman reported that he had broken 37 bones in his body and had been in a coma for 30 days. He said: "Broken bones or arms mean nothing to me any more. . . . I've had twelve major open reduction operations. That's when they cut you open and put a plate or a screw in. I suppose I've had about thirty-five or forty screws put in me, to hold the bones together. I'm always in and out of hospitals." Once when he was injured in a practice run and was unable to attempt his jump over a number of cars, the crowds booed to show their disappointment.

Many thrill seekers take part in extreme sports, including death-defying stunts such



as climbing the sides of city skyscrapers without safety equipment, snowboarding down steep

20,000-foot mountains, bungee jumping off high towers and bridges, parachuting out of airplanes while strapped to another jumper's back, or climbing sheer ice-covered cliffs with nothing but a pair of small pickaxes in their hands. "I

expect to lose three to four friends a year," lamented one ice climber. These are just some of the death-defying stunts that have become popular in the sports world. "It is the chance of a catastrophe that makes extreme sports so enticing," declared one writer.

"Even the most extreme of extreme sports are booming," wrote *U.S. News & World Report* magazine. "Sky surfing, in which expert parachutists perform circus-worthy twists and turns on graphite boards while free falling from 13,000 feet, didn't exist in 1990; now it attracts thousands of devotees. And a sport known as BASE jumping (for Buildings, Antennas, Spans, and Earth), officially established in 1980, now lures hundreds, who parachute—often illegally and at night—off fixed objects such as radio towers or bridges." This sport has already taken dozens of lives. "There aren't many injuries in BASE jumping," said one seasoned jumper. "You either live or you die."

Rock climbing up the sheer sides of mountains with nothing but tiny fingerholds and toeholds is attracting thousands. Even television and magazine commercials advertising everything from trucks to headache remedies show climbers hanging precariously from steep mountain precipices hundreds of feet in the air, secured only by a thin rope. It is reported that in 1989 some 50,000 people in the United States dared to take part in this sport;

Crossword Solutions

H	E	A	R	T	O	F	A	B	E	A	S	T
H	O	O	R	Z	Z	R	M	M	I	I	I	I
R	I	D	D	L	E	G	D	A	R	I	U	S
E	A	A	H	I	N	T						
D	I	M	N	A	H	T	B	I	G	T	H	A
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R	E	E	E	B	E	N	A	L	L	T	T	T
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more recently an estimated half-million are drawn by its fatal attraction. Worldwide the numbers are increasing.

In the United States, "a growing number of 'typical' boys and girls are being killed or maimed playing bizarre new dangerous games," reported *Family Circle* magazine. "Car surfing"—climbing through the window of a speeding car onto the top and standing while the car speeds along—or standing on top of a moving elevator or on top of a speeding subway train have taken youthful lives.

Even towering Mount Everest is involved as never before. Climbers without adequate training will pay as much as \$65,000 to be led to the top and down again. Since 1953, more than 700 climbers have reached the top. Many never made it down. Some of the bodies are still up there. "Climbers now compete to set records as the youngest, the oldest, the fastest on Everest," wrote one journalist. "Unlike any other sport," wrote another, "mountaineering demands that its players die." Must one defy disaster to prove courage? "Courage doesn't mean doing stupid things," warned one veteran climber. Among "stupid things," he lists "adventure tours" up Mount Everest by less-than-expert climbers."

And so it goes. The number and kinds of death-defying pursuits that are becoming common throughout the world are limited only by the imagination of those willing to create new ones. A psychologist predicts that extreme sports, in which participants live for a while on the edge between life and death, "will become the major spectator and participant sports of the 21st century."

Why Do They Do It?

Many sports extremists defend their participation in death-defying stunts as an escape from boredom. Bored by routine jobs, some have left their work and have pursued a new career in the world of extreme sports. "I started to use bungee jumping as a drug, as a way to clean my slate," said one. "I would jump and I'd be like, 'Problems? What problems?'" "He is a veteran of 456 jumps, including leaps from Yosemite's El Capitan, the San Francisco Bay Bridge, and the world's highest tram in France," a magazine reported.

Declared another extreme sports participant: "Time stands still. You couldn't care less about what's going on in the world." Another said: "What we do for kicks [which for many includes a monetary reward], most people wouldn't do if you held a gun to their heads." *Newsweek* magazine commented: "All of them are hellbent for thrills."



Some psychologists have done extensive research into thrill seeking. One categorizes thrill seekers as a type T personality. 'The T stands for "thrills"—risk taking, stimulation seeking, excitement seeking, and arousal seeking.' He says: 'There are some people who hold on to the handrails of life—the rules, the traditions. The Type T let go of the handrails. They create their own life.' He claims that studies have found that type T personalities have twice as many highway accidents as others. 'Accidents are the leading cause of death among teenagers, often because they put themselves in a dangerous position from a need for thrills.'

Scientists and psychologists admit that it is unnatural for anyone to seek out sports that have a high-level fatal risk factor. The fact that many have suffered serious, life-threatening injuries, only to recover after long stays in hospitals and rehabilitation centers and then continue in their death-defying pursuit, indicates that all is not well with their thinking ability. Yet, often these may be highly intelligent people.

Experts are not sure what draws the thrill seekers to risk life and limb. The answers, they suggest, may lie in the brain. 'You are not going to stop that thrill-seeking,' they say, 'but you try to prevent them from taking lethal risks. At the very least, you want them to avoid putting other people at risk.'

The Christian View

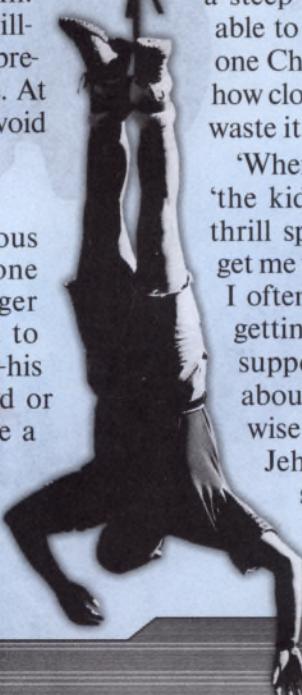
Christians view life as a precious gift from Jehovah God. When one deliberately puts his life in danger by taking needless chances just to demonstrate his daring courage—his machismo—or to excite the crowd or satisfy his own need to experience a rush, he is, in effect, showing contempt for the marvelous gift of life that God has given us. Jesus certainly showed deep respect for



his life and did not unnecessarily endanger it. He refused to put God to the test.—Matthew 4:5-7.

Christians, likewise, have an obligation to show respect for life. 'I once climbed a steep rock cliff and found myself unable to go backward or forward,' wrote one Christian. 'To this day I shudder at how close I came to dying. What a stupid waste it would have been!'

'Where I live,' wrote a Christian youth, 'the kids participate in many of these thrill sports. They are always trying to get me to join them. In the news, though, I often see reports of people dying or getting seriously hurt from the same supposedly fun sports that kids tell me about. I realize that it would be unwise for me to endanger the life that Jehovah God gave me, for such a short-lived thrill.' May you be of the same sound mind and judgment.



Steve Vidler/SuperStock



Where Does the Water Go?

BY AWAKE! WRITER IN AUSTRALIA

PANIC! That was my first reaction. A gray liquid bubbling up from my bathroom floor drain was threatening to turn my apartment into a smelly swamp. Urgently I called the plumber for help. As I waited despondently, with my mouth nervously dry and water slowly soaking into my socks, I wondered, 'Where did all that water come from?'

While the plumber busily coaxed the blockage from the drain, he explained: "The average city dweller uses 200 to 400 liters [50 to 100 gallons] of water a day. For every man, woman, and child, about 100,000 liters [25,000 gallons] a year goes down the drain." I asked: "How could I possibly

use that much water? I certainly don't drink it!" "No," he replied, "but each day you take a shower or a bath, flush the toilet, and perhaps use a washing machine or a dishwasher. In these and other ways, the modern life-style causes us to use twice as much water as our grandparents did." The question then sprang to my mind, 'Where does all that water go?'

I discovered that the water we throw away each day is treated very differently depending on the country or even the city where we live. In some countries this is now a life-and-death issue. (See the boxes on page 27.) Come with me on a tour of my local wastewater treatment plant and discover for yourself where the water goes and why it pays to think carefully before you put things down the drain or toilet, no matter where you live.

From Wastewater to Drinking Water

The several million inhabitants of Orange County—a low rainfall area of California, in the United States—benefit from an innovative solution to the wastewater problem. Instead of millions of gallons of wastewater being dumped directly into the ocean each day, the majority is returned to the water supply. For many years this feat has been achieved by a wastewater treatment plant. After primary treatment, the wastewater undergoes secondary and tertiary treatment. This involves purifying the water so that it is as clean as conventional drinking water. It is then mixed with deep-well water and goes into the groundwater basin. There it replenishes the basin and also prevents salt water from seeping in and ruining the groundwater reservoir. Up to 75 percent of the district's total water needs are drawn from this underground supply.

Into the Treatment Works

I know you are thinking that a wastewater treatment plant doesn't sound like an attractive place to visit. I agree. Yet, most of us depend on such a plant to keep our city from drowning in its own waste—and we all play a part in helping these plants to function properly. Our destination is the primary treatment plant at Malabar, just south of the famous Sydney Harbor. How does the water from my bathroom get to the plant?

When I flush the toilet, empty the sink, or take a shower, the water travels toward the wastewater treatment plant. After a journey of 30 miles, this water joins the 130 million gallons a day gushing into the treatment plant.

Explaining why this treatment plant is not unpleasant to the eye and nose, Ross, the plant's community liaison officer, told me: "The majority of the plant is buried below ground. This allows us to trap the gases and funnel them to the

air scrubbers (a row of giant pot-shaped chimneys), which neutralize the offensive odors. The cleansed air is then released into the atmosphere. Although the plant is surrounded by thousands of houses, I only get about ten calls a year complaining about odor problems." Inevitably, the location Ross is taking us to next is the source of those "odor problems."

What Is Wastewater?

As we descend deeper into the plant, our guide tells us: "Wastewater is 99.9 percent water plus human waste, chemicals, and various other bits and pieces. The wastewater collected from houses and industries over a 55,000-hectare [130,000 acre] area, along 20,000 kilometers [12,000 miles] of pipes, enters the plant two meters

The Wastewater Treatment Process at Malabar

(Simplified view)

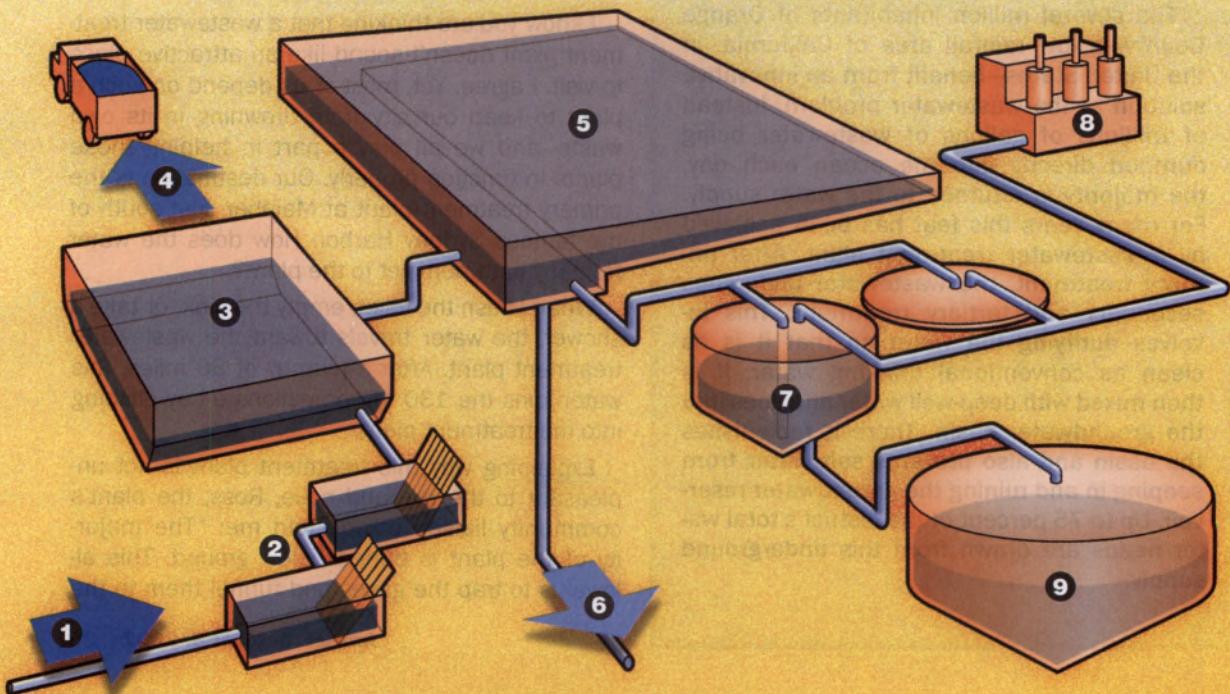
- 1. Wastewater enters the plant**
- 2. Screening**
- 3. Grit chambers**
- 4. To landfill site**
- 5. Sedimentation tanks**
- 6. To the ocean**
- 7. Anaerobic digesters**
- 8. Electric generators**
- 9. Biosolid storage tank**



7 *Anaerobic digesting tanks turn sludge into useful fertilizer and methane gas*



8 *Methane gas is burned to generate electricity*



[6 feet] below sea level. Here it passes through a series of screens that sift out rags, rocks, paper, and plastic. Next, in the grit chambers, organic matter is suspended in the water by air bubbles, and the heavier grit settles to the bottom. All this inorganic waste is collected and sent to a landfill. The remaining wastewater is pumped up 15 meters [50 feet] to the sedimentation tanks."

These tanks cover an area about the size of a soccer field, and it is here that you realize how much the neighbors would complain if the air-purifying system were not so effective. As the water slowly flows through the tanks, oil and grease float to the surface and are scraped off. The fine solids, called sludge, settle to the bottom, and great mechanical blades scrape the sediment to where it is pumped away for further treatment.

The processed wastewater flows out to sea through an underground outfall tunnel two miles long. There the water rises to the ocean floor and diffuses into the sea, 200 to 300 feet below the waves. Strong coastal currents disperse the wastewater, and the natural disinfecting quality of salt water finishes the treatment process. The sludge remaining at the treatment plant is pumped into large tanks called anaerobic digesters, where microorganisms break down the organic matter into methane gas and a more stable sludge.

Five Ways to Be Waterwise

- Replace leaky washers—a dripping tap can waste 2,000 gallons a year.
- Check that your toilet does not leak—it can waste 4,000 gallons a year.
- Install a water-efficient shower head. A standard shower head delivers 4.5 gallons a minute; a low-flow shower head provides 2.5 gallons a minute. A family of four will save up to 20,000 gallons a year.
- If you have a dual-flush toilet, use the half-flush button when appropriate—this saves more than 9,000 gallons a year for a four-person family.
- Install an aerator on your taps—they are relatively inexpensive and reduce water flow by half without reducing usefulness.

World Wastewater Crisis

"More than 1.2 billion people still lack access to clean drinking water while 2.9 billion lack access to adequate sanitation facilities, resulting in an annual death rate of 5 million persons, largely children, from water-borne diseases."—The Second World Water Forum held at The Hague in the Netherlands.

From Sludge to Soil

With a sigh of relief, I follow Ross back up to the fresh air, and we climb to the top of one of the airtight sludge tanks. He continues: "The methane produced by the microorganisms is used to power electric generators and provides over 60 percent of the power for plant operation. The stabilized sludge is disinfected, and lime is added, transforming it into a useful material, rich in plant nutrients called biosolids. The Malabar Sewage Treatment Plant alone produces 40,000 tons of biosolids yearly. Ten years ago the untreated sludge was incinerated or dumped into the ocean; now this resource is put to better use."

Ross hands me a brochure that explains: "Forests of [New South Wales] show increased growth responses of between 20 and 35 per cent after biosolids have been applied." It also states that growing 'wheat in soils applied with biosolids has produced increased yields of up to 70 percent.' I notice that composted biosolids are now safe enough for me to use for fertilizing the flowers in my garden.

Out of Sight, Out of Mind?

At the end of the tour, our guide reminds me that pouring paint, pesticides, medicines, or oil down the drain may cause the microorganisms at the treatment plant to die and could thus disrupt the recycling process. He stresses that 'oils and fats slowly clog the arteries of our plumbing systems in the same way that they clog our own arteries and that disposable diapers, cloth, and plastic flushed down the toilet don't go away. Instead, they block the pipes.' As I have learned, rubbish may be flushed out of sight, but when the water backs up the drain, it soon comes back to mind. So the next time you take a shower, flush the toilet, or empty a sink, think about where the water goes.

Watching the World

Uneven Consumption

Twenty percent of the earth's population now consume 86 percent of the world's goods and services, reports *The State of World Population 2001*. The report, produced by the United Nations Population Fund, warns of "a huge 'consumption gap'" between those who live in industrialized countries and those who live in developing countries. For example, "a child born today in an industrialized country will add more to consumption and pollution over his or her lifetime than 30 to 50 children born in developing countries. Currently, the fifth of the world's people who live in industrialized nations produce over half of the carbon dioxide emitted into the atmosphere, while the poorest fifth produce only 3 per cent," states the report. Moreover, the area of productive land or sea required to sustain the lifestyle of an individual in wealthy countries is almost four times larger than that required to support individuals in developing lands.

Ingenious Beetles

Researchers have recently discovered how beetles of the genus *Stenocara* obtain drinking water in the Namib Desert, in southwestern Africa. To survive in the desert, which generally receives about half an inch of rainfall annually, the beetles collect drinking water from the dense fog that blows inland off the Atlantic Ocean. How do they do it? According to *Natural History* magazine, "the beetles' backs are covered with bumps," which, under a microscope, "re-

Don't Count Sheep

Chronic sleeplessness is a worldwide problem affecting 1 in 10 people, reports *New Scientist* magazine. Scientists estimate that sleeplessness in just the United States costs the economy \$35 billion a year in sick days and accidents. What can insomniacs do to help themselves fall asleep? Researchers at Oxford University asked one group of insomniacs to think of a pleasant and relaxing scene, such as a waterfall or a favorite vacation destination. A second group was asked to count sheep, while a third group was left to their own devices. The second and third groups took slightly longer than usual to fall asleep, but the first group was asleep, on average, more than 20 minutes earlier than usual. Allison Harvey, a member of the research team, said that counting sheep does not work because it "is just too mundane to effectively keep worries away."



semble a landscape of peaks and valleys." The peaks attract water, while the wax-coated valleys repel it. "Facing into the wind, the beetles tilt their bodies forward as moisture from fog collects on the bumps. Once a collected droplet grows heavy enough, it rolls down to the insect's mouthparts," states the magazine.

Early Signs of Anorexia

"Parents can spot the early stages of anorexia or bulimia in their children from their eating habits," reports *The Times* of London. The Eating Disorders Association (EDA) has published a guide that helps parents and caregivers to identify eating problems before they progress too far. Early warning

signs may include obsessively cutting food into tiny pieces or pausing as long as five minutes between mouthfuls. Some with eating disorders use tricks, such as wearing very loose clothing to hide uneaten food inside. They may also request that photos of themselves, looking healthy and of normal weight, be put away. The EDA guide advises parents not to ignore these signs and to be open about what they have observed.

Poison From Thermometers

"The mercury in just one thermometer can contaminate an 11-acre lake, and broken thermometers add some 17 tons of mercury to the U.S. waste stream annually," states *National Geographic* magazine. Fish

take up the mercury, and humans who eat the fish thereby ingest the metal, which can cause neurological damage. Mercury thermometers have already been banned in numerous cities including Boston, where some stores will exchange thermometers containing mercury for digital thermometers and other less dangerous devices.

Exercise in Moderation

"It is good to practice an endurance activity (jogging, cycling, or swimming) three times a week for 30 minutes or an hour," notes the French news-magazine *L'Express*. But if you are to avoid serious health problems, exercise should not be extreme. Excessive athletics can cause worn joints, crushed cartilages, slipped disks, stress fractures, hypertension, digestive troubles, premature bone loss, and even heart attacks. "Each year in France, physical effort causes the sudden death of 1,500 sportsmen in

top form," reports *L'Express*. Dr. Stéphane Cascua, a sports-medicine specialist at the Pitié-Salpêtrière hospital in Paris, gives this advice to the numerous "Sunday sportsmen" who wind up recuperating in the hospital: Exercise regularly, but only at about 75 percent of your maximum cardiovascular capacity.

Truffles, Trees, and Potoroos

Potoroos—rare, ratlike marsupials—are now believed to be indirectly responsible for the existence of some of Australia's most impressive eucalyptus forests, reports the Sydney news-magazine *The Bulletin*. Potoroos live among the towering forests of Gippsland in Victoria. At least 90 percent of the marsupials' diet consists of native fungal truffles, which grow beneath the soil. The fungi that produce the truffles work in partnership with the surrounding trees by forming sheaths around their roots and extending a dense

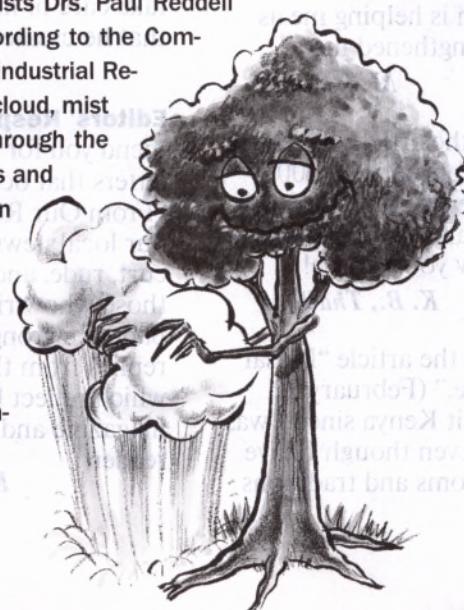
network of filaments into the soil to gather water and nutrients. In return, the trees supply the fungi with sugars produced by photosynthesis. What part do potoroos play? After devouring the pungent truffles, the animals spread undigested fungal spores across the forest floor as they deposit their droppings. Thus, truffles, trees, and potoroos continue to thrive.

The Danger of Noisy Seas

"There are growing fears that the ocean has become a booming, buzzing and confusing place for whales, dolphins and other marine mammals," reports London's newspaper *The Independent*. Researchers investigating the deaths of six whales and a dolphin stranded off the coast of the Bahamas found that they had died of severe brain hemorrhaging, suspected to have been caused by sonar transmissions from nearby navy ships. Shipping, offshore construction, motorboats, and jet skis are other contributors to the distress imposed on marine mammals, which are affected by a wider range of sounds than humans. "When whales and dolphins dive, air from their lungs is forced into cavities in their bodies," the article explains. "The trapped air bubbles can magnify sound waves by up to 25 times, leading to . . . massive tissue damage at much lower sound levels and over a wider area of the sea than had been thought possible." Ocean noise also "decreases the range of communication and means that whales and dolphins will have to shout louder," says researcher Doug Nowacek. "It could keep them from meeting up and mating, and if they can no longer hear they cannot navigate."

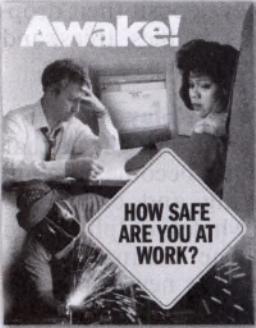
Forests That Harvest Clouds

Wet tropical rain forests growing above 3,000 feet may harvest "up to 40 per cent more water out of the clouds than is measured as rainfall," say Australian scientists Drs. Paul Reddell and David McJannet. According to the Commonwealth Scientific and Industrial Research Organisation, "low cloud, mist and fog blow constantly through the forest, condensing on trees and running or dripping down them to the ground," thus adding millions of gallons to the flow of tropical rivers. However, "when rainforests are cleared, the amount of moisture reaching the soil decreases significantly."



From Our Readers

Work Safety Thank you for the cover series "How Safe Are You at Work?" (February 22, 2002) Just the day before reading these articles, a very tense situation arose at work. I think that responding mildly, as was suggested in your magazine, is the best advice. The information about working early in the morning and late at night was appropriate too. Just the other day, I was pressured to accept that kind of work, but I turned it down. When I read the magazine, I was very glad that I had done so!



M. H., Japan

Young People Ask I have just finished reading the article "Young People Ask . . . What if I Meet Someone From School?" (February 22, 2002) As a high school student and a full-time evangelizer, I have often felt the same way that Simon, quoted in the article, felt. I too hoped not to run into people from school in the ministry. This excellent article was a reminder from Jehovah. I thank him for it.

S. S., United States

I am 14 years old, and I was afraid of meeting schoolmates in the territory where I witness. I am comforted to know that Jehovah is helping me as I ring doorbells. The article strengthened me.

M. L., Italy

Chewing Gum Thank you for the article "Chewing Gum—Modern yet Ancient." (February 22, 2002) I like chewing gum, but almost every time I chew it, I inadvertently swallow it. This article warned me not to swallow the gum. I will follow your advice!

K. B., Thailand

Masai Thank you so much for the article "Masai—A Unique and Colorful People." (February 22, 2002) I have had a longing to visit Kenya since I was small, and I still feel the same. Even though I have done much research on the customs and traditions

of the Masai, I didn't realize that there were any of Jehovah's Witnesses among them. I am now a full-time evangelizer, and I hope to attend a convention in Kenya one day. Please continue to publish information on Africa.

Y. H., Japan

Dolphins I am 14 years old, and I would like to thank you very much for the article "In Search of Dolphins Down Under." (January 8, 2002) I was greatly moved by this article. The information was excellent and shows how awesome Jehovah's power is for him to create such wonderful, intelligent creatures. Since dolphins are my favorite animal, I look forward to the time when I will be able to get to know them better in God's new world.

A. C., Australia

I am 15 years old, and I really love animals. I especially have an interest in dolphins, which swim so gracefully. After reading this article, I felt thankful to Jehovah God. I want to take care of nature and the animals that he created.

A. N., Japan

Editors' Responses I must commend you for your responses to letters that occasionally appear in "From Our Readers." The editor of our local newspaper is known for his curt, rude, and sarcastic remarks to those who write in, even when the paper is wrong. It's nice to see the replies from the editors of *Awake!* which reflect balanced pride in the magazine and consideration for the reader.

K. W., United States



How They READ LIPS

BY AWAKE! WRITER IN BRITAIN

TWO suspected terrorists talking together in a public park were filmed on video. Nobody could hear what they said—yet, the police arrested them, and they were subsequently sentenced to many years in prison. Their recorded conversation was read by a lipreader accredited as an expert witness in Britain and described as a “potent secret weapon” of the British police.



Christina

To find out more about the art of lipreading, I went to see Mike and Christina. Christina has been deaf since the age of three. Later she attended a school for the deaf, where she was taught to lip-read. Mike is a self-taught lip-reader, an ability he developed following his marriage to Christina.

How difficult is it to lip-read? “You must concentrate on the shape and movement of the lips, the tongue, and the lower jaw,” says Mike. Christina adds: “You must look intently at the person speaking to you, and as your ability to read lips grows, you note facial expressions and body language too.”

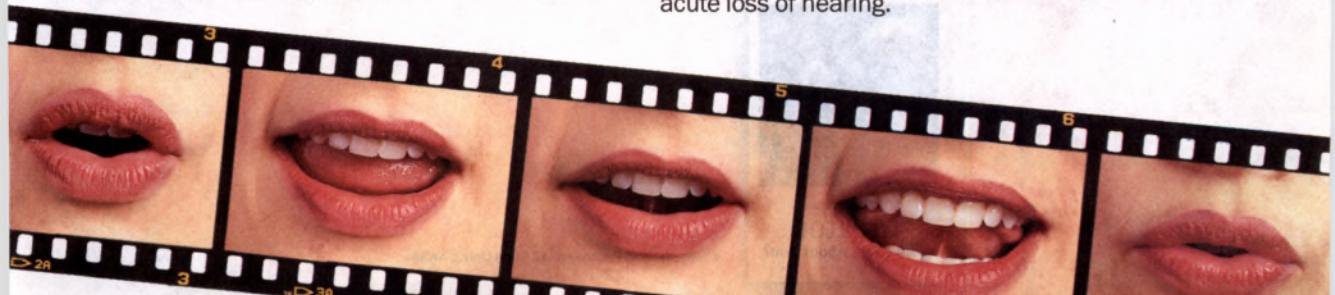
One of the biggest mistakes, I have learned, is for the person speaking to shout or exaggerate lip movements. Such distortions can be confusing and self-defeating. Once lipreading has been mastered, it is even possible for the reader to pinpoint regional accents. But, of course, all of this is not easy! Hearing Concern, an organization that specializes in teaching lipreading, says quite frankly: “Lipreading requires practice, practice and more practice.”



Mike

There are times, Christina admits, when she is embarrassed to find herself quite unconsciously “listening in” to a conversation on a bus or train. All she can do is look away immediately. But her ability can be a protection. Christina no longer watches soccer on television because she has been offended so often by what she could see some of the players saying.

Few will ever attain the skills of the “secret weapon” of the British police. But even simple lipreading can be a valuable art to develop after an acute loss of hearing.



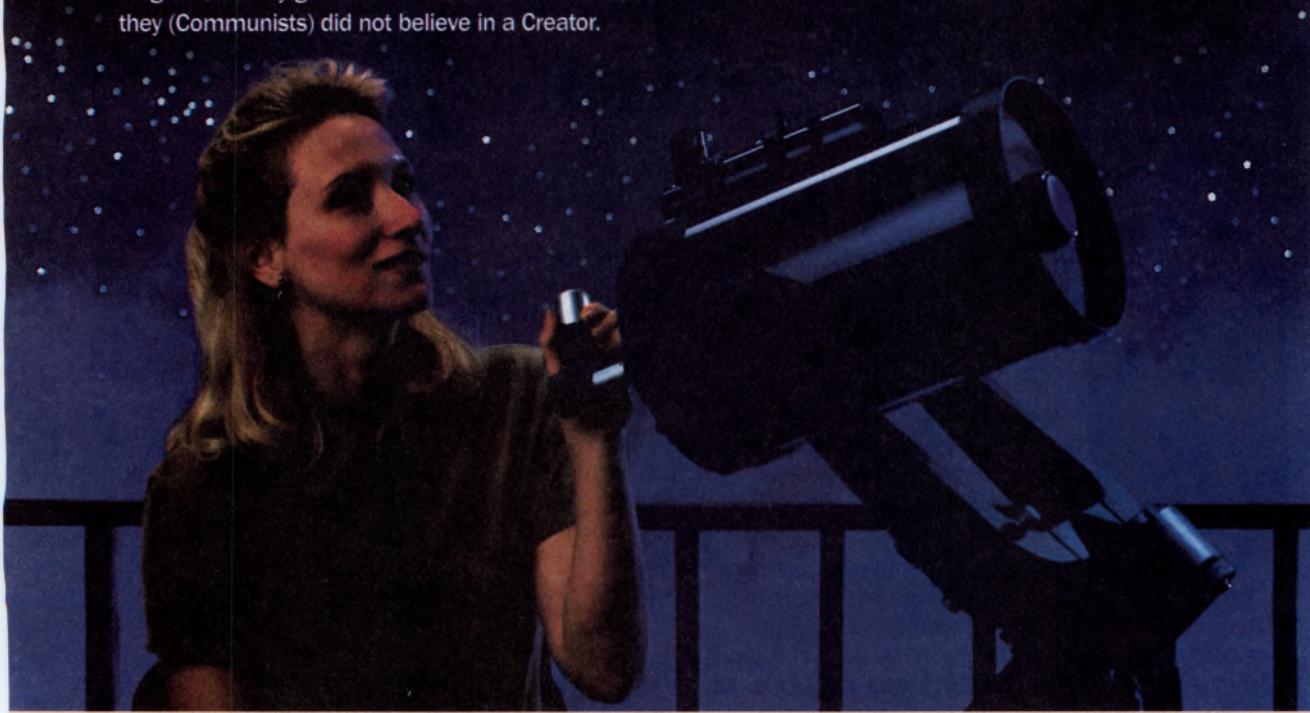
Teacher of Astronomy Impressed

Impressed by what? By the book *Is There a Creator Who Cares About You?* A teacher wrote from Novo-Sakmarsk, Russia, to the branch office in that country. Along with a request for more information, she explained:

"A few days ago, I happened to meet an old acquaintance of mine, and I went to her home. I saw a very interesting, attractive book on her bookshelf. The title interested me—*Is There a Creator Who Cares About You?*—but even more so did the picture on the cover. I am a teacher of physics and astronomy. When I looked at the book, I was impressed by the wealth of information it contains. Our family has not spoken about religion for three generations. My great-grandmother was religious, but my grandmother was a Communist, and they (Communists) did not believe in a Creator.

"As a teacher of astronomy, I am obliged to tell children about the different hypotheses on the beginning of the universe. I read your book straight through and then decided to write you a letter with my address. . . . I even asked to borrow a Bible so that I could read the scriptures right away.

"Thank you very much for this book! Perhaps I am late with this letter, for the book was released in 1998, but I hope that it is still possible to receive information from you."



Is There a
Creator
Who Cares About You?

◀ J. Hester and P. Scowen (AZ State Univ.), NASA